

13. General					
13.1	Warranties and Manuals have not been supplied	Not Agreed	Disagree, but will provide soft copy. Previously agreed prior to works commencing on site.	YES	\$0
13.2	Non-Compliance with Development Approval	Not Agreed	DA was amended, RPF will supply Documentation from NCC to show compliance, this is to be checked and confirmed in writing by PCA, prior to works commencing on site.	YES	\$0
13.3	Health and Amenity Requirements	Not Agreed	Proposed that Halstead inspect and provide interpretation of BCA and sign off as compliant or agree to rectification. Prior to works commencing on site.	YES	\$0
13.4	Stormwater				
13.4.1	Lockable grates/covers to Stormwater pits have not been installed	Agreed	RPF will supply and install locking mechanism with spring latch or lock and keys	YES	\$1500
13.4.2	No Step irons into detention or deep tanks/pits	Agreed	RPF will supply and install step irons	YES	\$2500
13.4.3	Pump to car wash not operating	Not agreed	Maintenance issue From inspection this appears to be in poor repair	YES	

13.5	Service Cupboards and Risers	Agreed	As per Halstead Report dated 18/04/18 – see 13.5C of the PSBR	YES	\$1500
13.6	Drainage lines from units have not been insulated	Not Agreed	RPF say that the functional equivalent has been installed by the placement of ceiling insulation. Issue to be determined by Halstead. Previously agreed <u>Proposed that Halstead inspect a representative sample of at least 4 units and provide interpretation of BCA and sign off on the installed insulation as compliant with BCA requirements, if non compliant RPF agree to upgrade and then have the completed works inspected and signed off by Halstead.</u>		\$2500
13.7	Electrical Services Lights in the centre stairwell stay on during daylight hours, all carpark lights were not operational, light levels in the fire isolated passageways were quite dim, cables within the	Not Agreed	RPF to provide certificate of compliance. Previously agreed RPF will provide a certificate of compliance issued by a suitably qualified lighting specialist stating the works as completed comply with the Australian Standards for each issue raised in the PSBR Report	YES	\$500

	cabinet within the switch room were untidy and not labelled or well secured, a lighting register has not been provided for the emergency exit signs and lighting in the building, the intercom system is reported as not always operating correctly, and lights in the floating roof are not all working				
TOTAL RECTIFICATION COST TO RPF					\$255,540

General Notes on Rectification Works

Painting

Any surface that is to be rectified or disturbed during the rectification process is to be made good and repainted completely. That is, no patch paints, paint to the nearest break point.

Unless agreed otherwise in this schedule, all rectification to agreed items are to be in accordance with PSBR Report

Any damage sustained to the property during the works is to be made good by the builder. Any pre-existing damage is to be reported to the OC prior to work commencing in that area.

Accesses

RPF is to provide a minimum 7 days' notice to occupants prior to commencing work within units or on balconies.

RPF is to ensure safe and reasonable access to and from the common areas and to all units during the course of the works.

Our ref: MWM : NRA : 12646

21 May 2020

Wilde Legal
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THE JUNCTION NSW 2291

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"Without prejudice save as to costs"

By Email: melanie@wildelegal.com.au

Dear Ms Wilde,

**RE: OWNERS CORPORATION STRATA PLAN 91174-V-RPF BUILDING PTY LTD & ANOR
SUPREME COURT OF NSW PROCEEDINGS NO. 2019/00140790**

We refer to the above matter.

Notice of EGM

We have received a copy of the revised motion that has been circulated amongst the owners in preparation for the EGM (**Motion**). We understand that the EGM was held on 20 May 2020 (which we were not advised of). We assume the Motion has been partially drafted by your office, as it refers to the costs of the proceedings.

We consider the Motion is incomplete and misleading in that:

- (a) there is no inclusion of a motion to consider the offer put to the Plaintiff in our letter of 8 May 2020;
- (b) there is no inclusion of a motion to appoint a person with delegated authority to make decisions in relation to implementation for the Joint Rectification Schedule, as per our earlier request to you;
- (c) the explanatory note for Motion 3 states, *"...if the sum determined [for your legal costs] is not accepted by RPF, the Owners Corporation will need to continue legal proceedings"* [Emphasis added]. We are concerned that this presents a false premise and suggests the owners have no choice but to proceed to litigate the entire matter if the any predetermined amount for the Plaintiff legal fees are not accepted. The explanatory not does not state that;
 - (i) the scope for all but two items in the Joint Rectification Schedule (tiles and insulation of drainage lines) (the **Remaining Items**) has been agreed with your expert.

- (ii) there is a material dispute as to the recoverability of the Plaintiff's costs in this instance; and
- (ii) our letter of 8 May contains a costs allocation component.

We are concerned the Owners Corporation have not been have not been properly briefed with all the relevant correspondences in the explanatory notes prior to the EGM and therefore were not put in a position to make fully informed decisions in relation to the future conduct of this matter.

Actual Resolution of EGM

In any event, whilst it is not clear what materials were put before the Owners Corporation and we were given no notice of the EGM occurring in order to express these concerns, we are instructed that the Owners Corporation have resolved at this EGM to agree to the Final Rectification Schedule, including the scope outlined by our client for the Remaining Items and will not seek to pursue its costs.

If that is the case:

- (a) please confirm your client wishes to accept Offer 1 articulated in our letter of 8 May and confirm when our client will be granted access to commence works accordingly: and
- (b) how and on what basis you wish to attend to withdrawal of the proceedings.

We look forward to your urgent response.

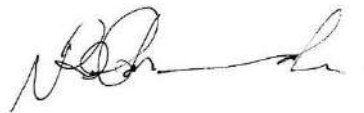
Yours faithfully,
NEXUS LAW GROUP

Marcus McCarthy



Principal
E. mwm@nexuslawyers.com.au

Nicholas Achurch



Solicitor
E. nra@nexuslawyers.com.au

OFFER OF COMPROMISE

COURT DETAILS

Court	Supreme Court of NSW
Division	Equity
List	Technology and Construction
Registry	Supreme Court Sydney
Case number	2019/00140790

TITLE OF PROCEEDINGS

Plaintiff	Owners Corporation Strata Plan SP 91174
First Defendant	RPF Building Pty Ltd
Second Defendant	RPF Throsby Pty Ltd

FILING DETAILS

Filed for	RPF Building Pty Ltd, First Defendant and RPF Throsby Pty Ltd, Second Defendant
Filed in relation to	Plaintiff's Claim
Legal representative	Marcus McCarthy, Nexus Lawyers Pty Ltd
Contact name and telephone	Nicholas Achurch (02) 9016 0141
Contact email	nra@nexuslawyers.com.au

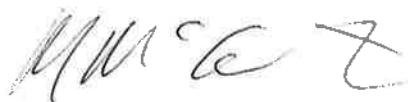
OFFER OF COMPROMISE

The First and Second Defendants offer to compromise the Plaintiff's claim against the First and Second Defendants on the following terms:

- 1 The proceedings be dismissed.
- 2 The First and Second Defendants to pay the Plaintiff the sum of \$500,000.00.
- 3 This offer is made in accordance with the *Uniform Civil Procedure Rules 2005* (NSW).
- 4 This Offer will remain open for acceptance until 5:00pm on 16 June 2020.

SIGNATURE

Signature of legal representative



Capacity

Solicitor for the First and Second Defendants

Date of signature

19/5/20

Subject: Re: FW: STRATA PLAN 91174 v RPF BUILDING PTY LTD

From: Bob Brown

Sent: 15/05/2020 12:52:47

To: Tony Daley <tdaley@ausgrid.com.au>

Cc: rhonda.morrison@people.net.au, theboy8564@hotmail.com, gsanderberg@gmail.com, philsatchell@hotmail.com, cassandra@lakegroupstrata.com, melanie@wildelegal.com.au, peter@pinkslipbuildingreports.com.au

Attachment(s): [image001.png](#)

Morning all

re some quick and random comments as requested

I think we should take a leaf out of the Nexus/RPF book of aggression

Firstly they have consistently and forcefully documented their claim regarding access denial with the obvious intent of utilising to advantage in future hearing/negotiation. We have not been as repetitive or consistent in our very simple clarification - tell us what you plan to do before you come and don't just send the apprentice with the silicone gun. Maybe we should inject a refute into the paper trail.

The PSBR Proposed Rectification Schedule of 26 March 20 was put together by Mr Shepherd and presumably in discussion/agreement with RPF. This document contains numerous major concessions and additional risks for the OC but is a positive step in an attempt to resolve. Noted the OC concessions included in the schedule do not seem to have any reciprocal concessions

However the response from Nexus is to further modify and change the Schedule. They have modified the scope, incorporated ridiculously low and unsubstantiated rectification costs, ignored other potentially very significant costs and assumed proposed engineered solutions by Halstead would be at no cost. They then call the changed document "Final Rectification Scope as it currently stands"

Our aim has always been not for money but to have the builder rectify the defects and provide certification. If we are to consider accepting money it should be on the basis of detailed scopes and estimates for rectification as produced by Pinkslip and not based on the builders minimal claimed cost to rectify and builders consultant claims of engineered solutions which may or may not be appropriate and especially not if the consultant decided to disappear with the builder. In this case if we accepted a pittance offer the reports and documentation we have been forced to produce would be our starting point.

Nexus Offer 1 could be considered based on PSBR Rectification Schedule and incorporation of an acceptable cost recovery amount as proposed in the upcoming EGM. The possible delay card is something we can handle. Maybe a counter offer with a time-frame for acceptance or proceed to hearing

Nexus Offer 2 is set as a trap and in no way acceptable. This offer is nowhere near the detail funds required for the OC to manage rectification and certification

Tile slip compliance is one of the major concessions included in the

schedule and i understand is not finally resolved. Slip compliance reports supplied seem meaningless and as stated previously we will remain exposed in respect to accident claims. It may help if the supplier could provide examples of similar applications together with the wearing and re coat frequency requirements of actual applications. I suspect we will need to apply annually to mitigate the risk and consider a ten year annual application would be a reasonable share risk.

My understanding from the beginning was that in the event of Home Warranty insurance became active the claim would be based on detailed estimates and scopes not on the builders sketchy minimal costs to rectify and proposed possible engineered solutions with unknown cost - I assume there is no limit on amount of Home Warranty Insurance only justification and/or actual cost?

Regards Bob

On Fri, May 8, 2020 at 5:53 PM Tony Daley wrote:

For everyone???'s comments.

Regards

Tony Daley

Engineering Officer ??? Design Newcastle | Technical Operations

cid:image001.png@01D4B326.4D344F70

Ph. 02 4951 9287

Bldg. 3 Wallsend Depot ??? 78 Abbott st, Wallsend 2287

tdaley@ausgrid.com.au

Please consider the environment before printing this email.

From: Melanie Wilde

Sent: Friday, 8 May 2020 5:28 PM

To: Tony Daley ; Cassandra McLean

; Peter Shepherd

Subject: Fwd: STRATA PLAN 91174 v RPF BUILDING PTY LTD

Wilde Legal

0249050101

melanie@wildelegal.com.au

Begin forwarded message:

From: Marcus McCarthy
Date: 8 May 2020 at 5:21:22 pm AEST
To: Melanie Wilde
Cc: Nicholas Achurch
Subject: STRATA PLAN 91174 v RPF BUILDING PTY LTD

?

Dear Melanie,

Please see attached correspondence.

Kind Regards

Marcus McCarthy
Principal

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Our ref: MWM : BJC : HG : 12646

8 May 2020

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"Without prejudice save as to costs"

Dear Ms Wilde

**RE: OWNERS CORPORATION FOR STRATA PLAN 91174-V-RPF BUILDING PTY LTD & ANOR
SUPREME COURT OF NSW PROCEEDINGS NO.: 2019/00140790**

We refer to the above matter.

We are instructed that the parties have been communicating amongst themselves to reach a settlement of these proceedings in the form of a final scope of rectification. We understand that this scope of work has largely been completed in consultation with your expert, Mr Shepherd, (**Final Rectification Scope**), save for a few outstanding items.

It has always been our articulated position that in the absence of rectification of any claimed item on an agreed scope, those items could be referred back to the Court – this was the position formerly included in the Heads of Agreement circulated after the mediation (**the HOA**) reflecting what we thought was the in principal agreement achieved on that day.

We are instructed to formalise an offer to settle these proceedings in the context of this new Final Rectification Scope. However, complications have now arisen in the context of the COVID-19 pandemic, as follows:

- (a) RPF are predominately an insurance claims builder and as such now find themselves in a situation, beyond their control, where;
 - (i) it is becoming increasingly difficult to access the insured's premises as home-owners do not want tradesmen in their houses due to COVID-19; and
 - (ii) as a result, opting for cash settlements from their insurers in preference to having a builder attend site and be paid directly, thereby reducing the amount of revenue generating work for RPF;
- (b) various equipment and materials suppliers are experiencing shortfalls in available stock;
- (c) a number of RPF subcontractors are suspending (or closing) their operations due to increased restriction on movement and association of persons;

- (d) RPF have had to progressively close down or reduce site staff across the country for the same issue;
- (e) the Owners Corporation are also likely to restrict access to RPF contractors for the same reason.

As such, it is unlikely that Final Rectification Scope will be able to be expeditiously or significantly progressed for a minimum of 6 months and RPF cannot now guarantee a start date due to the unavailability of contractors and other site resources.

You will appreciate that this extraordinary situation outside the control of our client and it is not clear as yet what impact this will have on our client's business generally. Had this matter been resolved on the basis of the HOA (the same basis as is being contemplated now) the matter would not be facing these complications

In light of this, we believe that it is in the interests of all parties to reach a resolution in the most expeditious manner possible. In this new context, we are instructed to make 2 alternative offers, either of which the Plaintiff may elect to accept.

Offer 1 – RPF to carry out the Final Rectification Scope

1. To settle the matter, RPF will agree to:
 - (a) attend to the works currently as agreed by Mr Shepherd as per **Annexure A** to this letter (the Final Rectification Scope as it currently stands).
 - (b) Progress the works as expeditiously as possible having regard to the issues above but without any definitive start date or timeline. A settled timeline will be provided once the current pandemic issues are resolved;
 - (c) On commencement of the Final Rectification Scope RPF will engage and agreed certifier for the purposes of certifying the works as they progress on the basis that their positive certification will be final and conclusive with respect to the Final Rectification Scope items.
 - (d) RPF will cover the cost of engagement of the agreed certifier;
 - (e) Any unagreed items not included in the Final Rectification Scope will proceed to hearing, along with any items that are not performed or certified.
2. If this offer is accepted, we propose that, in the context of a high likelihood that most, if not all, items will be rectified within the next 6-9 months, the Proceedings be either
 - (a) deferred by agreement for at least 12 months to allow sufficient time to commence and progress the Final Rectification Scope; or
 - (b) discontinued with liberty for either party to restore the proceedings after 12 months in the event that the Plaintiff wishes to pursue any remaining disputed items (including incomplete or uncertified items).

The above offer will be subject to a Deed containing a full mutual release for rectified items that are certified during the intervening period (the release subject to the above liberty to apply).

In circumstances where the Defendant has repeatedly sought to resolve these proceedings on the above basis, and made multiple offers of compromise, including having offered a HOA on the same basis that provided an allocation for costs that was not accepted, our client is not prepared to make an offer of costs in this context, as it has incurred more than the earlier offer in additional costs since that date. A legal costs allocation is only included in the cash settlement Offer 2 below.

Offer 2 – Monetary Settlement

In the alternative, in a final attempt to resolve the matter on pragmatic terms and in acknowledgment of the current prolonged difficulties arising from the COVID-19 outbreak, RPF offers to settle the matter for the sum of \$500,000.00 inclusive of costs (**Settlement Sum**) within 21 days of the execution of a suitable deed of settlement containing full mutual releases.

Noting the attached Final Rectification Scope confirms a costing of \$255,540 for our client to complete the rectification works to standard, we consider this is an extremely generous offer. You may draw your own conclusions from that figure as to the costs component of this offer.

The above is subject to execution of a mutually acceptable Deed of Settlement, which includes a full mutual release from any and all past present and future claims and payment of the Settlement Sum on dismissal the proceedings, with no order as to costs.

If the above is not agreed, our client has no other choice but to proceed with the rectification works, as originally planned, directly with your client, noting the various constraints that will affect progress of the works.

As outlined above, given the history of this matter, our client is only willing to offer a legal costs allocation on the basis that that the cash Offer 2 is accepted. It will no longer be offered if your client prefers rectification, as our client has sought access from the outset to attend to these works and has incurred great expense trying to resolve this matter with you on that basis, to no avail.

We intend to have this issue fully aired at hearing, should the matter not resolve of one of the 2 offers outlined above.

Calderbank

The above offers remain open for acceptance until the end of 31 May 2020. If neither option is accepted in writing in that timeframe, we are instructed that our client will have to reassess its position with respect to this matter, given the ongoing inability to sensibly resolve the matter with the Owners Corporation and the uncertainty surrounding the COVID-19 pandemic.

This offer is subject to the principles of *Calderbank -v- Calderbank* [1975] 3 All ER 333. Should our clients obtain a result at hearing equal to or better than the above offers, we will rely on this correspondence in support of an application that the plaintiff pays our clients' costs on an indemnity basis from the date of this letter.

Strata Committee Handling

We note your correspondence of 5 May 2020 and the EGM scheduled for 13 May 2020. We insist that this correspondence and enclosed Final Rectification Schedule be put before the strata committee, so that it is fully informed as to the resolutions you have proposed. We assume a resolution will be added to the effect one or other of these offers are accepted or rejected.

We note there have been extreme delays in arranging EGMs and obtaining instructions from the Owners Corporation in relation to our various offers to resolve the matter and/or attend to rectifications on site.

Our client has still not been given approval to commence works, even though it appears that the scope for all but the tiles and insulation of drainage from units are now agreed by Mr Shepherd in the Final Rectification Scope. As it stands, it appears no one has standing authority to make any decision and as a result nothing is being effectively resolved or progressed.

Respectfully, we would ask that if Offer 2 is not accepted, arrangements be made to have the residents agree at the forthcoming EGM to appoint a single person who have the full power to make the final decisions with respect to the finalisation and implementation of the Final Rectification Scope (and the referral of any unagreed scope items to the Court). That will negate the need for further EGM's, should negotiations continue, or any issues arise during the progression of any rectification works.

We look forward to your response in relation to the above

Yours faithfully,

NEXUS LAW GROUP

Marcus McCarthy



Principal

E. mwm@nexuslawyers.com.au

In the Supreme Court of New South Wales
Equity Division
Construction List
Sydney Registry
Proceedings 2019 / 00140790

OWNERS CORPORATION SP91174
Plaintiff

RPF BUILDING PTY LIMITED
First Defendant

RPF THROSBY PTY LIMITED
Second Defendant

**PLAINTIFF'S POSITION PAPER
FOR MEDIATION ON 2 AUGUST 2019**

1. The plaintiff is the owners corporation of strata plan SP91174 (**Owners**) for the residential portion of the property known as 18 Throsby Street, Wickham (**Property**) and is a successor in title to the second defendant (**Developer**) who, by operation of section 18D(1A) of the *Home Building Act 1989* (NSW) (**HBA**) has the benefit and protection of the statutory warranties provided for by section 18B of the HBA.
2. Between about May 2014 and April 2015 the first plaintiff undertook works to construct a multi-storey mixed residential and commercial building at the Property. By late 2016 defects in the residential building works had appeared. Despite the Builder's written position (Builder Tab 6), the Builder and Owners could not resolve the issue of the defects and notwithstanding the Builder's invocation to the Owners to forgo seeking legal representation, the Owners and the Builder both appropriately sought legal representation.
3. Initially, the parties' legal advisors had attempted to work through this matter without recourse to legal proceedings. However, given the short and strict limitation period under the HBA proceedings were commenced within time to preserve the Owners rights in respect of non-major defects. Notwithstanding that proceedings were commenced (initially in the District Court) the legal advisors had sought to put in place mechanisms

for the parties to resolve this matter without incurring the costs of preparing detailed evidence necessary for proceeding to a hearing and in the hope that resolution could be achieved sensibly, quickly and cheaply – all things considered. This was also reflected in not joining individual lot owners (to the extent that it is necessary) – to again keep costs to a minimum in the hope that matters could be resolved, sensibly, quickly and cheaply.

4. To effect that objective, the Owners have not sought that the defendants file a defence in the District Court proceedings. Further the Owners provided an expert report of Peter Shepherd which omitted costings. The point for the Owners was not about obtaining money from the defendants. The Owners simply wanted and simply want to get *bona fide* defects rectified. That is all the Owners have wanted and that is all the Owners want.
5. The issue of quantum, which rightly seems to be of concern to the defendants, was an issue of the defendants' positioning. Far from the position the defendants now assert, the previous "offers" to rectify the works have been somewhat hollow in that no real scope of works or agreed defects could ever be set down. The Builder may have been "ready, willing and able" to rectify the defects – until the question is asked, "what defects?" The Owners do not wish to agitate this positioning too much and are looking for a constructive resolution.
6. It appears that parties are *ad idem* on the major issue, that is both sides want the Builder to come back and rectify the defects. The questions then are, as they have long been, what are the defects and what is the method of rectification or scope of works. Despite the defendants' assertions in its position paper (see paragraphs E, 2.6 and 4.7 and following) and leaving aside the question of quantum; an analysis of the various reports served and/or relied on for this mediation would indicate that the parties are in substantial agreement about the vast majority of the defects alleged by the Owners. Attached is Schedule A, which sets out the respective positions of the parties.
7. For the purposes of the mediation the Owners position is:
 - (a) The parties agree a list of defects to be rectified;
 - (b) To the extent that the defendants are proposing a method of rectification different to that proposed by Peter Shepherd or based on some performance based or engineering solution the defendants should engage an agreed expert to prepare the relevant method, scope or certification;
 - (c) The defendants should provide a gant chart or timeline for rectification and the Owners should organize access based on that schedule to permit the defendants to undertake rectification work;

- (d) The defendants obtain a new home warranty insurance certificate covering the rectification works; and
- (e) The defendants to pay the plaintiff's legal and expert costs given they necessitated most of them by failing to agree to what rectifications they would undertake.

Melanie Wilde Solicitor and Andrew Justice Counsel for Plaintiff

1 August 2019

SCOTT SCHEDULE

COURT DETAILS

Court **SUPREME COURT OF NSW**
Registry **NEWCASTLE**
Case number

TITLE OF PROCEEDINGS

Plaintiff **The Owners – SP91174**
Number of plaintiffs
Defendant
Number of defendants

SIGNATURE OF PARTY PREPARING SCOTT SCHEDULE

Signature _____
Name **Peter Shepherd**
Capacity **Independent Building Expert**
Date / / 2019

SIGNATURE OF OTHER PARTY

Signature _____
Name _____
Capacity ☐ Defendant
☐ Solicitor for defendant
☐ Solicitor belonging to the same firm as defendant's solicitor
☐ Authorised person for defendant
Date / / 2019

SCHEDULE

	PLAINTIFF		OTHER PARTY	
<i>Item no</i>	<i>Particulars of item claimed</i>	<i>Amount claimed</i>	<i>Particulars of answer to item claimed</i>	<i>Amount conceded</i>
ROOF AND AWNING				
5.1.	Throsby Street Awning The construction and finish of the box gutter is not in accordance with the project specification or the Australian Standards, with defects including: - Builder's rubble and debris remains in the box gutter. - Swarf staining and marks are evident within the box gutter. - The ends of the roof sheets have not been correctly weathered or turned down. - The box gutter is not provided with provision for surcharge and overflow.	\$21,935.10 (incl margin & GST)		
5.2.	Glass Roof Panels The glass roof panels have not been installed to comply with the Australian Standard AS1288, nor finished to an acceptable industry standard. During periods of wet weather water leaks and drips to the interior of the building.	\$320,047.20 (incl margin & GST)		
5.3.	Roof Penetrations Roof penetrations have not been correctly installed and finished, as required by the project specification and by the Australian Standards publication AS HB39-1997, including: - Back flashings have not been installed to roof penetrations. - Water enters the interior of the units around the penetrations. - Water pools behind the roof ventilators.	\$137,922.40 (incl margin & GST)		

	PLAINTIFF		OTHER PARTY	
<i>Item no</i>	<i>Particulars of item claimed</i>	<i>Amount claimed</i>	<i>Particulars of answer to item claimed</i>	<i>Amount conceded</i>
5.4.	Roof Sheet Installation The installation and finish of the roof sheets is not in accordance with the project specification or the roof sheeting manufacturer's requirements, defects include: - The ends of the roof sheets have not been correctly weathered. - A closed cell foam fill has not been provided between the underside of the sheets and the fascia, or between the sheets and the ridge or apron flashing.	\$32,553.40 (incl margin & GST)		
5.5.	Swarf and Metal Debris The works have not been completed with the due care and skill of a competent tradesman, in accordance with the project specification or the sheeting and/or materials of the manufacturer's requirements, including: - Extensive swarf staining to the roof sheeting. - Extensive swarf staining and corrosion to the box gutter. - Roof screws, rivets and metal offcuts remain on the metal roof sheets and within gutters and will result in deterioration.	\$20,494.10 (incl margin & GST)		
5.6.	Downpipes The drainage system has not been completed in accordance with the Australian Standard AS3500, nor with materials fit for purpose and/or suitable for the environment, including: - Downpipe spreaders have been used, servicing a roof area greater than 10m². - Screws securing astragals or downpipe brackets were found to be rusty.	\$21,191.50 (incl margin & GST)		

	PLAINTIFF		OTHER PARTY	
<i>Item no</i>	<i>Particulars of item claimed</i>	<i>Amount claimed</i>	<i>Particulars of answer to item claimed</i>	<i>Amount conceded</i>
5.7.	Roof Access and Safety System The roof has not been constructed to provide safe access to and over the roof, as required by the BCA, Australian Standard AS1657 and the project specification; defects in the construction include: - A complying harness system has not been provided on the roof. - Safe access is not provided from the interior to the roof surface. - Roof access compromises fire separation requirements. - Access walkways have not been provided from the current roof access to all services. - Roof access does not comply with AS1657.	\$185,996.80 (incl margin & GST)		
5.8.	Skylights The skylights installed in units 13, 39, 40, 41, 42, 44, 45, 46, 47, 48 and 49 have not been installed in accordance with the Building Code of Australia requirements and compromise the fire separation between the units. The glass in the skylights is not marked as being safety glass, as required by Australian Standard AS1288.	\$85,241.20 (incl margin & GST)		
FIRE AND SMOKE PREVENTION				
6.1.	Smoke Hazard Management The smoke hazard management system installed in the building is not compliant with the requirements of the BCA or Australian Standard AS1670.1. Defects to the system include: - The spacing of detectors exceeds the maximum 5.1m on adjoining wall surfaces. - The fire alarm strobe at the front of the property is not fitted with the correct signage.	\$17,820.00 (incl margin & GST)		

	PLAINTIFF		OTHER PARTY	
<i>Item no</i>	<i>Particulars of item claimed</i>	<i>Amount claimed</i>	<i>Particulars of answer to item claimed</i>	<i>Amount conceded</i>
6.2.	Hydrants The installation of the fire hydrants and the surrounding construction does not comply with the requirements of the BCA and Australian Standard AS2419.1. Defects observed to the system include: - The fire hydrant booster assembly is not protected by a 90/90/90 FRL radiant heat shield barrier for at least 2.0 metres on both sides of the suction and booster valves and for a height of not less than 3.0 metres above the upper hose connections. - The most hydraulically disadvantaged fire hydrant located on Level 2 of the building is not fitted with a pressure gauge. - The height of the fire brigade booster assembly valves are located at a height of less than 750 mm above the finished floor surface beneath. - The fire hydrant landing valves located on Level 1 and Level 2 of the building (excluding those within the fire-isolated stairways) are contained within lockable enclosures that are not keyed 003 for use by Fire & Rescue NSW. - Working and tested pressure notices have not been installed on or adjacent to the fire hydrant booster assembly. - The fire hydrant booster assembly enclosure, is not provided with a fade resistant sign on the doors stating the words "FIRE HYDRANT BOOSTER" in capital letters not less than 50mm high and in a colour contrasting with the background. - The Block Plan fails to comply in all respects with AS 2419.1-2005, Clause 7.11.	\$8,648.20 (incl margin & GST)		

	PLAINTIFF		OTHER PARTY	
Item no	Particulars of item claimed	Amount claimed	Particulars of answer to item claimed	Amount conceded
6.3.	Fire Hose Reels and Travel Distances The installation of the fire hose reels does not comply with the BCA and AS2441-2005. The travel distances between the exit doors and the installations fails to comply. The areas of non-compliance observed include: - The fire hose reel serving the Residential Carpark is located next to the entry roller shutter is positioned greater than 4.0 metres from a required exit. - The fire hose reel serving the Commercial Visitors Carpark is located greater than 4m from a required exit contrary to Clause E1.4 of the BCA. In addition, the bollards protecting this fire hose reel are located within a designated carparking space contrary to the Development Consent. - The power operated shutter doors installed to the residential and commercial carparks are located in required paths of travel to the building exits, yet cannot be opened manually. - The domestic water supply service is not locked in the open position and is not provided with warning signage. - The level one and level two fire hose reel enclosures are not fitted with complying signage stating the words "FIRE HOSE REEL" in capital letter not less than 50 mm high and in a colour providing a high contrast with the background. - The level one and level two fire hose reel enclosures are not fitted with fully compliant identification signage.	\$11,562.10 (incl margin & GST)		

	PLAINTIFF		OTHER PARTY	
Item no	Particulars of item claimed	Amount claimed	Particulars of answer to item claimed	Amount conceded
6.4.	Sprinklers A fire sprinkler system has been installed, however fails to comply with all necessary requirements, including the BCA and Australian Standard AS2118.1. Defects in the system include: - The sprinkler system is not connected to a FRNSW approved third party fire alarm monitoring facility. - The activation of the sprinkler system is not registering as an alarm on the fire indicator panel and does not initiate the building occupant warning system. - The sprinkler system water alarm gong is not located on the external wall of the building. - The Ground Floor Level storage enclosures located beneath Fire Stair 01 and 03 and the audio visual room behind the lobby are not fitted with sprinklers. - Correct signage has not been provided, including: The sprinkler booster assembly enclosure located at the front of the property is not provided with a fade resistant sign on the doors stating the words "SPRINKLER BOOSTER CONNECTION" in capital letter not less than 50mm high and in a colour contrasting with the background. A "SPRINKLER STOP VALVE INSIDE" sign has not been provided outside the sprinkler valve room. - The Block Plan provided fails to comply in all respects with AS2118.1-1999, Clause 8.3 - Working and tested pressure notices have not been installed on or adjacent to the sprinkler booster assembly.	\$42,893.40 (incl margin & GST)		

	PLAINTIFF		OTHER PARTY	
Item no	Particulars of item claimed	Amount claimed	Particulars of answer to item claimed	Amount conceded
6.5.	Separation of Classifications in the Same Storey The building contains multiple building classes, as defined by the BCA, the construction does not satisfy the requirements for the separation of the different classes of the building, as required by the BCA, nor in accordance with the approved documentation or Alternative Solutions prepared by Fire Engineers GHD. The deficiencies identified include: - The Lobby is separated from the adjoining Carpark (in part) by fixed glazed construction that is not capable of achieving a fire resistance level of --/120/120 (non-loadbearing). - The door between the lobby and carpark is not capable of achieving a fire resistance level of not less than --/120/30. - The glazed structures between the Commercial 02 lot and the internal and external portions of the adjoining Residential Entry Lobby are not fitted with heat strengthened, tempered glass. - Two (2) x internal wall wetting drenchers have been installed over the fixed glazing system within the Ground Floor Level Commercial 02 tenancy in-lieu of the five (5). - The internal vertical window mullions do not extend past the back of the drencher deflectors (nor have baffles been installed). - The drencher system is not served by a separate valve-set that is monitored to detect unauthorised closure as required by the Fire Engineering Report of GHD; and - The door located between the Commercial 02 lot and the adjoining Lobby is not fitted with medium temperature smoke seals on the top, sides and bottom of the door as required by the Fire Engineering Report of GHD.	\$122,547.70 (incl margin & GST)		

	PLAINTIFF		OTHER PARTY	
Item no	Particulars of item claimed	Amount claimed	Particulars of answer to item claimed	Amount conceded
	- The external glazed wall and the external glazed door located between the Ground Floor Level Commercial 02 tenancy and the external portion of the adjoining Residential Entry Lobby are not fitted with internal wall wetting drencher(s) and medium temperature smoke seals as required.			
6.6.	Protection of Vent Outlets in External Walls Ventilation openings in the front and rear wall are less than 3m from the side boundary and contrary to the BCA	\$16,544.00 (incl margin & GST)		
6.7.	Openings in Walls to the Corridor The bounding walls to the lobby in regard to fire separation of been compromised and don't comply with the BCA requirements incl; • Each of the residential sole-occupancy units are fitted with openable glazed doors and/or a windows that open through the bounding walls of the residential units to the internal public corridor. (i.e. the Gallery). • PVC services pass through the bounding walls of the residential unit sole-occupancy units to the internal public corridors that have not been fire-stopped/collared. • The Level 1 Commercial 04 and 05 tenancies are fitted with non-fire rated doors and non-fire rated fixed windows that open through the bounding walls to the internal public corridor (i.e. the Gallery).	\$829,070.00 (incl margin & GST)		

	PLAINTIFF		OTHER PARTY	
Item no	Particulars of item claimed	Amount claimed	Particulars of answer to item claimed	Amount conceded
6.8.	Gallery Walkways – Levels One and Two Inspection of the building has revealed that the tiled gallery walkways of the Level One and Level Two public corridors are not separated on each level by smoke proof walls positioned no greater than 40m apart contrary to Clause C2.14 of the BCA.	\$0.00		
6.9.	Door Clearances The fire rated doors are not provided with the correct clearances to comply with the BCA incl; FRONT ELEVATION - The fire door at the exit from the western fire stair displays margins that exceed that for a fire door. - The signage to the door is incorrect. EASTERN CARPARK - The fire door to the easternmost fire stairs from the commercial carpark is provided with excessive clearances REAR ELEVATION - Fire exit door at the eastern end of this elevation is provided with excessive margins. EASTERN FIRE STAIRS - The door from the fire stair and walkway to the carpark displays an excessive margin FIRST LEVEL WALKWAY - The door to tenancy C5 displays an excessive margin at the base. - The door to tenancy C4 displays an excessive margin at the base.	\$4,513.30 (incl margin & GST)		

	PLAINTIFF		OTHER PARTY	
<i>Item no</i>	<i>Particulars of item claimed</i>	<i>Amount claimed</i>	<i>Particulars of answer to item claimed</i>	<i>Amount conceded</i>
6.10.	Penetrations for Services Service pipes extend through the walls and slabs are not all correctly sealed or protected incl; EASTERN CARPARK - All penetrations for services through walls to separate compartments or lots or soffits have not been sealed. WESTERN CARPARK - All penetrations through the slab are not fire sealed. RESIDENTIAL SLABS - All penetrations through the second level floor slab have not been sealed. Incorrect fire collars have been used to some floor wastes or showers.	\$167,556.40 (incl margin & GST)		
6.11.	Main Switch Room The main electrical switch room is not constructed to achieve the correct fire resistance level as required by the BCA. - The access doors are not fire rated. - Penetrations through walls have not been sealed or protected. - There is a step/threshold at the door from the switch room to the carpark.	\$8,102.60 (incl margin & GST)		
	PLAINTIFF		OTHER PARTY	
FIRE ISOLATED STAIRWELLS				

	PLAINTIFF		OTHER PARTY	
<i>Item no</i>	<i>Particulars of item claimed</i>	<i>Amount claimed</i>	<i>Particulars of answer to item claimed</i>	<i>Amount conceded</i>
7.1.	Fire Stairs Two and Three and Passageways The stairwells have not been constructed to be fire isolated as required by the BCA , incl; • Ceiling linings under the roof are not fire rated, nor isolate the stairs from the spread of fire from other parts of the building. • PVC pipes penetrate through and into the Ground Floor Level fire-isolated passageways serving the eastern and western fire stairs. The PVC pipes have been concealed in the passageways by lightweight plasterboard construction. • Non-essential services pipes located within the landing enclosure on Level 1 of Fire Stair 02. • The top of Fire Stairs is not enclosed by construction achieving a fire resistance level of not less than --/90/90 FRL. • An opening is provided through the ceiling of the eastern fire isolated stairs to gain access to the roof and compromises the fire separation. The roof opening into the fire isolated stair is approximately 1m from the boundary.	\$55,562.10 (incl margin & GST)		
7.2.	Access to Eastern Fire Isolated Passageway The fire door that provides access into the fire-isolated passageway that serves the Commercial Carpark is fitted with a keyed locking mechanism on the Carpark side of the door contrary to the BCA.	\$693.00 (incl margin & GST)		
Access and Egress				

	PLAINTIFF		OTHER PARTY	
<i>Item no</i>	<i>Particulars of item claimed</i>	<i>Amount claimed</i>	<i>Particulars of answer to item claimed</i>	<i>Amount conceded</i>
8.1.	Carpark Exit Door Width The final exit door serving the Residential Carpark that opens to Dickson Street has a clear opening width of 650mm and not 750mm as required by this clause of the BCA.	\$0.00		
8.2.	Residential Lobby Entry/Exit Doors The entry/exit door from the street to the residential lobby swings the incorrect direction and contrary to the BCA.	\$1,012.00 (incl margin & GST)		
8.3.	Exit Door Signage The doors to the fire isolated stairs and passageways are not provided with compliant signage contrary to the BCA. Door function to some doors is incorrect contrary to the BCA.	\$4,213.00 (incl margin & GST)		
8.4.	Residential Lobby Ramp The construction of the lobby ramp is defective and does not comply with the BCA incl; - The Ground Floor Level Residential Entry Lobby serving the Class 2 building (part) has a ramp slope greater than 1:20 (i.e. measured on-site as having a slope at the top of the ramp of between 1:14 to 1:16 and a slope at the base of the ramp of 1:25 and is not provided with handrails and kerb-rails on both sides of the ramp. - TGSI's have not been installed to serve this ramp. - TGSI's are not the correct size panels.	\$20,055.20 (incl margin & GST)		

	PLAINTIFF		OTHER PARTY	
<i>Item no</i>	<i>Particulars of item claimed</i>	<i>Amount claimed</i>	<i>Particulars of answer to item claimed</i>	<i>Amount conceded</i>
8.5.	Disabled Access The handrail installed to serve the stair flight located between the Ground Floor Level and the mid-landing has a clearance of less than 50mm between the inside face of the handrail and the adjoining wall surface. Disabled access to the first floor commercial lots is not provided without the use of the residential lobby and lift. The rails do not comply. The designated parking/shared space does not comply.	\$17,011.50 (incl margin & GST)		
EXTERNAL WALLS				
9.1.	Corroded Building Elements The installed fittings and/or fixtures as part of the construction were found to be corroded, including: Balconies - Screws securing gas bayonet fittings corroded. External Front Elevation - The studs securing the downpipes were found to be rusty Air Conditioning Platform - Swarf and metal offcuts are present to galvanised framing and on the adjacent roof sheeting. - Corrosion is evident to the frame where it has been w Chain winders to the window are corroded.	\$42,926.40 (incl margin & GST)		

	PLAINTIFF		OTHER PARTY	
<i>Item no</i>	<i>Particulars of item claimed</i>	<i>Amount claimed</i>	<i>Particulars of answer to item claimed</i>	<i>Amount conceded</i>
9.2.	Water Penetration – Southern and Western Walls The building has not been constructed to prevent water entry into the residential units contrary to the BCA and wall manufacturers requirements resulting in consequential damage. These units were along the southern and western elevations. To the interior of the units I observed: • Water staining to a large number of units. • Water staining to carpet and smooth edges. • Moisture affected paintwork to walls and/or skirting boards. To the external walls I observed the following: • The rendered wall is not well finished, particularly at the horizontal joint. • The horizontal tooled joint has not been sealed with a flexible sealant prior to the wall being rendered and painted. • The horizontal joint is at the same height as the internal floor level. • The AFS wall system has not been sealed to the slab or waterproofed on the external face.	\$159,791.50 (incl margin & GST)		
HANDRAILS, STAIRS AND RAMPS				

	PLAINTIFF		OTHER PARTY	
Item no	Particulars of item claimed	Amount claimed	Particulars of answer to item claimed	Amount conceded
10.1.	Non-Compliant Stair Construction The external stairs and ramps fail to comply with the BCA requirements and create a safety hazard incl; 1. Providore Store 1.1. To the stairs outside the 'Providore' shop, the rise is not consistent throughout and does not comply with the BCA. 1.2. The handrails do not extend beyond the bottom tread and are incorrectly terminated. Tactile indicators are not the correct size panel or width. 1.3. The base of the stair does not finish 900mm from the boundary. 2. Commercial Lot 2 To the stairs adjacent to the main residential entry, the rise of these stairs was found to be inconsistent and not in accordance with the BCA. 3. Internal Stairs The internal stairs from the main entry to the second and third levels are not provided with a constant rise throughout each flight. 4. Fire Stairs The stairs in the eastern fire stair are not provided with a constant rise throughout each flight. Tactile indicators have not been provided on the landings in each fire stairwell, as shown on the approved plans. 5. Commercial Lot 3 The handrail terminations are incorrect. The circulation space at the top and base of the ramp is not 1500mm. The rail mounted to the shop front incorporates incorrect terminations and does not incorporate a kerb rail. 6. The ramp to Providore and Commercial Lot 1 The handrail to the side of the ramp leading to commercial tenancy 01 and door D-01 is not correctly terminated at the ends Handrail not secured to the wall	\$161,663.70 (incl margin & GST)		

	PLAINTIFF		OTHER PARTY	
<i>Item no</i>	<i>Particulars of item claimed</i>	<i>Amount claimed</i>	<i>Particulars of answer to item claimed</i>	<i>Amount conceded</i>
10.2.	External Handrails The applied powder coating finish to the handrails and screens to the external balconies are not considered to suitable for the location or adequately coated; - The powder coat finish to handrails is faded, oxidised and deteriorated - The powder coated handrail damaged in places due to contamination under the coating or the coating lifting; consistent with corrosion	\$91,562.90 (incl margin & GST)		
10.3.	Gallery Handrails The handrails to the gallery area are not constructed as per the approved plans and some sections fail to comply with the BCA. • the balustrade returns to the wall outside the entry door to the units and in a number of locations this handrail returns around to a glass panel where the gap exceeds 125mm and contrary to the BCA.	\$57,246.20 (incl margin & GST)		
TILING				
11.1.	Non-Compliant Tiling The floor tiles to the interior and exterior floors and stairs do not have a non-slip finish. And contrary to the project specification, AS1428, AS HB198 or the BCA Numerous tiles to the main gallery, to the external stairs and to the landings outside external doors were found to be drummy.	\$524,616.40 (incl margin & GST)		

	PLAINTIFF		OTHER PARTY	
<i>Item no</i>	<i>Particulars of item claimed</i>	<i>Amount claimed</i>	<i>Particulars of answer to item claimed</i>	<i>Amount conceded</i>
11.2.	Balcony Gradients and Tiling The external balcony areas are defective in the following respects; Floor area not provided with minimum gradient of 1:100 or 1% Efflorescence in tile joints Seals to movement joints coming away and between tiles and aluminium edge trim Waterproofing does not extend above the surface of the tiles at hobs or walls. No waterproof membrane or skirting tiles around service duct. Gap is present at the junction of the service duct and skirting tiles, with framing or similar visible behind. Floor waste is provided, but no provision for surcharge or overflow in case of blockage has been provided Balconies in places are leaking.	\$123,651.00 (incl margin & GST)		
11.3.	Wet Area Floor Gradients In each of the wet areas, including the ensuite, laundry and bathroom, I observed that the floors were not provided with the correct falls and water pools in some areas.	\$330,563.20 (incl margin & GST)		

	PLAINTIFF		OTHER PARTY	
<i>Item no</i>	<i>Particulars of item claimed</i>	<i>Amount claimed</i>	<i>Particulars of answer to item claimed</i>	<i>Amount conceded</i>
INTERNAL				
12.1.	Wet Area Waterproofing The wet areas of all units have not been correctly waterproofed in order to comply with the BCA and to prevent water escape and damage to building elements which has in a number of units already occurred, the areas of non compliance includes; Ensuite Door frames and architraves extend into tiles and would be prone to water damage in the following units.106, 202, 203, 204, 207, 211, 212, 214, 215, 216 Water stop angle in the doorway is of an extremely thin, lightweight material and prone to be damaged and covers the water stop which is set too low in the following units 204, 215 Bathroom Door frames and architraves extend into tiles and would be prone to water damage in the following units . 107, 109, 111, 115, 119, 120, 122, 202, 203, 204, 207, 210, 211, 212, 217, 222, 223 Laundry Water stop angle is short and finishes below the tiles, with tiles abutting the timber frame in unit. 215 The water stop angle is poorly finished and grout is cracked in units 202, 210, 217, 224	\$40,712.10 (incl margin & GST)		

	PLAINTIFF		OTHER PARTY	
Item no	Particulars of item claimed	Amount claimed	Particulars of answer to item claimed	Amount conceded
12.2.	Hanging and Fitting of Internal Doors and Hardware The doors inside the units have not been neatly fitted or with the requisite due care and skill of tradesperson and resulted in the following defects; Kitchen/Living Entry door displays an uneven margin 207 Paint marks are visible on all door hardware 207, 213 Bedroom One Door displays an uneven margin and rattles in the closed position 102, 106, 107, 108, 110, 113, 115, 117, 119, 120, 121, 122, 123, 209, 210, 211, 214, 215, 216, 219, 220, 222 Door furniture is stiff to operate 102, 117, 121, 122, 204, 209, 212, 215, 219, 220, 222, 223, 224 Door furniture is loose 113, 203, 219 Ensuite The door displays an uneven margin 102, 106, 107, 108, 110, 115, 117, 118, 121, 122, 123, 201, 204, 207, 210, 211, 212, 213, 215, 216, 217, 220, 221, 222, 223, 224, 225 The door rattles in the closed position 107, 108, 110, 111, 113, 117, 121, 122, 123, 201, 207, 209, 212, 215, 217, 221, 223 The bottom edge of the door has not been paint sealed 107 Bottom edge of door is water damaged 219 Paint marks are visible on all door hardware 221 Door hinges rusting 108 Door furniture is stiff to operate 102, 109, 117, 118, 204, 210, 211, 213, 216, 220, 222, 224, 225 Bedroom Two Door displays an uneven and excessive margin 107, 108, 109, 115, 116, 117, 118, 121, 122, 123, 202, 207, 209, 211, 213, 214, 216, 217, 219, 221, 222, 223, 224 The door rattles in the closed position 102, 106, 107, 108, 110, 111, 115, 116, 117, 118, 119, 121, 122, 123, 202, 204, 209, 210, 211, 212, 213, 214, 216, 217, 223 Door furniture is stiff to operate 119, 120, 123, 205, 213, 219, 220, 224 Paint marks are visible on all door			

	Door furniture is stiff to operate 119, 120, 123, 205, 213, 219, 220, 224 Paint marks are visible on all door hardware 106, 107, 214 The door is loose on the hinge 222 Bedroom Three The door rattles in the closed position 111 Paint marks are present on the door hinges 111 Bathroom Door displays uneven margin 107, 109, 113, 115, 116, 117, 122, 123, 201, 202, 203, 207, 210, 211, 212, 213, 214, 217, 219, 220, 221, 224 Water damage visible to bottom edge of the door at the hinge stile; door not adequately sealed on the bottom edge. 102, 207, 212, 219 The door rattles in the closed position 106, 107, 108, 110, 111, 113, 115, 117, 119, 120, 122, 201, 202, 203, 209, 212, 213, 217, 222 Door furniture stiff to operate 109, 117, 123, 209, 210, 211, 212, 220, 221, 223, 224, 225 Door hinges noisy when operated 201 The door is coming off the hinge 102 Laundry Uneven door margins 102, 106, 107, 111, 116, 118, 121, 123, 201, 203, 204, 209, 210, 210, 211, 214, 219, 221 The door rattles in the closed position 106, 107, 109, 116, 118, 119, 122, 123, 201, 202, 204, 209, 210, 211, 214, 217, 219, 221, 222, 224 A gap is present between the door architrave and door frame to the bathroom 120 The door is twisted within the frame 220 Paint marks are visible on all door hardware 121			
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12.3.	Poorly Fitted and Finished Joinery The built in joinery has not been well finished in all areas incl; Kitchen/Living Gaps between the top of the overhead cupboard and the bulkhead ceiling 106, 107, 108, 110, 111, 113, 114, 115, 117, 118, 119, 120, 122, 201, 202, 203, 204, 207, 210, 211, 213, 216, 219, 220, 221, 222, 223, 225 Laundry Gap present between built-in laundry unit and wall. 102, 107, 111, 121, 201, 203, 204, 209, 212, 213, 214, 217, 220, 221, 222, 223, 224, 225 Kickboard to the built-in cupboard is loose and comes off 207 Base of cupboard is water damaged. Further investigation required to determine the source of the water. 215	\$6,884.90 (incl margin & GST)		
12.4.	Doors to Sanitary Compartments The wet areas containing a WC have not been provided with lift off hinges where the required space is not provided between the doorway and the pan and are contrary to the BCA and create a health and safety hazard.	\$37,799.30 (incl margin & GST)		
GENERAL				
13.1.	Warranties and Manuals The project specification requires that warranties and manuals for installed services and installations be supplied, however all have not been supplied to the owners. Those not supplied include those for; Roof Access and Safety System Roofing Windows and Glazed Doors Overhead Door Electrical Services Fire Services Fire Sprinklers No operation and maintenance manual supplied.	\$26,329.60 (incl margin & GST)		
13.2.	Non-Compliance with Development Approval The works have not been completed to comply with all sections of the DA including DA paragraphs 6,7, and 11	\$222,834.70 (incl margin & GST)		

13.3.	Health and Amenity Requirements An employee sanitary facility has not been provided to the ground floor level as required by the BCA.	\$44,183.70 (incl margin & GST)		
13.4.	Stormwater The stormwater drainage system displays a number of defects including; WESTERN CARPARK •A large stormwater detention tank is provided in the floor of the carpark, the grated covers to this are not locked and step irons have not been provided to access the tank. •The sump in the carwash bay is full of water and contained a large quantity of debris. •The pump was found to be not automatically operated and will overflow and requires manual operation when the alarm sounds	\$8,622.90 (incl margin & GST)		
13.5.	Service Cupboards and Risers The buildings are located within the Level 1 and Level 2 public corridors immediately beside the Carpark exhaust riser shaft. The doors providing access into the electrical and/or telecommunication services enclosures are not fitted with non-combustible internal linings (i.e. fibre cement sheeting, galvanised steel sheeting, zincalume sheeting etc.). The floor surface within the Level 1 services enclosure is constructed of plywood and does not achieve a fire resistance level of not less than 180/180/180 in accordance with Clause C2.9 and Specification C1.1 of the BCA. The Level 2 services enclosure is not provided with a floor surface beneath and is a significant OH&S safety issue.	\$17,729.80 (incl margin & GST)		
13.6.	Pipe Insulation Sewer waste pipes located in the ceiling void above the mid level units have not been insulated and do comply with the project specification	\$182,050.00 (incl margin & GST)		

HOW TO RESPOND
You must complete the schedule by including particulars of your answer to the item claimed and the amount you are conceding.

PARTY DETAILS

Parties to the proceedings

PLAINTIFFS

DEFENDANTS

The Owners - SP91174



FIRE SAFETY & BUILDING CODE OF AUSTRALIA ASSESSMENT REPORT (BCA 2013 Edition)

18 THROSBY STREET, WICKHAM

Assessment based on the architectural plans prepared by CKDS Architecture, Project No. 1405, Drawing No's A101 (issue 0), A102 (issue 04), A103 (issue 03), A104 (issue 1), A105 (issue 01), A401 (issue 1), A402 (issue 0), A501 (issue 3) and A502 (issue 0) all dated 6 January 2014.

BCA Assessment Report	1	Final Issue	Grant McGrath / 20.03.17	
DOC. NAME	REV.	DESCRIPTION	PREPARED / DATE	SIGNED

INTRODUCTION

1.1 General

The following Building Code of Australia Assessment Report has been prepared for the Owners Corporation of Strata Plan 91174 for the premises known as 18 Throsby Street, Wickham in order to ascertain the level of compliance with the deemed-to-satisfy provisions of the Building Code of Australia Assessment and the GHD Fire Engineering Report (Revision 2) dated February 2015 and to make recommendations for the upgrading the building to ensure compliance with these requirements.

1.2 Purpose of the Report

The purpose of the report is to:

- i) assess the building against the deemed-to-satisfy provisions of the Building Code of Australia 2013; and
- ii) assess the building against the GHD Fire Engineering Report (Revision 2) dated February 2015; and
- iii) make recommendations for the upgrading of the building to meet with the deemed-to-satisfy provisions of the Building Code of Australia 2013 and the recommendations of the GHD Fire Engineering Report (Revision 2) dated February 2015.

1.3 Report Basis

This report is based on:

- i. The Building Code of Australia 2013 (inclusive of NSW variations).
- ii. Inspection of six (6) residential units on 8 February 2017 (i.e. Units 109, 117, 118, 209, 217, 224 only).
- iii. Inspection of the public corridors and associated common areas of the building (excluding the Ground Floor Level Commercial tenancies and the associated Storerooms) on 25 January 2017, 8 February 2017 and 20 February 2017.

1.4 Exclusions

This report does not consider the following except where specifically mentioned;

- i. Structural adequacy of the building and related matters.
- ii. The Disability Discrimination Act 1992.
- iii. The fire resistance levels of building elements (unless specifically stated in the report).
- iv. The operating capability of any existing services.
- v. Inaccessible spaces such as ceiling voids, riser shafts and the like;
- vi. The requirements of other service providers (i.e. Ausgrid, Jemena, Hunter Water etc.)
- vii. The energy efficiency issues covered under BASIX and Section J of the BCA.

BCA Clause Title	Deemed to Satisfy Provisions (Clauses)	Description of Compliance Requirement	Proposed Design BCA "Deemed to Satisfy" OR "Alternative Solution" to Satisfy BCA Performance Requirements	Comments
BCA PART A0 - APPLICATION				
BCA General Application	A0.1 – A1.0	Noted as Applicable	---	Noted.
BCA PART A1 - INTERPRETATION				
BCA Interpretation	A1.1 – A1.7	Noted as Applicable	---	Noted. No recommendations.
BCA PART A2 - ACCEPTANCE OF DESIGN & CONSTRUCTION				
Acceptance of Design & Construction	A2.1 – A2.5	Noted as Applicable	---	Noted. No recommendations.
BCA PART A3 - CLASSIFICATIONS OF BUILDINGS & STRUCTURES				
Principles of Classification	A3.1	Noted	---	Noted. No recommendations.
Classifications	A3.2	BCA building classifications.	DTS	Class 2: Residential Class 5: Office Class 6: Retail Class 7a: Carpark
Multiple Classification	A3.3	Each part of building to be classified separately.	---	Noted.
Parts with more than one Classification	A3.4	Each Classification to comply with relevant provisions of the BCA.	---	Noted.
BCA PART A4 - UNITED BUILDINGS				
When Buildings are United	A4.1	BCA provisions applicable to buildings connected through openings in the external walls dividing them.	---	Not applicable.
Alterations in a United Building	A4.2	BCA requirements where buildings cease to be united buildings.	---	Not applicable.

BCA Clause Title	Deemed to Satisfy Provisions (Clauses)	Description of Compliance Requirement	Proposed Design BCA "Deemed to Satisfy" OR "Alternative Solution" to Satisfy BCA Performance Requirements	Comments
BCA PART A - SPECIFICATIONS				
Standards Adopted by Reference	Specification A1.3	This Specification calls up relevant Australian Standards adopted by the BCA.	---	Noted.
Fire Resistance of Building Elements	Specification A2.3	This Specification sets out the Procedures for determining the FRL of various building elements including providing some DTS solutions.	---	Noted.
Early Fire Hazard Tests for Assemblies	Specification A2.4	This Specification sets out the Procedures for determining the Early Fire Hazard Indices of components and assemblies.	---	Noted.
BCA PART B1 - STRUCTURAL PROVISIONS				
Deemed to Satisfy Provisions	B1.0	Specifies DTS means to satisfy Performance Requirements BP1.1 and BP1.2.	DTS	Building to Comply. All structural elements are to be certified by a professional Structural Engineer in accordance with these BCA requirements.
Resistance to Actions	B1.1	Resistance to actions.	DTS	Building to Comply. All structural elements are to be certified by a professional Structural Engineer in accordance with these BCA requirements.
Determination of Individual Actions	B1.2	Determination of individual actions.	DTS	Building to Comply. All structural elements are to be certified by a professional Structural Engineer in accordance with these BCA requirements.
---	B1.3	This clause has been deliberately left blank in the BCA.	---	---
Determination of Structural Resistance	B1.4	Determination of structural resistance of materials and forms of construction.	DTS	Building to Comply. 1) All structural elements are to be certified by a professional Structural Engineer in accordance with these BCA requirements.

BCA Clause Title	Deemed to Satisfy Provisions (Clauses)	Description of Compliance Requirement	Proposed Design BCA "Deemed to Satisfy" OR "Alternative Solution" to Satisfy BCA Performance Requirements	Comments
				2) All glazed assemblies are to be certified by the installation contractor as complying with AS 2047-1999 and AS 1288-2006. <u>Note: It is recommended that all glazed assemblies throughout the building are to be inspected and certified by an experienced and professional Façade Engineer as complying with the above BCA requirements.</u> 3) All metal roofing is to be certified by the installation contractor or Builder as complying with AS 1562.1-1992.
Structural Software	B1.5	Structural software limitations.	DTS	Building to Comply. All structural elements are to be certified by a professional Structural Engineer in accordance with these BCA requirements.
BCA PART C1 - FIRE RESISTANCE & STABILITY				
Deemed to Satisfy Provisions	C1.0	Specifies DTS means to satisfy Performance Requirements CP1 to CP9.	---	Noted.
Type of Construction Required	C1.1 Table C1.1	This Clause stipulates the "Type of Construction" required based on a buildings "Rise in Storeys". Also see Clause C2.2 regarding maximum floor area limited requirements.	DTS	Type A construction required throughout.
Calculation of Rise in Storeys	C1.2	This Clause stipulates how you calculate a buildings "rise in storeys".	DTS	The building has a rise in storeys of three (3) and an effective height of less than 25.0 metres.
Buildings of Multiple Classification	C1.3	In a building of multiple classifications, the Type of Construction required for the building is the most fire resisting type resulting from the application of Table C1.1 on the basis that the classification applying to the top storey applies to all storeys.	DTS	Type A construction required throughout.

BCA Clause Title	Deemed to Satisfy Provisions (Clauses)	Description of Compliance Requirement	Proposed Design BCA "Deemed to Satisfy" OR "Alternative Solution" to Satisfy BCA Performance Requirements	Comments
Mixed Types of Construction	C1.4	Allows mixed types of construction if parts are fire separated.	---	Not applicable.
Two Storey Class 2 or 3 Buildings	C1.5	Gives concession for construction of certain residential buildings.	---	Not applicable.
Class 4 Parts of Building	C1.6	Specified FRLs and separation for Class 4 parts.	---	Not applicable.
Open Spectator Stands and Indoor Sports Stadiums	C1.7	Requirement for construction of spectator stands and stadiums.	---	Not applicable.
Lightweight Construction	C1.8	This Clause stipulates that "lightweight" construction must comply with Specification C1.8 if used.	---	Noted.
---	C1.9	Deliberately left blank in the BCA.	---	---
Fire Hazard Properties	C1.10 & NSW C1.10(b)	Clause C1.10 requires materials and assemblies to comply with Fire Hazard Properties as outlined in Specification C1.10.	DTS	Building to Comply. The fire hazard properties of the buildings floor, wall and ceiling material are to comply with Clause C1.10 and Specification C1.10 of the BCA. It is recommended that certification be sought from the Builder for all of the buildings wall, floor and ceiling materials to ensure compliance with Specification C1.10 of the BCA. <u>Note: Any/all materials not complying with this clause of the BCA are to be replaced with complying materials.</u>
Performance of External Walls in Fire	C1.11	Requirements for tilt up walls and fixings.	---	Not applicable.
Non-Combustible Materials	C1.12	This clause outlines materials that can be classified as non-combustible.	---	Noted.

BCA Clause Title	Deemed to Satisfy Provisions (Clauses)	Description of Compliance Requirement	Proposed Design BCA "Deemed to Satisfy" OR "Alternative Solution" to Satisfy BCA Performance Requirements	Comments
BCA PART C2 - COMPARTMENTATION & SEPARATION				
Deemed to Satisfy Provisions	C2.0	This Clause stipulates that the proposed development complies with BCA Section C Performance Requirements if the deemed to satisfy provisions are met.	---	Noted. No recommendations.
Application of Part	C2.1	Fire compartment sizes and volumes do not apply to either a carpark provided with a sprinkler system, an open deck carpark or a spectator stand, or residential occupancies. All other classes of building to comply as required.	---	Noted. No recommendations.
General Floor Area & Volume Limitations	C2.2	This Clause stipulates the maximum floor areas and volumes for all classes of buildings and for each type of construction.	DTS	Complies.
Large Isolated Buildings	C2.3	Fire compartments can exceed specified areas and volumes under certain open space, fire protection and vehicular access conditions.	---	Not applicable.
Requirements for Open Spaces & Vehicular Access	C2.4	Conditions applying to vehicular access are required by Clause C2.3.	---	Not applicable.
Class 9a & Class 9c Buildings	C2.5	Additional fire and smoke compartmentation that is required for Class 9a Healthcare and 9c Aged Care buildings.	---	Not applicable.
Vertical Separation of Openings in External Walls	C2.6	This Clause stipulates how vertical separation can be achieved for buildings of Type A Construction.	DTS	Complies. <u>Note: Spandrel separation to the Level 1 Commercial 04 tenancy has not been assessed under this BCA Assessment Report</u>

BCA Clause Title	Deemed to Satisfy Provisions (Clauses)	Description of Compliance Requirement	Proposed Design BCA "Deemed to Satisfy" OR "Alternative Solution" to Satisfy BCA Performance Requirements	Comments
Separation by Fire Walls	C2.7	This clause stipulates how you achieve fire separation	DTS	(See Clause C2.8 below)
Separation of Classifications in the Same Storey	C2.8	This clause stipulates how you can treat different classifications in the same storey	DTS and Fire Engineering Report of GHD (Rev.2) dated February 2015	Non-Compliant. 1) The Fire Engineering Report of GHD - Throsby Development - Reference No. 21/23311 - (Revision 2) dated February 2015 requires the fire separation of the Ground Floor Level Residential Entry Lobby from the adjoining Carpark by construction achieving a fire resistance level of 180/120/120 (loadbearing) or --/120/120 (non-loadbearing) in accordance with Specification C1.1 of the BCA. Inspection of the building has revealed the following: a) The Ground Floor Level Residential Entry Lobby is separated from the adjoining Carpark (in part) by fixed glazed construction that is not capable of achieving a fire resistance level of --/120/120 (non-loadbearing). b) The Ground Floor Level Residential Entry Lobby is separated from the adjoining Carpark (in part) by a self-closing, glazed entry door that is not capable of achieving a fire resistance level of not less than --/120/30 in accordance with AS 1905.1-2005. <u>Note i: The Fire Engineering Report of GHD - Throsby Development - Reference No. 21/23311 - (Revision 2) dated February 2015 fails to acknowledge that the sprinkler protected Ground Floor Level of the building is required to be fire separated from the non-sprinkler protected First Floor Level and Second Floor Level building (parts) by construction achieving a fire resistance level of not less than 180/120/120 in accordance with Clause 3 of Specification E1.5 of</u>

BCA Clause Title	Deemed to Satisfy Provisions (Clauses)	Description of Compliance Requirement	Proposed Design BCA "Deemed to Satisfy" OR "Alternative Solution" to Satisfy BCA Performance Requirements	Comments
				<u>the BCA.</u> <u>In addition, the doorway opening into the Ground Floor Level Residential Lobby from the Carpark is to be fitted with self-closing (or automatic closing) --/120/30 FRL fire doors in accordance with Clause 4 of Specification E1.5 of the BCA. All fire doors are to be selected and installed in accordance with AS 1905.1-2005.</u> <u>Note ii: The required fire door to be located between the Carpark and the Ground Floor Level Residential Entry Lobby is to be fire tripped from the fire indicator panel to ensure that this door automatically unlocks on the activation of the buildings automatic fire alarm system and/or the automatic sprinkler system.</u> c) The protection of penetrations through and/or above the fire rated masonry walls located between the Ground Floor Level Carpark and the adjoining Residential Entry Lobby could not be determined from our visual inspection. It is recommended that: i) The Fire Engineering Report of GHD - Throsby Development - Reference No. 21/23311 (Revision 2) dated February 2015 is to be amended to take into account the minimum fire separation requirements of Clause 3 and Clause 4 of Specification E1.5 of the BCA in relation to the BCA fire separation requirements between sprinkler protected and non sprinkler protected building (parts). The amended Fire Engineering Report is to demonstrate all works considered necessary to ensure that the building is capable of achieving compliance with Performance Requirements CP2, DP5 and EP1.4 of the BCA.

BCA Clause Title	Deemed to Satisfy Provisions (Clauses)	Description of Compliance Requirement	Proposed Design BCA "Deemed to Satisfy" OR "Alternative Solution" to Satisfy BCA Performance Requirements	Comments
				<u>Note: All works (if any) recommended by the Fire Engineer are to be incorporated into the building's construction and are to be listed on the buildings Final Fire Safety Certificate and the Fire Safety Schedule.</u> or ii) The Ground Floor Level Carpark is to be fire-separated from the Residential Entry Lobby by construction achieving a fire-resistance level of not less than 180/20/120 (loadbearing) or --/120/120 (non loadbearing) in accordance with Clause 3 of Specification E1.5 of the BCA. In addition, the doorway located between the Carpark and the Residential Entry Lobby is to be fitted with a self-closing (or automatic closing), smoke-sealed, --/120/30 FRL fire door selected and installed in accordance with AS 1905.1-2005; and <u>Note: The smoke seals to be fitted to this door are required to be of the medium temperature type in accordance with the Fire Engineering Report of GHD.</u> iii) All penetrations through the fire rated walls located between the Ground Floor Level Carpark and the adjoining Residential Entry Lobby are to be inspected (and upgraded as necessary) to ensure that they are protected in accordance with Clause C3.15 of the BCA. 2) The Fire Engineering Report of GHD - Throsby Development - Reference No. 21/23311 – (Revision 2) dated February 2015 requires the fire separation of the Ground Floor Level Residential Entry Lobby from the adjoining Commercial 02 tenancy by construction as follows: a) Construction achieving a fire resistance level of not less than 90/90/90 (loadbearing) or --/60/60 (non-loadbearing); and

BCA Clause Title	Deemed to Satisfy Provisions (Clauses)	Description of Compliance Requirement	Proposed Design BCA "Deemed to Satisfy" OR "Alternative Solution" to Satisfy BCA Performance Requirements	Comments
				b) Fixed glazing and internal wall-wetting drenchers in accordance with Tyco Model WSTM 5.6 K factor Specific Application Window Sprinklers system or similar products; and c) All doorways in the bounding construction are to be fitted with self-closing (or automatic-closing), smoke sealed, glazed doors that are to be fitted with internal wall-wetting drenchers in accordance with Clause C3.4 of the BCA and AS 2118.1-1999. Alternatively, self-closing, smoke sealed, --/60/30 FRL fire doors may be installed in accordance with AS 1905.1-2005. <u>Note: The smoke seals to be fitted to these doors are required to be of the medium temperature type in accordance with the Fire Engineering Report of GHD.</u> d) The protection of penetrations through the fire rated walls located between the Ground Floor Level Carpark and the adjoining Residential Entry Lobby could not be determined from our visual inspection. Inspection of the building has revealed the following: i) The glazed structures located between the Ground Floor Level Commercial 02 tenancy and the internal and external portions of the adjoining Residential Entry Lobby are not fitted with heat strengthened, tempered glass not less than 6 mm thick as required by the Tyco Model WSTM 5.6 K factor Specific Application Window Sprinklers system; and ii) Two (2) x internal wall wetting drenchers have been installed over the fixed glazing system within the Ground Floor Level Commercial 02 tenancy in-lieu of the five (5) x required internal wall wetting drenchers in accordance with the

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				Tyco Model WSTM 5.6 K factor Specific Application Window Sprinklers system; and (See Extract from Tyco Model WSTM 5.6 K factor Specific Application Window Sprinklers system). <u>Mullioned Glazing Assemblies: Locate window sprinklers within each mullioned glazing segment. Refer to Figure 3B-1 – (copy attached).</u> iii) The internal vertical window mullions do not extend past the back of the drencher deflectors (nor have baffles been installed) as required by the Tyco Model WSTM 5.6 K factor Specific Application Window Sprinklers system; and iv) The drencher system is not served by a separate valve-set that is monitored to detect unauthorised closure as required by the Fire Engineering Report of GHD; and v) The internal door located between the Ground Floor Level Commercial 02 tenancy and the adjoining Residential Entry Lobby is fitted with an internal wall wetting drencher, however, the door is not fitted with medium temperature smoke seals on the top, sides and bottom of the door as required by the Fire Engineering Report of GHD; and vi) The external glazed wall and the external glazed door located between the Ground Floor Level Commercial 02 tenancy and the external portion of the adjoining Residential Entry Lobby are not fitted with internal wall wetting drencher(s) and medium temperature smoke seals as required by the Fire Engineering Report of GHD; and vii) The protection of penetrations through and/or above the fire rated walls located between the Ground Floor Level Commercial 02 tenancy and the adjoining Residential Lobby could not be

BCA Clause Title	Deemed to Satisfy Provisions (Clauses)	Description of Compliance Requirement	Proposed Design BCA "Deemed to Satisfy" OR "Alternative Solution" to Satisfy BCA Performance Requirements	Comments
				determined from our on-site visual inspection. <u>Note: The Fire Engineering Report of GHD - Throsby Development - Reference No. 21/23311 - (Revision 2) dated February 2015 fails to acknowledge that the sprinkler protected Ground Floor Level of the building is required to be fire separated from the non-sprinkler protected First Floor Level and Second Floor Level building (parts) by construction achieving a fire resistance level of not less than 180/120/120 in accordance with Clause 3 of Specification E1.5 of the BCA.</u> <u>In addition, the doorway opening into the Ground Floor Level Residential Entry Lobby as well as to the external portion of the Ground Floor Level Entry Lobby from the adjoining Commercial 02 tenancy are to be fitted with self-closing (or automatic closing) --/120/30 FRL fire doors in accordance with Clause 4 of Specification E1.5 of the BCA. All fire doors are to be selected and installed in accordance with AS 1905.1-2005. All fire doors are to be selected and installed in accordance with AS 1905.1-2005.</u> It is recommended that: i) The Fire Engineering Report of GHD - Throsby Development - Reference No. 21/23311 (Revision 2) dated February 2015 is to be amended to take into account the minimum fire separation requirements of Clause 3 and Clause 4 of Specification E1.5 of the BCA in relation to the BCA fire separation requirements between sprinkler protected and non sprinkler protected building (parts). The amended Fire Engineering Report is to demonstrate all works considered necessary to ensure that the building is capable of achieving compliance with Performance Requirements CP2, DP5 and EP1.4

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				of the BCA; and <u>Note: All works (if any) recommended by the Fire Engineer are to be incorporated into the building's construction and are to be listed on the buildings Final Fire Safety Certificate and the Fire Safety Schedule.</u> ii) The fixed glazing structures located between the Ground Floor Level Commercial 02 Tenancy are to be upgraded to fully comply with the Fire Safety Engineering Report of GHD; and iii) The internal wall wetting drencher system is to re-designed by a professional Hydraulic Engineer/Fire Services Designer detailing full compliance with the Tyco Model WSTM 5.6 K factor Specific Application Window Sprinklers system and the Fire Safety Engineering Report of GHD; and <u>Note: Any/all upgrading works considered necessary by the Hydraulic Engineer/Fire Services Designer to the internal wall-wetting drencher system are to be incorporated into the building's construction and are to be listed on the buildings Final Fire Safety Certificate and the Fire Safety Schedule.</u> iv) All doors opening between the Ground Floor Level Commercial 02 Tenancy and the internal and external portions of the Residential Entry Lobby are to be fitted with medium temperature smoke seals in accordance with the Fire Safety Engineering Report of GHD; and v) All penetrations through the fire rated walls located between the Ground Floor Level Commercial 02 tenancy and the internal and external portions of the adjoining Residential Entry Lobby are to be inspected (and upgraded as necessary) to ensure that they are

BCA Clause Title	Deemed to Satisfy Provisions (Clauses)	Description of Compliance Requirement	Proposed Design BCA "Deemed to Satisfy" OR "Alternative Solution" to Satisfy BCA Performance Requirements	Comments
				protected in accordance with Clause C3.15 of the BCA.
Separation of Classifications in Different Storeys	C2.9	This Clause stipulates how you fire separate classifications in different storeys.	DTS and Fire Engineering Report of GHD (Rev.2) dated February 2015	Non-Compliant. (See Clause C2.8 above)
Separation of Lift Shafts	C2.10	Lift shafts are required in Specification C1.1 (Type A Construction) to achieve an FRL as stated where lifts are not wholly within an atrium.	DTS	Complies.
Stairways & Lifts in One Shaft	C2.11	A stairway and lift must not be in the same shaft if either the stairway or the lift is required to be in a fire-resisting shaft.	DTS	Complies.
Separation of Equipment	C2.12	Certain equipment (lift motors, lift control panels, emergency generators, central smoke control plant, boilers, and batteries) must be separated from the remainder of the building with construction achieving an FRL of not less than 120/120/120.	---	Not applicable.
Electricity Supply System	C2.13	Certain electricity supply equipment must be protected with construction of not less than 120/120/120 FRL. Equipment includes: ▪ Electricity substations. ▪ Main switchboards "which sustain emergency equipment operating in emergency mode". ▪ Electricity conductors that supply main switchboard. Switchboards must also be segregated (where applicable)	---	Not applicable.

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Public Corridors in Class 2 & 3 Buildings	C2.14	In a Class 2 or 3 building a public corridor, if more than 40 metres in length must be divided at intervals of not more than 40 metres with smoke proof walls complying with Clause 2 of Specification C2.5	Fire Engineering Report of GHD (Rev.2) dated February 2015 to be upgraded to address this DfS non-compliance	Non-Compliant. The BCA requires that public corridors in a Class 2 building are to be divided at intervals of not more than 40 metres with smoke-proof walls complying with Clause 2 of Specification C2.5 of the BCA. Inspection of the building has revealed that the Level 1 and Level 2 public corridors are not separated on each level by smoke proof walls positioned no greater than 40 metres apart contrary to Clause C2.14 of the BCA. <u>Note i: It is our considered opinion that the Level 1 and Level 2 "Gallery" areas of the building meet with the BCA deemed-to-satisfy definition of a "public corridor" and should not have been assessed by the Accredited Certifier at the Construction Certificate stage as being an open balcony, open landing or the like.</u> <u>Note ii: The BCA defines "public corridor" as an enclosed corridor, hallway or the like which -</u> <u>a) serves as a means of egress from two (2) or more sole-occupancy units to a required exit from the storey concerned; or</u> <u>b) is required to be provided as a means of egress from any part of a storey to a required exit".</u> It is recommended that the Fire Engineering Report of GHD - Throsby Development - Reference No. 21/23311 (Revision 2) dated February 2015 is to be amended to take into account that the Level 1 and Level 2 parts of the building meet with the deemed-to-satisfy definition of a "public corridor" and are not smoke separated at maximum intervals of 40 metres in accordance with Clause C2.14 of the BCA. The amended Fire Engineering Report is

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				to demonstrate all works considered necessary to ensure that the building is capable of achieving compliance with Performance Requirements CP2 and EP2.2 of the BCA. <u>Note i: All works (if any) recommended by the Fire Engineer are to be incorporated into the building's construction and are to be listed on the buildings Final Fire Safety Certificate and the Fire Safety Schedule.</u> <u>Note ii: It is acknowledged that natural smoke venting will occur through the Rooftop screened ventilation openings, however, the suitability of these ventilation openings is yet to be demonstrated as meeting with the Performance Requirements of the BCA.</u> <u>(See also Specification C1.1 below)</u>
BCA PART C3 - PROTECTION OF OPENINGS				
Deemed to Satisfy Provisions	C3.0	This Clause stipulates that the proposed development complies with BCA Section C Performance Requirements if the DTS provisions are met.	---	Noted. No recommendations.
Application of Part	C3.1	Exempts openings such as control joints, weep holes, non combustible ventilators for sub floor or cavity ventilation, etc, are exempted from protection requirements.	---	Noted. No recommendations.
Protection of Openings in External Walls	C3.2	This Clause stipulates that openings less than 3.0 m from a side or rear boundary or 6.0 m from the far boundary of a road must be protected.	Fire Engineering Report of GHD (Rev.2) dated February 2015 to be upgraded to address this DTS non-compliance	Non-Compliant. In buildings of this type, openings in an external wall of the building that is required to have a fire resistance level must, if located less than 3.0 metres from a side or rear boundary of the allotment (both parallel and perpendicular), be protected in accordance with Clause C3.4 of the BCA, and if wall-wetting sprinklers are used, they are located externally and not occupy

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				more than 1/3 of the area of the external wall of the storey in which it is located. Assessment of the Fire Engineering Report of GHD - Throsby Development - Reference No. 21/23311 (Revision 2) dated February 2015 has revealed the following: 1) The Level 1 and Level 2 southern elevation windows serving Residential Units 11, 23, 37 and 49 (i.e. unit numbers as nominated on the Construction Certificate plans) that stand less than 3.0 metres to the eastern and western side property boundaries have been assessed by the Fire Engineers and have been allowed to remain unprotected in accordance with the Performance Requirements of the BCA; and 2) The Ground Floor Level Carpark ventilation opening standing less than 3.0 metres to the western side property boundary has been assessed by the Fire Engineers and has been allowed to remain unprotected in accordance with the Performance Requirements of the BCA. <u>Note: Inspection of the building has revealed that this nominated Carpark ventilation opening has now been fully protected by the extension of the buildings western side wall to the rear property boundary.</u> 3) The Level 1 and Level 2 southern elevation mechanical exhaust ventilation openings serving Residential Units 11, 23, 37 and 49 (i.e. unit numbers as nominated on the Construction Certificate plans) stand less than 3.0 metres to the eastern and western side property boundaries and have not been protected in accordance with Clause C3.4 of the BCA. <u>Note: These ventilation openings have not been assessed under the Fire Engineering Report of</u>

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				<u>GHD - Throsby Development - Reference No. 21/23311(Revision 2) dated February 2015.</u> It is recommended that the Fire Engineering Report of GHD - Throsby Development - Reference No. 21/23311 (Revision 2) dated February 2015 is to be amended to take into account the fact that the Level 1 and Level 2 southern elevation mechanical exhaust ventilation openings serving Residential Units 11, 23, 37 and 49 (i.e. unit numbers as nominated on the Construction Certificate plans) stand less than 3.0 metres to the eastern and western side property boundaries and <u>have not</u> been protected in accordance with Clause C3.4 of the BCA. The amended Fire Engineering Report is to demonstrate all works considered necessary to ensure that the building is capable of achieving compliance with Performance Requirement CP2 of the BCA. <u>Note: All works (if any) recommended by the Fire Engineer are to be incorporated into the building's construction and are to be listed on the buildings Final Fire Safety Certificate and the Fire Safety Schedule.</u>
Separation of External Walls and Associated Openings in Different Fire Compartments	C3.3	Separation required between external openings in different fire compartments.	---	Not applicable.
Acceptable Methods of Protection	C3.4	Acceptable methods of protecting openings in external walls.	DTS	(See Clause C3.2 above)
Doorways in Fire Walls	C3.5	This stipulates how doorways in fire walls are to be constructed.	DTS	(See Clause C2.8 above)

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Sliding Fire Doors	C3.6	Installation requirements for sliding fire doors.	---	Not applicable.
Protection of Doorways in Horizontal Exits	C3.7	This stipulates how horizontal exits are to be protected.	---	Not applicable.
Openings in Fire Isolated Exits	C3.8	Construction details of doorways leading into fire isolated exits.	DTS	Complies. (See also Clause C3.9 below)
Service Penetrations in Fire Isolated Exits	C3.9	Services shall not be installed in fire isolated exits, except as permitted in this Clause.	DTS	Non-Compliant. In buildings of this type, the BCA requires that fire isolated stairways and fire isolated passageways are not to be penetrated by any services other than: i) electrical wiring associated only with lighting, detection, security, surveillance or management systems within the exit or for monitoring of hydrant valves; and ii) water supply pipes for fire services. Inspection of the building has revealed the following: a) PVC pipes penetrate through and into the Ground Floor Level fire-isolated passageways serving Fire Stair 02 and Fire Stair 03 (i.e. as nominated on the Construction Certificate plans) that have been enclosed in lightweight plasterboard construction of unknown fire rating capacity. To ensure compliance with the BCA, these lightweight plasterboard ceilings are required to achieve a fire resistance level of not less than --/120/120 FRL. <u>Note: The fire-resistance levels are to be measured from inside the enclosure to outside the enclosure (not vice versa).</u>

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				b) Non-essential services pipes are located within the landing enclosure on Level 1 of Fire Stair 02 (i.e. immediately inside the fire-isolated stairway and adjoining the entry fire door) that have not been separated from the stairway by construction achieving a fire resistance level of not less than --/120/120 when measured from inside the enclosure to outside the enclosure (not vice versa). It is recommended that: 1) The lightweight plasterboard enclosures located within the Ground Floor Level fire-isolated passageways serving Fire Stair 02 and Fire Stair 03 are to be opened for inspection to determine whether or not they are capable of achieving a fire resistance level of not less than --/120/120 when measured from inside the enclosure to outside the enclosure (not vice versa); and 2) Where the lightweight plasterboard enclosures located within the Ground Floor Level fire-isolated passageways serving Fire Stair 02 and Fire Stair 03 are determined <u>as having</u> a fire resistance level of not less than --/120/120 when measured from inside the enclosure to outside the enclosure, all penetrations through the plasterboard enclosures to the fire-isolated passageway beneath are to be fire-stopped in accordance with Specification C3.15 of the BCA; <u>or</u> 3) Where the lightweight plasterboard enclosures located within the Ground Floor Level fire-isolated passageways serving Fire Stair 02 and Fire Stair 03 are determined <u>as not having</u> a fire resistance level of not less than --/120/120 when measured from inside the enclosure to outside the enclosure, the existing lightweight

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				plasterboard enclosures are to be removed and replaced with construction capable of achieving a fire resistance level of not less than --/120/120 when measured from inside the enclosure to outside the enclosure; and 4) The non-essential services pipes that are located within the landing enclosure on Level 1 of Fire Stair 02 are to be separated from the stairway by construction achieving a fire resistance level of not less than --/120/120 when measured from inside the enclosure to outside the enclosure (not vice versa). <u>Note i: Fire Stair 03 (as nominated on the Construction Certificate plans) has been constructed on-site as a fire-isolated stairway in-lieu of a non fire-isolated stairway (i.e. the stairway is fitted with --/60/30 FRL fire rated entry doors, the balustrades have been constructed in accordance with the provisions of Clause D2.16(c)(i) of the BCA, handrails have not been provided on both sides of the stairway in accordance with Clause 11 and Clause 12 of AS 1428.1-2009, Tactile Ground Surface Indicators (TGSI's) have not been installed in accordance with Clause D3.8 of the BCA and signage has been installed in accordance with Clause D2.23 of the BCA and Clause 183 of the EPA Regulation 2000 ..etc.). For the purposes of this report, Fire Stair 03 is considered to be a required fire-isolated stairway and is required to comply with all BCA provisions relating to fire-isolated stairways.</u> <u>Note ii: Fire Stair 02 (as nominated on the Construction Certificate plans) is required by the BCA to be a fire-isolated stairway and is not permitted to be considered as a required non fire-isolated stairway. This stairway has been</u>

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				<u>constructed on-site as a fire-isolated stairway (i.e. the stairway is fitted with --/60/30 FRL fire rated entry doors, the balustrades have been constructed in accordance with the provisions of Clause D2.16(c)(f) of the BCA, handrails have not been provided on both sides of the stairway in accordance with Clause 11 and Clause 12 of AS 1428.1-2009, Tactile Ground Surface Indicators (TGSIs) have not been installed in accordance with Clause D3.8 of the BCA, signage has been installed in accordance with Clause D2.23 of the BCA and Clause 183 of the EPA Regulation 2000 and the Ground Floor Level fire hose reel has been positioned within 4.0 metres of the fire door providing entry to the fire-isolated passageway serving this stairway ..etc.).</u> <u>For the purposes of this report, Fire Stair 02 is considered to be a required fire-isolated stairway and is required to comply with all BCA provisions relating to fire-isolated stairways.</u> <u>(See also Specification C1.1 below regarding the requirement to upgrade the ceilings above Fire Stair 02 and Fire Stair 03 to ensure compliance with Clause 2.7(a) of Specification C1.1 of the BCA)</u>
Openings in Fire Isolated Lift Shafts	C3.10	Construction details of doorways leading into fire isolated lift shafts and construction of lift indicator panels.	DTS	Building to Comply. Lift shafts in buildings of this type are required to be fitted with lift landing doors (on each level of the building) that are capable of achieving a minimum FRL of --/60/-- and comply with AS 1735.11-1986; and a) the lift landing doors are to be set to remain in the closed position except when discharging or receiving passengers; and b) any opening into the lift shaft that has an opening area of greater than 35,000 mm² is to

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				be backed by construction achieving an FRL of not less than --/60/60. Inspection of the building has revealed that the lift landing doors are set to remain in the closed position (i.e. park closed), however, the fire-rating capacity of the lift landing doors could not be determined by our visual examination. In addition, the size of the openings into the lift shafts (to accommodate the lift call buttons) could not be determined by our visual inspection. It is recommended that: i) The buildings lift landing doors are to be inspected and certified by the buildings Lift Contractor as achieving a minimum FRL of --/60/-- in accordance with AS 1735.11-1986; and ii) The openings in the lift shaft accommodating the lift landing call buttons are to be fire rated to achieve a fire resistance level of not less than --/60/60 where their opening size exceeds 35,000 mm².
Bounding Construction Class 2, 3, & 4 Buildings	C3.11	Stipulates how to protect openings in bounding construction (residential building / parts).	DTS	Complies. (See also Specification C1.1 below)
Openings in Floors & Ceilings for Services	C3.12	Services where passing through fire rated floors and/or walls shall be suitably protected to maintain the FRL of the building element(s) either by the introduction of fire rated shafts and/ or fire stopping / sealing at the penetration.	DTS	Non-Compliant. Not all penetrations through the Level 1 concrete floor slab have been protected in accordance with Clause C3.15 of the BCA. (See the report of Pink Slip Building Reports) (See also Specification C1.1 below)

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Openings in Shafts	C3.13	Any openings into fire rated service shafts shall be protected in accordance with this Clause.	---	Not applicable.
---	C3.14	Deliberately lift blank in the BCA.	---	---
Openings for Service Installations	C3.15	Services where passing through fire rated floor or walls shall be suitably protected to maintain the FRL of the building element(s).	DTS	Non-Compliant. (See the report of Pink Slip Building Reports) (See also Specification C1.1 below)
Construction Joints	C3.16	Construction joints shall achieve the same FRL as the building component in which it is installed.	---	Not applicable.
Columns Protected with Lightweight Construction to achieve an FRL	C3.17	Any column protected with lightweight construction should maintain the fire integrity of a building element through which it passes.	---	Not applicable.
PART C - SPECIFICATION C1.1 - FIRE RESISTING CONSTRUCTION				
Exposure to Fire Source Features	Specification C1.1 Clause 2.1	This Clause stipulates when a building element is exposed to a fire source feature.	---	Noted. No recommendations.
Fire Protection for a Support of Another Part	Specification C1.1 Clause 2.2	The structural integrity of any part of a building required to have a particular FRL shall not be reduced or undermined by reason of it being supported by a part of the building that does not have at least the same FRL as the part it supports.	---	Noted. No recommendations.
Lintels	Specification C1.1 Clause 2.3	Details where lintels over doorways or openings require an FRL.	---	Noted. No recommendations.

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Attachments not to impair fire resistance	Specification C1.1 Clause 2.4	This clause outlines how combustible elements can be attached to an element that is required to have an FRL.	DTS	Building to Comply. In buildings of this type, a combustible material may be used as a finish or lining to a wall or roof, or in a sign, sunscreen or blind, awning, or other attachment to a building element which has the required FRL if - i) the material is exempted under C1.10 or complies with the fire hazard properties prescribed in Specification C1.10; and ii) it is not located near or directly above a required exit so as to make the exit unusable in a fire; and iii) it does not otherwise constitute an undue risk of fire spread via the facade of the building. Inspection of the building has revealed that Aluminium Composite Panels (ACM's) have been installed on the northern façade of the building and due to their location and configuration (i.e. located over external spandrel walls), Clause 2.4 of Specification C1.1 of the BCA requires these panel to be non-combustible as tested in accordance with AS 1530.1-1994. <u>Note: Due to our limited visual inspection of the building, it could not determine whether or not these panels are of combustible or non-combustible construction.</u> It is recommended that: 1) A sample of the ACM panelling is to be removed from the building to determine the make and combustibility properties of the materials used; and 2) Where it is found that the ACM materials are of combustible construction, all panels are to be removed from the building and replaced with non-combustible ACM panels that have been tested and certified in accordance with

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				AS 1530.1-1994.
General Concessions	Specification C1.1 Clause 2.5	Outlines general FRL concessions that can be applied for various building components.	---	Noted. No recommendations
Mezzanine Floors Concession	Specification C1.1 Clause 2.6	Stipulates that a mezzanine and its supports do not need to achieve a fire rating provided other measures are adopted.	---	Not applicable.
Enclosure of Shafts	Specification C1.1 Clause 2.7	This Clause stipulates how you enclose various shafts both at the top and the bottom.	DTS	Non-Compliant. In buildings of this type, fire-isolated stairways are required to be enclosed at the top of their shafts by construction achieving a fire resistance level of not less than --/90/90 FRL in accordance with by Clause 2.7 (a) of Specification C1.1 of the BCA. <u>Note: The fire-resistance levels are to be measured from outside the fire stair to the fire stair beneath (not vice-versa).</u> Inspection of the building has revealed the following: a) The top of Fire Stair 02 (i.e. as nominated on the Construction Certificate plans) is not enclosed by construction achieving a fire resistance level of not less than --/90/90 FRL in accordance with by Clause 2.7 (a) of Specification C1.1 of the BCA and is fitted with an access hatch to the Roof Level that is not fire rated; and b) The top of Fire Stair 03 (as nominated on the Construction Certificate plans) is not enclosed at the top of the shaft by construction achieving a fire resistance level of not less than --/90/90 FRL in accordance with by Clause 2.7 (a) of Specification C1.1 of the BCA.

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				It is recommended that Fire Stair 02 and Fire Stair 03 are to be enclosed at the top by lightweight fire construction achieving a fire resistance level of not less than --/90/90 FRL in accordance with by Clause 2.7 (a) of Specification C1.1 of the BCA. <u>Note: Access through this required fire rated ceiling to the Roof Level above will not be permitted where a fire rated ceiling hatch cannot be sourced that is capable of achieving a fire-resistance level of not less than --/90/90 when measured from above the fire stair.</u>
Carparks in Class 2 & 3 Buildings	Specification C1.1 Clause 2.8	This Clause allows for a concession to fire rating to carparks in Class in Class 2 and 3 buildings.	---	Not applicable.
Residential Aged Care Building: Concession	Specification C1.1 Clause 2.9	Allows FRL concessions to sprinklered residential aged care buildings.	---	Not applicable.
Type A Fire Resisting Construction	Specification C1.1 Clause 3.1 – 3.10 & Table 3	This Clause and Table outline the Fire Resistance Levels of various building elements for Type A Construction.	Fire Engineering Report of GHD (Rev.2) dated February 2015 to be upgraded to address this DiS non-compliance	Non-Compliant. 1) In buildings of this type, the BCA requires that bounding walls of a residential sole-occupancy unit to a public corridor are required to achieve a fire resistance level of not less than 90/90/90 (loadbearing) or --/60/60 FRL (non loadbearing) and openings through these bounding walls are to be self-closing, --/60/30 FRL fire doors with any other openings fire-stopped in accordance with Clause C3.15 of the BCA. Inspection of the building has revealed the following: a) The entry doors to the residential sole-occupancy units are fitted with self-closing, --/60/30 FRL fire doors as required; and

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				b) Each of the residential sole-occupancy units are fitted with openable glazed doors and/or a windows that open through the bounding walls to the internal public corridor (i.e. the Gallery) contrary to Specification C1.1 and Clause C3.11 of the BCA; and c) Services pass through the bounding walls of the residential unit sole-occupancy units to the internal public corridors that have not been fire-stopped in accordance with Clause C3.15 of the BCA; and d) The Level 1 Commercial 04 tenancy is fitted with non-fire rated doors and non-fire rated fixed windows that open through the bounding walls to the internal public corridor (i.e. the Gallery) contrary to Specification C1.1 and Clause C3.11 of the BCA. It is recommended that the Fire Engineering Report of GHD - Throsby Development - Reference No. 21/23311 (Revision 2) dated February 2015 is to be amended to review the non-fire rated window, door and other services openings located within the bounding walls of the residential sole-occupancy units as well as the non-fire rated window and door openings in the bounding walls of the Level 1 Commercial 04 Tenancy that open to the Level 1 and Level 2 public corridors. This Fire Engineering Report is to demonstrate that such non-fire rated window, door and other openings within these nominate fire rated bounding walls are capable of achieving compliance with Performance Requirements CP1, CP2 and EP2.2 of the BCA. <u>Note i: Where the Fire Engineer determines that the "Gallery" is wholly or substantially enclosed at the Rooftop Level by the roof structure and its associates perimeter screens, all</u>

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				<u>non-compliance with the deemed-to-satisfy provisions of Part G3 (Atrium Construction) of the BCA will also need to be addressed in the Fire Engineering Report.</u> <u>Note ii: All works (if any) recommended by the Fire Engineer are to be incorporated into the building's construction and are to be listed on the buildings Final Fire Safety Certificate and the Fire Safety Schedule.</u> 2) In buildings of this type, if a roof is required to have an FRL or its covering is required to be non-combustible, rooflights or the like installed in that roof must have an aggregate area of not more than 20% of the roof surface and be not less than 3.0 metres from any boundary of the allotment (other than the boundary with a road or public place) and rooflight or the like in an adjoining sole-occupancy unit if the walls bounding the unit are required to have an FRL. Inspection of the building has revealed the following: a) Rooflights have been installed to serve the Level 2 residential sole-occupancy units that are located less than 3.0 metres apart contrary to Clause 3.6 of Specification C1.1 of the BCA (i.e. the rooflight located between Units 39 & 40, Units 41 & 42, Units 44 & 45, Units 46 & 47 and Units 48 & 49 as detailed on the Construction Certificate plans). b) A rooflight has been installed to serve Unit 39 that is located less than 3.0 metres from the eastern side property boundary contrary to Clause 3.6 of Specification C1.1 of the BCA. It is recommended that the Fire Engineering Report of GHD - Throsby Development - Reference No. 21/23311 (Revision 2) dated February 2015 is to be amended to take into

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				account the positioning of the buildings existing rooflights that stand less than 3.0 metres from rooflights in the adjoining residential sole-occupancy units as well as less than 3.0 metres from the eastern side property boundary. The amended Fire Engineering Report is to demonstrate all works considered necessary to ensure that the building is capable of achieving compliance with Performance Requirement CP2 of the BCA. <u>Note: All works (if any) recommended by the Fire Engineer are to be incorporated into the building's construction and are to be listed on the buildings Final Fire Safety Certificate and the Fire Safety Schedule.</u>
Type B Fire Resisting Construction	Specification C1.1 Clauses 4.1 – 4.3	This Clause and Table outline the FRLs of various buildings elements for Type B construction.	---	Not applicable.
Type C Fire Resisting Construction	Specification C1.1 Clauses 5.1 – 5.2	This Clause and Table outlines the FRLs of various building elements for Type C construction.	---	Not applicable.
PART C - SPECIFICATION C1.8 - STRUCTURE TESTS FOR LIGHTWEIGHT CONSTRUCTION				
Structural Tests for Lightweight Construction	Specification C1.8	This Specification describes the tests to be applied to & criteria to be satisfied by a wall system of lightweight construction that has an FRL.	---	Not applicable.
PART C - SPECIFICATION C1.10 - FIRE HAZARD PROPERTIES				
Fire Hazard Properties	Specification C1.10	This Specification sets out requirements in relation to the fire hazard properties of materials, linings, & surface finishes in buildings.	DTS	Building to Comply. (See Clause C1.10 above)

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PART C - SPECIFICATION C1.11 - PERFORMANCE OF EXTERNAL WALLS IN FIRE				
Performance of External Walls in Fire	Specification C1.11	Design considerations for tilt up construction.	---	Not applicable.
PART C - SPECIFICATION C2.5 - SMOKE-PROOF WALLS IN HEALTH CARE & AGED CARE				
Smoke Proof-Walls in Health Care / Aged Care	Specification C2.5	Requirements for smoke-proof walls in Clause 9a and 9c buildings.	---	Not applicable.
PART C - SPECIFICATION C3.4 - FIRE DOORS, SMOKE DOORS, FIRE WINDOWS, & SHUTTERS				
Fire Doors, Smoke Doors, Fire Windows, & Shutters	Specification C3.4	This Specification sets out the requirements for the construction of fire doors, smoke doors, fire windows, and fire shutters.	DTS	Building to Comply. (See clauses above relating to fire door compliance)
PART C - SPECIFICATION C3.15 - PENETRATION OF WALLS, FLOORS, & CEILINGS BY SERVICES				
Penetration of Walls, Floors, & Ceilings by Services	Specification C3.15	This Specification sets out prescribed materials and methods of installation for services that penetrate walls, and floors that are required to have an FRL.	DTS	Building to Comply. The buildings fire stopping systems are to be upgraded to comply (as required).
BCA PART D1 - PROVISION FOR ESCAPE				
Deem to Satisfy Provisions	D1.0	The Clause stipulates that the proposed development complies with Section D Performance Requirements of the BCA if the deem to satisfy provisions are met.	---	Noted.
Application of Part	D1.1	This Clause stipulates that Part D of the BCA does not apply to the internal parts of a sole occupancy unit in a Class 2, 3, or 4 part building.	---	Not applicable.
Number of Exits Required	D1.2	This Clause outlines the number of exits required from each part of the building.	DTS	Complies.

BCA Clause Title	Deemed to Satisfy Provisions (Clauses)	Description of Compliance Requirement	Proposed Design BCA "Deemed to Satisfy" OR "Alternative Solution" to Satisfy BCA Performance Requirements	Comments
When Fire Isolated Exits are Required	D1.3	This Clause outlines when fire isolated exits are required in buildings.	DTS and Fire Engineering Report of GHD (Rev.2) dated February 2015	(See Clause C2.8 above)
Exit Travel Distances	D1.4	Travel distances to exits in various building types.	Fire Engineering Report of GHD (Rev.2) dated February 2015 to be upgraded to address this DTS non-compliance	Non-Compliant. In buildings of this type, a power-operated door located in a path of travel to a required exit must be able to be opened manually under a force of not more than 110 Newtons if there is a malfunction or failure of the power source. Inspection of the building has revealed that the power operated roller doors installed to serve the Residential Carpark and the Commercial Carpark are located in required paths of travel to the buildings exits and are required to comply with Clause D2.19(c) of the BCA. It is recommended that where NATA certification cannot be obtained from the roller door manufacturer stating that the Ground Floor Level Carpark roller shutters are capable of being opened manually under a force of no greater than 110 Newtons, the Fire Engineering Report of GHD - Throsby Development - Reference No. 21/23311 (Revision 2) dated February 2015 is to be amended to review the construction of the two (2) Carpark roller shutter doors and to demonstrate all works considered necessary to be carried out to the roller shutter to ensure compliance with Performance Requirements DP4 and EP2.2 of the BCA. <u>Note: All works (if any) recommended by the Fire Engineer are to be incorporated into the building's construction and are to be listed on the buildings Final Fire Safety Certificate and the Fire Safety Schedule.</u>

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Distances between Alternative Exits	D1.5	Distance between alternative exits to be a maximum of 45m (Class 2, 3 buildings and Class 9a patient care areas) and 60m (in all other cases)	DTS	Complies. (Subject to Clause D1.5 above).
Dimensions of Exits and Paths of Travel to Exits	D1.6 & D1.6	This Clause details clear dimensions and widths of exits.	DTS and Fire Engineering Report of GHD (Rev.2) dated February 2015 to be upgraded to address this DTS non-compliance	Non-Compliant. In buildings of this type, doors serving as required exits (but not providing general access to the building) are required to have a clear opening width of not less than 750 mm in accordance with Clause D1.6(f)(v) of the BCA. Inspection of the building has revealed that the final exit door serving the Residential Carpark that opens to Dickson Street has a clear opening width of 650 mm in-lieu of 750 mm as required by this clause of the BCA. It is recommended that: i) The final exit door serving the Residential Carpark that opens to Dickson Street is to be upgraded to ensure that it has a clear opening width of not less than 750 mm; or ii) The Fire Engineering Report of GHD - Throsby Development - Reference No. 21/23311 (Revision 2) dated February 2015 is to be amended to review the reduced clear opening width of the final exit door serving the Residential Carpark that opens to Dickson Street, demonstrating compliance with Performance Requirements DP4 and EP2.2 of the BCA.
Travel via Fire Isolated Exits	D1.7	This Clause details connection into and discharge from fire isolated stairs / passageways.	DTS	Complies.
External Stairways or Ramps in Lieu of Fire Isolated Exits	D1.8	Use of an external stair or ramp instead of a fire isolated stair.	---	Not applicable.

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Travel by Non Fire Isolated Stairways or Ramps	D1.9	This Clause outlines how you can utilise an open stair for egress.	Fire Engineering Report of GHD (Rev.2) dated February 2015	(See Clause C2.8 above)
Discharge from Exits	D1.10	Clear width and disposition of exit discharges.	DTS	Complies.
Horizontal Exits	D1.11	Use and construction of horizontal exits.	---	Not applicable.
Non-Required Stairways, Ramps or Escalators	D1.12	Non required stairways, ramps and escalators use and permissible storeys connected.	---	Not applicable.
Number of Persons Accommodated	D1.13	Calculation of the number of occupants in each part of a building based on floor area.	---	<u>Note: The number and aggregate width of the buildings required exits comply as required.</u>
Measurement of Distances	D1.14	Details how distances are measured in relation to egress design.	---	Noted.
Method of Measurement	D1.15	Details how distances are measured in relation to egress design.	---	Noted.
Plant Rooms and Lift Motor Rooms: Concession	D1.16	Egress dispensations in relation to Plant Rooms and Lift Motor Rooms.	---	Noted.
Access to Lift Pits	D1.17	Access requirements to lift pits.	DTS	Building to Comply. Certification is to be provided from the Lift Company that access has been provided to the lift pit through the lowest landing doors in accordance with this clause of the BCA.
BCA PART D2 - CONSTRUCTION OF EXITS				
Deem to Satisfy	D2.0	This Clause stipulates that the proposed development complies with Section D Performance Requirements of the BCA if the deem to satisfy provisions are met.	---	Noted.

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Application of Part	D2.1	Relieves the interior of SOUs in Class 2 and 3 buildings from stair, landing and balustrade requirements.	---	Not applicable.
Fire Isolated Stairways & Ramps	D2.2	Structural design of fire isolated stair shafts.	DTS	Building to Comply. A professional Structural Engineer is to certify compliance with this clause of the BCA.
Non Fire Isolated Stairways & Ramps	D2.3	This Clause stipulates how you must construct required open stairs where the rise in storeys of the building exceeds 2.	DTS	Complies.
Separation of Rising & Descending Stair Flights	D2.4	Fire isolated stairways must not connect storeys both above and below street level.	---	Not applicable.
Open Access Ramps & Balconies	D2.5	Construction of open access ramps and balconies in lieu of pressurised stairs.	---	Not applicable.
Smoke Lobbies	D2.6	Construction of smoke lobbies required by D1.7.	---	Not applicable.
Installations in Exits & Paths of Travel	D2.7	Outlines where service installations can be accessed and suitable separation to be incorporated.	DTS	Non-Compliant. Where services or equipment (comprising electricity meters, distribution boards or ducts, central telecommunication distribution boards/ equipment or electrical motors or other motors serving equipment) are to be installed in a path of travel to an exit, the equipment is to be enclosed in non-combustible construction with any access panel/door suitably smoke sealed against smoke spreading from the enclosure. Inspection of the building has revealed the following: 1) The buildings electrical and/or telecommunication services enclosures are located within the Level 1 and Level 2 public corridors immediately beside the Carpark

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Enclosure of Space Under Stairs & Ramps	D2.8	This Clause highlights how you can store under an open stair. Storage under fire isolated stairs is not permissible.		exhaust riser shaft; and 2) The doors providing access into these enclosures are not fitted with non-combustible internal linings (i.e. fibre cement sheeting, galvanised steel sheeting, zincalume sheeting etc); and 3) The floor surface within the Level 1 services enclosure is constructed of plywood and does not achieve a fire resistance level of not less than 180/180/180 in accordance with Clause C2.9 and Specification C1.1 of the BCA; and 4) The Level 2 services enclosure is not provided with a floor surface beneath and is considered to be a substantial OH&S safety issue. It is recommended that: i) The electrical and/or telecommunication services enclosures located within the Level 1 and Level 2 public corridors are to be upgraded to ensure full compliance with Clause D2.7 (d) of the BCA; and ii) The floor surface within the Level 1 services riser enclosure is to be upgraded to reinforced concrete construction capable of achieving a fire resistance level of not less than 180/180/180 in accordance with Clause C2.9 and Specification C1.1 of the BCA. The slab is to be designed and certified by a professional Structural Engineer; and iii) Install a non-combustible structural floor within the Level 2 services riser enclosure, designed and certified by a professional Structural Engineer. Complies.

BCA Clause Title	Deemed to Satisfy Provisions (Clauses)	Description of Compliance Requirement	Proposed Design BCA "Deemed to Satisfy" OR "Alternative Solution" to Satisfy BCA Performance Requirements	Comments
Width of Stairways	D2.9	This Clause stipulates how stair widths and heights are measured.	---	Noted.
Pedestrian Ramps	D2.10	Stipulates how a pedestrian ramp can serve as a required exit.	---	Not applicable.
Fire Isolated Passageways	D2.11	Fire isolated passageways to have an FRL of 60/60/60 or that of the fire isolated stair from which it extends.	DTS	(See Clause C3.9 above)
Roof as Open Space	D2.12	If the roof is considered "open space" then the slab must have an FRL of 120/120/120, and rooflights and the like must be located not less than 3m from path of travel.	---	Not applicable.
Goings & Risers	D2.13	This Clause stipulates construction of stair treads and risers.	DTS	<u>(See the report of Pink Slip Building Approvals)</u>
Landings	D2.14	This Clause stipulates construction of landings.	DTS	<u>(See the report of Pink Slip Building Approvals)</u>
Thresholds	D2.15	This Clause stipulates construction of thresholds to doorways.	DTS	Non-Compliant. In buildings of this type, the threshold of a doorway must not incorporate a step or ramp at any point closer to the doorway than the width of the door leaf unless - i) the doorway opens to a road or open space, external stair landing or external balcony; and ii) the door sill is not more than 190 mm above the finished surface of the ground, balcony, or the like, to which the doorway opens. Inspection of the building has revealed that the doorway providing access into the Ground Floor Level Main Electrical Switchroom from the adjoining Carpark has a step located immediately inside the doorway contrary to Clause D2.15 of the BCA.

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				It is recommended that: i) Suitable safety warning signage is to be provided on both sides of door providing access into the Ground Floor Level Main Electrical Switchroom from the adjoining Carpark; and ii) Painted chevron warning signage is to be placed on the Carpark concrete floor outside the entry door to the Ground Floor Level Main Electrical Switchroom to provide adequate warning of the presence of the threshold set-down.
Balustrades or Other Barriers	D2.16	Details of height and construction of balustrades to voids, stairs, balconies, etc.	DTS	Non-Compliant. <u>(See the report of Pink Slip Building Approvals)</u>
Handrails	D2.17	Details where handrails need to be incorporated along stairways.	DTS	Complies.
Fixed Platforms, Walkways, Stairways, & Ladders	D2.18	Details compliance with AS 1657 in respect to walkways, stairways and ladders serving machinery rooms, boiler houses, lift motor rooms, plant rooms, and the like.	DTS	Non-Compliant. In buildings of this type, a fixed platform and ladder are required to be designed and constructed in accordance with AS 1657-1992. Inspection of the platform and ladder installed within Fire Stair 02 that provides access to the Roof Level has revealed that it fails to comply with AS 1657-1994. It is recommended that: i) the access ladder installed within Fire Stair 02 is to be removed; and ii) A compliant access ladder is to be provided in an area outside the buildings required fire-isolated exits, designed, constructed and certified in accordance with AS 1657-1994.

BCA Clause Title	Deemed to Satisfy Provisions (Clauses)	Description of Compliance Requirement	Proposed Design BCA "Deemed to Satisfy" OR "Alternative Solution" to Satisfy BCA Performance Requirements	Comments
Doorways & Doors	D2.19	Details how doors serving as Required Exits are to operate.	DTS	Non-Compliant. (See Clause D1.4 above)
Swinging Doors	D2.20	Swing Doors serving as required exits must swing in the direction of travel, <u>unless</u> it serves a building or part less than 200 m ² .	DTS	Non-Compliant. In buildings of this type, final exit doors are required to swing in the direction of egress from the building in accordance with Clause D2.20(b) of the BCA. Inspection of the building has revealed that the final exit door serving the Ground Floor Level Residential Entry Lobby swings inwards to the building contrary to this clause of the BCA. It is recommended that the final exit door serving the Ground Floor Level Residential Entry Lobby is to be reconstructed to ensure that it swings outwards from the building in accordance with Clause D2.20(b) of the BCA. <u>Note: The general concession given in the BCA to allow doors to swing contrary to the direction of egress from the building does not apply in this case.</u>
Operation of Latch	D2.21	This Clause details hardware / operating requirements for doors in a required exit, forming part of a required exit or in the path of travel to a required exit.	DTS	Non-Compliant. The fire door that provides access into the fire-isolated passageway that serves the Commercial Carpark is fitted with a keyed locking mechanism on the Carpark side of the door contrary to this clause of the BCA. It is recommended that the keyed locking mechanism installed on the fire door that provides access into the fire-isolated passageway that serves the Commercial Carpark is to be removed or relocated to the interior of the fire-isolated passageway to ensure compliance with Clause D.21 of the BCA.

BCA Clause Title	Deemed to Satisfy Provisions (Clauses)	Description of Compliance Requirement	Proposed Design BCA "Deemed to Satisfy" OR "Alternative Solution" to Satisfy BCA Performance Requirements	Comments
Re-entry from Fire Isolated Exits	D2.22	Stipulates whether you can lock a fire stair entry door from the inside.	---	Not applicable.
Signs on Doors	D2.23	Appropriate signage is required to exit doors opening to fire isolated passageways, and stairways.	DTS	Non-Compliant. 1) The building is not provided with compliant signage serving the doors providing access into the fire-isolated stairways as well as discharging from the fire-isolated stairways as required by this clause of the BCA. Note: <u>The buildings existing Clause D2.23 signs do not contain the word "SAFETY" as required by this clause of the BCA.</u> It is recommended that: i) The entry doors to the buildings required fire-isolated stairways are to be fitted with new signs stating the words "FIRE SAFETY DOOR - DO NOT OBSTRUCT - DO NOT KEEP OPEN" in capital letters having a height of not less than 20 mm high and in a colour contrasting with the background. Note: <u>These signs are to be positioned on the approach side of the doors providing access into the fire-isolated stairways.</u> ii) The Ground Floor Level final exit doors discharging from the fire-isolated stairways are to be fitted with signs stating the words "FIRE SAFETY DOOR - DO NOT OBSTRUCT" in capital letters having a height of not less than 20 mm high and in a colour contrasting with the background. Note: <u>These signs are to be positioned on both sides of these doors.</u>
Protection of Openable Windows	D2.24	This Clause requires protection of window opening.	DTS	Building to Comply. 1) Windows in Bedrooms a) The BCA requires that openable bedroom windows in Class 2 buildings be provided with

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				protection if the floor below the window is 2.0 metres or more above the surface beneath. b) Where the lowest level of the window opening is less than 1.7 metres above the floor, a window in a Class 2 bedroom is to comply with the following: i) The openable portion of the window must be protected with a device to restrict the window opening; <u>or</u> ii) a screen with secure fittings. The device or screen used to protect an openable window must comply with Clause D2.24(b) (ii) of the BCA. 2) General Barriers to Windows A barrier with a height of not less than 865 mm above the floor is required to an openable window in addition to the requirements listed above for windows located 4.0 metres or more above the surface beneath. From our limited visual inspection of the six (6) selected residential sole-occupancy units, the external bedroom windows were prevented from opening greater than 125 mm as required. It is recommended that all windows throughout the building are checked for full compliance with this clause of the BCA.
BCA PART E1 - FIRE FIGHTING EQUIPMENT				
Deemed to Satisfy Provisions	E1.0	This Clause stipulates that the proposed development complies with Section E Performance Requirements of the BCA if the Deemed to Satisfy Provisions are met.	---	Noted.
---	E1.2	This Clause deliberately left blank.	---	---

BCA Clause Title	Deemed to Satisfy Provisions (Clauses)	Description of Compliance Requirement	Proposed Design BCA "Deemed to Satisfy" OR "Alternative Solution" to Satisfy BCA Performance Requirements	Comments
Hydrants	E1.3	This Clause stipulates when fire hydrants are required.	DTS	Non-Compliant. Buildings of this type are required to be served by a fire hydrant system in accordance with Clause E1.3 of the BCA and AS 2419.1-2005. Some items of non-compliance with the requirements of the BCA and AS 2419.1-2005 (but not limited to) were identified as follows: a) The fire hydrant booster assembly is not protected by a 90/90/90 FRL radiant heat shield barrier for at least 2.0 metres on both sides of the suction and booster valves and for a height of not less than 3.0 metres above the upper hose connections contrary to AS 2419.1-2005; and b) The most hydraulically disadvantaged fire hydrant located on Level 2 of the building is not fitted with a pressure gauge in accordance with AS 2419.1-2005; and c) The height of the fire brigade booster assembly suction valves are located at a height of less than 750 mm above the finished floor surface beneath (i.e. measured as 610 mm) contrary to AS 2419.1-2005; and d) The fire hydrant landing valves located on Level 1 and Level 2 of the building (excluding those within the fire-isolated stairways) are contained within lockable enclosures that are not keyed 003 for use by Fire & Rescue NSW contrary to AS 2419.1-2005; and e) Working and tested pressure notices have not been installed on or adjacent to the fire hydrant booster assembly in accordance with AS 2419.1-2005; and f) The fire hydrant booster assembly enclosure located at the front of the property is not provided with a fade resistant sign on the doors

BCA Clause Title	Deemed to Satisfy Provisions (Clauses)	Description of Compliance Requirement	Proposed Design BCA "Deemed to Satisfy" OR "Alternative Solution" to Satisfy BCA Performance Requirements	Comments
Fire Hose Reels	E1.4	This Clause stipulates when fire hose reels are required.	DTS	stating the words "FIRE HYDRANT BOOSTER" in capital letter not less than 50 mm high and in a colour contrasting with the background; and g) The Block Plan fails to comply in all respects with Clause 7.11 of AS 2419.1-2005. It is recommended that the buildings fire hydrant system is to be assessed by a professional Hydraulic Engineer/Fire Services Designer to determine the level of compliance with the requirements of Clause E1.3 of the BCA and AS 2419.1-2005 (including full hydraulic flow and pressure calculations). The fire hydrant modification works identified by the professional Hydraulic Engineer/Fire Services Designer (if any) are to be carried out to the system by a suitably qualified and experienced fire services contractor and certification issued by the professional Hydraulic Engineer/Fire Services Designer on completion of the works. <u>Note: Commissioning test data and Fire Services design documentation are to be provided by the installation contractor for issue to the Owners Corporation.</u>
				Non-Compliant. Buildings of this type are required to be served by a fire hose reel system in accordance with Clause E1.4 of the BCA and AS 2441-2005. Some items of non-compliance with the requirements of the BCA and AS 2441-2005 (but not limited to) were identified as follows: a) The fire hose reels located on Level 1 and Level 2 of the building are contained within lockable enclosures contrary to AS 2441-2005: and

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				b) The fire hose reel serving the Residential Carpark that is located next to the entry roller shutter is positioned greater than 4.0 metres from a required exit contrary to Clause E1.4 of the BCA; and c) The fire hose reel serving the Commercial Visitors Carpark is located greater than 4.0 metres from a required exit contrary to Clause E1.4 of the BCA. In addition, the bollards protecting this fire hose reel are located within a designated carparking space contrary to the Development Consent; and d) The domestic water supply service is not locked in the open position and is not provided with warning signage in accordance with AS 2441-2005; and e) The Level 1 and Level 2 fire hose reel enclosures are not fitted with complying signage stating the words "FIRE HOSE REEL" in capital letter not less than 50 mm high and in a colour providing a high contrast with the background contrary to AS 2441-2005. <u>Note: The identification signage provided on these doors fails to comply with AS 2441-2005.</u> f) The Level 1 and Level 2 fire hose reel enclosures are not fitted with fully compliant identification signage in accordance with Clause 10.4 of AS 2441-2005 (i.e. 90-degree identification signage is required to be provided in the Level 1 and Level 2 public corridors positioned to ensure that persons can locate the FHR enclosures in the event of fire in the building). It is recommended that the buildings fire hose reel system is to be assessed by a professional Hydraulic Engineer/Fire Services Designer to determine the level of compliance with the

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				requirements of Clause E1.4 of the BCA and AS 2441-2005 (including full hydraulic flow and pressure calculations). The fire hose reel modification works identified by the professional Hydraulic Engineer/Fire Services Designer are to be carried out to the system by a suitably experienced fire services contractor and certification issued by the professional Hydraulic Engineer/Fire Services Designer on completion of the works. <u>Note: Commissioning test data and Fire Services design documentation are to be provided by the installation contractor for issue to the Owners Corporation.</u>
Sprinklers	E1.5 & Table E1.5	This Clause stipulates when sprinklers are required.	DTS	Non-Compliant. Buildings of this type having a Carpark containing more than forty (40) vehicle spaces is required to be provided with an automatic sprinkler system in accordance with Specification E1.5 of the BCA and AS 2118.1-1999. Inspection of the building has revealed that the Ground Floor Level of the building is fitted with an automatic sprinkler system as required by Clause E1.5 of the BCA and AS 2118.1-1999. Some items of non-compliance with the BCA and AS 2118.1-1999 (but not limited to) were identified as follows: a) The Ground Floor Level sprinkler protected (part) of the building is not separated from the Level 1 and Level 2 building (parts) by construction complying with Clause 3 and Clause 4 of Specification C1.1 of the BCA; and (See Clause D2.8 above) b) The sprinkler system is not connected to a FRNSW approved third party fire alarm monitoring

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				facility in accordance with Clause 3.2 of AS 2118.1-1999; and c) The activation of the sprinkler system is not registering as an alarm on the fire indicator panel and does not initiate the building occupant warning system in accordance with Clause 8 of Specification E1.5 of the BCA; and d) The sprinkler system water alarm gong is not located on the external wall of the building in accordance with AS 2118.1-1999; and e) The non-sprinkler protected Ground Floor Level Main Electrical Switchroom is not fully enclosed in construction achieving a fire resistance level of not less than 180/180/180 in accordance with Clause 3 of Specification E1.5 of the BCA. In addition, the two (2) entry doors providing access into the Ground Floor Level Main Electrical Switchroom are not fitted with self-closing, --/240/30 FRL fire doors in accordance with Clause 4 of Specification E1.5 of the BCA and penetrations through and above the bounding concrete block walls (excluding the fire dampers) are not fire stopped in accordance with Clause C3.15 of the BCA; and f) The Ground Floor Level storage enclosure located beneath Fire Stair 01 is not fitted with sprinklers in accordance with AS 2118.1-1999; and g) The Ground Floor Level storage enclosure located beneath Fire Stair 03 is not fitted with sprinklers in accordance with AS 2118.1-1999; and h) The sprinkler booster assembly enclosure located at the front of the property is not provided with a fade resistant sign on the doors stating the words "SPRINKLER BOOSTER CONNECTION" in capital letter not less than 50 mm high and in a colour contrasting with the

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				background; and i) The Block Plan provided fails to comply in all respects with Clause 8.3 of AS 2118.1-1999; and j) Working and tested pressure notices have not been installed on or adjacent to the sprinkler booster assembly in accordance with AS 2118.1-1999; and k) A "SPRINKLER STOP VALVE INSIDE" sign has not been provided outside the sprinkler valve room in accordance with Clause 8.4 of AS 2118.1-1999. It is recommended that the buildings automatic sprinkler system is to be assessed by a professional Hydraulic Engineer/Fire Services Designer to determine the level of compliance with the requirements of Clause E1.5 of the BCA and AS 2118.1-1999 (including full hydraulic flow and pressure calculations). The sprinkler system modification works identified by the professional Hydraulic Engineer/Fire Services Designer are to be carried out to the system by a suitably qualified and experienced fire services contractor and certification issued by the professional Hydraulic Engineer/Fire Services Designer on completion of the works. <u>Note: Commissioning test data and Fire Services design documentation are to be provided by the installation contractor for issue to the Owners Corporation.</u>
Portable Fire Extinguishers	E1.6 & Table E1.6	This Clause stipulates where extinguishers need to be installed.	DTS	Building to Comply. Portable fire extinguishers are provided to serve the building as required.
---	E1.7	This Clause deliberately left blank.	---	---

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Fire Control Centres	E1.8	This Clause stipulates when a fire control centre is required.	---	Not applicable.
Fire Precautions during Construction	E1.9	Fire services must be provided and be operational during the construction phase in accordance with Clause E1.9.	---	Not applicable.
Provision for Special Hazards	E1.10	Outlines where special provisions are required certain hazards.	---	Not applicable. No known special fire hazards.
BCA PART E1 - SPECIFICATIONS				
Fire Sprinkler Systems	Specification E1.5	This Specification sets out requirements for the design and installation of fire sprinkler systems.	DTS	Building to Comply. (See Clauses C2.8 and E1.5 above)
Fire Control Centres	Specification E1.8	This Specification describes the construction & content of required Fire Control Centres or Rooms.	---	Not applicable.
BCA PART E2 - SMOKE HAZARD MANAGEMENT				
Deemed to Satisfy Provisions	E2.0	This Clause stipulates that the proposed development complies with Section E Performance Requirements of the BCA if the Deemed to Satisfy Provisions are met.	---	Noted.
Application of Part	E2.1	Stipulates where Smoke Hazard Management provisions do not apply.	---	Noted. No recommendations.
General Requirements	E2.2, Table E2.2a & E2.2b	Details how compliance is achieved with both Smoke Hazard Management Provisions including treatment of systems that may not be part of the overall Smoke Hazard Management System.	DTS	Non-Compliant. A) Automatic Fire detection & Alarm System The building has been provided with an automatic fire detection and alarm system as follows: i) Residential Sole Occupancy Units: Consumer mains hard wired AS 3786-1993 smoke alarms are installed within the residential sole occupancy

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				units in accordance with Clause 3 of Specification E2.2a of the BCA. Inspection of the nominated six (6) residential sole occupancy units has revealed that hard-wired, AS 3786 smoke alarms have been correctly positioned in accordance with these requirements of the BCA. It is recommended that the buildings fire services contractor carry out a 100% test of all smoke alarms installed within the residential sole-occupancy units. Certification is to be issued by the fire services contractor stating that all smoke alarms within each of the units are correctly located and operating in accordance with Clause 3 of Specification E2.2a of the BCA. 2) <u>Common Areas</u>: An automatic smoke detection and alarm system has been provided to serve the common areas of the Level 1 and Level 2 residential building (parts) in accordance with Clause 4 of Specification E2.2a of the BCA. Inspection of the common area smoke alarms has revealed that smoke alarms have generally been correctly positioned in accordance with these requirements of the BCA. Some items of non-compliance with the requirements of Clause 4 of the BCA (but not limited to) were identified as follows: 1) The smoke detectors serving the Level 1 common areas have detectors located (in part) greater than 5.1 metres to the adjoining wall surfaces contrary to AS 1670.1-2004; and 2) The fire alarm strobe located at the front of the property is not fitted with a sign stating the word "FIRE" in accordance with AS 1670.1-2004; and 3) The sound pressure levels of the building occupant warning speakers could not be

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				determined from our visual inspection and will require on-site verification with the Fire Services contractor to determine compliance with Clause 6 of Specification E2.2a of the BCA. It is recommended that the buildings smoke detection and alarm system serving the common areas of the building is to be upgraded (as necessary) to ensure full compliance with Table E2.2a of the BCA and Clauses 4 and 6 of Specification E22a of the BCA. <u>Note: Commissioning test data and Fire Services design documentation are to be provided by the installation contractor for issue to the Owners Corporation.</u>
BCA PART E2 - SPECIFICATIONS				
Smoke Detection & Alarm Systems	Specification E2.2a	This Specification outlines the design of various smoke detection and alarm systems.	DTS	Buildings to Comply. (See Clause E2.2 above)
Smoke Exhaust Systems	Specification E2.2b	This Specification highlights the requirements for mechanical smoke exhaust and zone smoke control systems.	---	Not applicable.
Smoke & Heat Vents	Specification E2.2c	Details use and construction of smoke and heat vents.	---	Not applicable.
BCA PART E3 - LIFT INSTALLATIONS				
Lift Installations	E3.0 – E3.8	These Clauses detail construction and design of lift installations.	DTS	Complies. The lift call buttons are provided with signage in accordance with Clause E3.3 of the BCA as required.
BCA PART E4 - EMERGENCY LIGHTING, EXIT SIGNS, & WARNING SYSTEMS				
Deemed to Satisfy Provisions	E4.0	Specifies DTS means to satisfy performance requirements E4.1 to E4.9.	---	Noted. No recommendations.

BCA Clause Title	Deemed to Satisfy Provisions (Clauses)	Description of Compliance Requirement	Proposed Design BCA "Deemed to Satisfy" OR "Alternative Solution" to Satisfy BCA Performance Requirements	Comments
Emergency Lighting	E4.2 – E4.4	Design and installation requirements for emergency lighting.	DTS	Non-Compliant. The building is currently served by an emergency lighting system that is required to comply with Clauses E4.2 and E4.4 of the BCA and AS 2293.1-2005. Inspection of the building has revealed the following: 1) A test switch/test switches has/have not been provided to serve the emergency lighting system in accordance with AS 2293.1-2005; and 2) The emergency lighting luminaires are located on separate electrical circuits (as required) however all house lighting circuits are not monitored in accordance with AS 2293.1-2005; and 3) The emergency lighting within the Ground Floor Level Carpark fails to achieve a minimum of 0.2 Lux over all paths of travel in accordance with AS 2293.1-2005; and 4) All electrical circuits that are capable of isolating supply to the emergency lighting luminaires are not fitted with signage stating the words: "WARNING: INTERRUPTING SUPPLY WILL DISCHARGE EMERGENCY LIGHTING BATTERIES" in accordance with AS 2293.1-2005; and 5) All emergency luminaires are not identified by a numeric or alpha-numeric identification symbol which corresponds to those (to be) logged in the Emergency Lighting Logbook. It is recommended that the buildings emergency lighting system is to be upgraded to ensure full compliance with Clauses E4.2 and E4.4 of the BCA and AS 2293.1-2005. Note: Commissioning test data and Fire Services design documentation are to be provided by the

BCA Clause Title	Deemed to Satisfy Provisions (Clauses)	Description of Compliance Requirement	Proposed Design BCA "Deemed to Satisfy" OR "Alternative Solution" to Satisfy BCA Performance Requirements	Comments
Exit Lighting	E4.5, NSW E4.6 & E4.8	Design and installation requirements for exit lighting.	DTS	installation contractor for issue to the Owners Corporation. Non-Compliant. The building is currently served by illuminated exit and directional exit signs that are required to comply with Clauses E4.5, E4.6 and E4.8 of the BCA. Inspection of the building has revealed the following: 1) The exit and directional exit sign located within the Ground Floor Level Carpark fail to comply with Clauses E4.5, E4.6 and E4.8 of the BCA as they do not correctly identify all required alternative exits and paths of egress from the building as required; and 2) A test switch has not been provided to serve the exit sign system in accordance with AS 2293.1-2005; and 3) The illuminated exit signs are located on separate electrical circuits (as required) however all house lighting circuits are not monitored in accordance with AS 2293.1-2005; and 4) All electrical circuits that are capable of isolating supply to the exit sign system are not fitted with signage stating the words: "WARNING: INTERRUPTING SUPPLY WILL DISCHARGE EMERGENCY LIGHTING BATTERIES" in accordance with AS 2293.1-2005; and 5) All exit signs are not identified by a numeric or alpha-numeric identification symbol which corresponds to those (to be) logged in the Emergency Lighting Logbook. It is recommended that the buildings exit and directional exit sign system is to be upgraded to ensure full compliance with Clauses E4.5, E4.6 and E4.8 of the BCA and AS 2293.1-2005.

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Sound Systems and Intercommunication System for Emergency Purposes	E4.9	This Clause details where a EWIS system is required.	---	<u>Note: Commissioning test data and Fire Services design documentation are to be provided by the installation contractor for issue to the Owners Corporation.</u> Not Applicable.
OTHER HEALTH & AMENITY REQUIREMENTS 1) In buildings of this type, a sanitary facility (i.e. a WC and a washbasin) is required to be provided at or near Ground Floor Level for use by employees of the Class 2 Residential building (part). This sanitary facility is to be available without entering a separate sole-occupancy unit (i.e. the Ground Floor Level and Level 1 Commercial tenancies as well as the Class 2 residential sole-occupancy units). Inspection of the building has revealed that an employee sanitary facility <u>has not been</u> provided as required by Table F2.1 of the BCA. It is recommended that an employee sanitary facility (i.e. a WC and a washbasin) be provide on the Ground Floor Level of the building in accordance with Table F2.1 of the BCA. 2) Fully enclosed sanitary facilities that have the entry doorways located less than 1200 mm from the WC pan and that open into the sanitary compartment are to be capable of being readily removable from outside the sanitary compartment in accordance with Clause F2.5 of the BCA. Inspection of the building has revealed that the sanitary compartments within the Class 2 residential sole-occupancy units have doorways that are located less than 1200 mm to the WC pan and are not readily removable from outside the sanitary compartment as required. It is recommended that all sanitary facilities located within the Class 2 residential sole-occupancy units are to be upgraded to ensure compliance with Clause F2.5 of the BCA.				
DISABILITY ACCESS PROVISIONS 1) The Ground Floor Level Residential Entry Lobby serving the Class 2 building (part) has a ramp slope greater than 1:20 (i.e. measured on-site as having a slope at the top of the ramp of between 1:14 to 1:16 and a slope at the base of the ramp of 1:25. This ramp is required to be provided with handrails and kerb-rails on both sides of the ramp in accordance with Clause D3.3 of the BCA and Clause 10 of AS 1428.1-2009. In addition, this ramp is required to be provided with Tactile Ground Surface Indicators (TGSIs) at the top and bottom of the ramp in accordance with Clause D3.8 of the BCA and AS/NZS 1428.4.1-2009. Inspection of the building has revealed that the ramp located within Ground Floor Level Residential Entry Lobby serving the Class 2 building (part) is not fitted with handrails has kerb rails on both sides of the ramp in accordance with Clause D3.3 of the BCA and Clause 10 of AS 1428.1-2009. In addition, TGSIs have not been installed to serve this ramp in accordance with Clause D3.8 of the BCA and AS/NZS 1428.4.1-2009. It is recommended that handrails and kerb rails are to be installed on both sides of the ramp located within Ground Floor Level Residential Entry Lobby in accordance with Clause D3.3 of the BCA and Clause 10 of AS 1428.1-2009. In addition, TGSIs are to be installed to serve this ramp in accordance with Clause D3.8 of the BCA and AS/NZS 1428.4.1-2009.				

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2) The internal non-fire-isolated stairway located between the Ground Floor Level and Level 2 of the building (i.e. Fire Stair 01 as depicted on the Construction Certificate plans) is required to be provided with TGSIs that have a width of less than 1000 mm in accordance with Clause D3.8 of the BCA and AS/NZS 1428.4.1-2009. Inspection of the building has revealed that the with TGSIs installed to serve Fire Stair 01 has TGSIs installed that have widths of less than 1000 mm (in part) as required by Clause D3.8 of the BCA and AS/NZS 1428.4.1-2009. It is recommended that TGSIs serving Fire Stair 01 are to be upgraded to ensure a minimum width of 1000 mm in accordance with Clause D3.8 of the BCA and AS/NZS 1428.4.1-2009. 3) The handrails serving the internal non-fire-isolated stairway located between the Ground Floor Level and Level 2 of the building (i.e. Fire Stair 01 as depicted on the Construction Certificate plans) are required to have a clear opening width of not less than 50 mm between the inside face of the handrails and the adjoining wall surfaces in accordance with Clause 12 of AS 1428.1-2009. Inspection of the building has revealed that the handrail installed to serve the stair flight located between the Ground Floor Level and the mid-landing has a width of less than 50 mm between the inside face of the handrail and the adjoining wall surface contrary to Clause 12 of AS 1428.1-2009 (i.e. measured on site as being between approximately 38 mm – 40 mm). It is recommended that the handrail serving Fire Stair 01 to be upgraded to ensure a clear opening width of not less than 50 mm between the inside face of the handrails and the adjoining wall surfaces in accordance with Clause 12 of AS 1428.1-2009. <u>Note i: It is our considered opinion that disabled access to the Level 1 Class 2 Residential "Gallery" and the associated passenger lift fails to comply with Clause D3.2 and Clause D3.3 of the BCA. To ensure equitable and dignified access is provided to serve the Level 1 Commercial 04 Tenancies, it is recommended that compliant access is to be provided through the principal pedestrian entrance to serve the Class 5 building (part). In addition, a passenger lift is required to be provided from this principal pedestrian to the Level 1 Offices in accordance with Clause E3.6 and Tables E3.6a & Table E3.6b of the BCA.</u> <u>Note ii: The access ramps, stairways, handrails, kerb rails, circulation spaces, TGSIs and sanitary facilities serving the Ground Floor Level Commercial Tenancies have not been assessed under this BCA Assessment Report.</u> <u>Note iii: See the report of Pink Slip Building Reports regarding the slip-resistance requirements for the buildings commercial and common area floor, ramp and stairway surfaces.</u>				
ADDITIONAL FIRE SAFETY CONSIDERATIONS 1) The buildings electrical system is to be assessed and certified by a licensed electrician in accordance with AS/NZS 3017 & AS/NZS 3000. 2) The buildings gas system is to be assessed and certified by a licensed gas fitter in accordance with all relevant NSW gas installation standards.				

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Report prepared by:



Grant McGrath
B.App.Sci (Env. Health) MAIBS
 Senior Building Compliance Consultant - **Director**
Building Code Professionals Pty Limited



3 February 2022**PS20260**

Wilde Legal
PO Box 672
The Junction NSW, 2291

Attn: Melanie Wilde

**RE: SP91174 - 18 Throsby St
Rectification Works Assessment**

In accordance with your instructions, I carried out an inspection of the rectifications currently being undertaken by RPF Building.

I have attended the site on a number of occasions, with my latest inspection being carried out on 3 February 2022.

The purpose of the inspection was to assess the status of the agreed works and identify any works that remain incomplete and or that may be defective.

My inspection did not extend to within the individual units, these will need to be inspected once the builder provides a notice of completion, at this time a further inspection will be required due to the extent of incomplete and defective work.

Should you have any questions please do not hesitate to contact the undersigned.

PINKSLIP BUILDING REPORTS



Peter Shepherd

SCHEDULE A- FINAL RECTIFICATION SCOPE**RECTIFICATION SCHEDULE**

1. PSBR = Pink Slip Building Report of Mr Peter Shepherd dated 29 July 2019.
2. Halstead Report= Reports produced by Mr Nathan Halstead of AED Consulting.
3. All items that include the notation "Rectification or Solution as per Halstead Report dated 18/04/18" are either to be rectified as per the SOW in the PSBR Report or are to have an Alternate Solution prepared and approved by Halstead and the original PCA with certification of the solution provided to the owners and or a combination of works and a solution which is to approved by Halstead and the original PCA with certification of the solution provided to the owners.
4. RPF will engage the services of AED Consulting to complete any further designs for Performance Solutions and AED will certify all works being rectified due to non-compliance with the BCA.

Note: As a word version could not be supplied, I have had the document retyped to allow an extra column for sign off and or comments.

Item No.	Item	Agreed Rectification Method Between the Parties	PSBR Comment
	5. Roof and Awning		
5.1	Throsby Street Awning		
5.1.1	Swarf.	As per 5.1 C PSBE Report	Will inspect upon notification of completion
5.1.2	Debris.	Maintenance Issue	Unless there is debris from recent works, needs to be inspected upon builders notification that works are completed
5.1.3	Weathering of roof sheets.	As per 5.1e of PSBR	
5.1.4	Downpipes and overflow.	Install overflow provision to base gutter and discharge through the front of the awning.	The overflows have been cut in however are in the incorrect location and discharge onto the footpath at the front wall
5.2	Main Roof		
5.2.1	Glass Roof Panels Flashing and sealing due to water entry.	Install additional flashing to perimeter and seal.	Not carried out, no additional flashings evident 

				
5.2.2	Glass Roof Panels Safety Glass is not identified as being safety glass.		RPF to supply certification of the glass and provide and place a permanent label on each panel.	No evidence of a permanent label re safety glass
5.3		Roof Penetrations		
5.3.1	Roof Ventilators. Vent Pipes.		RPF to install back tray flashing to prevent water pooling behind ventilator pipes to the following units: • 115 B1 or B1 ensuite • 202 Ensuite • 219 Ensuite • 225 Bed 1 or Bed 1 ensuite And make good any water damage.	No installed 

5.4	Roof Sheet Installation			
5.4.1	Weathering the ends of sheets.		RPF to correctly weather both ends of all roof sheets as per 5.4C of the PSBR.	
5.4.2	Foam Fill.		RPF to provide and install foam inserts.	Have been installed, but are loose and falling out into the gutter as they have not been secured in place, and only installed at low end of sheets 
5.5	Swarf and Metal Debris.		As per 5.5C of PSBR Agreed to remove debris, clean swarf and RPF to replace sheets where required.	Not completed Screws and rivets in gutters and swarf on sheets and in gutters

			
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5.6	Downpipes spreaders.	Add end caps to spreader and change rusted screws. Agreed to extend so they did not discharge with 450mm of flashing.	The size of the outlets in the spreaders now that the ends have been closed are undersized, and should be equal to the size of the outlet in the gutter 
5.7	Roof Access and Safety System		
5.7.1	Access from stairwell to roof not compliant.	RPF to remove existing and make good the ceiling and roof as part of the stairwell works. RPF to construct new roof access. Position, location and construction details to be approved by the owners then Halstead and the original PCA. Provide access from lower to upper roofs.	Not completed as hatch still remains and hatch opening is within 3m of side boundary. 

				Details and approval of these works by the OC and Halstead has not been provided prior to any works being carried out, as is required by the Deed of agreement
5.7.2	Roof safety system not as per Spec.		RFP to provide current and additional plan showing booting. RFP to supply and fit additional anchor points and provide certification that the entire system complies with the Australian Standard AS/NZS1891.4 along with plan showing the layout.	Some works have been carried out but appears not to all areas. No walkways provided No harness point to roof areas. 

			 No permanent access from northern roof to upper roof  Certification as not been supplied
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5.7.3	Harness and Lanyards not supplied as per Spec.	RPF to supply and that access is to all areas.	Harnesses have not as yet been supplied to the Owners
5.8	Skylights Have been positioned too close to the boundary between units and glass not marked as being safety glass.	Rectification or Solution as per Halstead Report dated 18/04/18 and report dated 07/11/2018.	Details and approval of these works by the OC and Halstead has not been provided prior to any works being carried out, as is required by the Deed of agreement
	6.1 Fire and Smoke Prevention		
6.1.1	Smoke Hazard Management Fire alarm strobe at front of property does not have appropriate signage stating the word FIRE.	Rectification or Solution as per Halstead Report dated 18/04/18 and report dated 07/11/2018.	Details and approval of these works by the OC and Halstead has not been provided prior to any works being carried out, as is required by the Deed of agreement
6.1.2	Smoke detectors do not comply; located more than 5.1 m from an adjoining wall.	Rectification or Solution as per Halstead Report dated 18/04/18 and report dated 07/11/2018.	Details and approval of these works by the OC and Halstead has not been provided prior to any works being carried out, as is required by the Deed of agreement
6.2	Hydrants		
6.2.1	Fire hydrant booster assembly does not meet complying FRL heat shield requirements.	Defect has been resolved by an Alternate Solution prepared for the OC by Warrington Fire.	Nothing required.
6.2.2	Level 2 fire hydrant is not fitted with a pressure gauge. Fire brigade booster assembly valves are located less than 750mm above floor surface level.	Rectification or Solution as per Halstead Report dated 18/04/18 and report dated 07/11/2018.	Details and approval of these works by the OC and Halstead has not been provided prior to any works being carried out, as is required by the Deed of agreement

	Fire hydrant landing valves on lvl 1 and 2 are contained in lockable enclosures that are not keyed 003. Inadequate signing for Fire Hydrant at front of property. Working and testing pressure notices not installed. Block plan fails to comply with AS 2419.1- 2005, Clause 7.11.		
6.3	Fire Hose Reels and Travel Distances Non-complying location of Fire hose serving Residential Carpark and Commercial visitors carpark; exceeds 4m. Power operated shutter doors to residential and commercial carparks cannot be opened manually.	Rectification or Solution as per Halstead Report dated 18/04/18 and report dated 07/11/2018.	Details and approval of these works by the OC and Halstead has not been provided prior to any works being carried out, as is required by the Deed of agreement
6.3.1	Domestic water supply service not locked in open position and does not have warning signage.	RPF to attend site and confirm. If not locked, supply and fit lock.	Not completed
6.3.2	Inadequate signing to Level 1 & 2 Fire Hose Reels.	Rectification or Solution as per Halstead Report dated 18/04/18.	Details and approval of these works by the OC and Halstead has not been provided prior to any works being carried out, as is required by the Deed of agreement
6.4	Sprinklers Sprinkler system not connected to a FRNSW approved third party fire alarm monitoring facility. System water alarm gong is not located on the external wall of the building in accordance with AS2118.1-1999.	Rectification or Solution as per Halstead Report dated 18/04/18 and report dated 07/11/2018.	Details and approval of these works by the OC and Halstead has not been provided prior to any works being carried out, as is required by the Deed of agreement

	Sprinkler system does not initiate building occupant warning system. Sprinklers missing in ground floor storage enclosures. Inadequate signage. Block plan does not comply with AS 2118.1- 1999, Clause 8.3.		
6.5	Separation of Classifications in the Same Storey Door between lobby and carpark not capable of achieving an FRL of not less than -/120/30. Lobby separated from carpark by glazed door not capable of -/120/120. Drencher system requires a separate valve-set monitored to detect unauthorized closure. No wall wetting drenchers and smoke seals are fitted to Residential Entry Lobby. Heat strengthened, tempered glass and smoke seals required between Commercial 02 lot and the internal and external portions of the adjoining Residential Entry Lobby.	Rectification or Solution as per Halstead Report dated 18/04/18 and report dated 07/11/2018.	Not completed  Non fire rated hatch in ceiling

			 Non fire rated door between commercial and residential 
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			 Works to doors incomplete Door above has non compliant access Door below has non compliant ramp and ramp extends into pathway to fire stairs
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			Details and approval of these works by the OC and Halstead has not been provided prior to any works being carried out, as is required by the Deed of agreement
6.6	Protection of Vent Outlets in External Walls Mechanical exhaust ventilation openings require protection in accordance with Clause C3.4 of the BCA when Ventilation openings stand less than 3m to the eastern and western side property boundaries to both the north and south elevations.	Rectification or Solution as per Halstead Report dated 18/04/18 and report dated 07/11/2018.	Details and approval of these works by the OC and Halstead has not been provided prior to any works being carried out, as is required by the Deed of agreement

6.7	Openings in Bounding Walls to the Gallery	As per item 9 of Halstead Report and solution (PSS) dated 07/11/2018 and any requirements necessary following assessment of the Warrington Fire Smoke Modelling and confirm completed works comply with disabled access requirements.	No evidence of work having been carried out RPF to supply details and confirmation that the proposed and or completed works comply with AS1428.1
6.8	Gallery Walkways - Levels One and Two	As per item 6 of Halstead Report dated 07/11/2018 and any requirements necessary following assessment of the Warrington Fire Smoke Modelling and confirm completed works comply with disabled access requirements.	RPF to supply details and confirmation that the proposed and or completed works comply with AS1428.1
6.9	Door Clearances & Signage Excessive margins to Fire Exit Doors. Incorrect Signage to FRONT ELEVATION.	As per item 6.9 of the PSBR.	
6.10	Penetrations for Services Penetrations for services through walls in EASTERN CARPARK have not been sealed. WESTERN CARPARK penetrations through slab are not fire sealed. RESIDENTIAL SLABS penetrations through second level floor have not been sealed & incorrect fire collars.	Rectification or Solution as per Halstead Reports of 18/4/18 and 7/11/18.	Details and approval of these works by the OC and Halstead has not been provided prior to any works being carried out, as is required by the Deed of agreement
6.11	Main Switch Room		
6.11.1	Access doors are not to the correct fire rating.	Refer to 6.11.1 of the Halstead report dated 19/04/2018.	Certification is required to show the doors are -/120/30 as stated by Halstead
6.11.2	Penetrations through the walls and at junctions are not fire sealed.	As per 6.11(2) Halstead Report dated 18/04/18 - refer to 6.11C of the PSBR for rectification method.	Halstead agreed rectification as per PSBR. RPF to supply certification that these works have been completed

6.11.3	There is a step/threshold at the door from the switch room to the carpark.	As per 6.11(3) Halstead Report dated 18/04/18 - refer to 6.11C of the PSBR for rectification method.	Halstead agreed rectification as per PSBR. RPF to supply certification that these works have been completed
	7. Fire Isolated Stairwells		
7.1	Fire Stairs Two and Three and Passageways Ceiling linings under the roof are not fire rated. PVC pipes have been concealed in the passageways by lightweight plasterboard construction. Top of Fire Stairs is not enclosed by construction achieving a FRL of not less than --/90/90. Opening in fire isolated stairs to gain access to roof compromises the fire separation.	Rectification or Solution as per Halstead Reports of 18/4/18 and 7/11/18.	Works appear to be not completed Services located in fire stair  Door to services cupboards not fit with a latch to keep door closed and in stairwell and paths of travel doors swing open

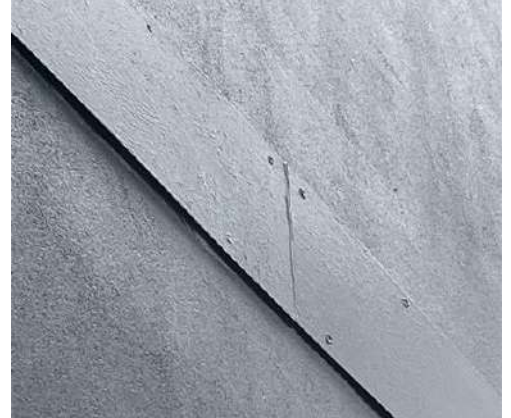
			
			Details and approval of these works by the OC and Halstead has not been provided prior to any works being carried out, as is required by the Deed of agreement
7.2	Access to Eastern Fire Isolated Passageway The fire door providing access into the fire-isolated passageway that serves the commercial carpark is fitted with a keyed locking mechanism on the carpark side of the door contrary to the BCA.	As per Halstead Report dated 18/04/18 refer to item 7.2C of the PSBR.	Halstead agreed rectification as per PSBR. RPF to supply certification that these works have been completed

	8. Access and Egress		
8.1	Carpark Exit Door Width	Item resolved (not pressed).	
8.2	Residential Lobby Entry/Exit Doors Entry/exit floor from the street to the residential lobby swings the incorrect direction - non-compliant.	Deemed to satisfy - per item 12.3 of Halstead report dated 7 November 2018. AED or access consultant to provide certification that completed works comply with BCA and DA requirements for disabled access.	RPF to supply access consultants report that the works comply with AS1428.1 All certification by consultants should be accompanied with consultants Certificate of Currency for professional Indemnity Insurance
8.3	Exit Door Signage Function to some doors is incorrect. Doors to the fire isolated stairs and passageways are not provided with compliant signage.	As per Halstead Report dated 18/04/18 - see 8.3C of the PSBR.	Halstead agreed rectification as per PSBR. RPF to supply certification that these works have been completed
8.4	Residential Lobby Ramp Ramp located within Ground Floor Level Residential Entry Lobby is not fitted with handrails or kerb rails. TGSI's have not been installed to serve this ramp, panel sides	As per Halstead Report dated 18/04/18 - see 8.4C of the PSBR.	Halstead agreed rectification as per PSBR. RPF to supply certification that these works have been completed
8.5	Disabled Access Handrail servicing Fire Stair 01 has a clear opening width of 40mm which is insufficient. Access to the first-floor commercial tenancies is only via the internal stairs or by the use of the residential lift which does not form part of the commercial strata. Rails do not comply. Designated parking/shared space does not comply.	RPF to rectify handrail spacing to 50 mm. Access issues resolved in Lindsay Perry report. Lindsay Perry Report to be supplied. Halstead to confirm LP report. Halstead report of November 2018 requires works. AED or access consultant to provide certification that completed works comply with BCA and DA requirements for disabled access.	RPF to provide copy of the LP Report as well as Certification by Halstead that the LP report effects compliance. Fittings to rails can break hand grip

			 Horizontal section not 300mm long over level floor, that is after the transition from graded to level 
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	9. External Walls			
9.1	Corroded Building Elements			
9.1.1	Chain Winders		RPF to replace any winders that have non stainless-steel chains.	Still to be inspected by PSBR and as notified by the owners
9.1.2	Screws in Gas Points		As per 9.1C of the PSBR. Remove and replace screws.	Still to be inspected by PSBR and as notified by the owners

9.1.3	Studs securing downpipes	As per 9.1C of the PSBR. Remove and replace screws.	These have not been replaced 
9.1.4	Corrosion to AC Platform	As per 9.1C of the PSBR Clean down affected surfaces, grind where required and treat with primer and make good paintwork.	Works under way but not completed
9.1.5	Swarf on roofing materials	As per 9.1C of the PSBR. Clean affected components to remove swarf without damage to the component.	Not all completed
9.2	Southern and Western Walls		
9.2.1	Wall Floor Junction and Finish Not as per AFS Details and water enters the units.	Water-proof bandage to be installed and cover with CFC cladding. Rectification to extend into the balcony areas by removing the skirting tiles to ensure continuity of the waterproof membrane from the rear wall. Then reinstate skirting tile and make good walls and make good consequential damage.	Works have been carried out however in places are poorly finished (western wall) The entire wall has not been painted as per the PSBR report SOW Owners have reported ongoing water entry.

			Further investigation required to confirm whether works extended into the balconies as required, this involved the removal of some tiles.  Screws not well or neatly fitted No evidence of bevelled sealant on top edge Paintwork is patchy and does not appear to be for the entire wall 
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	10. Handrails, Stairs and Ramps			
10.1	Non-Compliant Stair Construction Rise is not consistent throughout. Tactile indicators have not been provided on the landing in each fire stairwell as shown on approved plans.	As per Halstead Report dated 18/04/18. Agree to remove treads and riser and reinstate to meet the min requirement. Top up or grind back fire stair to achieve the same. Add Tactile Indicators. RPF to ensure that works are certified by Halstead. On completion works will need to be certified by Halstead and that he has considered and accepted the LP report.	Tiling works have been carried out. The stairs are extremely dirty and stained and there are paint marks on the fittings and tiles. 	No tactile indicators or kerb rail

			  Tactile may not be compliant but this will be confirmed in the Halstead certification RPF to supply certification from Halstead
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10.2	External Handrail	External handrails to be uninstalled, sanded, powder coated and re-installed. Units 102, 107, 113, 115, 118, 121, 123, 204, 209, 210, 214, 215, 217, 219, 220, 221, 223, 224, 226. Only	Requires inspection by PSBR or confirmation from Owners
10.3	Gallery Handrails		
10.3.1	Gaps in places exceed 125mm.	As per item 10.3 of Halstead Report dated 18/04/18.	Most appear to have been completed, but will checked to all areas upon notice of completion
10.3.2	Finish of Stainless Steel	Maintenance issue - Owners to clean stainless steel on a regular basis given the proximity to salt-water.	No works required
	11. Tiling		
11.1	Non-Compliant Tiling Tiles do not meet the minimum slip resistance rating.	Details of materials including technical data sheets and warranties have been supplied to Peter Shepherd. RPF to supply details of method of repair currently we have engaged 2 contractors to supply method and process and sample finish has been shown to Peter Shepherd. Details of materials including Technical Datta Sheets and warranties to be supplied to the OC for approval. Builder to make payment to the OC for a subsequent treatment based on quotation from contractor for resurfacing with nonslip coating over the course of the next 10 years at \$30,000.00	Still to be resolved
11.2	Balcony Gradients and Tiling		
11.2.1	Gradients	Rectification as per PSBR only to unit 116. No defect in other units.	Requires inspection by PSBR or confirmation from Owners
11.2.2	Height of waterproofing and under doors and windows.	Item not pressed.	Nothing further required

11.2.3	Sealants coming away.	RPF to remove and replace all loose sealants to the following units: • 111 • 113 • 120 • 121 • 123 • 207	Requires inspection by PSBR or confirmation from Owners
11.2.4	No Waterproofing around service duct.	Seal around base and side and make good the surfaces.	Requires inspection by PSBR or confirmation from Owners
11.2.5	No overflow provisions.	As per 11.2C PSBR for Unit 212 only.	Requires inspection by PSBR or confirmation from Owners
11.2.6	Efflorescence in joint.	Clean and remove efflorescence and replace cracked grout and sealant tiles. Units 114-123, 203, 207, 225 only. Inspect for leak and repair if necessary.	Requires inspection by PSBR or confirmation from Owners
11.3	Wet Area Floor Gradients	Rectification as per PSBR to be carried out to showers where water remains on the tiles for the following units: (Note: B=BATHROOM E=ENSUITE) • 113 B&E • 115 B&E • 117 B&E • 118 E • 120 E • 121 B&E • 122 E • 123 E • 203 B • 204 B&E	Requires inspection by PSBR or confirmation from Owners

			• 207 B&E • 212 E • 213 E • 220 • 221 • 225	
	12. Internal			
12.1		Wet Area Waterproofing		
12.1.1	Ensuite Door Frames extend into tiles.		No works required.	Nothing required
12.1.2	Ensuite Water Stop angles.		Rectify to these units as per 12.1C of the PSBR: • 107 • 109 • 111 • 115	Requires inspection by PSBR or confirmation from Owners
12.1.3	Bathroom Door Frames extend into floor tiles.		Rectify to these unit 215 as per 12.1C of the PSBR only.	Requires inspection by PSBR or confirmation from Owners
12.1.4	Bathroom Water stop angles.		No works required.	Nothing required
12.1.5	Laundry Waterstop angle is short and finishes below the tiles with the architraves and frame extending below the tiles.		Rectify to these units as per PSBR: • 217 • 224 • 216	Requires inspection by PSBR or confirmation from Owners

12.1.6	Laundry The water stop angle is poorly finished, thin and the grout is cracked.		Rectify to these units as per PSBR: • 106 • 202 • 203 • 204 • 207 • 211 • 212 • 214 • 216 • 229			Requires inspection by PSBR or confirmation from Owners
12.2	Hanging and Fitting of Internal Doors and Hardware		RPF to rectify as per below:			Requires inspection by PSBR or confirmation from Owners
			ENTRY/ LIVING	Loose Hinge Defect Location: 122.	Hinge to be adjusted.	
			KITCHEN/ LIVING	Entry door displays an uneven margin. Defect location: 207.	Agrees with defect in unit 207 . Door needs to be adjusted.	
			BEDROOM ONE	Door displays an uneven margin and rattles in the closed position Defect Location: 102, 106, 107, 108, 110, 113, 115, 117, 119, 120, 121, 122, 123, 209, 210,	Door to be adjusted in units: 106, 107, 110, 113, 121, 122, 123, 203, 204, 211, 219 only.	

				211, 214, 215, 216, 219, 220, 222.		
			BEDROOM ONE	Door furniture is stiff to operate. Defect location: 102, 117, 121, 122, 204, 209, 212, 215, 219, 220, 222, 223, 224.	Door furniture to be eased in units 204, 215, 219, 220, 224.	
			BEDROOM ONE	Door furniture is loose. Defect location: 113, 203, 219.	Hinges to be adjusted in unit 219.	
			ENSUITE	The door displays an uneven margin. Defect location: 102, 106, 107, 108, 110, 115, 117, 118, 121, 122, 123, 201, 204, 207, 210, 211, 212, 213, 215, 216, 217, 220, 221, 222, 223, 224, 225.	Doors to be adjusted in unit 102, 106, 107, 108, 122, 201, 204, 211, 220, 221, 222	
			ENSUITE	Stiff door hardware. Defect location: 220.	Lock to be eased for unit 220.	

			ENSUITE	The door rattles in the closed position. Defect location: 107, 108, 110, 111, 113, 117, 121, 122, 123, 201, 207, 209, 212, 215, 217, 221, 223.	Door margins to be adjusted in unit 207, 209, 210, 211 Door requires easing. Door locks to be eased in units 209, 210, 211 only.
			ENSUITE	Door hinges rusting. Defect location: 108.	Top hinge to be replaced.
			ENSUITE	Door furniture is stiff to operate. Defect location: 102, 106, 109, 117, 118, 204, 210, 211, 213, 216, 220, 222, 224, 225.	Locks to be adjusted in units 106, 109, 118, 204 only.
			BEDROOM TWO	Door displays an uneven and excessive margin. Defect location: 107, 108, 109, 115, 116, 117, 118, 120, 121,	Adjust doors in units 108, 109, 116, 120, 214, 221 only.

				122, 123, 202, 207, 209, 211, 213, 214, 216, 217, 219, 221, 222, 223, 224.		
			BEDROOM TWO	Door furniture is stiff to operate. Defect location: 119, 120, 123, 205, 213, 219, 220, 224.	Locks to be eased in units 123, 207, 219, 220 only.	
			BEDROOM THREE	Door displays an uneven margin. Defect location: 213	Adjust doors for unit 213 only.	
			BATHROOM	Door displays an uneven margin. Defect location: 107, 109, 113, 115, 116, 117, 122, 123, 201, 202, 203, 207, 210, 211, 212, 213, 214, 217, 219, 220, 221, 224.	Adjust doors in units 107, 116, 118, 123, 201, 211, 219, 220, 221 only.	
			BATHROOM	Water damage is visible to the bottom edge of the door at the	Bottom of door to be sanded back and	

				hinge stile; door not adequately sealed on the bottom edge. Defect location: 102, 207, 212, 214, 219.	painted in unit 214 only. Agree with defect in unit 214 only. Water damage to bottom of door. Bottom of door to be sanded back and painted.	
			BATHROOM	The door rattles in the closed position. Defect location: 106, 107, 108, 110, 111, 113, 115, 117, 119, 120, 122, 201, 202, 203, 209, 212, 213, 217, 222.	Ease locks in units 117, 209, 217, 222 only. Adjust margins of door in unit 207 only adjust in 217.	
			LAUNDRY	Uneven door margins. Defect location: 102, 106, 107, 111, 116, 118, 121, 123, 201, 203, 204, 209,	Adjust door in units 102, 107, 111, 123, 203, 204, 209, 210, 219, 221 only.	

				210, 211, 214, 219, 221.	Door should be adjusted.	
			LAUNDRY	The door rattles in the closed position. Defect location: 106, 107, 109, 116, 118, 119, 122, 123, 201, 202, 204, 209, 210, 211, 214, 217, 219, 221, 222, 224.	Ease door for unit 119, 211 only. Seal bottom of door in unit 107 only.	
12.3	Poorly Fitted and Finished Joinery		LAUNDRY	A gap is present between the door architrave and doorframe to the bathroom. Defect location: 120.	Gap to be filled with flexible white sealant.	
			KITCHEN/ LIVING	Gaps between the top of the overhead cupboard and the bulkhead ceiling. Defect location: 106, 107, 108, 110, 111, 113, 114, 115, 117, 118, 119, 120, 122, 201, 202,	Sealant to be applied to overhead cupboards and pantry for units 106, 107, 108, 110, 111, 113, 117, 118, 119, 120, 122, 201, 202, 203, 204, 207, 211, 213.	Requires inspection by PSBR or confirmation from Owners

				203, 204, 207, 210, 211, 213, 216, 219, 220, 221, 222, 223, 225.	Sealant to be applied to cupboards and bulkheads in units 216, 219, 220, 221, 222, 224 only.	
			LAUNDRY/ BATHROOM	Gap is present between the overhead cupboard and the wall. Defect location: 211, 213, 214, 222, 224, 225.	Gaps to be filled with white flexible sealant 211, 214, 222, 224, 225 only.	
			ENSUITE	A gap is present between the vanity cupboard and the wall. Defect location: 213, 219, 220.	Gaps to be filled with white flexible sealant in units 213, 219, 220 only.	
			BEDROOM 2	Door to robe is not parallel. Defect location: 217.	Track sliding door to be rectified.	
			LAUNDRY/ BATHROOM	Gap is present between the overhead cupboard and the wall.	RPF to install white flexible sealant as required.	
			KITCHEN/ LIVING	Gaps between the top of the overhead	Rectify as per PSBR for overhead	

				cupboard and the bulkhead ceiling. Defect location: 106, 107, 108, 110, 111, 113, 114, 115, 117, 118, 119, 120, 122, 201, 202, 203, 204, 207, 210, 211, 213, 216, 219, 220, 221, 222, 223, 225.	cupboards in units 106, 107, 108, 110, 111, 113, 117, 118, 119, 120, 122, 201, 202, 203, 204, 207, 211, 213. Rectify as per PSBR for bulkhead 216, 219, 220, 221, 222, 224 only. White flexible sealant to be applied.
			LAUNDRY/ BATHROOM	Gap is present between the overhead cupboard and the wall. Defect location: 211, 213, 214, 222, 224.	Gaps to be filled with white flexible sealant in units 211, 214, 222, 224, 225 only. Gaps to be filled with white flexible sealant.
			ENSUITE	A gap is present between the vanity cupboard and the wall. Defect location:	Gaps to be filled with white flexible sealant in units 213, 219, 220.

				213, 219, 220.	Gaps to be filled with white flexible sealant also note See unit 220- agree to cover gap.	
			BEDROOM 2	Door to robe is not parallel. Defect location: 217.	Track sliding door to be rectified.	
			LAUNDRY/ BATHROOM	Gap is present between the overhead cupboard and the wall. Defect location: 213.	RPF to install white flexible sealant as required.	
			KITCHEN/ LIVING	Gaps between the top of the overhead cupboard and the bulkhead ceiling. Defect location: 114, 115, 210, 225.	RPF to install white flexible sealant as required.	
			KITCHEN/ LIVING	Gap present between built-in laundry unit and wall. Defect location:	RPF to install white flexible sealant as required.	

				102, 107, 111, 121, 201, 203, 204, 209, 212, 213, 214, 217, 220, 221, 222, 223, 224, 225.		
			KITCHEN/ LIVING	Kickboard to the built-in cupboard is loose	RPF to rectify kickboard.	
			KITCHEN/ LIVING	Base of cupboard is water damaged. Further investigation required to determine the source of the water. Defect location: 215.	No works required by RPF.	
			KITCHEN/ LIVING	Gaps between the top of the overhead cupboard and the bulkhead ceiling. Defect location: 114, 115, 210, 225.	RPF to install white flexible sealant as required.	
			KITCHEN/ LIVING	Gap present between built-	RPF to install white flexible	

				in laundry unit and wall. Defect location: 102, 107, 111, 121, 201, 203, 204, 209, 212, 213, 214, 217, 220, 221, 222, 223, 224, 225.	sealant as required.	
12.4	Doors to Sanitary Compartments		One sanitary cabinet door to be rectified as per PSBR in unit 213 bathroom only.			Requires inspection by PSBR or confirmation from Owners
	13. General					
13.1	Warranties and Manuals have not been supplied.		RPF to provide soft copy prior to works commencing on site.			Have not as yet been provided
13.2	Non-Compliance with Development Approval.		DA was amended, RPF will supply Documentation from NCC to show compliance, this is to be checked and confirmed in writing by PCA, prior to works commencing on site.			RPF have not s yet provided the required documentation
13.3	Health and Amenity Requirements.		Proposed that Halstead inspect and provide interpretation of BCA and sign off as compliant or agree to rectification. Prior to works commencing on site.			RPF have not as yet provided the required documentation
13.4	Stormwater					
13.4.1	Lockable grates/covers to Stormwater pits have not been installed.		RPF will supply and install locking mechanism with spring latch or lock and keys.			Not as yet inspected
13.4.2	No Step irons into detention or deep tanks/pits.		RPF will supply and install step irons.			Not as yet inspected
13.4.3	Pump to car wash not operating.		Maintenance issue - RPF not required to carry out works.			Nothing further required

13.5	Service Cupboards and Risers.	As per Halstead Report dated 18/04/18 - see 13.5C of the PSBR.	Halstead agreed rectification as per PSBR. RPF to supply certification that these works have been completed
13.6	Drainage lines from units have not been insulated.	RPF say that the functional equivalent has been installed by the placement of ceiling insulation. Issue to be determined by Halstead by inspecting <u>a representative sample of at least 4 units and provide interpretation</u> of BCA and sign off on the installed insulation as compliant with BCA requirements, if non-compliant RPF agree to upgrade and then have the completed works inspected and signed off by Halstead.	RPF have not yet completed this This item requires an inspection of 4 units by Halstead, who will then provide certification on the works or a SOW for rectification
13.7	Electrical Services Lights in the centre stairwell stay on during daylight hours, all carpark lights were not operational, light levels in the fire isolated passageways were quite dim, cables within the cabinet within the switch room were untidy and not labelled or well secured, a lighting register has not been provided for the emergency exit signs and lighting in the building, the intercom system is reported as not always operating correctly, and lights in the floating roof are not all working.	RPF to provide certificate of compliance issued by a suitably qualified lighting specialist stating the works as completed comply with the Australian Standards for each issue raised in the PSBR Report.	RPF have not as yet supplied this

General Notes on Rectification Works

Painting

Any surface that is to be rectified or disturbed during the rectification process is to be made good and repainted completely. That is, no patch paints, paint to the nearest break point.

Unless agreed otherwise in this schedule, all rectification to agreed items are to be in accordance with PSBR Report.

Any damage sustained to the property during the works is to be made good by the builder. Any pre-existing damage is to be reported to the OC prior to work commencing in that area.

Access

RPF is to provide a minimum 7 days' notice to occupants prior to commencing work within units or on balconies.

RPF is to ensure safe and reasonable access to and from the common areas and to all units during the course of the works.

END of DOCUMENT

15 June 2020

PS19300

Wilde Legal Pty Ltd
Po Box 672
The Junction NSW 2291

Attn: Melanie Wilde

**RE: Response to Nexus Rectification Schedule
SP91174 – 18 Throsby St, Wickham NSW**

1. INSTRUCTION AND INTRODUCTION

As instructed, I have reviewed the proposed rectification schedule issued by Nexus Lawyers on 12 May 2020.

Upon review of this proposed rectification schedule, I note that it is not identical to that which was previously agreed between myself and RPF.

I note that the front page excludes the general notes, which were relevant, with Point 3 being particularly relevant. This point stated that

“all items that include the notation ‘Rectification or Solution as per Halstead or Halstead Report dated 18/04/18’ are either to be rectified as per the ‘SOW’ in the PSBR Report, or are to have an Alternative Solution prepared and approved by Halstead and the original PCA with certification of the solution provided to the owners and or a combination of works and a solution which is to be approved by Halstead and the original PCA with certification of the solution provided to the owners”.

I note that the Nexus schedule includes an additional column RPF cost to rectify, however a number of items in the schedule that are agreed and do involve works still have an amount of \$0 shown.

I have attached a copy of the Nexus rectification schedule, this includes a number of notations added by me, these are in red font, they simply highlight the changes made and or areas that are not an agreed joint position between myself and RPF.



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A second report prepared by AED has been provided this report is dated November 2018, this report includes a number of proposed performance solutions.

I have reviewed these Performance Solutions and provide the following comments, however in providing these comments it should be noted that I am not a fire engineer and my comments should be taken as general commentary only.

Comments on AED Report November 2018

The AED report sets out nine proposed Performance Solutions each of which referenced with the prefix PS

PS1

The trial design appears to show that the current arrangement of the skylights is satisfactory, however the trial design relies on a distance of 1.4m from one skylight to the frame, however there appears to be no allowance for there being any wind, which may move the flames closer to the skylight.

There is nothing in the trial design or the performance solution that comments on or shows any investigation has been made into the type and construction of the skylight, noting that in my report the skylights are not labeled as having the appropriate safety glass.

PS2

Noted and agreed.

This item was previously confirmed as being satisfactory by the owner's fire engineer, Warrington Fire.

PS3

Noted and agreed.

This solution simply adopts the rectification method set out in my original expert report.

PS4

This solution appears to be in part reliant on the ground floor being sprinklered, report states that the solution is subject to the sprinkler head positions being confirmed, however that does not appear to have been investigated nor confirmed, therefore until such times as that has been confirmed this solution cannot be relied upon.

The performance solution generally adopts the original performance solution developed by GHD, however the AED SOW omits the installation of drenchers over each pane of glass in the glazed section. The provision of the drenches for each pane of glass was a part of the GHD design to allow glass and aluminium to be used as the separating or bounding wall between the different classes of building.

AED should be asked to confirm that the drenchers required by GHD are no longer necessary. AED should also be asked to confirm that they have checked the sprinkler head position.

AED should be made aware that they are required as part of this agreement to certify and confirm all performance solutions as well as all other items in the report in the proposed rectification schedule that contain a reference to the Halstead Report.

PS5

This issue is a rather complex one which was dealt with in significant detail by the owner's fire engineer, Warrington Fire. Part of the works carried out by Warrington Fire include smoke modeling, which confirm the current construction as non-compliant.

The performance solution proposed by AED has not been prepared with the benefit of having been provided a copy of the Warrington Fire Report nor the Smoke Modeling Report, this was confirmed to me by Mr Halstead.

The performance solution proposed by AED appears to go to the impact of heat only and not to the impact of smoke. The impact of smoke was considered by Warrington Fire to be a significant impairment, the residents being able to safely evacuate the building due to the potential buildup of smoke, along with the smoke likely to enter the units.

The performance solution by AED does propose new seals to the entry doors, however, does not in any way address the aluminium windows or doors in the bounding walls.

AED should be asked to reassess this position once they have been provided with the Warrington Fire Report and the Smoke Modeling Report.

PS6

Unless further works are carried out as part PS5 to allow the removal and buildup of smoke 'see Smoke Modeling Report', this solution may not be adequate.

AED should be asked to reconsider this performance solution based on the smoke modeling by Warrington Fire and then to confirm that their solution is still adequate.

PS7

Noted and agreed.

These works were previously agreed to by Warrington Fire.

PS8

My initial take on this item is that the provision of a sign simply saying 'Pull' is not adequate.

The solution prepared by AED does not appear to take into account the requirements for disabled access and the requirements for AS1428.1 – 2009. It is considered that the inward opening doors would not be able to be opened by persons in a wheelchair.

Further, the AED PS9 solution is contingent on the lobby being compliant for disabled access, which includes these doors.

AED should be asked to reconsider this solution, PS8 and solution PS9, and confirm that both solutions consider the requirements of disabled access and all obligations of AS 1428.1.

PS9

The proposed solution by AED is contingent upon the owners of the residential Strata Plan accepting the ongoing use of their lobby, entry doors and lift to be used by the commercial strata.

It is my opinion that the proposed solution by AED will also require a right of way or right of access being created over all areas proposed to be used for disabled access to and from the commercial tenancy, including the entry doors, walkways, lift and lobby.

The AED solution is contingent upon the lifts operating in the event of a fire, and there does not appear to have been any consideration given, in the case of a power failure, to allow disabled persons to safely evacuate the building.

This solution also requires all works to comply with AS1428.1—2009. In my opinion that will require consideration and discussion of access in the event the lifts are not available, also required is consideration of access through the lobby, which currently has inward opening doors.

The AED solution does not address the step at the doorway from the gallery level to the commercial tenancy. The AED does not address the non-compliance with designated parking as was detailed in my report.

We trust the above is satisfactory however should you have any questions please do not hesitate to contact the undersigned.

PINKSLIP BUILDING REPORTS

A handwritten signature in black ink, appearing to read 'Peter Shepherd', with a long horizontal stroke extending to the right.

Peter Shepherd



A.B.N. 77 535 755 738

Expert Report on Quantum

Building Defects Claim – Defective and Non-Compliant Work

Date of report: 29 July 2019

In the: Supreme Court NSW

File Ref:

Subject Property: SP91174
18 Throsby Street
Wickham NSW

Report Commissioned By: Wilde Legal
Melanie Wilde
PO Box 672
The Junction NSW 2291

Report Prepared By: Peter Shepherd
Building Consultant
Ref: PS18349

Note: This document and its annexures are privileged and confidential. This expert report has been prepared for the purposes of legal proceedings. It is not to be copied in full or in any part without the express written permission of PinkSlip Building Reports.



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EXPERT REPORT INDEX

1. Instructions and Introduction
2. Supplied Documentation
3. Defect Assessment and Methodology Overview
4. Costing Basis and Methodology
5. Expert's Opinion and Reasoning
6. Expert's Expertise
7. Curriculum Vitae
8. Expert Witness Code of Conduct Declaration
9. Annexures

EXPERT REPORT

1. INSTRUCTIONS AND INTRODUCTION

- 1.1. I confirm that I act on instruction from Melanie Wilde of Wilde Legal, who acts for the Owners Corporation SP91174.
- 1.2. Annexed to this report and marked "A" is a copy of the letter of instruction.
- 1.3. I confirm that I have read the UCPR Expert Witness Code of Conduct and agree to be bound by the code. A copy of the Code of Conduct is annexed to this report and marked as Annexure "B".
- 1.4. I confirm that I have previously prepared an expert report setting out items of defective works including the required rectification, that being summary of the rectification works required, the full extent of all necessary works is as detailed in my rectification costing.
- 1.5. This report is to quantum only, it addresses all items in my expert report, other than items 13.7 Mechanical Ventilation and 13.8 electrical which are not pressed.
- 1.6. In preparing my report I have made the following assumptions:
 - That all works for the construction of the building at 18 Throsby St were to be completed in accordance with the approved Development Approval issued by Newcastle City Council, the plans and specifications prepared for the Construction Certificate, the BCA and relevant Australian Standards.
 - That all works the subject of this report were undertaken by the builder.
- 1.7. I have been provided with two reports prepared by Warrington Fire for the Owners Corporation. The first report is a Performance Solution Report, bearing the Job number SY 180335, dated 13 February 2019 Revision R1.0 **(WF1)**, this report includes a number of Alternate Solutions to the BCA Deemed to Satisfy requirements, the preparation of these solutions has resulted in a reduced overall scope of rectification to some items.
- 1.8. The second report of Warrington Fire is a Fire Engineering Report bearing the Job Number SY180335, dated 10 April 2019 Revision FER 1.0 **(WF2)**. This report sets out the process of and findings from smoke modelling carried to the central common area galleries. This was undertaken to confirm whether or not the as constructed works that do not comply with the deem to comply provisions may have complied with the BCA requirements as an alternate solution. The report revealed that the construction does not satisfy the Deemed to Comply Provisions nor as an Alternate Solution and therefore rectification works are required.

2. SUPPLIED DOCUMENTATION

2.1 I confirm I have been provided with the following documents. Where these have been relied upon they have been individually referenced within the body of the report.

- Architectural Specification prepared by CKD Architects.
- Architectural Plans prepared by CKD Architects. Drawings A101-A806.
- Civil Engineering Plans. Prepared by Ambai Consultants.
- Electrical Plans prepared by Marline Consulting Engineers. Drawings E01-E19.
- Hydraulic Plans prepared by Marline Consulting Engineers. Drawings H01-H20.
- Landscaping Plans prepared by Forum Urban Sanctum Landscape Design.
- Mechanical Plans prepared by Marline Consulting Engineers. Drawings M01-M14.
- Electrical Specification prepared by Marline Consulting Engineers.
- Hydraulic Specification prepared by Marline Consulting Engineers.
- Mechanical Specification prepared by Marline Consulting Engineers.
- Structural Engineering Plans prepared by Michael Fitzgerald Consulting Engineer. Drawings S0-S15.
- Fire Engineering Report prepared by GHD.
- Construction Certificate dated 20 May 2014.
- Occupation Certificate dated 22 April 2015.
- Fire Safety Schedule issued by BCA Certifiers, dated 20 May 2014.
- BCA Assessment Report prepared by Grant McGrath of Building Code Professionals. Attached to this report and marked as Annexure "C".
- Performance Solution Report prepared for the Owners Corporation by Warrington Fire, dated 13 February 2019. **(WF1)**
- Fire Engineering Report prepared by Warrington Fire dated 18 April 2019. **(WF2)**

3. COSTING BASIS AND METHODOLOGY

- 3.1 I have for each item, prepared a breakdown of the rectification cost which I consider to be reasonable and reflect industry standards.
- 3.2 In preparing my rectification costs I have used unit and hourly rates, or a combination of both, to establish a reasonable amount for rectification.
- 3.3 The rates used have been taken from Cordell's Housing Building Cost Guide March 2018. I have utilised the rates in this publication as being the most applicable for residential building works of this size and this publication is accepted as representing a reasonable cost for the works stated.
- 3.4 An allowance for builder's overhead, supervision and profit margin is shown in the summary of costs in this report.

The inclusions and allowances for each of the three components is as follows:

- Supervision: 10%
Based on my experience as a building supervisor, building contractor and construction manager I am very aware of the time involved to supervise and co-ordinate all works and service of building projects.
In my opinion the time required to competently complete these tasks is increased when undertaking rectification works.
- Overheads and Preliminaries: 8%
The inclusion of 8% to cover overheads and preliminaries is an allowance to cover those aspects of running a building firm that cannot be directly and accurately apportioned to individual cost items.
This allowance covers the general running costs such as vehicles, insurances, licensing, employee entitlements, rent, administration and general consumables such as builders small tools and equipment.
- Profit: 12%
This amount is variable and subject to supply and demand, market trends and the like yet in my experience as a building contractor and construction manager the allowance of 12% as a target margin for profit is fair and reasonable given the financial outlay in running a building operation and the risk associated with buildings along with the builders liability periods, particularly with residential building work.

I have also applied 10% GST.

- 3.5 My estimate does not include an allowance for further defective works that may arise or come to light during the rectification work but were not evident to me at the time of inspection.
- 3.6 Where the builder's expert has accepted items as being defective, I have costed these in a manner to avoid a double that occur when items are costed on a stand alone basis.

INDEX OF ITEMS

Item

1. 5.1 Throsby St Awning
2. 5.2 Glass Roof Panels
3. 5.3 Roof Penetrations
4. 5.4 Roof Sheet Installation
5. 5.5 Swarf & Metal Debris
6. 5.6 Downpipes
7. 5.7 Roof Access & Safety System
8. 5.8 Skylights
9. 6.1 Smoke Hazard Management
10. 6.2 Hydrants
11. 6.3 Fire Hose Reels & Travel Distances
12. 6.4 Sprinklers
13. 6.5 Separation of Classifications
14. 6.6 Protection of Vent Outlets in External Walls
15. 6.7 Openings in Walls to the Corridor
16. 6.8 Gallery Walkways – Levels 1 & 2
17. 6.9 Door Clearances
18. 6.10 Penetrations for services
19. 6.11 Main Switch Room
20. 7.1 Fire Stairs 2 & 3 Passageways
21. 7.2 Access to Eastern Fire Isolated Passageway
22. 8.1 Carpark Exit Door Width
23. 8.2 Residential Lobby Entry / Exit Doors
24. 8.3 Exit Door Signage
25. 8.4 Residential Lobby Ramp
26. 8.5 Disabled Access
27. 9.1 Corroded Building Elements
28. 9.2 Water Penetration – Southern & Eastern Walls
29. 10.1 Non-Compliant Stair Construction
30. 10.2 External Handrails
31. 10.3 Gallery Handrails
32. 11.1 Non-Compliant Tiling

- 33. 11.2 Balcony Gradients & Tiling
- 34. 11.3 Wet Area Gradients
- 35. 12.1 Wet Area Waterproofing
- 36. 12.2 Hanging & Fitting of Internal Doors & Hardware
- 37. 12.3 Poorly Fitted & Finished Joinery
- 38. 12.4 Doors to Sanitary Compartments
- 39. 13.1 Warranties & Manuals
- 40. 13.2 Non-Compliance with Development Approval
- 41. 13.3 Health & Amenity Requirements
- 42. 13.4 Stormwater
- 43. 13.5 Service Cupboards & Risers
- 44. 13.6 Pipe Insulation

ITEM 5.1 – THROSBY STREET AWNING

5.1A. OBSERVATION

I carried out an inspection of the awning over the footpath along Throsby Street; this was accessed via a ladder from the footpath and was also accessed from the first floor units on the northern elevation. To these areas I observed the following:

- Builder's rubble and debris remains in the box gutter.
- Swarf staining and marks are evident within the box gutter.
- The ends of the roof sheets have not been correctly weathered or turned down and closed cell profiled foam fill has not been provided between the roof sheets and the top of the box gutter or between the apron flashing and the top of the roof sheets.
- The box gutter is not provided with provision for surcharge and overflow.

5.1B. RECTIFICATION & COST

Clean out the box gutters of all rubble and debris.

Allow to clean down the roof sheets and box gutter to remove all swarf staining, as detailed in Item 5.5 of this report.

Weathering

Allow to weather the ends of the roof sheets as per the rectification in Items 5.4 and 5.5 of this report.

Sumps and Overflow

Allow to provide safe access to the roof.

Remove the box gutter as required and supply and fit a sump of minimum depth 150mm, as detailed in AS3500; form provision for overflow and connect the sump to the drainage system and make provision for the overflow to discharge through the parapet to the street gutter.

Due to the long length of the box gutter, allow a sump and overflow at each end of the awning.

Because the existing stormwater drainage pipes are penetrated through, and positioned behind a reinforced concrete edge beam that runs along the Throsby St frontage of the Level 1 slab, this prevents connection of the new sumps due to height constraints not permitting gravity drainage. Allow to provide a new downpipe to each of the new sumps and drain into a pit at the base with new stormwater pipes to the street kerb. This will involve cutting up and removal of the existing footpath to install the new stormwater pipes, and then reinstatement of the sections of footpath to match the existing.

Allow for all required sundries and cleaning.

Item No.	Item Description	Quantity	Unit	Rate	Mark Up %	Amount
Trade : 1 <u>5.1 Throsby St Awning</u>						
	5.1 Throsby St Awning					
1						
2	Labour and materials to perform proposed rectification works in accordance with Section 5.1C of Pink Slip Building Reports "Expert Report" reference PS17079 and dated 30th June 2017.					
3	The assumption has been made that sufficient access can be obtained via the roof space to perform the works and no removal of the soffit will be required.		note			
4	Cleaning estimate is based on Bluescope Technical Bulletin 5, Rev 6.		note			
5	The existing stormwater drains are positioned behind a reinforced concrete edge beam that runs along the Throsby St frontage of the Level 1 slab and prevents connection of the new sump drainage due to height constraints not permitting gravity drainage. Drainage via a new down pipe to the street kerb has been allowed in the estimate.		note			
6	Due to the length of the awning box gutter (approx 90m) the estimate is based on an overflow sump being provided to both ends.					
7						
	Sundries					
8	Temporary safety handrail along awning roof - deliver, erect, dismantle.	95.00	m	15.32		1,455.40
9	Weekly hire of temporary safety handrail allowing minimum 2 weeks.	2.00	weeks	31.24		62.48
10	Hire of steel pedestrian barriers, 2.2m long to diver around each work area.	12.00	ea	10.91		130.92
11	Hire 2 x pedestrian diversion signs.	4.00	no	54.55		218.20
12	Labourer to collect and set-up temporary pedestrian barriers and signage, clean during works and remove barriers and signage at completion of works (1M/16hrs)	8.00	hrs	56.62		452.96
13	Allowance for general rubbish removal.	1.00	allow	300.00		300.00
14	Subtotal - Sundries					<u>2,619.96</u>
15						
	Cleaning					
16	Labour to clean out the box gutter of all builder's rubble and debris (1M/3hrs).	3.00	hrs	56.62		169.86
17	Roofer labour to clean down the roof sheets and box gutter (171m2) to remove swarf staining first by stiff brush, then detergent and rinsing to Bluescope recommendations for mild - severe staining. (2M/2D).	32.00	hrs	65.55		2,097.60
18	Supply of detergents, brooms, Scotch-brite pads required for cleaning.	1.00	item	80.00		80.00
19	Subtotal - Cleaning					<u>2,347.46</u>
20						
	Roofing Work					
21	Roofer to weather the ends of roof sheets and install roof infill strips to top and bottom of sheets along the length of the awning, approx 90m (2M/2D).	32.00	hrs	65.55		2,097.60
22	Supply bottom profile closed cell foam infill strips for weathering, tops and bottoms of roof sheets, 810mm wide.	225.00	ea	6.50		1,462.50

23	Supply top profile closed cell foam infill strips for weathering under ridge cappings and apron flashings, 810mm wide.	113.00	ea	6.50	734.50
24	Roofer labour to remove a portion of box gutter as necessary, prepare cut-out for new sump, prepare cut-out and form overflow discharge through the parapet and install a new downpipe and stormwater in the footpath to the street kerb. (1M/1D per each end of awning).	16.00	hrs	65.55	1,048.80
25	Fabricate and fix new sump into position 450 x 450 x 150mm.	2.00	item	102.47	204.94
26	Spiggot to sump including flashing to soffit of awning parapet.	2.00	item	45.00	90.00
27	Supply and install new 150mm diameter round Colorbond downpipe	7.00	m	50.57	353.99
28	Ditto for 100mm diameter bend for downpipe.	4.00	no	44.28	177.12
29	Supply adjustable stainless steel stand off brackets for downpipe fixing.	6.00	no	8.76	52.56
30	Supply wall plugs and stainless steel screws to fix new downpipe bracket, 2 per bracket.	12.00	no	0.78	9.36
31	Supply M8 masonry drill bit - consumable.	1.00	no	6.50	6.50
32	Subtotal - Roofing Work				<u>6,237.87</u>
33					
	Footpath Trenching and Stormwater				
34	Travel and establishment charge per job - saw cutting of footpath.	1.00	item	90.00	90.00
35	Saw cutting of pavement 100mm depth incl cross cuts for ease of removing concrete.	16.00	m	6.80	108.80
36	Labourer to jackhammer and remove concrete trench nominal 600mm wide and dump (1M/6hrs).	6.00	hrs	56.62	339.72
37	Hire of heavy duty electric breaker.	1.00	day	178.18	178.18
38	Plumber labour - additional to breaking-out the chase through the existing concrete pavement to excavate trench by hand and install 100mm diameter PVC stormwater to pick-up the new downpipes (1M/6hrs per end).	12.00	hr	74.49	893.88
39	Supply 150mm PVC stormwater pipe lengths for footpath trenches.	2.00	length	48.36	96.72
40	Supply RELN Series 300 stormwater pit for downpipe discharge into new footpath stormwater pipes.	2.00	no	30.24	60.48
41	Supply RELN pit heel guard light duty grate for above.	2.00	no	40.25	80.50
42	Sundries including PVC glue & primer.	1.00	item	30.00	30.00
43	Allow to supply galvanised steel box section through kerb for stormwater drainage for durability.	2.00	item	40.00	80.00
44	Allow fill sand for backfilling new stormwater trenches.	1.00	item	30.00	30.00
45	Allow sand and cement for patching the new stormwater penetrations through kerb and to bed in the new pits.	6.00	bag	7.55	45.30
46	Subtotal - Footpath Trenching and Stormwater				<u>2,033.58</u>
47					
	Footpath Reinstatement				
48	Concretor to drill and epoxy galvanised reinforcing dowells either side of concrete trench at 300mm centres, install reinforcement to trench and pour and finish concrete (1M/8hrs per end).	16.00	hrs	69.27	1,108.32
49	Supply dowells and dowell caps.	24.00	no	16.59	398.16
50	Supply epoxy for installing dowells into existing slabs.	4.00	tubes	48.58	194.32
51	Supply SL72 reinforcing mesh.	1.00	sheets	63.94	63.94
52	Supply 25MPa concrete.	1.00	m3	214.40	214.40
53	Suppliers minimum charge for small quantity concrete delivery (less than 4m3).	3.00	m3	40.00	120.00
54	Subtotal - Footpath Reinstatement				<u>2,099.14</u>
	5.1 Throsby St Awning			Total :	15,338.01

ITEM 5.2 – GLASS ROOF PANELS

5.2A. OBSERVATION

My inspection from on the roof and within the gallery areas revealed a number of glass roof lights have been incorporated, these provide light into the gallery area and to these I observed the following:

- The glass is not marked as being an appropriate safety glass.
- Excessive sealant has been applied at the junction of the glass and the roof sheets.
- During periods of heavy rain water leaks through and/or around the skylight panels and around the roof light panels, dripping water onto the internal tiles and allowing water behind the linings and onto the framing.

5.2B. RECTIFICATION & COST

Allow to provide safe access onto the roof and remove the roof light panels.

Given the height of the roof area, supply and erect scaffold and platform under the roof lights for to provide a working platform and to prevent risks of workers falling from height. Protect all existing internal surfaces from damage.

Allow sufficient provision for temporary measures to cover openings during the works to protect the inner building from weather overnight and on weekends.

Provide for all material movement from the street to the roof including permits, crane, traffic control and associated labour and hoisting frames for new glazing and to remove existing glazing and rubbish from the roof.

Allow to remove and re-use existing roof sheeting in the vicinity of the skylights to permit access to perform works. Allow to weather the roof sheeting around the opening.

Supply and install appropriate apron and perimeter flashings to the glazed openings.

Supply and fit additional structural purlin framing to support the tray upturns and roof light framing.

Reinstate the roof light framing.

Supply and install new safety glazing with required identification.

Reinstate existing roofing around skylight openings.

Allow for all required sundries.

Clean new glazing on completion.

Remove all rubble and debris and clean up on completion.

Item No.	Item Description	Quantity	Unit	Rate	Mark Up %	Amount
<i>Trade : 2 5.2 Glass Roof Panels</i>						
	5.2 Glass Roof Panels					
	Labour and materials to perform proposed rectification works in accordance with Section 5.2C of Pink Slip Building Reports "Expert Report" reference PS17079 and dated 30th June 2017.					
1						
2	Works performed both externally on the roof and internally from below.		note			
3	Catch scaffolding below has been determined necessary to allow for WHS due to the risk to worker safety to prevent falling from heights and risk of dropped materials / tools & equipment risk falling and causing surface damage and risk to occupants walking below. The roof is approximately 8.5m above level 1 below.		note			
4	The assumption has been made that existing glazing framing can be re-used and no interference with the existing ceiling framing and FC linings below is necessary.		note			
5	Glazed bay sizes differ so the estimate is based on an average size taken for required materials and labour.		note			
6						
	Sundries					
7	Council application fee for temporary permit to place skip bin on road due to no other standing areas available on site (NCC fee schedule).	1.00	item	21.32		21.32
8	Council daily fee for occupancy of non-time restricted parking space (per space) for skip bins. Time has been determined based on 6 glass roof panels, each having all rectification works performed individually prior to the next, allowing 1 x week each for erection of scaffold, removal of existing glazing, performing new works, cleaning and dismantling scaffold (NCC fee schedule).	42.00	days	12.00		504.00
9	Temporary site fencing to isolate skip bin for public safety.	16.00	m	14.19		227.04
10	Skip bin hire and mixed waste dumping allowance.	3.00	item	600.00		1,800.00
11	Tarpaulin hire - allow 6 weeks as it will not be required at the very start of works when scaffold is erected and the very end of works once the new glass is installed and scaffold is removed.	42.00	days	112.73		4,734.66
12	Crane hire and rigger to hoist new materials onto roof during works, and later lift materials off roof (allowing a minimum hire period of 4hrs per visit x 8. 1 x each roof panel for lifting materials, and say 2 others for removal of stockpiled waste materials during works).	32.00	hrs	295.00		9,440.00
13	Allowance for preparation of a traffic control plan and council permit for crane occupying the road.	1.00	item	250.00		250.00
14	Traffic control for crane, 2 x person crew 4 hrs each visit (x 8).	32.00	hrs	140.00		4,480.00
15	Hire of 2 x glass hoisting trolley frames to use to hoist new glass and lower old glass from roof. 1 left on roof during works to store removed glass panels in between crane lifts, and 1 x for hoisting and storing new glass panels during works. Time period based on reasoning per tarpaulin hire.	6.00	weeks	554.55		3,327.30
16	Hire company charge for freight for each glass trolley, each way to and from site.	4.00	no	59.09		236.36
17	Nominal allowance for hardwood timbers to lay in roof pans and span across several purlins to distribute the load of glass trolleys placed on the roof.	1.00	item	800.00		800.00

18	Labourer to assist with tying down tarpaulin over work area and localised cleaning of roofs @ 2 hrs per day (1M/2hrs per day average for 6 weeks)	60.00	hrs	56.62	3,397.20
19	Labour for cleaning of glass on completion (1M/2D)	16.00	hrs	56.62	905.92
20	Allowance for supplying cleaning products and sundries.	1.00	item	150.00	150.00
21	Supply Roofers safety kit including full body harness, energy absorbing lanyard, rope and bag for labourer's use (more economical to purchase than hire over the period of works).	1.00	no	318.00	318.00
22	Subtotal - Sundries				<u>30,591.80</u>
23					
	Internal Surface Protection				
24	Labour to install protection materials to the existing Gallery tiled floors and surrounding handrails below each roof light bay prior to scaffold erection, remain on site during scaffold erection for make-safe of work areas and final scaffold dismantle (1M/8hrs per bay per 6 x glazed roof areas).	48.00	hrs	56.62	2,717.76
25	Supply 2400 x 1200 x 9mm CD ply for surface protection to the Gallery tiled floor (below scaffolded areas). Re-use at each location.	11.00	no	34.64	381.04
26	Protection material - heavy duty 20m x 1.2m foam roll to lay below ply for protection to the tiled floors from scratching.	3.00	ea	81.82	245.46
27	Supply 50 x 2m roll of builder's plastic to protect adjacent handrails and surfaces.	2.00	no	84.00	168.00
28	Supply 30m x 48mm roll of duct tape for fixing of protection plastic.	12.00	no	3.83	45.96
29	Allowance for danger and advisory signage for occupant safety in the Gallery area.	1.00	item	300.00	300.00
30	Subtotal - Internal Surface Protection				<u>3,858.22</u>
31					
	Scaffolding - internal 'catch' type scaffold working platform beneath skylights with ladder beams spanning L2 walkway to permit ongoing tenant accessibility				
32	Scaffold labour, additional for time involved to carry scaffold into and out of building on establishment and completion (4M/2hr x twice)	16.00	hrs	56.62	905.92
33	Scaffold labour to erect per work-bay, 6 x areas (average 4M/8hrs each)	192.00	hrs	56.62	10,871.04
34	Scaffold labour to dismantle and move equipment per work bay, 6 x areas (average 4M/6hrs each)	144.00	hrs	56.62	8,153.28
35	Scaffold hire per week per m2 of vertical face area. Allowing 5 days hire per work area for 6 work areas.	6.00	weeks	946.25	5,677.50
36	Labourer to attend site and set up make-safe incl safety signage and danger tape to scaffold each time (1M/2hr)	12.00	hrs	56.62	679.44
37	Subtotal - Scaffolding				<u>26,287.18</u>
38					
	Roofing / Glazing Work				
39	Glazier labour to remove existing glass and framing and move to hired glass cradle on roof (average 4M/8hrs per 6 x areas).	192.00	hrs	64.92	12,464.64
40	Roofer labour to lift existing roof sheets, remove existing metal roof cappings, turn down edges of upper roof pans, turn up edges of lower roof pans surrounding glazed areas (average of 2M/1D per 6 x areas).	96.00	hrs	65.55	6,292.80
41	Supply and fix steel purlin channel bridging 150mm deep incl brackets & fixings for additional structural framing.	155.00	m	37.43	5,801.65
42	Supply bottom profile closed cell foam infill strips to weather roof sheets at glazed openings, tops and bottoms of roof sheets, 810mm wide.	157.00	ea	6.50	1,020.50

43	Supply top profile closed cell foam infill strips to weather roof sheets at glazed openings, under ridge cappings and apron flashings, 810mm wide.	79.00	ea	6.50		513.50
44	Glazier labour to re-install glass framing and new glazing into the existing glazing frames, including carrying glass, moving into position, and installing including sealing (average 4M/12hrs per 6 x areas. 4 x men allowed, 2 x working at roof level, 2 x working from scaffold below)	288.00	hrs	64.92		18,696.96
45	Supply new glazing.	157.00	m2	493.50		77,479.50
46	Allow new glazing rubbers and sundries required for installation of glazing.	157.00	m2	25.00		3,925.00
47	Roofer labour to install new flashings around perimetres of glazed skylight roof openings and re-lay roof sheets (average of 3M/1.5D per 6 x areas).	216.00	hrs	65.55		14,158.80
48	Supply Colorbond Ultra under-tray flashing to perimeter of skylight void, nominal 600mm wide.	155.00	m	65.87		10,209.85
49	Supply Colorbond Ultra apron flashing to perimeter of skylight void.	155.00	m	64.12		9,938.60
50	Supply replacement roofing screws, 1000 per box.	3.00	box	612.10		1,836.30
51	Supply of rivets, 100 per box.	5.00	box	31.52		157.60
52	Supply of mastic sealant for roof work, allowing 12 tubes per opening (6 off).	72.00	no	8.00		576.00
53	Subtotal - Roofing / Glazing Work					<u>163,071.70</u>
5.2 Glass Roof Panels						Total : 223,808.90

ITEM 5.3 – ROOF PENETRATIONS

5.3A. OBSERVATION

My inspection extended onto all roof surfaces.

To the roof over the upper level units and gallery or public corridors I observed the following:

- The roof incorporates penetrations for vents and sewer vent pipes, these have not been finished with a back tray and water is able to pool behind, which will in turn result in leaking
- Water pools behind the ventilators and vent pipes.
- Back flashings have not been installed where the free flow of water is obstructed.
- The flue and vent pipes have not been fitted with a correctly installed back tray or flashing.
- Water enters the units; when investigated this was found to be coming from penetrations through the roof surface. This was identified in a number of units, including unit 202.

5.3B. RECTIFICATION & COST

Allow to provide safe access to and access the roof area.

Remove all existing Dektites, roof cowls, flashing to the hot water flue and skylights to units.

Remove existing aluminium screens to the north and south sides of the raised Gallery roof where new back tray flashings will be installed for the penetrations (the existing roof sheets extend under and beyond these screens to the ridge).

Allow to supply and install a back tray style flashing, as detailed above, to ensure all roof penetrations do not obstruct the free flow of water through the pan of the sheets. Allow to weather the top and bottoms of new back tray flashings.

Supply and install a new Dektite style flashing or equivalent. The pan or back tray flashing is to be a minimum of 25mm wider than the base of the Dektite flashing.

Re-install the existing aluminium screens to the sides of the gallery roof.

Allow for all required sundries and cleaning.

Item No.	Item Description	Quantity	Unit	Rate	Mark Up %	Amount
Trade : 3 5.3 Roof Penetrations						
	5.3 Roof Penetrations					
1	Labour and materials to perform proposed rectification works in accordance with Section 5.3C of Pink Slip Building Reports "Expert Report" reference PS17079 and dated 30th June 2017.					
2						
3	Quantities from plans:					
4	50mm diameter vent pipe.	3.00	no			
5	65mm diameter vent pipe.	26.00	no			
6	100mm diameter trade waste vent pipe.	1.00	no			
7	127mm diameter hot water unit flue.	1.00	no			
8	Roof exhaust cowl - unit #36 (incorrect - see line #12 below).	1.00	no			
9	Skylights to level 2 units #36, 37 - 49 inclusive.	14.00	no			
10	From site visit - exhaust cowls not shown on documents - 1 x per L2 unit.	26.00	no			
11						
	Sundries					
12	Council application fee for temporary permit for skip bin on road (NCC fee schedule).	1.00	item	21.32		21.32
13	Council daily fee for occupancy of non-time restricted parking space (per space) for skip bin (NCC fee schedule).		days	12.00		
14	Temporary site fencing to isolate skip bin for public safety.	16.00	m	14.19		227.04
15	Skip bin hire and mixed waste dumping allowance.	1.00	item	350.00		350.00
16	Subtotal - Sundries					<u>598.36</u>
17						
	Vent Pipes					
18	Roofer labour to remove existing vent pipe Decktite flashings to vent pipes (1M/15 mins each x 30)	7.50	hrs	65.55		491.63
19	Carpenter to remove existing aluminium screens to the locations where new back-try flashings will extend to the ridge below the gallery roof. 30 individual locations (1M/2D).	16.00	hrs	69.27		1,108.32
20	Supply Colorbond Ultra back tray flashing from front of penetration to top of roof 24 @ 5.9m long x 2 pans wide - vent pipes.	141.60	m	62.44		8,841.50
21	Ditto - 3 @ 10.9m long	32.70	m	62.44		2,041.79
22	Ditto - 1 @ 7.7m long	7.70	m	62.44		480.79
23	Ditto - 1 @ 6.7m long	6.70	m	62.44		418.35
24	Ditto - 1 @ 3m long	3.00	m	62.44		187.32
25	Roofer labour to install new back tray flashing to each vent pipe decktite location, including turning down of roof sheet pans and installing closed cell foam strips (2M/1.5hrs each x 30 off)	90.00	hrs	65.55		5,899.50
26	Supply & install new Dektite pipe collars to 50mm diameter vent pipes.	3.00	no	53.57		160.71
27	Ditto - 65mm diameter	26.00	no	83.17		2,162.42
28	Ditto - 100mm diameter	1.00	no	83.17		83.17

29	Supply replacement roofing screws, 1000 per box	1.00	box	612.10	612.10
30	Supply of mastic sealant for roof work, allowing 1 tube per penetration	30.00	no	8.00	240.00
31	Supply bottom profile closed cell foam infill strips to weather roof, tops and bottoms of roof sheets, 810mm wide.	30.00	ea	6.50	195.00
32	Supply top profile closed cell foam infill strips to weather roof under top and bottom of back-tray flashings, 810mm wide.	30.00	ea	6.50	195.00
33	Carpenter to re-install existing aluminium screens previously removed for the works to the locations where new back-try flashings will extend to the ridge below the gallery roof (1M/2D).	16.00	hrs	69.27	1,108.32
34	Sundries for screens (misc fixings lost or damaged during removal)	1.00	allow	125.00	125.00
35	Subtotal - Vent Pipes				<u>24,350.92</u>
36					
	Hot Water Flue Flashing				
37	Roofer labour to remove existing hot water flue flashing (1M/15 mins)	0.25	hrs	65.55	16.39
38	Supply Colorbond Ultra back tray flashing from front of penetration to top of roof 1 @ 7.5m long x 2 pans wide.	7.50	m	113.04	847.80
39	Supply new metal flashing for flue penetration.	1.00	no	130.24	130.24
40	Roofer labour to install back tray flashing, including turning down roof sheet pans and installing closed cell foam strips and fit metal collar to flue penetration (2M/1.5hr)	3.00	hr	65.55	196.65
41	Supply replacement roofing screws, 1000 per box	0.02	box	612.10	12.24
42	Supply of mastic sealant for roof work, allowing 1 tube per penetration	1.00	no	8.00	8.00
43	Supply bottom profile closed cell foam infill strips for roof weathering, tops and bottoms of roof sheets, 810mm wide.	2.00	ea	6.50	13.00
44	Supply top profile closed cell foam infill strips for roof weathering under top and bottom of back-tray flashings, 810mm wide.	2.00	ea	6.50	13.00
45	Subtotal - Hot Water Flue Flashing				<u>1,237.32</u>
46					
	Skylights & Roof Exhaust Cows				
47	Carpenter to remove existing aluminium screens to the locations where new back-try flashings will extend to the ridge below the gallery roof to 40 individual locations (1M/2D).	16.00	hrs	69.27	1,108.32
48	Roofer labour to remove existing flashing to roof exhaust cowl (1M/15 mins each x 26)	6.50	hrs	65.55	426.08
49	Roofer labour to remove existing flashing to skylights (1M/30 mins each x 14)	7.00	hrs	65.55	458.85
50	Supply Colorbond Ultra back tray metal flashing for unit exhaust cowl 26 @ 12.0m long x 4 pans wide	312.00	m	106.16	33,121.92
51	Supply Colorbond Ultra perimeter under and over flashings for roof exhaust cowl 26 @ 4.8m total per cowl	125.00	m	22.43	2,803.75
52	Supply Colorbond Ultra back tray metal flashing for unit skylights 14 @ 8.0m long x 5 pans wide	112.00	m	116.10	13,003.20
53	Supply Colorbond Ultra under and over flashings for skylights 14 @ 11.2m total per skylight	157.00	m	22.43	3,521.51
54	Roofer labour to install flashings for unit exhaust cowl (2M/1.5hr each x 26)	78.00	hrs	65.55	5,112.90
55	Roofer labour to install flashings for unit skylights (2M/3hr each x 14)	84.00	hrs	65.55	5,506.20
56	Supply replacement roofing screws, 1000 per box	2.00	box	612.10	1,224.20
57	Supply of rivets, 100 per box	20.00	box	31.52	630.40
58	Supply of mastic sealant for roof work, allowing 2 tube per cowl penetration and 4 per skylight penetration	108.00	no	8.00	864.00

59	Supply bottom profile closed cell foam infill strips for roof weathering, tops and bottoms of roof sheets, 810mm wide.	94.00	ea	6.50		611.00
60	Supply top profile closed cell foam infill strips for roof weathering under lower apron flashings, 810mm wide.	94.00	ea	6.50		611.00
61	Supply and installation of new Kliplock roof sheets from ridge to eave to cover the void left after removal of the roof access hatch.	16.00	hrs	69.27		1,108.32
62	Sundries for screens (misc fixings lost or damaged during removal)	1.00	item	150.00		150.00
63	Subtotal - Skylights and Roof Exhaust Cowl.					<u>70,261.65</u>
<u>5.3 Roof Penetrations</u> Total :						96,448.25

ITEM 5.4 – ROOF SHEET INSTALLATION

5.4A. OBSERVATION

From my inspection of the roof areas I observed the following deficiencies:

- The ends of the roof sheets have not been correctly weathered (turned down).
- Closed cell foam fill has not been provided between the underside of the sheets and the fascia or between the sheets and the ridge or apron flashing.

5.4B. RECTIFICATION & COST

Allow to provide safe access and work system to the roof area.

Allow to release the screws in the apron flashings.

Allow to lift the sheets and install a closed cell profiled foam fill or proprietary end caps to the ends of the sheets extending into gutters and under flashings.

Allow to turn down the pan of the sheets to an angle of 20°, as stated in the manufacturer's installation manual.

Refit the ends of the roof sheets into position and tighten screws in the apron flashings.

Allow for all required sundries and cleaning.

Item No.	Item Description	Quantity	Unit	Rate	Mark Up %	Amount
<i>Trade : 4 5.4 Roof Sheet Installation</i>						
	5.4 Roof Sheet Installation					
1						
	Labour and materials to perform proposed rectification works in accordance with Section 5.4C of Pink Slip Building Reports "Expert Report" reference PS17079 and dated 30th June 2017.					
2						
3	The estimate has been based on tuning down the pans of the roof sheets on the low (gutter ends) and also turning them up at the tops of the roof sheets in accordance with the project specification. Weathering of other penetrations and skylights found in other variations have been excluded.		note			
4						
	Roofing Work					
5	Carpenter to remove existing aluminium screens along 2 sides of the gallery roof structure for roof sheet access. 71 individual screens at 860mm high x 1140mm wide along the southern gallery roof. 63 individual screens at 1640mm high x 1140mm wide along the northern gallery roof. (2M/2D)	32.00	hrs	69.27		2,216.64

6	Roofer to weather the ends of roof sheets and install foam roof infill strips to the tops and bottoms of all roof sheets along the length of the northern and southern roofs and the gallery roof ie 3 x areas of roof, top and bottom at approx 87m width each equalling approximately 522 lineal metres (3M/6D).	144.00	hrs	65.55		9,439.20
7	Supply bottom profile closed cell foam infill strips for weathering under tops and bottoms of roof sheets, 810mm wide.	841.00	ea	6.50		5,466.50
8	Supply top profile closed cell foam infill strips for weathering under ridge cappings and apron flashings.	411.00	ea	6.50		2,671.50
9	Carpenter to re-install existing aluminium screens to the north and south of the gallery roof, previously removed to perform the roof works.	32.00	hrs	69.27		2,216.64
10	Sundries for screens (misc fixings lost or damaged during removal)	1.00	item	300.00		300.00
11	Labourer to clean the works area on completion of works (1M/1D)	8.00	hrs	56.62		452.96
<u>5.4 Roof Sheet Installation</u>					Total :	22,763.44

ITEM 5.5 – SWARF AND METAL DEBRIS

5.5A. OBSERVATION

My inspection to the surface of the roofs revealed the following:

- Extensive swarf staining is present to the roof sheeting.
- Extensive swarf staining and/or corrosion is present to the front gutter
- Excess screws, rivets and metal offcuts remain on the roof sheet and/or in the gutters.

5.5B. RECTIFICATION & COST

Allow to provide safe access and work system to the roof area.

Allow to firstly remove any loose swarf, metal and debris from the roof surfaces.

Allow to thoroughly inspect and go over the entire roof surface and clean and wash off all swarf and other metal and debris from the roof sheeting, cappings and gutters.

Allow for all required sundries.

Item No.	Item Description	Quantity	Unit	Rate	Mark Up %	Amount
<i>Trade : 5 <u>5.5 Swarf & Metal Debris</u></i>						
	5.5 Swarf & Metal Debris					
1	Labour and materials to perform proposed rectification works in accordance with Section 5.5C of Pink Slip Building Reports "Expert Report" reference PS17079 and dated 30th June 2017.					
2	Cleaning estimate is based on Bluescope Technical Bulletin 5, Rev 6.		note			
3	The assumption has been made of free use of water to wash down the roof.		note			
4						
	Sundries					
5	Supply roofers safety kit including full body harness, energy absorbing lanyard, rope and bag for labourer's use (more economical than hiring for the period of works).	2.00	no	318.00		636.00
6	Subtotal - Sundries					<u>636.00</u>
7						
	Roof Cleaning					
8	Labour to clean the roof and gutters of all builder's rubble and debris at commencement of works (2M/2D)	32.00	hrs	56.62		1,811.84

9	Labour to clean down the roof sheets (1862m2) to remove swarf staining, first by stiff brush, then detergent and rinsing to Bluescope recommendations for mild - severe staining. Allowed 2M/5D on Throsby St side of roof, 2M/5D on Dickson St side of room and 2M/2.5D on Gallery roof.	200.00	hrs	56.62		11,324.00
10	Supply of detergents, Scotch-brite pads.	1,862.00	m2	0.30		558.60
11	Subtotal - Roof Cleaning					<u>13,694.44</u>
<u>5.5 Swarf & Metal Debris</u>					Total :	14,330.44

ITEM 5.6 – DOWNPIPES

5.6A. OBSERVATION

My inspection on the surface of the roof revealed the following:

- Downpipe spreaders from upper level roofs discharge onto a lower level roof.
The upper level roof surface area is greater than 10m². Downpipe spreaders, as stated by AS3500 should not be used in this location
- Screws securing the downpipe brackets were found to be rusty.

5.6B. RECTIFICATION & COST

Allow to access the roof, remove the downpipe spreaders and carry out the following works.

Allow to lift the roof sheets in the vicinity of the spreaders and seal all laps in roof sheets a minimum 1800mm on either side of the point of discharge, for the full length of the roof sheet side laps in accordance with Australian Standard HB39.

Reinstate downpipe spreaders in accordance with Australian Standard HB39, including end caps to each end of the transverse spreader, securely fastened in place.

Allow to replace rusting screws securing the downpipe brackets.

Allow for all required sundries and to clean up on completion.

Item No.	Item Description	Quantity	Unit	Rate	Mark Up %	Amount
<i>Trade : 6 5.6 Downpipes</i>						
	5.6 Downpipes					
1						
2	Labour and materials to perform proposed rectification works in accordance with Section 5.6C of Pink Slip Building Reports "Expert Report" reference PS17079 and dated 30th June 2017.					
3	Quantities:					
4	Number of PVC downpipes with spreaders servicing the gallery roof	8.00	no			
5	Number of PVC downpipes servicing the elevated balcony roofs	12.00	no			
6						
	Sundries					
7	Allow labourer to clean up the works areas on completion (1M/8hrs)	8.00	hrs	56.62		452.96
8	Allow dumping of rubbish	1.00	allow	100.00		100.00
9	Subtotal - Sundries					<u>552.96</u>
10						

Roofing Works - Gallery Downpipes					
11	Roofer labour to remove 8 x existing downpipes / spreaders and fit 2 x PVC end caps to each spreaders and re-install downpipes (1M/8hrs)	8.00	hrs	65.55	524.40
12	Supply 90mm diameter PVC end caps.	16.00	no	2.32	37.12
13	Supply 250mL PVC primer	1.00	no	4.91	4.91
14	Supply 250mL PVC solvent	1.00	no	5.64	5.64
15	Supply labour and silicone for installation of 10mm wide x 5mm deep silicone bead only along the full length of roof sheet laps below, and to 1.8m either side of the ends of the downpipe spreader in accordance with Australian Standard HB39. (Quantity is 8 x downpipes total, each downpipe spreader is 8 roofing pans wide = 4 sheets wide. Australian Standard HB39 requires to seal roof sheet laps 1.8m either side of a downpipe, therefore 3.6m total width. 3.6m/0.4m wide sheets = 9 sheets. Total is therefore 4 sheets (downpipe width itself) + 9 sheets = 13. Need to add + 1 end lap hence 14 laps to seal x 14m along length of the roof sheets).	1,568.00	m	3.94	6,177.92
16	Allow separate labour for roof labour to lift and move sheets including existing flashings that are located in the areas where the sheets are being sealed and re-install once silicone beading is applied (2M/4D)	64.00	hrs	65.55	4,195.20
17	Allowance to supply replacement screws for rusting downpipe bracket fixing.	1.00	item	40.00	40.00
18	Subtotal - Gallery Downpipes				<u>10,985.19</u>
19					
Roofing Works - Elevated Balcony Roof Downpipes					
20	Roofer labour to remove 12 x existing downpipes / spreaders and fit 1 x PVC end cap to spreaders and re-install (1M/8hrs)	8.00	hrs	65.55	524.40
21	Supply 90mm diameter PVC end caps.	12.00	no	2.32	27.84
22	Supply 250mL PVC primer	1.00	no		INCL
23	Supply 250mL PVC solvent	1.00	no		INCL
24	Supply and installation of 10mm wide x 5mm deep silicone bead only along the full length of roof sheet laps below, and to 1.8m either side of the downpipe spreader in accordance with Australian Standard HB39. (Quantity is 12 x downpipes total, each downpipe spreader is 2 roofing pans wide = 1 sheets wide. Australian Standard HB39 requires to seal roof sheet laps 1.8m from the end of the single down pipe spreader, therefore 1.8m/0.4m wide sheets = 2.5 sheets. Total is therefore 1 sheet (spreader width itself) + 2.5 sheets = 3.5, round to 4 sheets. Need to add + 1 end lap hence 5 laps to seal x 2.5m along length of roof sheets).	150.00	m	3.94	591.00
25	Allow separate labour for roof labour to lift and move sheets including existing flashings that are located in the areas where the sheets are being sealed and re-install once silicone beading is applied (2M/2D).	32.00	hrs	65.55	2,097.60
26	Allowance to supply replacement screws for rusting downpipe bracket fixing.	1.00	item	40.00	40.00
27	Subtotal - Elevated Balcony Roof Downpipes				<u>3,280.84</u>
5.6 Downpipes				Total :	14,818.99

ITEM 5.7 – ROOF ACCESS AND SAFETY SYSTEM

5.7A. OBSERVATION

My inspection of the property included onto the roof and revealed the following.

- Access is provided onto the roof via a makeshift arrangement within the isolated fire stair 02.
- When the ladder is in place, the fire door from level two cannot be fully opened.
- A number of harness points have been provided on the roof system, however a system as described in the specification has not been provided.
- The ladder brackets provided do not provide access onto the main roof surface, only the section in this gallery and there is no fall arrest system to these two roofs.
- Two full body harnesses with shock absorbing lanyards have not been supplied and stored onsite.

5.7B. RECTIFICATION & COST

Roof Access

Remove and dispose of the existing roof access system and supply and fit new complying system in alternate location.

Allow to frame up the void left in the roof from removal of the existing hatch and locally remove the existing roof sheets to this area of the roof. Provide new roofing to replace that removed, to run full length from ridge to eaves and cover the roof void.

Infill the void left in the ceiling of the fire stairs from removal of the existing roof access system and infill with fire rated plasterboard and paint the ceiling.

Allow to modify and frame up a new access shaft within level 2 gallery assuming an opportunity may exist behind the lift shaft to house a ladder to access a new roof access hatch installed in the roof of the gallery.

Supply and fix a proprietary roof walkway platform from the roof access to all plant and equipment that is located on the roof.

The proposed rectification will be that as set out in the specification at parts 1.3, 1.4, 1.5, 2.1 and 3.1.

Supply, install and certify a new roof access cable system, sufficient to safely access all roof areas and gutters. Provide the two full body harnesses specified.

Allow for all required sundries and cleaning.

Item No.	Item Description	Quantity	Unit	Rate	Mark Up %	Amount
<i>Trade : 7 5.7 Roof Access & Safety System</i>						
	5.7 Roof Access & Safety System					
1						
2	Labour and materials to perform proposed rectification works in accordance with Section 5.7C of Pink Slip Building Reports "Expert Report" reference PS17079 and dated 30th June 2017.					
	Sundries					
3	Council application fee for temporary permit for skip bin on road (NCC fee schedule).	1.00	item	21.32		21.32
4	Council daily fee for occupancy of non-time restricted parking space (per space) for skip bin (NCC fee schedule)	7.00	days	12.00		84.00
5	Temporary site fencing to isolate skip bin for public safety.	16.00	m	14.19		227.04
6	Allowance for skip bin	1.00	item	600.00		600.00
7	Supply 50 x 2m roll builder's plastic for protection of internal surfaces for construction of new roof access.	1.00	no	84.00		84.00
8	Supply 30m x 48mm roll of duct tape - ditto.	12.00	no	3.83		45.96
9	Protection material - heavy duty 20m x 1.2m foam roll - ditto	2.00	ea	81.82		163.64
10	Supply 2400 x 1200 x 9mm CD ply for surface protection over foam on tiled floor surface	6.00	ea	34.64		207.84
11	Supply rolls of danger tape for safety isolation.	2.00	rolls	7.73		15.46
12	Crane hire and rigger to hoist new roof materials for roof safety and access onto roof, and lift redundant materials off roof (allowing a minimum hire period of 4hrs per visit).	4.00	hrs	295.00		1,180.00
13	Allowance for traffic control plan and permit for crane occupying road	1.00	item	250.00		250.00
14	Traffic control for crane, 2 x person crew	4.00	hrs	140.00		560.00
15	Mobile scaffold hire 5.5m x 1.3m wide - for height access to construct structure and lining of new roof access shaft.	5.00	days	163.64		818.20
16	Erection and dismantle of scaffold including walking into and out of building (2M/4hrs each)	16.00	hrs	56.62		905.92
17	Labourer to clean during and on completion of works (1M/4D)	32.00	hrs	56.62		1,811.84
18	Subtotal - Sundries					<u>6,975.22</u>
19						
	Removal of Existing Roof Access Hatch and Make Good of Roof					
20	Labour to remove the existing roof access ladder and platform arrangement in the fire stair and carry to skip bin and tidy area (1M/4hrs)	4.00	hrs	56.62		226.48
21	Roofer labour to remove the existing roof access hatch and associated flashings and carry to skip (1M/4hrs)	4.00	hrs	65.55		262.20
22	Allow Carpenter to tidy and frame in the existing access hatch void prior to roofing and at the bottom prior to ceiling lining (1M/4hrs)	4.00	hrs	69.27		277.08
23	Allow for void infill framing materials and sundries.	1.00	allow	45.00		45.00
24	Supply and installation of new Kliplock roof sheets from ridge to eave to cover the void left after removal of the roof access hatch.	40.00	m2	56.31		2,252.40
25	Additional Roofing labour to remove the existing handrail where roof sheets need to be re-installed, remove existing roof sheets and later re-install the handrails (2M/8hrs)	16.00	hrs	65.55		1,048.80

26	Plasterer labour to line with 2 x layers of fire resistant plasterboard the void left in the ceiling, patch, set and sand (1M/4hrs)	4.00	hrs	66.20		264.80
27	Allowance to supply plasterboard, setting compound and sundries	1.00	item	60.00		60.00
28	Painting labour to paint ceiling pathching (1M/6hrs)	6.00	hrs	57.10		342.60
29	Supply paint	4.00	L	19.36		77.44
30	Subtotal - Removal of Existing Roof Access Hatch and Make Good on Roof					<u>4,856.80</u>
31						
	New Roof Access					
32	The assumption has been made that there could be space in a void behind the lift that could be suitable for a cupboard - type structure to be built and house ladder access up to a new roof hatch in the gallery roof above.		note			
33	Labourer to set up temporary protection to the works area in the gallery and isolate for occupant safety (1M/4hrs).	4.00	hrs	56.62		226.48
34	Supply new 800 x 1000mm hinged roof access hatch.	1.00	item	1,800.00		1,800.00
35	Roofer labour to cut in and install the new roof access hatch (2M/1D)	16.00	hrs	65.55		1,048.80
36	Allow for the supply of associated flashings, back tray flashing and sundry materials for the new roof hatch installation.	1.00	allow	400.00		400.00
37	Nominal allowance for Carpenter labour to provide new works and modifications to the proposed new access cupboard / shaft area to house the new roof access ladder - 2M/5D.	80.00	hrs	69.27		5,541.60
38	Nominal materials supply allowance for door & frame, shaft framing, cladding, linings, etc for the new access cupboard / shaft.	1.00	item	4,500.00		4,500.00
39	Painter labour allowance for painting the new access shaft / cupboard (1M/2D).	16.00	hrs	57.10		913.60
40	Supply paint and painting sundries.	1.00	item	300.00		300.00
41	Supply of a new access ladder for access via the new shaft up to the roof.	7.00	m	66.50		465.50
42	Carpenter to install the new ladder inside the shaft (1M/6hrs)	6.00	hrs	69.27		415.62
43	Supply miscellaneous brackets and fixings to install ladder within shaft	1.00	allow	150.00		150.00
44	Allowance to supply a new custom door sign identifying the roof access	1.00	item	90.00		90.00
45	Supply and install a new aluminium roof walkway from the location of the new roof access hatch (adjacent to the lift) on the gallery roof, westward to approximately mid-way along the gallery roof, down the width of the gallery roof to the existing ladder onto the southern roof and from the bottom of the existing ladder south and then east across to the plant deck access point.	57.00	m	173.25		9,875.25
46	Supply and install aluminium handrail along the new walkway, and around the perimeter of the new roof access hatch.	62.00	m	210.00		13,020.00
47	Subtotal - New Roof Access					<u>38,746.85</u>
48						
	Removal of Existing Roof Safety Items					
49	A site inspection was performed and there are approximately 84 existing existing individual anchors on the roof.		note			
50	Roofer labour to remove the existing fall protection system and make good all roof penetrations (1M/30mins per location x 84)	42.00	hrs	65.55		2,753.10
51	Allowance for miscellaneous materials including Colorbond metal flashings, silicone, rivets at average of \$20 per existing location	84.00	no	20.00		1,680.00
52	Subtotal - Removal of Existing Roof Safety Items					<u>4,433.10</u>

53					
	New Fall Protection System				
54	Supply, installation and certification of a new roof static line fall protection system to the roof	175.00	m	425.25	74,418.75
55	Supply Roofers safety kit including full body harness, energy absorbing lanyard, rope and bag	2.00	no	318.00	636.00
56	Subtotal - New Fall Protection System				<u>75,054.75</u>

5.7 Roof Access & Safety System**Total : 130,066.72**

ITEM 5.8. – SKYLIGHTS

5.8A. OBSERVATION

My inspection from within the units, as well as from the roof surface revealed that glass roof lights have been installed to serve the Level 2 residential sole-occupancy units that are located less than 3m apart.

This item applied to lots 13, 39, 40, 41, 42, 44, 45, 46, 47, 48 and 49.

The glass to the skylights is not labelled as being safety glass.

5.8B. RECTIFICATION & COST

Allow to gain safe access onto the roof.

Cover up and protect internal surfaces in units below.

Take out the skylight and set aside for reuse.

Cut and form a new opening for the skylight in a position to comply with BCA Specification C1.1, part 3.6

Allow to frame up the redundant openings and replace roof sheets to the old openings.

Supply, fix and set new plasterboard to the openings.

Refit the skylight frames.

Remove the existing glass and replace with safety glass which is permanently labelled.

Make good all internal and external surfaces and repaint.

Allow for all required sundries.

Clean up on completion and remove all rubble and debris.

Item No.	Item Description	Quantity	Unit	Rate	Mark Up %	Amount
<i>Trade : 8 <u>5.8 Skylights</u></i>						
	5.8 Skylights					
1	Labour and materials to perform proposed rectification works in accordance with Section 5.8C of Pink Slip Building Reports "Expert Report" reference PS17079 and dated 30th June 2017.					
2	Roof flashings and back trays are included in item #5.3 Roof Penetrations.		note			
3	Assumption that if work was to proceed the materials would be craned onto the roof in conjunction with item 5.2C		note			

4	6 x of the existing skylights are oved in order to obtain the required clearance with the others / boundary remaining in place. Allowance to replace the glass with safety glass and perform rectification works to flashings and roofing associated with all skylights.		note			
5						
	Sundries					
6	Council daily fee for occupancy of non-time restricted parking space (per space) for skip bin (NCC fee schedule).	5.00	days	12.00		60.00
7	Allowance for skip bin	2.00	item	600.00		1,200.00
8	Labour to cover-up and protect internals of units in vicinity of work areas (1M/1hr per unit x 11)	11.00	hrs	56.62		622.82
9	Supply 50 x 2m roll for protection of internal surfaces.	1.00	no	84.00		84.00
10	Crane hire and rigger to hoist new materials onto roof and later return to hoist old materials off roof (allowing min hire period of 4hrs per visit x 2)	8.00	hrs	295.00		2,360.00
11	Traffic control plan and permit for crane occupying road	1.00	item	250.00		250.00
12	Traffic control for crane, 2 x person crew for 4 hrs (x2)	8.00	hrs	140.00		1,120.00
13	Labour to remove internal unit protection and clean on completion of work (1M/1.5hrs per unit x 11)	16.50	hrs	56.62		934.23
14	Subtotal					<u>6,631.05</u>
15						
	Roofing					
16	Carpenter to remove existing aluminium screens to the locations where new back-try flashings will extend to the ridge below the gallery roof (1M/1D)	8.00	hrs	69.27		554.16
17	Roofer labour to remove existing flashing to all skylights (1M/30 mins each x 14)	7.00	hrs	65.55		458.85
18	Roofer labour to remove, cut new opening and re-locate skylights (Revised to 6 x 2M/4hrs ea)	48.00	hrs	65.55		3,146.40
19	Supply & installation of new Colorbond Klip Lok 406 Ultra along length of roof where all skylights are re-flashed, 3 x 406mm sheets wide.	136.42	m2	56.31		7,681.58
20	Supply Colorbond Ultra back tray metal flashing for unit skylights 14 @ 8.0m long x 5 pans wide	112.00	m	116.10		13,003.20
21	Supply Colorbond Ultra under and over flashings for skylights 14 @ 11.2m total per skylight	157.00	m	22.43		3,521.51
22	Roofer labour to install flashings for unit skylights (2M/3hr each x 14)	84.00	hrs	65.55		5,506.20
23	Supply replacement roofing screws, 1000 per box	1.00	box	612.10		612.10
24	Supply of rivets, 100 per box	10.00	box	31.52		315.20
25	Supply of mastic sealant for roof work, allowing 4 per skylight penetration	56.00	no	8.00		448.00
26	Supply bottom profile closed cell foam infill strips, tops and bottoms of roof sheets, 810mm wide.	42.00	ea	6.50		273.00
27	Supply top profile closed cell foam infill strips under lower apron flashings, 810mm wide.	21.00	ea	6.50		136.50
28	Carpenter to re-install existing aluminium screens to the locations where new back-try flashings will extend to the ridge below the gallery roof (1M/1D)	8.00	hrs	69.27		554.16
29	Sundries for screens (misc fixings lost or damaged during removal)	1.00	item	150.00		150.00
30	Subtotal					<u>36,360.86</u>
31						
	Glazing					
32	Glazing labour to remove existing glass from skylights (2M/30mins each x 11)	11.00	hrs	64.92		714.12
33	Labour and materials to re-glaze skylights with 10mm safety glass	11.00	m2	399.40		4,393.40

34	Allow additional labour to move new glass panels to skylight locations along roof and old panels to common point prior to craning off the roof (2M/3hr)	6.00	hr	56.62	339.72
35	Subtotal				<u>5,447.24</u>
36					
	Carpentry				
37	Supply timber framing per unit 6/5.4m lengths 90 x 45 pine - to 6 locations	194.40	m	3.77	732.89
38	Carpenter labour to frame up existing opening in ceiling and cut in and frame new raked skylight shaft opening for relocated skylight position to 6 x 2M/6hr ea	72.00	hrs	69.27	4,987.44
39	Supply framing sundries - to 6 locations	6.00	units	40.00	240.00
40	Subtotal				<u>5,960.33</u>
41					
	Plastering				
42	Supply and install 10mm plasterboard to ceilings and skylight shafts - to 6 locations	51.00	m2	35.21	1,795.71
43	Allow additional plastering labour for difficult access (1M/2hrs per unit above rates) - to 6 locations	12.00	hrs	66.20	794.40
44	Subtotal				<u>2,590.11</u>
45					
	Painting				
46	Repaint ceiling allow 1 coat undercoat & 2 x top coats acrylic paint to patched area 2m2 x 6 units	12.00	m2	16.95	203.40
47	Repaint ceiling allowing 1 coat acrylic throughout living / dining / kitchen area ceiling to conceal patched area 6 x type 'B' units @ 44m2 each	264.00	m2	6.84	1,805.76
48	Paint new skylight shaft allowing 1 x coat of undercoat and 2 x top coats of acrylic paint 6m2 x 6 units	36.00	m2	16.95	610.20
49	Subtotal				<u>2,619.36</u>
	5.8 Skylights			Total :	59,608.95

ITEM 6.1 SMOKE HAZARD MANAGEMENT

6.1A. OBSERVATION

The smoke detectors serving the Level 1 common areas have detectors in some areas located greater than 5.1m to the adjoining wall surfaces.

The fire alarm strobe located at the front of the property is not fitted with a sign stating the word "**FIRE**".

6.1B. RECTIFICATION & COSTING

Allow to provide a fire sign for the strobe light at the entry.

Allow to isolate the existing smoke detectors, downlights and emergency lights as required to perform new smoke detector works. Ensure they are reinstated at the end of each work day for occupant protection.

Allow to remove existing fibre cement soffit panels below the level 2 gallery walkway where the existing fire detectors are located. Allow to replace fibre cement soffit panels where existing smoke detectors are located to permit moving of the existing detectors as required.

Supply and install additional smoke detectors to the gallery area.

Supply and fix new complying signage.

Allow to remove and later re-instate other soffit panels as necessary to access existing and provide new wiring.

Seal all new soffit panels to match existing.

Allow for all sundries and to clean on completion.

Item No.	Item Description	Quantity	Unit	Rate	Mark Up %	Amount
<i>Trade : 9 6.1 Smoke Hazard Management</i>						
	6.1 Smoke Hazard Management					
1						
	Labour and materials to perform proposed rectification works in accordance with Section 6.1C of Pink Slip Building Reports "Expert Report" reference PS17079 and dated 30th June 2017.					
2						
3	The assumption has been made that the quantity of existing smoke detectors, doubled, will provide sufficient coverage. The principle of this estimate is based on moving the existing detectors that are in the soffit of the level 2 gallery walkway being moved closer to one edge of the soffit, and the new smoke detectors installed on the opposite edge of the soffit thus resulting in both rows of detectors being within the minimum distance of the maximum 5.1m distance from an adjoining wall in accordance with AS1670.1.		note			

4	The assumption has been made that required wiring for detectors and lights is able to be chased through the existing soffit without difficulty and a minimum number of panels that do not contain existing downlights / smoke detectors / emergency lights require to be also removed for access to rough-in the required new wiring without drilling, chasing of surface or similar.		note			
5	The assumption has been made that the existing soffit framing does not incur destruction upon removal of soffit panels and is suitable to be re-used and can remain in position when existing soffit linings are removed.		note			
6	The assumption has been made that existing fire control systems and cabling do not require to be upgraded due to the increased number of detectors that are installed.		note			
7						
	Quantities					
8	Existing smoke detectors in soffit.	8.00	no			
9	Number of downlights that are located in the same soffit panels as existing smoke detectors.	6.00	no			
10	Number of emergency lights that are located in the same soffit panels as existing smoke detectors.	3.00	no			
11						
	Sundries					
12	Labourer to provide ongoing cleaning during works and remove and dump removed materials (1M/16hrs)	16.00	hrs	56.62		905.92
13	Allowance for dump fees	0.25	T	258.64		64.66

14						
	Sign for Strobe Light at Entry					
15	Procure and fix sign to entry soffit adjacent to the strobe light (1M/2hrs)	2.00	hrs	69.27		138.54
16	Supply of upright sign and fixings to fix to soffit	1.00	item	175.00		175.00
17						
	Electrical Labour and Materials					
18	Electrician to isolate power and remove existing smoke detectors, downlights and emergency lights that are located in the same ceiling panels as some smoke detectors and reinstate. The electrician will be required to work in conjunction with the carpenters in order to have the smoke detectors active at the end of each days work to provide emergency system active after hours (1M/2D)	16.00	hrs	73.31		1,172.96
19	Allowance for miscellaneous sundries and fixings, some electrical wiring, etc - nominal allowance per existing downlight and emergency light.	9.00	no	30.00		270.00
20						
	Carpentry Labour & Materials					
21	Carpenter labour to remove existing fibre cement ceiling panels where smoke detectors are currently located, and install new replacement panels including cutting of holes for fitting of smoke detectors and some light fittings (2M/2D)	32.00	hrs	69.27		2,216.64
22	Carpenter labour to remove and later replace a nominal amount of soffit panels not containing any existing surfaces to assist with chasing of new wiring to new smoke detectors (2M/1.5D)	24.00	hrs	69.27		1,662.48
23	Supply replacement sheets of compressed FC lining 2100 x 1200 x 6mm - 8 replacements for relocated smoke detector panels and nominal 10 replacements for panels removed for access for chasing wires	18.00	sheets	47.29		851.22

24	Allowance for fixings and miscellaneous sundries	18.00	sheets	20.00		360.00
25						
	Provision of Additional Smoke Detectors					
26	Supply and installation of thermal detector, ceiling mounted including accessories, control wiring and equipment	8.00	no	337.50		2,700.00
27	Allow labour for associated testing upon completion (2M/6hrs)	12.00	hrs	73.31		879.72
28						
	Painting					
29	Painting labour to apply clear finish to FC linings (1M/2D)	16.00	hrs	57.10		913.60
30	Allowance for sealer and paint sundries	1.00	allow	150.00		150.00
	<u>6.1 Smoke Hazard Management</u>				Total :	12,460.74

ITEM 6.2 HYDRANTS

6.2A. OBSERVATION

My inspection of the building revealed it has a hydrant system installed, to the installation of the system I observed:

1. The fire hydrant booster assembly is not protected by a 90/90/90 FRL radiant heat shield barrier for at least 2.0 metres on both sides of the suction and booster valves and for a height of not less than 3.0 metres above the upper hose connections and all door seals and wall penetrations are not sealed.
2. The most hydraulically disadvantaged fire hydrant located on Level 2 of the building is not fitted with a pressure gauge.
3. The height of the fire brigade booster assembly valves are located at a height of less than 750 mm above the finished floor surface beneath.
4. The fire hydrant landing valves located on Level 1 and Level 2 of the building (excluding those within the fire-isolated stairways) are contained within lockable enclosures that are not keyed 003 for use by Fire & Rescue NSW.
5. Working and tested pressure notices have not been installed on or adjacent to the fire hydrant booster assembly.
6. The fire hydrant booster assembly enclosure, located at the front of the property, is not provided with a fade resistant sign on the doors stating the words **"FIRE HYDRANT BOOSTER"** in capital letters not less than 50mm high and in a colour contrasting with the background.
7. The Block Plan fails to comply in all respects with AS 2419.1-2005, Clause 7.11.

6.2B. RECTIFICATION & COST

Point 1 above in regard to the heat shield requirements, has been assessed and an Alternate Solution to the BCA Performance Requirements has been prepared for the Owners Corporation by Warrington Fire as a result rectification works may now not required for point 1, if the alternate solution is accepted and approved by the PCA.

Allow to carry out the following:

1. Access the interior of the enclosure and seal off around all penetrations.
Seal the junction of the block walls with fire rated gun applied sealant to all open junctions.
Replace the door and/or frame to the main switch room to achieve a 90/90/90 rating.
Supply certification on completion.
2. Supply and fit complying pressure gauge, have tested and certified by a fire engineer and supply all documentation to the Owner's Corporation.

3. Disconnect the fire system to allow works to be carried out.
Reconfigure the system so that the suction valves are set at 750mm above the floor surface.
Recommission the system.
4. Remove the existing locks and supply and fit new 003 lock to enclosure as required.
5. Carry out testing on the system, then supply and fit notices detailing compliance.
6. Supply and fix new complying signage.
7. Prepare a new block plan detailing all aspects of the systems installed, as required by AS2419.1

Item No.	Item Description	Quantity	Unit	Rate	Mark Up %	Amount
Trade : 10 6.2 Hydrants - Reduced SOW to booster room due to alternate Solution prepared by Warrington Fire						
	6.2 Hydrants					
1						
	Labour and materials to perform proposed rectification works in accordance with Section 6.2C of Pink Slip Building Reports "Expert Report" reference PS17079 and dated 30th June 2017.					
2						
	Sundries					
3	Labourer to provide ongoing cleaning during works and remove and dump removed materials (1M/4hrs)	4.00	hrs	56.62		226.48
4	Fire Engineer to inspect and prepare and issue certification upon completion	2.00	hrs	240.00		480.00
5						
	Fire Hydrant Enclosure Fire Sealing Works (part 1 of rectification scope)					
6	Works are required at penetrations, joints and the likes to fire seal the existing enclosure.		note			
7	Supply and installation of backing rod and fire rated caulking (10 x 10mm) to horizontal joints between fire rated block walls and slab soffits on both sides of walls	13.00	m	22.20		288.60
8	Allowance for carpenter to procure materials, install miscellaneous re-trofitted fire protection to pipe penetrations (1M/1D)	8.00	hrs	69.27		554.16
9	Allowance to supply grout to fill around metal pipe larger wall penetrations, retrofitted fire collars for PVC pipes in enclosure and fire sealant for sealing around smaller metal pipe penetrations.	1.00	item	300.00		300.00
10	Subtotal - Fire Hydrant Enclosure Fire Sealing Works					<u>1,142.76</u>
11						
	Main Switch Room Door Replacement (also part 1 of rectification scope)					
12	The assumption has been made that the existing door frame can be removed without damage to surrounding surfaces and that no make-good works to any adjacent surfaces will be required.		note			
13	Labourer to remove existing door and built-in metal frame and dump (1M/4hrs)	4.00	hrs	56.62		226.48

14	Allowance to dump	0.20	T	285.00		57.00
15	Supply new fire rated door leaf 40mm thick and retrofitted fire rated metal door frame.	1.00	no	570.00		570.00
16	Carpenter labour to install new retrofit door frame and door and re-fit existing sign and hardware (1M/5hrs)	4.00	hrs	69.27		277.08
17	Supply countersunk anchor fixings for new door frame 135mm x 10mm diameter	8.00	no	1.43		11.44
18	Allowance for fire door to be inspected and tagged by supplier	1.00	item	150.00		150.00
19	Allowance for painter to paint door and frame (1M/4hrs)	4.00	hrs	57.10		228.40
20	Allowance for paint and sundries	1.00	item	90.00		90.00
21	Subtotal - Main Switch Room Door Replacement					<u>1,610.40</u>
22						
	Fire Cabinet Locks					
23	Allow for the supply of a new lock cylinder keyed to fire brigade 003 key	2.00	no	65.00		130.00
24	Carpenter labour to procure and remove and replace existing lock cylinders (1M/2.5hrs)	2.50	hrs	69.27		173.18
25	Subtotal - Fire Cabinet Locks					<u>303.18</u>
26						
	Hydrant Works					
27	Plumbing labour to temporarily shut off and modify the existing hydrant and fit pressure guage to the most disadvantaged hydrant (1M/4hrs)	4.00	hrs	74.49		297.96
28	Allowance to supply plumbing materials and sundries and pressure guage	1.00	allow	150.00		150.00
29	Plumbing labour to modify the existing booster assembly to increase the outlet height above floor level including testing (2M/1D)	16.00	hrs	74.49		1,191.84
30	Allowance to supply plumbing materials and sundries for above	1.00	allow	400.00		400.00
31	Subtotal - Hydrant Works					<u>2,039.80</u>
32						
	Signage and Block Plan					
33	Allowance for the supply of a compliant "fire hydrant booster" engraved traffolyte sign for the booster assembly door, to match the existing - included with item #6.4	1.00	no	125.00		125.00
34	Allowance for the supply of compliant pressure sign notices from engraved traffolyte - included with item #6.4		no			EXCL
35	Allowance for the preparation of a durable block plan - included with item #6.4		item			EXCL
36	Allow carpentry labour to procure and replace existing door sign (1M/1.5hrs)	1.50	hrs	69.27		103.91
37	Allowance for miscellaneous sign fixings	1.00	item	15.00		15.00
38	Subtotal - Signage and Block Plan					<u>243.91</u>
6.2 Hydrants - Reduced SOW to booster room due to alternate Solution prepared by Warrington Fire				Total :		6,046.53

ITEM 6.3 FIRE HOSE REELS & TRAVEL DISTANCES

6.3A. OBSERVATION

1. The fire hose reel serving the Residential Carpark is located next to the entry roller shutter is positioned greater than 4.0 metres from a required exit.
2. The fire hose reel serving the Commercial Visitors Carpark is located greater than 4m from a required exit contrary to Clause E1.4 of the BCA. In addition, the bollards protecting this fire hose reel are located within a designated carparking space contrary to the Development Consent.
3. The power operated shutter doors installed to the residential and commercial carparks are located in required paths of travel to the building exits yet cannot be opened manually.
4. The domestic water supply service is not locked in the open position and is not provided with warning signage.
5. The level one and level two fire hose reel enclosures are not fitted with complying signage stating the words **"FIRE HOSE REEL"** in capital letter not less than 50 mm high and in a colour providing a high contrast with the background.
6. The level one and level two fire hose reel enclosures are not fitted with fully compliant identification signage.

B. RECTIFICATION & COST

ROLLER SHUTTER

Remove and replace the auto-operators with units that are connected to the fire system and that open automatically when the alarms are tripped.

WATER SUPPLY

Supply and fit a lock to the water supply.

SIGNAGE

Remove and dispose of the existing signs and supply and fit new complying signage.

BOLLARDS

Relocate the bollards protecting the fire hose reel in the visitors car park so they are no longer located within the designated carparking space.

Item No.	Item Description	Quantity	Unit	Rate	Mark Up %	Amount
<i>Trade : 11 6.3 Fire Hose Reels and Travel Distances</i>						
	6.3 Fire Hose Reels and Travel Distances					
1						
	Labour and materials to perform proposed rectification works in accordance with Section 6.3C of Pink Slip Building Reports "Expert Report" reference PS17079 and dated 30th June 2017.					
2						
	Sundries					
3	Allowance for labour to periodically attend site to perform clean up works (1M/4hrs)	4.00	hrs	56.62		226.48
4						
	Roller Shutter Modification					
5	Electrician labour to isolate power to existing shutter doors for motor replacement and later re-connect (1M/4hrs)	4.00	hrs	73.31		293.24
6	Labour to remove existing motors to both resident and commercial car park shutters (2M/2hrs ea)	8.00	hrs	69.27		554.16
7	Supply 2 x new motors to operate with fire relay to enable door operation when triggered.	2.00	no	1,425.00		2,850.00
8	Nominal labour allowance to supply and install fire relay to door motors (2M/1D per door)	32.00	hrs	73.31		2,345.92
9	Nominal allowance for fire relay cabling and equipment	2.00	doors	400.00		800.00
10	The assumption has been made that existing fire control systems and cabling do not require to be upgraded for the fire relay to be provided to door operators.		note			
11	Subtotal - Roller Shutter Modification					<u>6,843.32</u>
12						
	Locking of Water Supply					
13	Supply universal ball valve lockout unit	1.00	no	65.00		65.00
14	Supply fire services valve safety tag	1.00	no	20.00		20.00
15	Supply padlock keyed to 003	1.00	no	50.00		50.00
16	Plumber labour to fit lockout devices, tags and padlocks (1M/2hrs)	2.00	hr	74.49		148.98
17	Subtotal - Locking of Water Supply					<u>283.98</u>
18						
	Fire Hose Reel Signs					
19	Supply wall projecting fire hose reel sign, printed on both faces 225 x 225mm at L1 & L2 central cupboards (located at top of stairs and level 2 east)	3.00	no	64.10		192.30
20	Plumber labour to fit signs (1M/1.5hrs)	1.50	hr	74.49		111.73
21	Subtotal - Fire Hose Reel Signs					<u>304.03</u>
22						
	Bollards					
23	Carpenter labour to remove and re-fit 2 x bollards that are adjacent to the fire hose reel in the visitor's car park (1M/4hrs)	4.00	hrs	69.27		277.08
24	Allow non-shrink grout to fill existing bolt holes in slab.	1.00	bag	35.00		35.00
25	Supply M20 x 260mm galvanised threaded rod stud and nut	8.00	ea	8.30		66.40
26	Supply epoxy for dowelling into existing slab	1.00	tubes	48.58		48.58
27	Subtotal - Bollards					<u>427.06</u>
	6.3 Fire Hose Reels and Travel Distances				Total :	8,084.87

ITEM 6.4 SPRINKLERS

6.4A. OBSERVATION

1. The sprinkler system is not connected to a FRNSW approved third party fire alarm monitoring facility.
2. The activation of the sprinkler system is not registering as an alarm on the fire indicator panel and does not initiate the building occupant warning system.
3. The sprinkler system water alarm gong is not located on the external wall of the building.
4. The Ground Floor Level storage enclosures located beneath Fire Stair 01 and 03 and the audio visual room behind the lobby are not fitted with sprinklers.
5. Correct signage has not been provided, including:

The sprinkler booster assembly enclosure located at the front of the property is not provided with a fade resistant sign on the doors stating the words **"SPRINKLER BOOSTER CONNECTION"** in capital letter not less than 50mm high and in a colour contrasting with the background.

A **"SPRINKLER STOP VALVE INSIDE"** sign has not been provided outside the sprinkler valve room.
6. The Block Plan provided fails to comply in all respects with AS2118.1-1999, Clause 8.3
7. Working and tested pressure notices have not been installed on or adjacent to the sprinkler booster assembly.

6.4B. RECTIFICATION & COST

Complete the installation of the system, conduct test and provide certification of compliance and correct operation.

Disconnect the Fire Gong and reposition to the outside face of the wall, reconnect, commission and supply certification from the fire engineer.

Provide an updated design of the sprinkler system and extend the sprinkler to within the storage enclosure under the stairs.

Supply and fit the correct signage to all locations.

On completion of all works, prepare a new Block Plan and fix in place as required.

On completion of the upgrading works, carry out a test on the installed system and provide notices as required.

Item No.	Item Description	Quantity	Unit	Rate	Mark Up %	Amount
<i>Trade : 12 6.4 Sprinklers</i>						
	6.4 Sprinklers					
1						
	Labour and materials to perform proposed recitification works in accordance with Section 6.4C of Pink Slip Building Reports "Expert Report" reference PS17079 and dated 30th June 2017.					
2						
	Sundries					
3	Labourer to provide ongoing cleaning during works and remove and dump removed materials (1M/8hrs)	8.00	hrs	56.62		452.96
4						
	Sprinkler System Works					
5	Allowance for fire engineer to review existing sprinkler system as installed and design sprinkler service extensions to the storage enclosures and audio visual room as required to comply, including inspections and certification.	1.00	item	4,500.00		4,500.00
6	Extension of fire sprinkler system, estimating a nominal 20 sprinkler head fixtures - supply and install fire sprinkler head incl 3m x 25mm straight run pipe and supports, exposed	20.00	item	330.00		6,600.00
7	Extension of fire sprinkler system, estimating 80m additional pipework, allowing Fireplus hot dip gal steel piping for main runs, supply and installation	80.00	m	115.17		9,213.60
8	Allow additional nominal plumbing labour for 'breaking in' and connecting to the existing sprinkler pipe network (2M/1D)	16.00	hrs	74.49		1,191.84
9	Allow nominal sum for additional fittings, fixtures, etc from breaking in to existing sprinkler pipework	1.00	allow	350.00		350.00
10	Nominal electrical labour allowance to supply and install a fire relay from the sprinklers to the existing fire panel (2M/1D)	16.00	hrs	73.31		1,172.96
11	Nominal allowance for fire relay cabling and equipment	1.00	allow	400.00		400.00
12	The assumption has been made that the existing fire board is able to integrate with remote monitoring and has sufficient capacity to add the required interface.		note			
13	Allow electrical labour for associated testing upon completion (2M/6hrs)	8.00	hrs	73.31		586.48
14	Subtotal - Sprinkler System Works					<u>24,014.88</u>
15						
	Fire Gong Works					
16	Plumber labour to disconnect the existing fire gong, modify pipework as required and re-install externally (1M/1D)	8.00	hrs	74.49		595.92
17	Supply fire gong and miscellaneous plumbing and sundries materials for above	1.00	item	600.00		600.00
18	Allow plumber labour to pressure test, procure and fit pressure signage (2M/8hrs)	16.00	hrs	74.49		1,191.84
19	Subtotal - Fire Gong Works					<u>2,387.76</u>
20						
	Fire Monitoring Works					
21	Connection and interface of the fire sprinkler system to a third party alarm monitoring facility	1.00	item	2,000.00		2,000.00
22						

Signage and Block Plan					
23	Allowance for the supply of "sprinkler booster connection" engaved traffolyte sign for the booster assemply door, to match the existing	1.00	no	80.00	80.00
24	Allowance for the supply of a "sprinkler stop valve insider" engaved traffolyte sign for the booster assemply door, to match the existing	1.00	no	80.00	80.00
25	Allowance for the supply of a "sprinkler stop valve inside sign" in engraved traffolite to match existing door signs	1.00	no	120.00	120.00
26	Allowance for the supply of compliant pressure sign notices from engraved traffolyte	2.00	no	50.00	100.00
27	Allowance for the preparation of a durable block plan.	1.00	item	600.00	600.00
28	Allow carpentry labour to procure and install 3 new door signs (1M/2hrs)	2.00	hrs	69.27	138.54
29	Allowance for miscellaneous sign fixings	1.00	item	20.00	20.00
30	Subtotal - Signage and Block Plan				<u>1,138.54</u>
<u>6.4 Sprinklers</u>				Total :	29,994.14

ITEM 6.5 SEPERATION OF CLASSIFICATIONS

6.5A. OBSERVATION

RESIDENTIAL ENTRY FOYER

My inspection of the residential entrance lobby revealed it is not in accordance with the BCA Deemed to Satisfy Provisions, nor the engineered solutions by GHD.

The works have not been constructed in accordance with the design of GHD. The identified deficiencies are as follows

1. The Lobby is separated from the adjoining Carpark (in part) by fixed glazed construction that is not capable of achieving a fire resistance level of --/120/120 (non-loadbearing).
2. The door between the lobby and carpark is not capable of achieving a fire resistance level of not less than --/120/30.
3. The glazed structures between the Commercial 02 lot and the internal and external portions of the adjoining Residential Entry Lobby are not fitted with heat strengthened, tempered glass.
4. Two (2) x internal wall wetting drenchers have been installed over the fixed glazing system within the Ground Floor Level Commercial 02 tenancy in-lieu of the five (5).
5. The internal vertical window mullions do not extend past the back of the drencher deflectors (nor have baffles been installed).
6. The drencher system is not served by a separate valve-set that is monitored to detect unauthorised closure as required by the Fire Engineering Report of GHD; and
7. The door located between the Commercial 02 lot and the adjoining Lobby is not fitted with medium temperature smoke seals on the top, sides and bottom of the door as required by the Fire Engineering Report of GHD.
8. The external glazed wall and the external glazed door located between the Ground Floor Level Commercial 02 tenancy and the external portion of the adjoining Residential Entry Lobby are not fitted with internal wall wetting drencher(s) and medium temperature smoke seals as required.
9. The ground floor residential lobby which is sprinklered is not separated from the non sprinklered no fire isolated stairway.

6.5B. RECTIFICATION & COST

Point 9 above has been reviewed and an alternate solution to the BCA Deemed Comply Provisions has been prepared for the owners by Warrington Fire and rectification works may not be required if the solution is accepted and approved by the PCA.

Should certification not be provided on the as constructed works, rectification works will be necessary, including but not limited to the following, which may vary subject to the Builder's Fire Engineer's certificate.

- Provide Fire Engineering Report to cover the glazed wall between the lobby and the carpark.
- Remove and dispose of the ceiling linings in the lobby.
- Remove and dispose of the glazed sections and doorways.
- Remove the lightweight non-rated plasterboard panels.
- Construct fire rated bulkheads over the proposed locations of glazed panels.
- Construct concrete block over the door opening in the blockwork wall.
- Complete the installation of drenchers and all associated works to all reconstructed glazed panels.
- Supply and install new glazed panels in accordance with the GHD report.
- Seal all penetrations and fire rated services.
- Supply and install new ceiling linings.
- Refit all fittings to the ceiling.

Item No.	Item Description	Quantity	Unit	Rate	Mark Up %	Amount
<i>Trade : 13 6.5 Separation of Classifications in the Same Storey</i>						
	6.5 Separation of Classifications in the Same Storey					
1						
	Labour and materials to perform proposed rectification works in accordance with Section 6.5C of Pink Slip Building Reports "Expert Report" reference PS17079 and dated 30th June 2017.					
2	This estimate excludes fire separation or fire treatment between foyer and L1/L2 staircase as not works are included in the Proposed Rectification.		note			
3						
	Sundries including protection materials					
4	Labourer to set-up protection to remaining existing surfaces and provide ongoing cleaning during works and remove and dump removed materials (1M/40hrs)	40.00	hrs	56.62		2,264.80
5	Supply 50 x 2m roll builder's plastic	1.00	no	84.00		84.00
6	Protection material - Ram Board heavy duty cardboard 30.5 x 965mm wide roll	2.00	ea	84.55		169.10
7	Supply 2400 x 1200 x 9mm CD ply for tiled surface protection.	12.00	ea	34.64		415.68
8	Rolls of danger tape	3.00	rolls	7.73		23.19
9	Supply 30m x 48mm roll of duct tape	8.00	no	3.83		30.64
10	Final cleaning on completion	8.00	hrs	56.62		452.96
11	Allowance for cleaning sundries	1.00	item	80.00		80.00
12	Allowance for miscellaneous signage for temporary occupant diversions within the work area	1.00	item	200.00		200.00
13						

Fire Engineering					
14	Nominal allowance for the preparation of a fire engineering report	1.00	item	5,000.00	5,000.00
15	Fire Engineer to inspect and prepare and issue certification upon completion	4.00	hrs	240.00	960.00
16					
Waste					
17	Council application fee for temporary permit for skip bin on road.	1.00	item	21.32	21.32
18	Council daily fee for occupancy of non-time restricted parking space (per space)	10.00	days	12.00	120.00
19	Temporary site fencing to isolate skip bin	16.00	m	14.19	227.04
20	Skip bin for rubbish	2.00	item	600.00	1,200.00
21					

Demolition & Associated Works					
22	Electrician to isolate electrical and fire services in works zone, including returning on a daily basis to re-arm fire detectors at the end of each days work to provide emergency system active after hours (1M/2D)	16.00	hrs	73.31	1,172.96
23	Hydraulic labour to temporarily remove existing fire sprinklers in foyer ceiling and isolate existing wall wetting sprinklers to glazing (1M/6hrs)	74.49	hrs	74.49	5,548.76
24	Carpentry labour to remove existing joinery / feature walls and ceiling (for re-use) prior to commencement of works (3M/1D)	24.00	hrs	69.27	1,662.48
25	Carpenter labour to make and install temporary hoardings to isolate car park and doorway to commercial tenancy 2 (1M/8hrs)	8.00	hrs	69.27	554.16
26	Labourer to assist making and set up of temporary hoardings with carpenter (1M/8D)	8.00	hs	56.62	452.96
27	Supply 2400 x 1200 x 9mm CD ply for temporary hoardings	14.00	ea	34.64	484.96
28	Supply 90 x 45mm x 5.4m pine for framing of internal hoarding @ 2 lengths per panel, including bracing	28.00	no	20.37	570.36
29	Hardware and fixing allowance for hoardings	1.00	allow	150.00	150.00
30	Glazer labour to remove existing glass panels and remove from site (2M/8hrs)	16.00	hrs	64.92	1,038.72
31	Demolition labour to remove ceilings, removal of glazing framework and door to lobby / car park, remove light-weight walls over doorways and glazing (3M/2D)	48.00	hrs	56.62	2,717.76
32	Carpenter to remove and dismantle temporary hoardings upon completion of works (1M/6hrs)	6.00	hrs	69.27	415.62
33					
Fire Sprinklers					
34	Supply and installation of additional fire sprinklers to commercial tenancy #2.	3.00	no	330.00	990.00
35	Additional labour for interface with existing system (2M/4hrs)	8.00	hrs	74.49	595.92
36	Extension of fire sprinkler system, estimating 15m additional pipework, allowing Fireplus hot dip gal steel piping for main runs, supply and installation	15.00	m	115.17	1,727.55
37	Allow nominal sum for additional fittings, fixtures, etc from breaking in to existing sprinkler pipework	1.00	allow	150.00	150.00
38					
Locking of Water Supply to Fire Sprinklers					
39	Supply universal ball valve lockout unit	1.00	no	65.00	65.00
40	Supply fire services valve safety tag	1.00	no	20.00	20.00
41	Supply padlock keyed to 003	1.00	no	50.00	50.00

42	Plumber labour to fit lockout device, tags and padlock - do when performing retrofit fire protection of existing plumbing services	1.00	item			INCL
43						
	Masonry					
44	Supply custom fabricated steel lintel, hot dipped galvanised	1.00	item	400.00		400.00
45	Blocklayer labour to install lintel above doorway, lay up infill panel of blockwork over doorway and infill miscellaneous large voids in top of existing masonry wall adjacent to existing service penetrations, refer to report photos (1M/2D)	16.00	hrs	71.24		1,139.84
46	Supply 390 x 190 x 190 full length solid blocks to achieve required fire rating	40.00	no	4.36		174.40
47	Bricklayer cutting charge - extra over	20.00	lm	30.00		600.00
48	Allowance for block sundies including sand / cement	1.00	item	150.00		150.00
49						
	Existing Services in Ceiling Space					
50	Plumber labour to attend site when ceiling removed to install retrofit fire collars and sealant to perimeter of metal pipes (1M/8hrs)	8.00	hrs	74.49		595.92
51	Allowance for retrofit fire collars and sealant for hydraulic services fire rating	1.00	allow	300.00		300.00
52	Supply and installation of backing rod and fire rated caulking (10 x 10mm) to horizontal joints between fire rated block walls and slab soffits and vertical brick joints throughout the ground floor level and between fire isolated compartments	38.00	m	22.20		843.60
53						
	Walls and Ceilings					
54	Supply and installation of fire rated bulkhead over car park / foyer and foyer / tenancy 2 glazing	14.00	m	252.10		3,529.40
55	Supply and installation of new 10mm set plasterboard suspended ceiling	44.00	m2	71.00		3,124.00
56	Supply and fit manhole	2.00	no	133.10		266.20
57	Plastering labour - allowance for miscellaneous patching and make good of areas adjacent to rectification works (1M/1.5D)	12.00	hrs	66.20		794.40
58	Allowance for misc materials for above item	1.00	item	250.00		250.00
59	Carpenter labour to re-instate battened feature wall and ceiling (2M/2D)	69.27	hrs	69.27		4,798.33
60	Allowance for miscellaneous hardware and replacement fixtures	1.00	item	200.00		200.00
61						
	Glazing					
62	The assumption has been made that the existing door hardware can be re-used		note			
63	Supply new W11 between tenancy 2 and lobby, heat strengthened, toughened glass	16.74	m2	676.20		11,319.59
64	Supply new W15 between lobby and car park, heat strengthened, toughened glass	17.61	m2	676.20		11,907.88
65	Supply new door D07	4.80	m2	1,269.84		6,095.23
66	Supply new door D08	2.40	m2	1,269.84		3,047.62
67	Supply electric strike for car park / lobby door	1.00	item	271.82		271.82
68						

	Painting				
69	Painting labour to paint new ceilings and bulkheads and re-paint and adjacent wall affected by the works (2M/2D)	32.00	hrs	57.10	1,827.20
70	Supply acrylic paint	14.00	L	19.36	271.04
71	Painting sundries allowance	1.00	item	150.00	150.00
72					
	Smoke Seals to Doors				
73	Capentry labour to fit smoke seals to 3 x door jambs - carpark/lobby, commercial 2/lobby & commercial 2 external (1M/1.5hr per door)	4.50	hrs	69.27	311.71
74	Supply Raven RP78Si fire seals (2 stiles & door head) to 3.2m high door D07	1.00	no	140.00	140.00
75	Ditto - 2.7m high doors - D08, D14	2.00	no	117.00	234.00
76	Supply Raven RP38Si drop down fire seal to base of doors.	3.00	no	122.56	367.68
77	Supply miscellaneous fixings and sundries	3.00	doors	5.00	15.00
78					
	Re-instatement of Existing Services				
79	Electrical labour to re-attend site and re-install downlights and fire detection (2M/1D)	16.00	hrs	73.31	1,172.96
80	Hydraulic labour to re-instate existing fire sprinklers in foyer ceiling and re-arm existing wall wetting sprinklers to glazing upon completion (1M/8hrs)	8.00	hrs	74.49	595.92
81	Allowance for miscellaneous materials associated with services reinstatement, eg fixings and clips, cable, etc	1.00	item	400.00	400.00
82					
	Fire Services				
83	The assumption has been made that the existing fire board has sufficient capacity to add a door relay.		note		
84	Labour to wire electric strike to carpark / lobby door to relay in fire board (1M/8hrs)	8.00	hrs	73.31	586.48
85	Allowance for materials, including cable, conduit, sundries, etc	1.00	item	200.00	200.00
6.5 Seperation of Classifications in the Same Storey				Total :	85,696.16

ITEM 6.6. – PROTECTION OF VENT OUTLETS IN EXTERNAL WALLS

6.6A. OBSERVATION

The mechanical exhaust ventilation openings stand less than 3m to the eastern and western side property boundaries to both the north and south elevations and have not been protected in accordance with Clause C3.4 of the BCA.

6.6B. RECTIFICATION & COST

Make provisions for safe access to work areas.

Provide necessary protection to existing surfaces as required.

Provide height access equipment for safe reach to work areas on Throsby St.

Supply and erect scaffold to access each vent along Dickson St Level 1 balconies.

Remove the existing vent covers.

Supply and fit intumescent fire dampers.

Re-fit external grilles.

Arrange inspection by fire engineer and supply certification of completed installation to the PCA as an alternative solution.

Allow for all sundry materials and to clean on completion.

Item No.	Item Description	Quantity	Unit	Rate	Mark Up %	Amount
<i>Trade : 14 6.6 Protection of Vent Outlets in External Walls</i>						
1	6.6 Protection of Vent Outlets in External Walls					
	Labour and materials to perform proposed rectification works in accordance with Section 6.6C of Pink Slip Building Reports "Expert Report" reference PS17079 and dated 30th June 2017.					
2	The vents appear to be bathroom exhausts to corner units 101, 111, 123, 201, 214 & 226.		note			
3	The assumption that dampers can be fitted without damage to the external wall and existing external louvres can be re-used has been made in an attempt to avoid internal destructive access and reinstatement.		note			
4						
	Sundries					
5	Nominal allowance to install visual 'tiger tails' to overhead power line in Throsby St prior to scaffold works for worker safety to mitigate electrocution risk.	15.00	m	40.00		600.00
6	Hire of articulated boom lift for accessing Work areas along Throsby St - units 101 and 201.	2.00	days	391.37		782.74

7	Freight for the articulated boom to and from site	2.00	no	250.00		500.00
8	Traffic control for when boom lift is used because it will occupy part of the road along the site frontage, 2 x person crew	16.00	hrs	140.00		2,240.00
9	Supply 50 x 2m roll builder's plastic for protection of existing surfaces below the works areas.	1.00	no	84.00		84.00
10	Protection material - heavy duty 20m x 1.2m foam roll to lay over L1 balcony tiles in Dickson St	1.00	ea	81.82		81.82
11	Supply 2400 x 1200 x 9mm CD ply for surface protection - laid over protective foam for scaffold to sit over.	4.00	ea	34.64		138.56
12	Mobile scaffold hire 5.5m x 1.3m wide for access to mechanical vents to upper units in Dickson St.	2.00	days	163.64		327.28
13	Labourer to set up protection on Throsby St awning, remove and clean on completion (1M/3hrs)	3.00	hrs	56.62		169.86
14	Labourer to set up protection, move, erect and dismantle scaffold to 2 x 2 level locations along Dickson St including cleaning on completion (1M/8hrs x 2 locations)	16.00	hrs	56.62		905.92
15	Allowance for dumping of waste materials	1.00	item	150.00		150.00
16						
	Mechanical Dampers					
17	Supply fire damper to suit documented mechanical exhaust duct.	7.00	no	144.00		1,008.00
18	Mechanical contractor to fit fire dampers by removing the existing grille, modifying opening, fit damper and then re-fit grille (1M/1D per opening)	48.00	hrs	69.27		3,324.96
19	Allow sundry fixing items per damper	7.00	no	25.00		175.00
20	Fire engineer consultant fee to attend site and inspect each opening after damper has been fitted.	2.00	no	300.00		600.00
21	Fire Engineer to prepare and issue certification	2.00	hrs	240.00		480.00
6.6 Protection of Vent Outlets in External Walls				Total :		11,568.14

ITEM 6.7 OPENINGS IN WALLS TO THE CORRIDOR

6.7A. OBSERVATION

My inspection through the internal gallery areas revealed the following:

- Each of the residential sole-occupancy units are fitted with openable glazed doors and/or windows that open through the bounding walls of the residential units in to the internal public corridor (i.e. the Gallery).
- PVC services pass through the bounding walls of the residential unit sole-occupancy units to the internal public corridors that have not been fire-stopped/collared.
- The Level 1 Commercial 04 and 05 tenancies are fitted with non-fire rated doors and non-fire rated fixed windows that open through the bounding walls to the internal public corridor (i.e. the Gallery).

6.7B. RECTIFICATION & COST

These items of non compliance have been assessed by Warrington Fire and found not to comply with the BCA requirements, confirming the finding in my expert report. Warrington Fire then carried out smoke modelling which confirmed the non compliance.

The non compliance can be remedied by the installation of smoke/fire shutters on the openings between the gallery and the adjoining units.

The basis of the rectification is to supply and fit shutters to the openings. The reconfiguration of doors that open outwards from units to level 1 courtyards and level 2 balconies will require shutters fitted internally to the unit.

The two reports prepared by Warrington Fire are provided as separate documents to this report.

Allow to perform the following:

Provide safe access to all glazed units.

Provide protection to existing surfaces.

Supply and fit approved proprietary fire shutters to each glazed window and door unit to all units and rear of level 1 commercial tenancy. Outward opening unit doors will have to have fire shutters installed internally to permit the outward swinging doors to be protected. Allow for required internal modifications and the shutter head / drum to be concealed in a ceiling bulkhead. Windows shall have fire shutters fixed externally.

Allow for all preparation and support works for fire shutter installation.

Extend existing electrical supply to the shutters. Allow for a thermal detector to be installed adjacent to each fire shutter to activate shutters in the event of fire.

Allow to have the fire engineer inspect and certify the new installation and produce all documentation to satisfy the BCA of the alternative solutions.

Allow to remove cladding or other finishes as required, supply and fit proprietary fire stop collars or equal.

Make good all surfaces on completion and clean work areas as work progresses.

An estimate for supply and installation of fire shutters to units was sourced from Smoke Control Systems Pty Ltd for motorised units that are triggered by a permanent break of the release signal provided from localised heat detectors.

Item No.	Item Description	Quantity	Unit	Rate	Mark Up %	Amount
Trade : 15 6.7 Openings in Walls to the Corridor						(Continued)
19	Mobile scaffold hire 5.5m x 1.3m wide (required for fixing shutters around stair 1 void)	8.00	days	163.64		1,309.12
20	Erection and dismantle of scaffold including walking into and out of building (3M/4hrs each way)	24.00	hrs	56.62		1,358.88
21	Fire engineer consultant fee to attend site and inspect each shutter and door seal installation	12.00	hrs	240.00		2,880.00
22	Fire Engineer to prepare and issue certification upon completion	4.00	hrs	240.00		960.00
23						
	Supply & Fitting of Shutters					
24	Subcontractor site measure prior to producing doors and fabrication.	1.00	item	1,240.00		1,240.00
25	Supervisor attendance during site measure (1M/8hrs)	8.00	hrs	90.50		724.00
26	Fire shutter quantities for all unit windows facing into gallery areas:					
27	2.7 x 0.9m doors, internally fitted	42.00	no			
28	1.5 x 1.5m window, externally fitted	44.00	no			
29	2.7 x 0.885 window, externally fitted	2.00	no			
30	0.9 x 2m windows, externally fitted	4.00	no			
31	2.7 x 0.75 windows, externally fitted	4.00	no			
32	Budget estimate provided by subcontractor to supply and fit (~60/-) fire rated shutters having standard colour powdercoated tracks and hood, with 24V integrated hold open device for a fire protection curtain with gravity fail safe, all externally mounted except doors onto L1 courtyards and L2 balconies which will be internally fixed. The assumption has been made that this set-up is achievable with the existing construction and that no modifications to openings, walls, soffits, windows, doors and the like are required. In total there are 96 individual openings that require protection by a fire shutter.	1.00	budget	414,457.54		414,457.54
33	Shutter to Commercial window W-07, 1.5 x 2.1m, externally fitted.	1.00	no	6,129.90		6,129.90
34	Shutter to Commercial window W-08, 1.5 x 4.1m, externally fitted.	1.00	no	11,967.90		11,967.90

35	Nominal allowance for supply and fixing of head bracket to support fire shutters that have larger spans across wider windows - allowed for all 1.5m openings.	44.00	no	433.91		19,092.04
36	Ditto - allowed for 2.1m opening (commercial window)	1.00	no	531.04		531.04
37	Ditto - allowed for 4.1m opening (commercial window)	1.00	no	940.68		940.68
38	Nominal allowance for associated carpentry labour and materials for localised preparation of opening to be protected (ie levelling and packing) and 'make' good of surfaces adjacent to external shutters (2 hour carpenter & \$40 materials per unit (48) and same per larger commercial window(2)).	50.00	units	178.54		8,927.00
39	NOTE - The budget estimate indicated by the shutter provider is based on installation of all shutters to all units over a period of 4 separate site establishments. Should the site not be ready for installation at the time of visit an additional re-call charge of \$440 +GST per man will be applied.		note			
40						
	Electrical Works					
41	Supply labour and materials for weatherproof GPO to be installed for each unit and commercial window shutter, ran from existing unit power.	98.00	no	246.62		24,168.76
42	Allowance to install thermal detector to each shutter for activation purposes, assuming that this provision can be expanded from a detection system assumed to exist in each unit that is already linked back to the FIP and no upgrades are necessary.	98.00	no	294.16		28,827.68
43						
	Door Seals for Unit Entry and Commercial Doors					
44	Carpentry labour to fit smoke seals to jambs and back of all unit entry doors (49) and commercial doors (2) - 1M/1hr per door	51.00	hrs	69.27		3,532.77
45	Supply Raven RP78 fire seals (2 stiles & door head) to 4 x fire doors.	51.00	no	60.00		3,060.00
46	Supply Raven RP38Si drop down fire seal to base of 4 x fire doors.	51.00	no	122.56		6,250.56
47	Supply miscellaneous fixings and sundries	51.00	no	5.00		255.00
48						
	Internal Unit Bulkheads					
49	Labour and materials to construct an internal bulkhead above L1 courtyard and L2 balcony access doors including framing, plastering, painting, allowance to make good existing surfaces and associated sundries.	42.00	units	851.06		35,744.52
50						
	Painting					
51	Allowance for painting labour to perform touch up painting to surfaces adjacent to fire shutters upon completion (1M/0.25hr per shutter nominal)	57.10	hrs	57.10		3,260.41
52	Supply paint	20.00	L	19.36		387.20
53	Allowance for paint sundries	1.00	item	150.00		150.00
	6.7 Openings in Walls to the Corridor				Total :	579,768.64

ITEM 6.8 GALLERY WALKWAYS – LEVELS 1 & 2

A. OBSERVATION

Inspection of the building has revealed that the tiled gallery walkways of the Level One and Level Two public corridors are not separated on each level by smoke proof walls positioned no greater than 40m apart contrary to Clause C2.14 of the BCA.

B. RECTIFICATION & COST

Rectification may not be required as it has been remedied by the works set out in item 6.7, subject to the PCA accepting the proposed method of rectification.

ITEM 6.9 – DOOR CLEARANCES

6.9A. OBSERVATION

I inspected the common areas, carpark and stairwells and to these areas, in regard to fire rated doors, I observed the following:

FRONT ELEVATION

- The fire door at the exit from the western fire stair displays margins that exceed that for a fire door.
- The signage to the door is incorrect.

EASTERN CARPARK

- The fire door to the easternmost fire stairs from the commercial carpark is provided with excessive clearances

REAR ELEVATION

- Fire exit door at the eastern end of this elevation is provided with excessive margins.

EASTERN FIRE STAIRS

- The door from the fire stair and walkway to the carpark displays an excessive margin

FIRST LEVEL WALKWAY

- The door to tenancy C5 displays an excessive margin at the base.
- The door to tenancy C4 displays an excessive margin at the base.

6.9B. RECTIFICATION & COST

Allow to supply and install proprietary seals, compliant with the Australian Standards, to all edges of the door and door signs to effect compliance.

On completion; supply new certification confirming that all doors have been inspected and are compliant.

Item No.	Item Description	Quantity	Unit	Rate	Mark Up %	Amount
Trade : 17 <u>6.9 Door Clearances</u>						
	6.9 Door Clearances					
1						
	Labour and materials to perform proposed rectification works in accordance with Section 6.9C of Pink Slip Building Reports "Expert Report" reference PS17079 and dated 30th June 2017.					
2						

Supply and Installation of Door Seals					
3	Supply Raven RP78 fire seals (2 stiles & door head) to 4 x fire doors.	4.00	no	132.73	530.92
4	Supply Raven RP38Si drop down fire seal to base of 4 x fire doors.	4.00	no	122.56	490.24
5	Ditto to 2 x tenancy doors.	2.00	no	122.56	245.12
6	Supply fixings	6.00	doors	5.00	30.00
7	Carpenter labour to fit door seals and clean on completion (1M/3hrs per fire door, 1M/1hrs per tenancy door)	14.00	hrs	69.27	969.78
8	Supply new fire door sign	1.00	item	75.00	75.00
9	Carpenter to remove old sign and fit new door sign (1M/0.5hr)	0.50	hr	69.27	34.64
10	Fire engineer consultant fee to attend site and inspect each door seal installation.	1.00	no	300.00	300.00
11	Fire Engineer to prepare and issue certification upon completion	2.00	hrs	240.00	480.00
<u>6.9 Door Clearances</u>				Total :	3,155.70

ITEM 6.10. – PENETRATIONS FOR SERVICES

6.10A. OBSERVATION

EASTERN CARPARK

- All penetrations for services through walls to separate compartments or lots or soffits have not been sealed.

WESTERN CARPARK

- All penetrations through the slab are not fire sealed.

RESIDENTIAL SLABS

- All penetrations through the second level floor slab have not been sealed.
- Incorrect fire collars have been used to some floor wastes or showers.

6.10B. RECTIFICATION & COST

Provide access to all unsealed and incorrectly sealed and unprotected services penetrations through the building by appropriate access equipment / plant.

Allow for protection of all internal surfaces where works are being performed and regular cleaning during works that are performed within units.

Cut and remove plasterboard ceilings where required to perform rectification works

Supply and fit proprietary and approved retro-fit style fire collars to all required locations.

Reinstate all ceilings that were removed and paint.

Remove all protection and perform clean on completion of work to each required unit.

Allow for all sundries and waste removal.

Supply certificate from fire engineer's on completion.

Item No.	Item Description	Quantity	Unit	Rate	Mark Up %	Amount
<i>Trade : 18 <u>6.10 Penetrations for Services</u></i>						
	6.10 Penetrations for Services					
1						
	Labour and materials to perform proposed rectification works in accordance with Section 6.10C of Pink Slip Building Reports "Expert Report" reference PS17079 and dated 30th June 2017.					
2	Labour estimates to fit retrofitted fire protection measures are based on hampered access (eg working in occupied car park, within units).		note			
3	The assumption has been made that with exception to ceilings that are noted below, no other destructive means has been made for other retrofitting work.		note			

4	The estimate has been prepared on the assumption on reasonable grounds that not all penetrations are without fire protection. Whilst the quantities shown are the total of all penetrations measured from the services plans and the expected reticulation throughout the building, a reduction of 40% is given on the assumption that has been made that 40% of penetrations are compliant.		note			
5						
	Sundries					
6	Council daily fee for occupancy of non-time restricted parking space (per space) for skip bin (NCC fee schedule), based on an estimated works period of 4 weeks for rubbish-generating activities.	28.00	days	12.00		336.00
7	Skip bin for rubbish	6.00	item	600.00		3,600.00
8	Allow scissor lift hire for accessing L1 slab soffit to perform retrofit service penetration fire protection, allowing 2 days for electrician and 6 days for plumber (based on number of penetrations)	8.00	day	232.73	-40.00	1,117.10
9	Allow delivery and pick-up fees for scissor lift.	2.00	each	159.09		318.18
10	Mobile scaffold hire 2.5m high x 0.75m wide for other areas not accessible by scissor lift for electricians and plumbers	8.00	days	95.45	-40.00	458.16
11	Ditto - for plasterers to fire rate voids in ground level car park	4.00	days	95.45		381.80
12	Supply 50 x 2m roll builder's plastic for protection of existing surfaces	12.00	no	84.00		1,008.00
13	Protection material - Ram Board heavy duty cardboard 30.5 x 965mm wide roll - 1 per unit where ceilings are removed for protection of existing tile floors where ceilings are removed	23.00	ea	84.55		1,944.65
14	Supply 30m x 48mm roll of duct tape	32.00	no	3.83		122.56
15	Labourer to set up, ongoingly clean and remove protection and clean each unit upon completion (23 units and 1 commercial @ 1M/5hrs ea)	120.00	hrs	56.62		6,794.40
16	Allowance for cleaning goods and consumables	24.00	units	15.00		360.00
17						
	Removal of Existing Ceilings					
18	Labour to cut and remove existing ceiling linings in bathrooms, ensuites and laundries within all first floor units to enable access to fit retrofitted fire collars to plumbing penetrations above (servicing units on level 2). Labour includes manually handling demolished materials to the street to place in skip bins. 2M/6hrs per unit.	276.00	hrs	56.62		15,627.12
19	Ditto to portions of the Commercial 04 tenancy on level 1 to access 3 x units above (2M/6hrs)	12.00	hrs	56.62		679.44
20	Ditto to portions of the Commercial 02 tenancy at ground floor to access 2 x units above (2M/4hrs)	8.00	hrs	56.62		452.96
21	Ditto to portions of the Commercial 03 tenancy at ground floor to access portions of 2 x units above (2M/2hrs)	4.00	hrs	56.62		226.48
22						

	Hydraulic Services (counted from hydraulic plans).					
23	20mm diameter retrofitted water / gas slab penetration - supply fire rated collar.	13.00	no	0.26	-40.00	2.03
24	25mm diameter retrofitted water / gas slab penetration - supply fire rated collar.	177.00	no	0.30	-40.00	31.86
25	32mm diameter retrofitted water / gas slab penetration - supply fire rated collar.	35.00	no	0.35	-40.00	7.35
26	40mm diameter retrofitted gas slab penetration - supply fire rated collar.	1.00	no	0.40	-40.00	0.24

27	50mm diameter retrofitted gas slab penetration - supply fire rated collar.	2.00	no	0.46	-40.00	0.55
28	65mm diameter retrofitted water slab penetration - supply fire rated collar.	2.00	no	0.56	-40.00	0.67
29	100mm cast iron fire hydrant service slab penetration - supply fire rated collar.	7.00	no	0.79	-40.00	3.32
30	127mm diameter hot water flue retrofitted slab penetration - supply fire rated collar.	1.00	no	0.98	-40.00	0.59
31	Supply 4 galvanised 32 x 6mm diameter masonry anchors per collar (238 x 4)	952.00	no	0.38	-40.00	217.06
32	Plumber's labour to fit fire collars to various sized penetrations at average 15 minutes each (x 238)	59.50	hrs	74.49	-40.00	2,659.26
33						

34	20mm diameter retrofitted water / gas wall penetration - supply fire rated caulking around perimeter, 10mm wide x 10mm deep.	197.00	no	0.26	-40.00	30.73
35	25mm diameter retrofitted water / gas wall penetration - supply fire rated caulking around perimeter, 10mm wide x 10mm deep.	33.00	no	0.30	-40.00	5.94
36	32mm diameter retrofitted water / gas wall penetration - supply fire rated caulking around perimeter, 10mm wide x 10mm deep.	9.00	no	0.35	-40.00	1.89
37	40mm diameter retrofitted water wall penetration - supply fire rated caulking around perimeter, 10mm wide x 10mm deep.	8.00	no	0.40	-40.00	1.92
38	50mm diameter retrofitted water wall penetration - supply fire rated caulking around perimeter, 10mm wide x 10mm deep.	4.00	no	0.46	-40.00	1.10
39	65mm diameter retrofitted water wall penetration - supply fire rated caulking around perimeter, 10mm wide x 10mm deep.	33.00	no	0.56	-40.00	11.09
40	100mm cast iron fire hydrant service - horizontal penetration through fire rated wall - supply fire rated caulking around perimeter, 10mm wide x 10mm deep.	7.00	no	0.79	-40.00	3.32
41	Plumber's labour to caulk the perimeter of various sized penetrations up to 100mm diameter with fire sealant at average 10 minutes each (x 291)	48.50	hrs	74.49	-40.00	2,167.66
42						
43	25mm diameter tundish slab penetration - supply retrofit fire collar.	122.00	no	9.55	-40.00	699.06
44	50mm diameter vent pipe slab penetration - supply retrofit fire collar.	4.00	no	16.29	-40.00	39.10
45	65mm diameter sink / tub / basin slab penetration - supply retrofit fire collar.	196.00	no	16.96	-40.00	1,994.50
46	100mm diameter stormwater / sewer / drainage slab penetration - supply retrofit fire collar.	492.00	no	20.24	-40.00	5,974.85
47	150mm diameter stormwater / drainage slab penetration - supply retrofit fire collar.	98.00	no	49.89	-40.00	2,933.53
48	300mm diameter stormwater slab penetration - supply retrofit fire collar.	2.00	no	613.57	-40.00	736.28
49	Plumber's labour to fit various sized retrofitted fire collars to penetrations up to 150mm diameter at average 15 minutes each (x 912)	228.00	hrs	74.49	-40.00	10,190.23
50	Plumber's labour to fit large 300mm diameter retrofitted fire collars to penetration at average 20 minutes each (x 2)	0.67	hrs	74.49	-40.00	29.80
51						
52	25mm diameter tundish masonry wall penetration - supply retrofit fire collar.	2.00	no	9.55	-40.00	11.46
53	100mm diameter stormwater / sewer masonry wall penetration - supply retrofit fire collar.	12.00	no	20.24	-40.00	145.73
54	150mm diameter stormwater / sewer masonry wall penetration - supply retrofit fire collar.	11.00	no	49.89	-40.00	329.27
55	225mm diameter stormwater / sewer wall penetration - supply retrofit fire collar.	7.00	no	366.55	-40.00	1,539.51

56	Plumber's labour to fit various sized retrofitted fire collars to penetrations up to 150mm at average 15 minutes each (x 25)	6.25	hrs	74.49	-40.00	279.34
57	Plumber's labour to fit large 225mm diameter retrofitted fire collars to penetration at average 20 minutes each (x 7)	2.33	hrs	74.49	-40.00	104.29
58						
	Internal Wall Cut-outs for Services Access.					
59	Labour to cut a 1m2 area of internal wall linings in each unit for the electrician to access penetrations to caulk perimetres with fire rated sealant where the electrical and communications services enter the unit from the individual electrical cupboards. (1M/10mins per unit x 49)	8.17	hrs	56.62		462.40
60	Other penetrations via unlined service cupboards.	1.00	note			
61						
	Electrical Services (quantities from electrical plans)					
62	Communications cable tray masonry wall penetration - supply fire pillows to pack into wall penetration and caulk perimetres with fire rated sealing.	4.00	no	66.82	-40.00	160.37
63	Communications cable tray riser slab penetration - level 1 slab - supply fire pillows to pack into wall penetration and caulk perimetres with fire rated sealing.	1.00	no	66.82	-40.00	40.09
64	Power cable tray wall penetration - supply fire pillows to pack into wall penetration and caulk perimetres with fire rated sealing.	5.00	no	77.82	-40.00	233.46
65	Power cable tray riser penetration - level 1 slab - supply fire pillows to pack into wall penetration and caulk perimetres with fire rated sealing.	2.00	no	77.82	-40.00	93.38
66	Power cable tray riser penetration - level 2 slab (roof top services feed) - supply fire pillows to pack into wall penetration and caulk perimetres with fire rated sealing.	1.00	no	77.82	-40.00	46.69
67	NBN conduit wall penetration into commercial tenancies - allowing 25mm conduit - supply fire rated caulking around perimeter 10mm wide x 10mm deep.	7.00	no	0.30	-40.00	1.26
68	Commercial tenancy distribution board submains wall penetration - allowing 50mm conduit - supply fire rated caulking around perimeter 10mm wide x 10mm deep.	4.00	no	0.46	-40.00	1.10
69	Mechanical services switchboard sub mains wall penetration - allowing 50mm conduit - supply fire rated caulking around perimeter 10mm wide x 10mm deep.	1.00	no	0.46	-40.00	0.28
70	Communications feed to units L2 slab penetrations - allowing 50mm conduit - supply retrofit fire collar.	14.00	no	16.29	-40.00	136.84
71	Electrical submains to units- L2 slab penetration allowing 50mm conduit - supply retrofit fire collar.	14.00	no	16.29	-40.00	136.84
72	Communications feed into units - allowing 25mm diameter conduit wall penetrations- supply fire rated caulking around perimeter 10mm wide x 10mm deep.	76.00	no	0.30	-40.00	13.68
73	Power feed into units - allowing 25mm diameter conduit wall penetrations- supply fire rated caulking around perimeter 10mm wide x 10mm deep.	77.00	no	0.30	-40.00	13.86
74	Electrician labour to pack cable tray penetrations with fire pillows and caulk perimeter with fire retardant at average of 30 minutes each (x 13).	6.50	hrs	73.31	-40.00	285.91
75	Electrician labour to caulk around cable penetrations at average of 10 minutes each (x 193)	32.17	hrs	73.31	-40.00	1,414.88
76						
	Reinstate ceilings (fix plasterboard to existing ceiling, setting & sanding)					
77	Ground level Commercial 02 (beneath 2 x type 'E' units above @ 13.02m2 ea)	26.04	m2	40.20		1,046.81
78	Ground level Commercial 03 (beneath part of 2 x type 'B' units above @ 1/2 x 13.02m2 ea)	13.02	m2	40.20		523.40
79	Beneath Level 1 Commercial 04 (15m2)	15.00	m2	40.20		603.00

80	Beneath Level 2 type 'A' unit (1 x 18.12m2)	18.12	m2	40.20	728.42
81	Beneath Level 2 type 'B' units (21 x 12.81m2 ea)	269.01	m2	40.20	10,814.20
82	Beneath Level 2 type 'C' unit (1 x 13.58m2)	13.58	m2	40.20	545.92
83	Beneath Level 2 type 'D' unit (1 x 14.12m2)	14.12	m2	40.20	567.62
84	Beneath Level 2 type 'E' unit (2 x 13.02m2)	26.04	m2	40.20	1,046.81
85	Square setting perimeter to the above units	606.00	m	12.26	7,429.56
86					
	Reinstate wall linings inside units (electrical access for wall penetrations)				
87	Labour to line existing wall penetration, set and sand (1M/1.25hrs per unit x 49)	61.25	hrs	66.20	4,054.75
88	Supply plasterboard, setting compound and sundries per unit.	49.00	units	15.00	735.00
89					
	Painting				
90	Repaint above ceilings including 1 x coat undercoat and 2 top coats	394.93	m2	16.95	6,694.06
91	Repaint wall patching allow 1 coat undercoat & 2 x top coats acrylic paint to patched area (1m2 x 49 units)	49.00	m2	16.95	830.55
92	Repaint wall that has been patched allowing 1 coat acrylic to conceal patched area (49 units @ average of 4m2 each)	196.00	m2	6.84	1,340.64
93					
	Blockwork Voids In Ground Floor Carpark and Adjoining Fire Rated Compartments Where Services Penetrate				
94	There are many locations where services penetrate through fire isolated compartment block walls and the blockwork is not infilled close to the penetrating service leaving large voids that a fire collar along would not suffice. Allowance to clad over void with 2 x layers of 16mm fire rated plasterboard and caulk the perimeter on each side of the hole.		note		
95	Plasterer labour to remove any redundant covers (eg some sheet metal) frame up void with metal studs and sheet either side with 2 layers of 16mm fire resistant plasterboard, set any joints and caulk the perimetres with fire sealant. (2M/4D)	64.00	hrs	66.20	4,236.80
96	Materials per major void incl metal studs, plasterboard, fixings, fire sealant, each side	14.00	no	182.33	2,552.62
97					
	Fire Caulking of Blockwork in Basement Carpark and Adjoining Fire Rated Compartments				
98	Supply and installation of backing rod and fire rated caulking (10 x 10mm) to horizontal joints between fire rated block walls and slab soffits and vertical brick joints throughout the ground floor level and between fire isolated compartments	182.00	m	22.20	4,040.40
99					
	Certification				
100	Fire engineer consultant fee estimate to periodically inspect the works being performed	6.00	no	300.00	1,800.00
101	Fire Engineer to prepare and issue certification upon completion	4.00	hrs	240.00	960.00
	6.10 Penetrations for Services			Total :	117,171.98

ITEM 6.11. – MAIN SWITCH ROOM

6.11A. OBSERVATION

My inspection of the main electrical switch room revealed the room is not constructed to achieve the correct fire resistance level.

1. The access doors are not fire rated.
2. Penetrations through walls have not been sealed or protected.
3. There is a step/threshold at the door from the switch room to the carpark.

6.11B. RECTIFICATION & COST

1. DOOR

Remove and dispose of the two existing doors and frames.

Supply and fit new fire rated doors and frames.

2. PENETRATIONS FOR SERVICES

Seal the penetrations from pipes with sand and cement and fit fire collars.

Seal all junctions of the blockwork with adjoining surfaces, as well as articulation joints.

Supply and fix a fire rated ceiling system, due to penetrations for electrical cables etc. exceeding the maximum opening sizes.

3. THRESHOLD

Supply and fit warning signs on the door, facing each direction.

Prepare and paint chevron warning signage on the floor each side of the door.

Allow all sundries and to clean on completion.

Item No.	Item Description	Quantity	Unit	Rate	Mark Up %	Amount
<i>Trade : 19 6.11 Main Switch Room</i>						
	6.11 Main Switch Room					
1	Labour and materials to perform proposed rectification works in accordance with Section 6.11C of Pink Slip Building Reports "Expert Report" reference PS17079 and dated 30th June 2017.					
2						
3	The assumption has been made that the existing door hardware can be re-used from the existing doors.	1.00	note			
4						

Sundries					
5	Labourer to clean during and on completion of works (1M/4hrs)	4.00	hrs	56.62	226.48
6					
Doors & Frames					
7	Carpenter to remove existing 2 doors and metal frames and dump (1M/4hrs)	4.00	hrs	69.27	277.08
8	Allowance to dump	1.00	item	150.00	150.00
9	Supply new fire rated door leaf 40mm thick and retrofitted fire rated metal door frame.	2.00	no	570.00	1,140.00
10	Carpenter labour to fit door frames and doors (1M/4hrs each doorway)	8.00	hrs	69.27	554.16
11	Supply countersunk anchor fixings 135mm x 10mm diameter	12.00	no	1.43	17.16
12					
Service Penetrations					
13	Labour to fill penetrations with sand and cement	2.00	hrs	56.62	113.24
14	Supply sand / cement 20kg bag	2.00	bags	7.55	15.10
15	Fire rating of penetrations is included in item #6.10 Penetrations.		note		
16	Fire sealing of masonry vertical and masonry/slab horizontal joints is included in item #6.10 Penetrations.		note		
17					
Fire Rated Ceiling					
18	Supply and install suspended fire rated plasterboard ceiling including setting & sanding, 2 layers 16mm thick	18.00	m2	122.65	2,207.70
19					
Painting					
20	Paint door frames.	2.00	no	61.98	123.96
21	Paint doors.	2.00	no	87.27	174.54
22	Excludes painting of ceiling because it is in a services area, which is common.	1.00	item		EXCL
23	Painter labour to masking tape up and paint 2 coat pavement paint for chevron warning lines on floor on each side of door 1M/8hrs	8.00	hrs	57.10	456.80
24	Supply 4L of pavement paint	4.00	L	19.43	77.72
25					
Door signs					
26	Supply threshold warning signs.	2.00	no	46.80	93.60
27	Screws	1.00	item	3.00	3.00
28	Carpenter to install signs.	0.50	hr	69.27	34.64
6.11 Main Switch Room				Total :	5,665.18

ITEM 7.1 FIRE STAIRS 2 & 3 PASSAGEWAYS

7.1A. OBSERVATION

My inspection of the fire isolated exits revealed the following:

- Ceiling linings under the roof are not fire rated, nor isolate the stairs from the spread of fire from other parts of the building.
- PVC pipes penetrate through and into the Ground Floor Level fire-isolated passageways serving the eastern and western fire stairs. The PVC pipes have been concealed in the passageways by lightweight plasterboard construction.
- Non-essential services pipes located within the landing enclosure on Level 1 of Fire Stair 02.
- The top of Fire Stairs is not enclosed by construction achieving a fire resistance level of not less than --/90/90 FRL.
- An opening is provided through the ceiling of the eastern fire isolated stairs to gain access to the roof and compromises the fire separation. The roof opening into the fire isolated stair is approximately 1m from the boundary.

7.1B. RECTIFICATION & COST

Provide an approved alternative for escape from the building whilst works are being carried out in consultation with a fire engineer / certifier.

All penetrations through the plasterboard enclosures to the fire-isolated passageway beneath are to be fire-stopped in accordance with Specification C3.15 of the BCA.

Provide scaffold as required.

Remove and dispose of the roof access system.

Disconnect all services to the ceiling.

Remove and dispose of the ceiling linings.

Construct new fire separation between the PVC pipes and passageway, with fire rated sheeting above the framing.

Fire seal all penetrations through the wall.

Supply and fit new roof access system in alternate and approved location.

Supply and fit new decorative ceiling and refit all services.

Allow all sundries and to clean on completion.

Item No.	Item Description	Quantity	Unit	Rate	Mark Up %	Amount
<i>Trade : 20 7.1 Fire Stairs 2 & 3 Passageways</i>						
	7.1 Fire Stairs 2 & 3 Passageways					
1						
	Labour and materials to perform proposed rectification works in accordance with Section 7.1C of Pink Slip Building Reports "Expert Report" reference PS17079 and dated 30th June 2017.					
2						
3	The allowance for retrofit fire protection to services penetration that are included in this estimate are additional to those previously included in the estimate for item 6.10 Penetrations for Services which is based on an estimate of costs associated with the quantities of the various penetrations from both hydraulic and electrical documents only.		note			
4	The assumption has been made that the existing ceiling and bulkhead framing is able to remain in situ and re-used to temporarily support new fire rated ceilings prior to installing new support framing below in order to achieve the reverse fire protection required (ie protect from fire outside the shaft). It is further assumed that the existing ceiling framing permits access to retrofit the required fire protection to services.					
5						
	General Sundries					
6	Labourer to perform ongoing site cleaning during works and clean on completion of all works (1M/5D)	40.00	hrs	56.62		2,264.80
7	Temporary site fencing to isolate skip bin	16.00	m	14.19		227.04
8	Council application fee for temporary permit for skip bin on road (NCC fee schedule).	1.00	item	21.32		21.32
9	Council daily fee for occupancy of non-time restricted parking space, per space (NCC fee schedule).	10.00	days	12.00		120.00
10						
	Fire Engineering					
11	Preparation of fire engineering review and approval of alternative escape for building occupants from the building while works are being performed.	1.00	item	1,500.00		1,500.00
12	The assumption has been made that the other exits provided in the building will be suitable while works are performed and there are limited costs involved to provide compliance such as signage, barriers and the like.		NOTE			
13	Nominal allowance for the provision of materials, labour and sundy items required for provisions of alternate, safe escape for building occupants.	1.00	allow	2,000.00		2,000.00
14						
	FIRE STAIR 2 (EAST)					
	Protection Materials					
15	Supply 50 x 2m roll builder's plastic	1.00	no	84.00		84.00
16	Rolls of danger tape	1.00	rolls	7.73		7.73
17	Supply 30m x 48mm roll of duct tape	6.00	no	3.83		22.98
18						
	Scaffolding					
19	Scaffold labour to erect scaffold over upper stair flights for ceiling access including additional time involved to carry scaffold into building on establishment (3M/6hrs)	18.00	hrs	56.62		1,019.16

20	Scaffold labour to dismantle and move equipment to fire stair #3 on completion (average 3M/3hrs each)	9.00	hrs	56.62	509.58
21	Scaffold hire per week per m2 of vertical face area. Allowing 10 days minimum hire.	2.00	weeks	181.68	363.36
22					
	Waste				
23	Skip bin for rubbish	1.00	item	600.00	600.00
24					
	Demolition				
25	Electrician to attend site and isolate existing power, remove lights and sensors from demolished areas, provide temporary work lighting and power and temporarily relocate emergency lighting from upper ceiling and ground floor plaster ceilings (1M/8hrs)	8.00	hrs	73.31	586.48
26	Fire services technician to attend site and temporarily relocate smoke detectors and EWIS speakers to ceilings (1M/4hrs)	4.00	hrs	73.31	293.24
27	Allowance for supply of electrical temporaries	1.00	allow	200.00	200.00
28	Labour to demolish existing ceilings and carry materials down stairs by hand to external skip bin (3M/1.5D)	36.00	hrs	56.62	2,038.32
29					
	Retrofitted Fire Protection				
30	Plumbing labour to attend site and fit retrofitted fire protection to plumbing services other than essential services permitted in fire stairs, including the vertical riser cupboard on Level 2 landing. (2M/8hrs)	16.00	hrs	74.49	1,191.84

31	Electrical labour to attend site and fit retrofitted fire protection to electrical services other than essential services permitted in fire stairs, including the vertical riser cupboard on Level 2 landing. (1M/3hrs)	3.00	hrs	73.31	219.93
32	Nominal allowance for retrofit fire protection materials including fire collars, fire pillows, grout, mastic and the like for existing visible and concealed services.	1.00	allow	480.00	480.00
33					
	Plastering & Linings				
34	Plasterer labour to fix 2 x layers fire rated plasterboard, set, apply fire caulking to perimeter and metal stud framing supports below the ceiling to top of fire stair (3M/2D)	48.00	hrs	66.20	3,177.60
35	Plasterer labour to fix 2 x layers fire rated plasterboard, set, apply fire caulking to perimeter and metal stud framing supports below the ceiling and on bulkhead ends to ground floor fire tunnel (2M/2D)	32.00	hrs	66.20	2,118.40
36	Supply 16mm fire rated plasterboard, 2.4 x 1.2m to level 2 ceiling	10.00	sheets	46.45	464.50
37	Supply 16mm fire rated plasterboard, 3.0 x 1.2m to ground floor tunnel ceiling and bulkheads	5.00	sheets	58.07	290.35
38	Allowance to supply setting tape, setting compounds, sandpaper, etc	1.00	allow	250.00	250.00
39	Supply heavy duty steel ceiling joist framing 75mm x 0.75mm to support underside of new fire rated ceiling, nominal framing to perimeter of stairwell and cross members at 300mm centres	71.00	m	4.91	348.61

40	Ditto - ground level ceilings & bulkheads	48.00	m	4.91	235.68
41	Supply fire rated mastic to apply to perimetres of new ceilings and bulkheads	12.00	tubes	11.00	132.00
42	Allowance for fixings and miscellaneous sundries	1.00	allow	300.00	300.00
43					
	Painting				
44	Painting labour to paint ceilings and bulkheads (1M/1D)	8.00	hrs	57.10	456.80
45	Supply paint	4.00	L	19.36	77.44

46	Miscellaneous painting sundries	1.00	allow	30.00		30.00
47						
	Reinstatement of Services					
48	Electrical labour to re-install existing light fittings and sensor, smoke detection and emergency lights (1M/8hrs)	8.00	hrs	73.31		586.48
49	Fire services technician to reinstall existing smoke detectors and EWIS speakers to ceilings (1M/4hrs)	4.00	hrs	73.31		293.24
50	Allowance for miscellaneous materials including conduit and some wiring	1.00	allow	150.00		150.00
51	Subtotal - FIRE STAIR 2 (EAST)					<u>16,527.72</u>
52						
	FIRE STAIR 3 (WEST)					
	Protection Materials					
53	Supply 50 x 2m roll builder's plastic	1.00	no	84.00		84.00
54	Rolls of danger tape	1.00	rolls	7.73		7.73
55	Supply 30m x 48mm roll of duct tape	6.00	no	3.83		22.98
56						
	Scaffolding					
57	Scaffold labour to erect scaffold over upper stair flights for ceiling access (3M/2hrs)	6.00	hrs	56.62		339.72
58	Scaffold labour to dismantle and move equipment from fire stair #3 on completion (3M/4hrs each)	12.00	hrs	56.62		679.44
59	Scaffold hire per week per m2 of vertical face area. Allowing 10 days hire.	2.00	weeks	181.68		363.36
60						
	Waste					
61	Skip bin for rubbish	1.00	item	600.00		600.00
62						
	Demolition					
63	Electrician to attend site and isolate existing power, remove lights and sensors from demolished areas, provide temporary work lighting and power and temporarily relocate emergency lighting from upper ceiling and ground floor plaster ceilings (1M/8hrs)	8.00	hrs	73.31		586.48
64	Fire services technician to attend site and temporarily relocate smoke detectors and EWIS speakers to ceilings (1M/4hrs)	4.00	hrs	73.31		293.24
65	Allowance for supply of electrical temporaries	1.00	allow	200.00		200.00
66	Labour to demolish existing ceilings and carry materials down stairs by hand to external skip bin (3M/1.5D)	36.00	hrs	56.62		2,038.32
67						
	Retrofitted Fire Protection					
68	Plumbing labour to attend site and fit retrofitted fire protection to plumbing services other than essential services permitted in fire stairs, including the vertical riser cupboard on Level 2 landing. (2M/8hrs)	16.00	hrs	74.49		1,191.84
69	Electrical labour to attend site and fit retrofitted fire protection to electrical services other than essential services permitted in fire stairs, including the vertical riser cupboard on Level 2 landing. (1M/3hrs)	3.00	hrs	73.31		219.93
70	Nominal allowance for retrofit fire protection materials including fire collars, fire pillows, grout, mastic and the like for existing visible and concealed services.	1.00	allow	480.00		480.00
71						

	Plastering & Linings				
72	Plasterer labour to fix 2 x layers fire rated plasterboard, set, apply fire caulking to perimeter and metal stud framing supports below the ceiling to top of fire stair (3M/2D)	48.00	hrs	66.20	3,177.60
73	Plasterer labour to fix 2 x layers fire rated plasterboard, set, apply fire caulking to perimeter and metal stud framing supports below the ceiling and on bulkhead ends to ground floor fire tunnel (2M/2D)	32.00	hrs	66.20	2,118.40
74	Supply 16mm fire rated plasterboard, 2.4 x 1.2m to level 2 ceiling	10.00	sheets	46.45	464.50
75	Supply 16mm fire rated plasterboard, 3.0 x 1.2m to ground floor tunnel ceiling and bulkheads	8.00	sheets	58.07	464.56
76	Allowance to supply setting tape, setting compounds, sandpaper, etc	1.00	allow	250.00	250.00
77	Supply heavy duty steel ceiling joist framing 75mm x 0.75mm to support underside of new fire rated ceiling, nominal framing to perimeter of stairwell and cross members at 300mm centres	71.00	m	4.91	348.61
78	Ditto - ground level ceilings & bulkheads	48.00	m	4.91	235.68
79	Supply fire rated mastic to apply to perimetres of new ceilings and bulkheads	12.00	tubes	11.00	132.00
80	Allowance for fixings and miscellaneous sundries	1.00	allow	300.00	300.00
81					
	Painting				
82	Painting labour to paint ceilings and bulkheads (1M/1D)	8.00	hrs	57.10	456.80
83	Supply paint	4.00	L	19.36	77.44
84	Miscellaneous painting sundries	1.00	allow	30.00	30.00
85					
	Reinstatement of Services				
86	Electrical labour to re-install existing light fittings and sensor, smoke detection and emergency lights (1M/8hrs)	8.00	hrs	73.31	586.48
87	Fire services technician to reinstall existing smoke detectors and EWIS speakers to ceilings (1M/4hrs)	4.00	hrs	73.31	293.24
88	Allowance for miscellaneous materials including conduit and some wiring	1.00	allow	150.00	150.00
89	Subtotal - FIRE STAIR 3 (WEST)				<u>16,192.35</u>
90					
	ROOF ACCESS				
91	An estimate for removal of the existing roof access is included in the estimate for item 5.7 Roof Access & Safety System		note		INCL
92	An estimate for a replacement roof access is included in the estimate for item 5.7 Roof Access & Safety System		note		INCL
7.1 Fire Stairs 2 & 3 Passageways				Total :	38,853.23

ITEM 7.2. – ACCESS TO EASTERN FIRE ISOLATED PASSAGEWAY

7.2A. OBSERVATION

The fire door that provides access into the fire-isolated passageway that serves the Commercial Carpark is fitted with a keyed locking mechanism on the Carpark side of the door contrary to the BCA.

7.2B. RECTIFICATION & COST

Remove the existing lock.

Supply and fit a new complying lock system.

Item No.	Item Description	Quantity	Unit	Rate	Mark Up %	Amount
<i>Trade : 21 7.2 Access to Eastern Fire Isolated Passageway</i>						
	7.2 Access to Eastern Fire Isolated Passageway					
1						
	Labour and materials to perform proposed rectification works in accordance with Section 7.2C of Pink Slip Building Reports "Expert Report" reference PS17079 and dated 30th June 2017.					
2						
	Replace Existing Door Furniture					
3	The assumption has been made that mortice lock fits in the existing cut-out in the door and handles cover the existing cyliner cut-out (ie no patching, replacement or painting of door).	1.00	note			
4	Carpenter labour to remove the existing lock and re-fit replacement lock (1M/2hr)	2.00	hr	69.27		138.54
5	Supply multipurpose vestibule mortice lock	1.00	no	113.23		113.23
6	Supply door handle - Legge 503 & 512	2.00	no	115.89		231.78
	<u>7.2 Access to Eastern Fire Isolated Passageway</u>				Total :	483.55

ITEM 8.1 CARPARK EXIT DOOR WIDTH

8.1A. OBSERVATION

Inspection of the building has revealed that the final exit door serving the Residential Carpark that opens to Dickson Street has a clear opening width of 650mm and not 750mm as required by this clause of the BCA.

8.1B. RECTIFICATION & COST

Rectification may not be required due to the assessment and preparation of an Alternate Solution to the deemed satisfy provisions of the BCA, prepared for the Owners by Warrington Fire, subject to the acceptance and approval by the PCA.

ITEM 8.2 RESIDENTIAL LOBBY ENTRY / EXIT DOORS

8.2A. OBSERVATION

My inspection revealed that the entry/exit door from the street to the residential lobby swings the incorrect direction.

8.2B. RECTIFICATION & COST

The final exit door serving the Ground Floor Level Residential Entry Lobby is to be reconstructed to ensure that it swings outwards from the building in accordance with Clause D2.20(b) of the BCA.

Allow to barricade the work area as required.

Remove the existing door and frame.

Supply and fit new door and frame and utilise components from the existing where possible.

Reinstate the electric strike system to the locking mechanism.

Allow to make good the disturbed floor, walls, soffits and other surfaces.

Allow all sundries and to clean on completion.

Item No.	Item Description	Quantity	Unit	Rate	Mark Up %	Amount
<i>Trade : 23 8.2 Residential Lobby Entry / Exit Doors</i>						
	8.2 Residential Lobby Entry / Exit Doors					
1						
	Labour and materials to perform proposed rectification works in accordance with Section 8.2C of Pink Slip Building Reports "Expert Report" reference PS17079 and dated 30th June 2017.					
2						
3	The assumption has been made that the existing door hardware is able to be re-used.		note			
4						
	Door Replacement					
5	Electrical labour to attend site and disconnect the electric strike and later return to re-connect and arm the electric strike (1M/4hrs)	4.00	hrs	73.31		293.24
6	Glazier labour to remove door and existing hardware, modify frame, cut in electric strike and striker plate and re-install door so that it swings outward (2M/1D)		hrs	64.92		
7	Allowance for aluminium components required to conceal existing striker plate and hinge holes, ie powdercoated angle and miscellaneous materials and sundries required to perform the works.	1.00	item	300.00		300.00
8	Labourer to attend site and clean upon completion of works (1M/2hrs)	2.00	hrs	56.62		113.24
	8.2 Residential Lobby Entry / Exit Doors				Total :	706.48

ITEM 8.3 EXIT DOOR SIGNAGE

8.3A. OBSERVATION

My inspection revealed that the doors to the fire isolated stairs and passageways are not provided with compliant signage.

Door function to some doors is incorrect.

8.3B. RECTIFICATION & COST

Remove and dispose of existing signage.

Supply and fit new signage to each required door.

These signs are to be positioned on both sides of these doors.

Item No.	Item Description	Quantity	Unit	Rate	Mark Up %	Amount
<i>Trade : 24 8.3 Exit Door Signage</i>						
	8.3 Exit Door Signage					
1						
	Labour and materials to perform proposed rectification works in accordance with Section 8.3C of Pink Slip Building Reports "Expert Report" reference PS17079 and dated 30th June 2017.					
2						
	Signage					
3	Purchase sign - "Fire Safety Door - Do Not Obstruct" - both sides of doors opening onto an open space (ie ground level doors) including main entry glazed door and carpark / lobby door forming part of a horizontal exit - engraved traffolite to match other existing external signs	6.00	no	120.00		720.00
4	Purchase sign - "Fire Safety Door Do Not Obstruct Do Not Keep Open" - both sides of level 1 and 2 and external doors of eastern and western fire escape, both sides of carpark exit doors to eastern fire escape and residential car park door onto Dickson St.	16.00	no	36.95		591.20
5	Offences relating to fire exit signs as well 1 x side of every exit door except doors leading to open space (ie ground level doors)	5.00	no	28.25		141.25
6	Allow fixings per sign	27.00	no	3.00		81.00
7	Carpenter labour to remove existing signs and fix new signs (1M/15 mins per sign)	6.75	hr	69.27		467.57
8						
	Door Handles					
9	Purchase new door handles for 2 doors having the incorrect door handles (BCA D2.21 (a) (i)) - allowing Kaba MS2 classroom lock kit 100 series round end, fire rated	2.00	no	333.50		667.00
10	Note - assuming existing door leaf is suitable for lock cut-outs and needs no replacement or patching and painting		note			
11	Carpenter labour to replace door handles (1M/2hrs ea)	4.00	hr	69.27		277.08
8.3 Exit Door Signage						Total : 2,945.10

ITEM 8.4 RESIDENTIAL LOBBY RAMP

8.4A. OBSERVATION

- The Ground Floor Level Residential Entry Lobby serving the Class 2 building (part) has a ramp slope greater than 1:20 (i.e. measured on-site as having a slope at the top of the ramp of between 1:14 to 1:16 and a slope at the base of the ramp of 1:25 and is not provided with handrails and kerb-rails on both sides of the ramp.
- TGSI's have not been installed to serve this ramp.
- TGSI's are not the correct size panels.

8.4B. RECTIFICATION & COST

Handrails and kerb rails are to be installed on both sides of the ramp in accordance with Clause D3.3 of the BCA and Clause 10 of AS 1428.1-2009.

Supply and fit TGSI's to serve this ramp, in accordance with Clause D3.8 of the BCA and AS/NZS 1428.4.1-2009, on each side of the door and at the top of the ramp. TGSI's are to be the width of the walkway and be a 600mm panel.

Allow to remove the existing floor tiles to the ramp and regrade to achieve a consistent gradient. Re-tile the ramp on completion.

Item No.	Item Description	Quantity	Unit	Rate	Mark Up %	Amount
<i>Trade : 25 8.4 Residential Lobby Ramp</i>						
	8.4 Residential Lobby Ramp					
1	Labour and materials to perform proposed rectification works in accordance with Section 8.4C of Pink Slip Building Reports "Expert Report" reference PS17079 and dated 30th June 2017.					
2	The assumption has been made that performance of handrail and tactile drilling does not damage the existing tiled floor and no allowance has been made for any repair work that may be required from these activities.		note			
3						
	Sundries Including Protection Materials					
4	Labourer to set up protection materials to existing surfaces and perform removal and cleaning on completion of all works (1M/6hrs)	6.00	hrs	56.62		339.72
5	Protection material - Ram Board heavy duty cardboard 30.5 x 965mm wide roll	1.00	ea	84.55		84.55
6	Supply 30m x 48mm roll of duct tape	2.00	no	3.83		7.66
7	Hire of kango hammer, incl spade bit	1.00	day	100.82		100.82
8	Dumping allowance	1.00	item	50.00		50.00
9						

Ramp Gradient					
10	Labourer to remove floor tiles (1M/6hrs)	6.00	hrs	56.62	339.72
11	Allow to grind glue from floor where tiles are removed.	16.00	m2	14.35	229.60
12	Labourer to scabble concrete floor to correct levels and to key topping to surface (1M/1D)	8.00	hrs	56.62	452.96
13	Allow to prep over the floor areas where tiles have been removed with average 3mm floor levelling compound prior to tiling.	16.00	m2	30.76	492.16
14	Allow supply quality floor tiles at a provisional rate of \$50/m2. Include 10% additional for waste & cutting plus the specified 1% of spares.	16.00	m2	50.00	11.00
15	Labour including to lay floor tiles including glue and grout to floors	16.00	m2	65.00	1,040.00
16	Nominal allowance for tile sundries including caulking expansion joints, angles & trims	16.00	m2	5.00	80.00
17					
Handrails					
18	Allowance to supply materials, fabricate and install stainless steel handrail fixed on vertical posts, compliant return ends and kickrail to both sides of the entry ramp.	16.00	m	435.20	6,963.20
19	Additional charge for return bend ends on handrails for accessibility compliance.	4.00	ea	136.93	547.72
20					
Tactiles					
21	Supply and installation of individual adhesive fixed stainless steel tactiles	2.90	m2	830.22	2,407.64
8.4 Residential Lobby Ramp				Total :	14,023.75

ITEM 8.5 DISABLED ACCESS

8.5A. OBSERVATION

My inspection to the interior of the building revealed the handrail installed to serve the stair flight located between the Ground Floor Level and the mid-landing has a clearance of less than 50mm between the inside face of the handrail and the adjoining wall surface.

Disabled access to the first floor commercial lots is not provided without the use of the residential lobby and lift.

The rails do not comply with BCA/Australian Standard requirements.

The designated parking/shared space does not comply with the BCA/Australian Standard requirements.

8.5B. RECTIFICATION & COST

The handrail serving Fire Stair 01 is to be upgraded to ensure a clear opening width of not less than 50 mm between the inside face of the handrails and the adjoining wall surfaces in accordance with Clause 12 of AS 1428.1-2009.

To provide access to the first floor commercial lots will require either:

- i. A lift to be installed servicing only the commercial suites.
- ii. Access arrangement with residential strata for access through the entry and use of the lifts.

Allow to provide a steel bollard to the accessible parking space.

Allow to paint-out the existing line-marking to the accessible carpark and provide new, compliant line-marking.

Item No.	Item Description	Quantity	Unit	Rate	Mark Up %	Amount
<i>Trade : 26 8.5 Disabled Access</i>						
	8.5 Disabled Access					
1						
	Labour and materials to perform proposed rectification works in accordance with Section 8.5C of Pink Slip Building Reports "Expert Report" reference PS17079 and dated 30th June 2017.					
2						
	Sundries					
3	Labourer to set up protection materials, remove and clean on completion of all works (1M/6hrs)	6.00	hrs	56.62		339.72
4	Protection material - Ram Board heavy duty cardboard 30.5 x 965mm wide roll	1.00	ea	84.55		84.55
5	Rolls of danger tape	1.00	rolls	7.73		7.73
6	Supply 30m x 48mm roll of duct tape	2.00	no	3.83		7.66
7						

Access to First Floor Commercial Lots					
8	Allowance to prepare an easement or right of access agreement.	1.00	item	5,000.00	5,000.00
9					
Stair 1 Handrail					
10	Metalwork labour to cut into components as necessary and remove existing handrail components - ground floor level to level 1 and take from site for required modification (2M/4hrs)	4.00	hrs	69.27	277.08
11	Allow to remove and replace spigot fixings to above components to achieve required minimum spacing from wall (1M/1D)	8.00	hrs	69.27	554.16
12	Metalwork labour to re-install handrail components on site including required site welding and polishing - ground floor level to level 1 (2M/1D)	16.00	hrs	69.27	1,108.32
13	Metalwork labour to cut into components as necessary and remove existing handrail components - level 1 to level 2 and take from site for required modification (2M/4hrs)	4.00	hrs	69.27	277.08
14	Allow to remove and replace spigot fixings to above components to achieve required minimum spacing from wall (1M/1D)	8.00	hrs	69.27	554.16
15	Metalwork labour to re-install handrail components on site including required site welding and polishing - level 1 to level 2 (2M/1D)	16.00	hrs	69.27	1,108.32
16	Allowance for new stainless steel bar and other components for modification and making good the existing handrails	1.00	item	400.00	400.00
17	Allowance for miscellaneous fixings and hardware	1.00	item	80.00	80.00
18	Allowance for plasterer / renderer to perform minor surface repair works (1M/1D)	8.00	hrs	66.20	529.60
19	Allow for surface repair materials.	1.00	item	150.00	150.00
20	Subtotal - Stair 1 Handrail				<u>5,038.72</u>
21					
Accessible Parking					
22	Supply materials, fabricate and paint new metal bollard	1.00	item	350.00	350.00
23	Supply M20 x 260mm galvanised threaded rod stud and nut	4.00	ea	8.30	33.20
24	Supply epoxy for dowelling into existing slab	1.00	tubes	48.58	48.58
25	Labour to attend site, drill holes in concrete and fit bollard	2.00	hrs	69.27	138.54
26	Painting labour to clean and paint out existing lines with grey pavement paint	3.00	hrs	57.10	171.30
27	Painting labour to set out, tape and paint new diagonal lines to shared space	6.00	hrs	57.10	342.60
28	Supply grey pavement paint	4.00	L	19.43	77.72
29	Supply yellow pavement paint	8.00	L	19.43	155.44
30	Supply masking tape and other painting sundy items	1.00	allow	100.00	100.00
31	Subtotal - Accessible Parking				<u>1,417.38</u>
8.5 Disabled Access				Total :	11,895.76

ITEM 9.1. – CORRODED BUILDING COMPONENTS

9.1A. OBSERVATION

My inspection of the balconies revealed a number of fittings and/or fixtures as part of the construction were found to be corroded, including:

Balconies

- Screws securing gas bayonet fittings corroded.

External Elevations

- The studs securing the downpipes were found to be rusty

Air Conditioning Platform

- Swarf and metal offcuts are present to galvanised framing and on the adjacent roof sheeting.
- Corrosion is evident to the frame where it has been welded.

My inspection to the interior extended to assessing the operation of windows and doors in the external walls and to a number of units I observed the following:

Bedroom One

Defect	Location
Chain winders to the window are corroded	107, 110, 111, 119, 122, 123, 201, 202, 203, 204, 205, 207, 211, 212, 214, 215, 216, 220, 221, 222, 224, 225

9.1B. RECTIFICATION & COST

BALCONIES

Allow to provide safe access to each balcony.

Remove and replace the screws in the gas bayonet points and the striker plate for the sliding flyscreen doors.

EXTERNAL ELEVATIONS

Allow for safe access provisions to access all downpipe fixings at higher levels above the footpath awning and balconies. Provide protection to nearby surfaces as necessary.

Allow to disconnect the downpipe astragals sufficient for the stud to be removed from the wall and remove the stud.

Supply and install a stainless steel stud and fix to the wall and to the downpipe astragal.

AIR CONDITIONING PLATFORM

Allow for protection to the existing roof in the vicinity of the air conditioning platform.

Allow to grind back to clean steel all rusty and poorly treated areas.

Clean the surfaces and apply two coats of zinc rich primer.

CHAIN WINDERS TO WINDOWS

Allow to remove and replace the chain winders to the windows as set out above, with a stainless steel or brass chain.

Allow for all sundries and cleaning after completion of works.

Item No.	Item Description	Quantity	Unit	Rate	Mark Up %	Amount
<i>Trade : 27 9.1 Corroded Building Elements</i>						
	9.1 Corroded Building Elements					
1						
	Labour and materials to perform proposed recitification works in accordance with Section 9.1C of Pink Slip Building Reports "Expert Report" reference PS17079 and dated 30th June 2017.					
2						
	Sundries					
3	Nominal allowance to install visual 'tiger tails' to overhead power line in Throsby St prior to scaffold works.	30.00	m	40.00		1,200.00
4	Allowance for rubbish removal and dumping	1.00	item	300.00		300.00
5						
	Gas Bayonet Fixings and Sliding Door Striker Screws					
6	Carpenter labour to removed existing screws and replace with new stainless steel screws (1M/15mins per unit).	12.25	hrs	69.27		848.56
7	Supply 316 32 x 12g slainless steel screws.	196.00	no	0.41		80.36
8						
	Downpipe Astragal Fixings					
9	Hire of articulated boom lift for accessing Work areas along Throsby St	2.00	days	391.37		782.74
10	Freight to and from site	2.00	no	250.00		500.00
11	Traffic control plan and permit for boom lift occupying road	1.00	item	250.00		250.00
12	Traffic control for boom lift, 2 x person crew	16.00	hrs	140.00		2,240.00
13	Mobile scaffold hire 5.5m high x 1.3m wide. Scaffolding access - all downpipes off level 1 balcony along Dickson St.	2.00	days	163.64		327.28
14	Protection material - heavy duty 20m x 1.2m foam roll to lay over L1 balcony tiles in Dickson St	1.00	ea	81.82		81.82
15	Supply 2400 x 1200 x 9mm CD ply for surface protection - laid over protective foam for scaffold to sit over.	4.00	ea	34.64		138.56
16	Labour to initially set up protection, erect and dismantle and clean on completion on both facades (2M/8hrs each facade)	32.00	hrs	56.62		1,811.84
17	Roof Plumber labour to assist moving scaffold, loosen downpipe, remove existing wall stud and fixing bolt, drill and fix new 316 stainless steel stand-off bracket and astragal bolt (1M/3hrs each downpipe)	57.00	hrs	72.54		4,134.78

18	Labourer to work in conjunction with Roof Plumber to move protection and scaffold on Dickson St.	24.00	hrs	56.62		1,358.88
19	Supply adjustable stainless steel stand off bracket	65.00	no	8.76		569.40
20	Supply wall plugs and stainless steel screws to fix new bracket, 2 per bracket	130.00	no	0.78		101.40
21	M8 masonry drill bit - consumable	3.00	no	6.50		19.50
22	M8 drill bit - consumable	3.00	no	9.27		27.81
23	Labourer to clean Dixon St L1 balconies on completion (1M/1D)	8.00	hrs	56.62		452.96
24	Allowance for cleaning products	1.00	item	40.00		40.00
25						
	Air Conditioning Platform					
26	Protection material for roof and plant and adjacent equipment - supply 50 x 2m roll builder's plastic	1.00	no	84.00		84.00
27	Allow duct tape	4.00	rolls	3.48		13.92
28	Labour to scrape off and brush metal burrs and splatter, mechanically remove surface rust from members and treat with two coats of steel zinc paint (2M/2D)	32.00	hrs	69.27		2,216.64
29	Supply steel zinc paint	8.00	L	35.80		286.40
30	Consumables including wire brush, grinding / sanding pads, paint brush, protection.	1.00	item	120.00		120.00
31	Labour to set up protection, clean and remove on completion (1M/8hrs)	8.00	hrs	56.62		452.96
32						
	Window Chain Winders					
33	Carpenter labour to replace chain winders to unit windows and clean on completion. (1M/1hr per winder x 98)	98.00	hr	69.27		6,788.46
34	Supply window winder with stainless steel chain.	98.00	no	47.73		4,677.54
35	Supply 316 stainless steel fixing screws (6 x per unit)	588.00	no	0.19		111.72
	9.1 Corroded Building Elements				Total :	30,017.53

ITEM 9.2. – WATER PENETRATION FLOOR/WALL JUNCTIONS

9.2A. OBSERVATION

I carried out an inspection to the interior of the units and whilst carrying out these inspections I observed a number of units on level two that have experienced water entry, as well as the occupants of various units advising that water has on several occasions entered.

These units were along the southern and western elevations and mostly to the upper level.

To the interior of the units I observed:

- Water staining to a large number of units.
- Water staining to carpet and smooth edges.
- Moisture affected paintwork to walls and/or skirting boards.

To the external walls I observed the following:

- The rendered wall is not well finished, particularly at the horizontal join.
- The horizontal tooled joint has not been sealed with a flexible sealant prior to the wall being rendered and painted.
- The horizontal joint is at the same height as the internal floor level.
- The AFS wall system has not been sealed to the slab or waterproofed on the external face.

9.2B. RECTIFICATION & COST

Allow to provide scaffold to the exterior southern and western walls of the building; the front elevation can be accessed off the roof awning with the use of a work platform and safety rail.

Grind back the render, scrape out and waterproof the existing 'V' joint with a waterproofing bandage.

Allow to cover the waterproof membrane with a 9mm thick CFC panel, securely fastened and sealed to the wall, with a flexible sealant to form a bevel at the top and bottom edges.

On completion allow to prepare and paint all external walls and carry out repairs to the interior, including removal of water affected sections of plasterboard and skirting boards.

Make good and repaint all affected surfaces.

Allow for all required surface protection to internal work areas.

Allow to remediate the units for mould.

Allow to remove the carpet to the water affected rooms and supply and lay new carpet and underlay.

Allow to remove all internal protection and cleaning of units.

LEVEL ONE UNITS

Allow for all required surface protection to balconies.

To the level one units where leaking is being experienced around and from the balconies, allow to carry out the following:

Seal the top edge of the skirting tiles to the wall.

Seal the perimeter of the window to the wall.

Prepare and repaint the affected walls.

Allow to remove all protection and cleaning balconies.

Allow for all sundries and cleaning after completion of works.

Item No.	Item Description	Quantity	Unit	Rate	Mark Up %	Amount
<i>Trade : 28 <u>9.2 Water Penetration - Southern & Western Walls</u></i>						
	9.2 Water Penetration - Southern & Western Walls					
1	Labour and materials to perform proposed rectification works in accordance with Section 9.2C of Pink Slip Building Reports "Expert Report" reference PS17079 and dated 30th June 2017.					
2	Sundries					
3	Council application fee for temporary permit for skip bin on road.	1.00	item	21.32		21.32
4	Council daily fee for occupancy of non-time restricted parking space (per space) for skip bin	15.00	days	12.00		180.00
5	Temporary site fencing to isolate skip bin	16.00	m	14.19		227.04
6	Skip bin	4.00	item	600.00		2,400.00
7	Supply 50 x 2m roll builder's plastic for internal unit protection	2.00	no	84.00		168.00
8	Protection material - Ram Board heavy duty cardboard 30.5 x 965mm wide roll - internal unit protection	6.00	ea	84.55		507.30
9	Supply 30m x 48mm roll of duct tape	12.00	no	3.83		45.96
10	Western Elevation Rectification					
11	Allowance has been made for 2 horizontal joints that exist at approximately level 2 floor level and higher in the level 2 external wall.		note			
12	The assumption has been made that the neighbour of the residential property adjacent to the west of the building on Throsby St may not be accepting to scaffold being erected in their property to perform the works so an allowance is made for a licencing fee for entry.	1.00	allow	8,000.00		8,000.00
13	Labour to transport, erect and dismantle scaffold	627.00	m2	10.37		6,501.99
14	Scaffold hire	2.50	week	4,746.39		11,865.98
15	Labour to grind and scrape out along the existing v-joint, approx 42.7m x 2 (1M/16hrs)	16.00	hr	56.62		905.92
16	Joint removal sundries ie grinding discs, face masks, safety glasses, small tools	1.00	item	40.00		40.00
17	Apply reinforced waterproof band along the joints, approx @ 42.7m length	42.70	m	25.00		1,067.50
18	Carpenter labour to cut 9mm thick fibre cement sheet into strips at ground level and pre-drill for fixings, apply sealant along back of strips, top and bottom, and screw fix fibre cement strip along joint. (2M/3D)	48.00	hrs	69.27		3,324.96

19	Supply 3m x 1.2m x 9mm Hardies Exotec fibre cement sheets to be cut into 300mm wide bands.	8.00	sheets	142.26	1,138.08
20	Consumables - contribution to grinding discs, fibre cement cutting blade and drill bits	1.00	item	160.00	160.00
21	Supply sealant for behind fibre cement.	13.00	tubes	12.00	156.00
22	Supply countersunk head stainless steel fixings - 1 top & bottom of FC strip at 600mm centres.	318.00	no	1.10	349.80
23	Supply labour and material to apply flexible sealant bevel along the top and bottom of the fibre cement strip.	170.80	m	8.87	1,515.00
24	Painter to prepare existing painted surface by removing loose paint, rubbing down and washing.	627.00	m2	2.88	1,805.76
25	Supply materials & labour to paint the western elevation.	627.00	m2	12.07	7,567.89
26	Labourer to clean after scaffold removal (1M/4hrs)	4.00	hrs	56.62	226.48
27					
	Southern Wall Rectification				
28	Mobile scaffold hire 4.5m high x 1.3m wide on an average of 2 days per unit for joint grinding and scraping, waterproofing, cladding over joint and sealing (13 units x 2D ea)	12.00	days	145.45	1,745.40
29	Supply 50 x 2m roll builder's plastic for surface protection	1.00	no	84.00	84.00
30	Protection material - heavy duty 20m x 1.2m foam roll.	1.00	ea	81.82	81.82
31	Supply 2400 x 1200 x 9mm CD ply for surface protection - laid over foam	6.00	ea	34.64	207.84
32	Labour to place protection, erect / move scaffold for each unit and grind and scrape out joints and clean on completion, 13 units @ 4hrs each	52.00	hrs	56.62	2,944.24
33	Consumables - contribution to grinding discs, fibre cement cutting blade and drill bits	1.00	item	20.00	20.00
34	Apply reinforced waterproof band along the joint - allowing higher rate for staggered visits when scaffold is moved as joints are scraped out.	45.35	m	50.00	2,267.50
35	Carpenter labour to cut 9mm thick fibre cement sheet into strips and pre-drill for fixings, apply sealant behind along top and bottom and screw fix fibre cement strip along joint (2M/3D).	48.00	hrs	69.27	3,324.96
36	Labourer to work in conjunction with carpenters to set up and move protection, move scaffold and clean	48.00	hrs	56.62	2,717.76
37	Supply 3m x 1.2m x 9mm Hardies Exotec fibre cement sheets to be cut into 300mm wide bands.	5.00	sheets	142.26	711.30
38	Consumables - contribution to grinding discs, fibre cement cutting blade and drill bits	1.00	item	80.00	80.00
39	Supply sealant for behind fibre cement.	7.00	tubes	12.00	84.00
40	Supply labour and material to apply flexible sealant bevel along the top and bottom of the fibre cement strip.	90.70	m	8.87	804.51
41	Supply countersunk head galvanised masonry anchors for fixing FC to wall	188.00	no	1.10	206.80
42	Painter to prepare existing painted surface by removing loose paint, rubbing down and washing.	228.00	m2	2.88	656.64
43	Supply materials & labour to paint the southern elevation.	228.00	m2	12.07	2,751.96
44	Labourer to final clean balconies upon completion (1M/1D)	8.00	hrs	56.62	452.96
45	Allowance for cleaning products	1.00	item	40.00	40.00
46					
	Internal Unit Rectification				
47	Units noted with water entry are 101, 113, 116, 121, 123, 202, 204, 207, 215, 220, 221, 222, 223, 224 & 225.		note		
48	Labourer to set-up protection to surfaces in units (1M/1hrs per unit)	15.00	hrs	56.62	849.30
49	Carpenter to remove damaged skirting boards, plaster, carpet and move to skip bin (1M/1.5hr per unit)	22.50	hrs	69.27	1,558.57

50	Repair plasterboard linings allowing a nominal 6hrs Plasterer labour, 3 sheets 10mm plasterboard, glue, joint compound, tape and sandpaper per affected unit.	15.00	units	555.28		8,329.20
51	Supply and lay underlay and carpet to room adjacent to leaking walls.	395.00	m2	42.35		16,728.25
52	Materials and labour to re-paint plasterboard wall adjacent to leaking wall.	217.00	m2	16.44		3,567.48
53	Materials and labour to re-paint window reveals.	307.00	m	8.22		2,523.54
54	Supply and installation of skirting board along effected walls	104.00	m	13.80		1,435.20
55	Materials and labour to paint new skirting board.	104.00	m	7.40		769.60
56	Labourer to remove surface protection and clean unit on completion of work (1M/2hrs per unit)	30.00	hrs	56.62		1,698.60
57	Allow remediation of units for mould.	15.00	units	350.00		5,250.00
58	Subtotal - Internal Unit Rectification					<u>42,709.74</u>
59						
	Level 1 Balcony Rectification to L1 affected units 101, 113, 116, 121 & 123.					
60	Silicone seal along top of skirting tiles and around the perimeter of the window to the wall.	125.00	m	6.46		807.50
61	Painter to prepare existing painted surface by removing loose paint, rubbing down and washing.	58.00	m2	2.88		167.04
62	Supply materials & labour to paint the external walls.	58.00	m2	12.07		700.06
9.2 Water Penetration - Southern & Western Walls					Total :	111,741.01

ITEM 10.1 – NON-COMPLIANT STAIR CONSTRUCTION

10.1A. OBSERVATION

My inspection of the building revealed there are numerous sets of stairs and ramps, to these I observed the following:

1. **Providore Store**

- 1.1. To the stairs outside the 'Providore' shop, the rise is not consistent throughout and does not comply with the BCA.
- 1.2. The handrails do not extend beyond the bottom tread and are incorrectly terminated.
Tactile indicators are not the correct size panel or width.
- 1.3. The base of the stair does not finish 900mm from the boundary.

2. **Commercial Lot 2**

- 2.1. To the stairs adjacent to the main residential entry, the rise of these stairs was found to be inconsistent and not in accordance with the BCA.

3. **Internal Stairs**

- 3.1. The internal stairs from the main entry to the second and third levels are not provided with a constant rise throughout each flight.

4. **Fire Stairs**

- 4.1. The stairs in the eastern fire stair are not provided with a constant rise throughout each flight.
- 4.2. Tactile indicators have not been provided on the landings in each fire stairwell, as shown on the approved plans.

5. **Commercial Lot 3**

- 5.1. The handrail terminations are incorrect.
- 5.2. The circulation space at the top and base of the ramp is not 1500mm.
- 5.3. The rail mounted to the shop front incorporates incorrect terminations and does not incorporate a kerb rail.

6. **The ramp to Providore and Commercial Lot 1**

- 6.1. The handrail to the side of the ramp leading to commercial tenancy 01 and door D-01 is not correctly terminated at the ends
Handrail not secured to the wall

10.1B. RECTIFICATION & COST

INTERNAL STAIRS

Allow to remove nosing strips, tiles and the like.

Scabble the surface of each tread in the flight and top as required to achieve a constant rise and going.

Supply and lay new tiles of an appropriate non-slip finish, and tread tiles to match the existing, ensuring constant rise and going.

FIRE STAIRS

Allow to remove the non-slip strip to the edge of the tread.

Scabble the surface and top as required.

Supply and fit new yellow non-slip strips to the edge of each tread.

TACTILE INDICATORS

Allow to prepare the surface and supply and fix tactile indicators to each landing, as depicted on the approved architectural plans.

HANDRAILS

Allow to remove the existing rails and configure the ramps and stairs as required to achieve the correct size landing and distance between the bottom riser and the boundary line.

Supply and fit new stainless steel rails.

EXTERNAL STEPS

Allow to remove the handrails and dispose.

Demolish both sets of steps, cut back landing and reconstruct to achieve 900mm from boundary to bottom riser.

Supply and fit new handrails.

Make good all surfaces.

RAMP

Allow to remove and dispose of rails.

Allow to break up and remove as required the ramp and adjacent surfaces.

Reconstruct to achieve compliant clearances and transitions.

Re-tile and make good disturbed surfaces.

Supply and fit new hand and kerb rails.

Make good all disturbed surfaces.

Allow for all sundries and cleaning after completion of works.

Item No.	Item Description	Quantity	Unit	Rate	Mark Up %	Amount
<i>Trade : 29 10.1 Non-Compliant Stair Construction</i>						
	10.1 Non-Compliant Stair Construction					
1						
	Labour and materials to perform proposed rectification works in accordance with Section 10.1C of Pink Slip Building Reports "Expert Report" reference PS17079 and dated 30th June 2017.					
2	The assumption has been made that there is sufficient room to achieve the required landings, handrail terminations and ramp gradients that are required by the Australian Standard for Accessibility to the stair and ramp areas being modified.		note			
3						
	Sundries					
4	Council daily fee for occupancy of non-time restricted parking space (per space) for skip bin	21.00	days	12.00		252.00
5	Skip bin for rubbish and redundant materials	3.00	item	600.00		1,800.00
6	Protection material - supply 50 x 2m roll builder's plastic	4.00	no	84.00		336.00
7	Protection material for access and surrounding areas of internal stairs - Ram Board heavy duty cardboard 30.5 x 965mm wide roll	6.00	ea	84.55		507.30
8	Allow duct tape	24.00	rolls	3.48		83.52
9	Allowance for miscellaneous temporary signage	1.00	allow	300.00		300.00
10	Allowance for general cleaning materials	1.00	allow	150.00		150.00
11	Allowance for PPE incl dust masks, gloves, safety glasses	1.00	item	60.00		60.00
12						
	Internal Stairs					
13	Carpenter labour to erect hoardings to close off internal stairs (2M/1D)	16.00	hrs	69.27		1,108.32
14	Supply 2400 x 1200 x 9mm CD ply for internal hoardings	10.00	ea	34.64		346.40
15	Supply 90 x 45mm x 5.4m pine for framing of internal hoarding	20.00	no	20.37		407.40
16	Hardware and fixing allowance for hoardings	1.00	allow	150.00		150.00
17	Labourer to assist set up of temprary hoardings with carpenter (1M/1D)	8.00	hs	56.62		452.96
18	Labourer to install protection and remove existing handrails to steps and step treads as required (2M/1D)	16.00	hs	56.62		905.92
19	Labour to remove tiles from treads and risers and landings and scabble surfaces (2M/4D)	64.00	hs	56.62		3,623.68
20	Hire of kango hammer, incl spade bit (2 off)	4.00	days	201.64		806.56

21	Allowance to grind tile glue off stair treads and risers	100.00	lm	14.35		1,435.00
22	Ditto - mid landings and landings allowed to be re-tiled	19.00	m2	14.35		272.65
23	Apply bonding agent over existing treads prior to topping	49.00	lm	7.68		376.32
24	Ditto - mid landings and landing areas allowed to be re-tiled	19.00	m2	7.68		145.92
25	Allow topping to stair treads	49.00	lm	30.76		1,507.24
26	Ditto - mid landings and landing areas allowed to be re-tiled	19.00	m2	30.76		584.44
27	Allow labourer to mix topping agent and move into work area (1M/12hrs)	12.00	hrs	56.62		679.44
28	Supply quality floor tiles to allowance of \$50/m2, including tactile indicators. Include 10% additional for waste & cutting plus the specified 1% of spares.	42.00	m2	50.00	10.00	2,310.00
29	Labour to tile stair treads and risers including glue and grout	100.00	m	27.16		2,716.00
30	Labour to tile landings including glue and grout - higher rate due to small and fidly areas	19.00	m2	120.00		2,280.00
31	Apply flexible sealant to movement joints	40.00	lm	8.87		354.80
32	Carpenter labour to re-install handrails (2M/8hrs)	16.00	hrs	69.27		1,108.32
33	Carpenter to re-install existing stair nosings (1M/1D)	8.00	hrs	69.27		554.16
34	Allowance for replacement and new fixings required to re-fit handrails and stair treads	1.00	allow	150.00		150.00
35	Labourer to clean periodically during tiling and on completion of works (1M/4hrs)	4.00	hrs	56.62		226.48
36	Labourer to remove protection and hoardings and clean on completion (2M/8hrs)	16.00	hrs	56.62		905.92
37	Subtotal - Internal Stairs					<u>23,407.93</u>
38						
	Fire Stairs					
39	Note that works will have to proceed in a manner to render the fire stairs still capable of providing safe means of egress to tenants in the event of an emergency.		note			
40	Labourer to set up work area isolation and protection for adjoining surfaces (1M/1D per fire stair)	16.00	hrs	56.62		905.92
41	Hire of 2 x 300mm dia. ventilation fan, daily rate for air circulation	2.00	week	978.18		1,956.36
42	Labourer to remove the existing stair nosings in both fire stairs (2M/1D)	16.00	hrs	56.62		905.92
43	Labourers to grind cut and scabble back concrete stair treads & landings (2M/1D per flight x 4)	64.00	hrs	56.62		3,623.68

44	Apply bonding agent over existing treads prior to topping	86.00	lm	7.68		660.48
45	Ditto - landing areas allowed to be topped.	30.00	m2	7.68		230.40
46	Allow topping to stair treads	86.00	lm	30.76		2,645.36
47	Ditto - landing areas allowed to be topped	30.00	m2	30.76		922.80
48	Allow labourer to mix topping agent and move into work area (1M/4D)	32.00	hrs	56.62		1,811.84
49	Supply and install adhesive vinyl tactile indicators to extent shown on plans	8.00	m2	201.11		1,608.88
50	Supply and install new tread nosings to both fire stairs.	82.00	m	75.13		6,160.66
51	Labourer to clean periodically during construction and on completion of works (1M/2D)	16.00	hrs	56.62		905.92
52	Subtotal - Fire Stairs					<u>22,338.22</u>
53						
	External Steps Including Handrails (2 locations)					
54	Temporary site fencing to isolate works areas	15.00	m	14.19		212.85
55	Labourer to set up work area isolation and protection for adjoining surfaces (1M/4hrs per location)	8.00	hrs	56.62		452.96
56	Labourer to remove existing handrails and stair nosings and jackhammer out concrete steps and sections of landings top and bottom and remove rubble by hand to tipper (2M/1D per location x 2)	32.00	hrs	56.62		1,811.84
57	Hire of air compressor, air hose and 2 breakers, fuel	2.00	days	628.02		1,256.04
58	Travel and establishment charge per job - saw cutting	1.00	item	90.00		90.00
59	Saw cutting of pavement 200mm deep	26.00	lm	16.50		429.00
60	5T tipper hire.	16.00	hrs	84.00		1,344.00
61	Dumping fees - recycled concrete	8.00	T	55.00		440.00
62	Concrete labour to form up new steps and landings, drill dowells into top and bottoms of cut slabs, reinforce, pour and finish steps (2M/1D for terrace and 2M/2D for commercial 2)	48.00	hrs	69.27		3,324.96
63	Formwork contribution - lost materials	1.00	item	250.00		250.00
64	Processed bar reinforcing	0.25	T	1,436.00		359.00
65	Supply SL72 mesh	3.00	sheets	63.94		191.82
66	Supply dowells and dowell cap to top and bottom of each stair where adjoins the existing slabs.	16.00	no	16.59		265.44
67	Allowance for delivery of reinforcing to site	1.00	item	75.00		75.00
68	Allowance for sundries including abelflex, reinforcement chairs, tie wire, etc	2.00	stairs	120.00		240.00
69	Supply 25MPa concrete allowing 1m3 for terrace stair and 3m3 for commercial unit #2 stair and landing	4.00	m3	214.40		857.60
70	Min charge concrete delivery (less than 4m3)	4.00	m3	40.00		160.00
71	Concretor labour to strip formwork (1M/4hrs)	4.00	hrs	69.27		277.08
72	Allowance for renderer to render the side face of the stair and landing into commercial unit #2 (1M/6hrs)	6.00	hrs	66.20		397.20
73	Allowance for rendering materials	1.00	allow	80.00		80.00
74	Supply quality floor tiles including tactiles allowing \$50/m2	9.00	m2	50.00	10.00	495.00
75	Tiling labour to lay tiles to new stair treads, risers and landings and grout (1M/1.5 days for terrace and 1M/2.5 days for commercial unit #2 per stair which includes tiles side wall). Laying rates not applicable to small areas requiring a lot of cuts, etc.	32.00	hrs	63.92		2,045.44
76	Allowance for tile sundries including angles, glue, grout, consumables	2.00	stairs	300.00		600.00
77	Apply flexible sealant to movement joints along edges of tiles abutting wall surfaces.	20.00	lm	8.87		177.40
78	Carpenter to reinstall stair nosings at completion of tiling (1M/1hrs per stair)	2.00	hrs	69.27		138.54

79	Supply new fixings for stair nosings	2.00	stairs	20.00		40.00
80	Supply, fabricate and install new stainless steel pipe complying handrails to stairs.	8.00	m	435.20		3,481.60
81	Additional charge for return bend ends on handrails	7.00	ea	136.93		958.51
82	Allowance for miscellaneous make good of areas surround the 2 x new stairs incl painting, surface touch-ups	2.00	no	300.00		600.00
83	Labourer to periodically clean and remove protection and works isolation and clean on completion (1M/8hrs)	8.00	hrs	56.62		452.96
84	Subtotal - External Steps Including Handrails					<u>21,504.24</u>
85						
	Ramps Including Handrails (2 locations)					
86	Temporary site fencing to isolate works areas	20.00	m	14.19		283.80
87	Labourer to set up work area isolation and protection for adjoining surfaces (1M/4hrs per location)	8.00	hrs	56.62		452.96
88	Labourer to remove existing handrails and jackhammer out concrete ramps and landings landings top and bottom and remove rubble by hand to tipper (2M/2D per location x 2)	64.00	hrs	56.62		3,623.68
89	Hire of air compressor, air hose and 2 breakers, fuel	4.00	days	628.02		2,512.08
90	Travel and establishment charge per job - saw cutting	1.00	item	90.00		90.00
91	Saw cutting of pavement 200mm deep	60.00	lm	16.50		990.00
92	5T tipper hire.	32.00	hrs	84.00		2,688.00
93	Dumping fees - recycled concrete	17.00	T	55.00		935.00
94	Concrete labour to form up new terrace ramp and landings, drill dowells into top and bottoms of cut slabs, reinforce, pour and finish concrete (2M/2D)	32.00	hrs	69.27		2,216.64
95	Ditto - new ramp and landings to commercial unit #3 (2M/3D)	48.00	hrs	69.27		3,324.96
96	Allowance for delivery of reinforcing to site	1.00	item	75.00		75.00
97	Processed bar reinforcing	0.50	T	1,436.00		718.00
98	Supply SL72 mesh	4.00	sheets	63.94		255.76
99	Supply dowells and dowell cap to top and bottom of each stair and into both edges along terrace ramp and along 1 edge to commercial unit #3 ramp @ 450mm centres where adjoins the existing slabs / structure	66.00	no	16.59		1,094.94
100	Allowance for sundries including abelflex, reinforcement chairs, tie wire, etc	2.00	ramps	175.00		350.00
101	Formwork contribution - lost materials	1.00	item	400.00		400.00
102	Supply 25MPa concrete allowing 1.5m3 for terrace ramp and 4m3 for commercial unit #3 ramp	5.50	m3	214.40		1,179.20
103	Min charge concrete delivery (less than 4m3) for terrace concrete	2.50	m3	40.00		100.00
104	Concretor labour to strip formwork (1M/6hrs)	4.00	hrs	69.27		277.08
105	Allowance for renderer to render the side face of the ramp and landing into commercial unit #3 (1M/8hrs)	8.00	hrs	66.20		529.60
106	Allowance for rendering materials	1.00	allow	120.00		120.00
107	Supply quality floor tiles including tactiles allowing \$50/m2	27.00	m2	50.00	10.00	1,485.00
108	Tiling labour to lay tiles to new stair treads, risers and landings and grout (1M/1.5 days for terrace and 1M/2.5 days for commercial unit #2 per stair which includes tiles side wall). Laying rates not applicable to small areas requiring a lot of cuts, etc.	32.00	hrs	63.92		2,045.44
109	Allowance for tile sundries including angles, glue, grout, consumables	2.00	ramps	450.00		900.00
110	Apply flexible sealant to movement joints along edges of tiles abutting wall surfaces.	42.00	lm	8.87		372.54
111	Supply, fabricate and install new stainless steel pipe complying handrails to stairs.	30.00	m	435.20		13,056.00
112	Additional charge for return bend ends on handrails	8.00	ea	136.93		1,095.44

113	Labourer to periodically clean and remove protection and works isolation and clean on completion (1M/12hrs)	6.00	hrs	56.62		339.72
114	Allowance for miscellaneous make good of areas surround the 2 x new ramps incl painting, surface touch-ups	2.00	no	400.00		800.00
115	Subtotal - Ramps Including Handrails					<u>42,310.84</u>
<u>10.1 Non-Compliant Stair Construction</u>					Total :	113,050.05

ITEM 10.2. – EXTERNAL HANDRAILS

10.2A. OBSERVATION

My inspection to the exterior revealed powder coated handrails and screens have been installed to the external balconies, as shown on the plans. The construction of the handrails generally appears to be sound, however to the applied powder coating finish I observed the following:

- The powder coat finish to handrails is faded, oxidised and deteriorated
- The powder coated handrail damaged in places due to contamination under the coating or the coating lifting; consistent with corrosion

10.2B. RECTIFICATION & COST

Allow for all required height access equipment to perform the works.

Allow to remove the affected powder coated rails and transport offsite for recoating.

Allow to set up temporary barriers to the balconies while works are in process.

Allow to clean down, prepare and re-powder coat, return to site and reinstall.

Allow for protection to surfaces adjacent to works areas and to clean on completion.

Item No.	Item Description	Quantity	Unit	Rate	Mark Up %	Amount
<i>Trade : 30 10.2 External Handrails</i>						
	10.2 External Handrails					
1						
	Labour and materials to perform proposed rectification works in accordance with Section 10.2C of Pink Slip Building Reports "Expert Report" reference PS17079 and dated 30th June 2017.					
2						
3	Quantities:					
4	Throsby St facade - 23 units	75.00	m			
5	Throsby St facade - L1 tenancy 04	10.00	m			
6	Dickson St facade - L2 - 13 units	45.00	m			
7	Dickson St facade - L1	56.00	m			
8						
	Sundries					
9	Nominal allowance to install visual 'tiger tails' to overhead power line in Throsby St for worker safety prior to scaffold works.	90.00	m	40.00		3,600.00
10	Deliver, install and remove temporary handrails while permanent handrails are removed.	186.00	m	15.32		2,849.52
11	Hire charge for temporary handrails allowing 2 weeks average	2.00	weeks	1,056.48		2,112.96

12	Carpenter to prop beneath Throsby St Awning to support scaffold used on top (1M/12hrs)	12.00	hrs	69.27	831.24
13	Hire of acrow props, allowing 30, daily rate based on min 14 day hire period	23.00	day	74.10	1,704.30
14	Allow for miscellaneous timber and hardware for sole / top plates and bracing of acrow propping plus safety barrier tape	1.00	item	450.00	450.00
15	Mobile scaffold hire 4.5m high x 1.3m wide, allowing 2.	15.00	days	290.91	4,363.65
16	Allow protection materials to lay over existing Dickson St balconies and Throsby St awning for access scaffold above - heavy duty 20m x 1.2m foam roll.	2.00	allow	81.82	163.64
17	Ditto - 2.4 x 1.2m x 20mm thk plywood to lay over foam	8.00	sheets	69.67	557.36
18	Carpenter to remove props beneath Throsby St awning (1M/8hrs)	8.00	hrs	69.27	554.16
19					
	Handrail Work				
20	Screens that divide the unit courtyards on L1 along Dickson St have not been included in the estimate.				EXCL
21	Tradesmen to remove all balcony handrails. Estimated 2M/1hr per individual balcony (36), including movements to street for transport.	72.00	hr	69.27	4,987.44
22	Tradesmen to remove all Dickson St individual unit courtyard handrails (8). Estimated 2M/1.5hrs each, including movement to street for transport.	24.00	hr	69.27	1,662.48
23	Labourer to move scaffold progressively and clean as handrails are removed.	48.00	hrs	56.62	2,717.76
24	Allow costs to transport handrails to & from powder coater using 10T truck - allow 6 x batch loads @ 2hrs each way	24.00	hrs	119.88	2,877.12
25	Prepare existing handrails by sandblasting to bare metal prior to powder coating - 186m total length of handrails	5.00	T	615.30	3,076.50
26	Powdercoat existing handrails - surface area of components to be powdercoated measured.	640.00	m2	25.00	16,000.00
27	Tradesmen to reinstall all balcony handrails. Estimated 2M/1.5hr per individual balcony (36), including movements from street to units.	108.00	hrs	69.27	7,481.16
28	Tradesmen to reinstall all balcony handrails to Dickson St courtyards. Estimated 2M/2hr each (8), including movements from street to units.	32.00	hrs	69.27	2,216.64
29	Labourer to move scaffold progressively and clean as handrails are removed and later re-installed.	70.00	hrs	56.62	3,963.40
30	Allowance for sundries, and some replacement fixings at nominal rate	186.00	m	10.00	1,860.00
	10.2 External Handrails			Total :	64,029.33

ITEM 10.3. – GALLERY HANDRAILS

10.3A. OBSERVATION

My inspection of the internal areas, particularly to the internal stairs and galleries, revealed the following:

- A stainless steel balustrade has been installed, the balustrade returns to the wall outside the entry door to the units and in a number of locations this handrail returns around to a glass panel.

In these locations the width between the end of the handrail and the glass panel exceeds the maximum 125mm

I have been provided with a copy of the plans and specifications; the plans detail a powder coated aluminium handrail.

10.3B. RECTIFICATION & COST

Allow for protection to existing surfaces adjacent to works areas.

Allow for safe height access equipment.

Remove glass panels from glazed handrails and store on site.

Allow to clean and abrade the components of the stainless steel rail to a Class 4 finish, removing all tea staining and the like.

Allow to modify existing handrails and supply and fit additional stainless steel framing to reduce the gaps.

Allow to move the glazing panels from storage and re-fit to handrails after cleaning is complete.

Allow for all sundries and to ongoingly clean during and on completion of works.

Clean all glass handrail panels on completion.

Item No.	Item Description	Quantity	Unit	Rate	Mark Up %	Amount
Trade : 31 <u>10.3 Gallery Handrails</u>						
	10.3 Gallery Handrails					
1						
	Labour and materials to perform proposed rectification works in accordance with Section 10.3C of Pink Slip Building Reports "Expert Report" reference PS17079 and dated 30th June 2017.					
2						
3	Quantities:					
4	Level 1 gallery stainless steel handrails - type 2	91.00	m			
5	Level 2 gallery stainless steel handrails - type 2	115.00	m			

6	Level 1 gallery stainless steel & glazed handrails - type 1	33.00	m			
7	Level 2 gallery stainless steel & glazed handrails - type 1	66.00	m			
8						
	Sundries					
9	Supply 50 x 2m roll builder's plastic	2.00	no	84.00		168.00
10	Protection material - Ram Board heavy duty cardboard 30.5 x 965mm wide roll	2.00	ea	84.55		169.10
11	Skip bin for rubbish	1.00	item	400.00		400.00
12	Rolls of danger tape	4.00	rolls	7.73		30.92
13	Supply 30m x 48mm roll of duct tape	12.00	no	3.83		45.96
14	Mobile scaffold hire 4.5m high x 1.3m wide.	15.00	days	145.45		2,181.75
15						
	Handrail Work					
16	Glazier labour to remove glazing from type 1 balustrades (47) prior to handrail treatment and move to store location within building (average 2M/30min ea)	47.00	hr	64.92		3,051.24
17	Allowance to wash and machine polish the handrails in-situ - type 1 balustrades (glazed type), allowing a labourer 1.5hr per lineal metre including protection, scaffold movements and cleaning of work areas.	99.00	m	84.93		8,408.07
18	Allowance to wash and machine polish the handrails in-situ - type 2 balustrades (solid balusters type), labourer 1.0hr per lineal metre including protection, scaffold movements and cleaning of work areas.	206.00	m	56.62		11,663.72
19	Allowance for cleaning sundries and machining pads and buffers at a nominal rate	305.00	m	10.00		3,050.00
20	Fabricate stainless steel infill piece for return ends of handrails to close non-compliant gap.	4.00	no	400.00		1,600.00
21	Tradesman to modify existing handrail ends to accept fixing of infill pieces and install infills (1M/2hrs ea)	8.00	hrs	69.27		554.16
22	Glazier labour to move from storage within the building and re-glaze type 1 balustrades (47) prior to removal of handrail (average 2M/1hr ea)	94.00	hr	64.92		6,102.48
23	Allowance for replacement glazing rubbers and sundries.	1.00	item	1,500.00		1,500.00
24	Labourer to clean glass on completion (average 20mins ea x 47)	16.00	hrs	56.62		905.92
25	Allow for glass cleaning products	1.00	item	200.00		200.00
10.3 Gallery Handrails				Total :		40,031.32

ITEM 11.1 – NON-COMPLIANT TILING

11.1A. OBSERVATION

My inspection of the property extended to the interior and exterior, where I observed that floors and stairs have been finished with a large format ceramic type tile.

This item extends to all areas incorporating these tiles, including but not limited to the following:

- Courtyard area outside the Providore.
- External steps to the Providore and stairs and ramps to the commercial tenancies.
- The landings outside external doorways.
- The residential lobby.
- Internal stairs and walkways to the galleries on levels two and three.
- External balcony areas.

To these areas I observed that the tiles are not of a non-slip finish.

Numerous tiles to the main gallery, to the external stairs and to the landings outside external doors were found to be drummy.

11.1B. RECTIFICATION & COST

As the tiles are not a non-slip tile, as required by the BCA and the contract specification, all tiles should be removed and replaced with a non-slip tile of the same size and colour.

Certification is to be provided to the Owner's Corporation prior to the new tiles being laid as to the slip resistance.

The rectification work for this item should be considered with item 10.1., which deals with the ramps and stairs.

The ramps and stairs will require significant works involving the demolition and rebuilding, therefore the areas will automatically be retiled.

The remaining areas to be retiled include:

- Level one and two gallery.
- External balconies.

To the gallery walkways it could be an option not to remove all the tiles, but to tile over the existing, some sections will need to be removed and the substrate graded to allow the transition of adjoining surfaces to marry in, this will apply at:

- Doorways to the stairwells.
- In front of the lift doors.

This would involve the taking up of tiles within a radius of approximately 2m from the adjoining surface, then the substrate topped and feathering out so as to create an acceptable grade and transition.

Allow for all sundries and cleaning after completion of works.

Item No.	Item Description	Quantity	Unit	Rate	Mark Up %	Amount
<i>Trade : 32 11.1 Non-Compliant Tiling</i>						
	11.1 Non-Compliant Tiling					
1						
	Labour and materials to perform proposed rectification works in accordance with Section 11.1C of Pink Slip Building Reports "Expert Report" reference PS17079 and dated 30th June 2017.					
2						
3	Tiles to terrace ramp and steps, steps into Commercial tenancy 2, the ramp into commercial tenancy 3 and the internal stairs are excluded because they are considered in item 10.1.		note			
4						
5	Quantities:					
6	Ground Floor terrace, entry, lobby	105.00	m2			
7	L1 Gallery walkways / unit entries	337.00	m2			
8	L1 internal gallery courtyards	324.00	m2			
9	L1 external balconies	470.00	m2			
10	L2 Gallery walkways / unit entries	348.00	m2			
11	L2 internal gallery courtyards	135.00	m2			
12	L2 external balconies	220.00	m2			
13	Areas in front of gallery level 1 & 2 fire stairs, lift and door entries allowed to be locally removed for re-grading of the floor prior to relaying new tiles (new tile quantities are included above)	256.00	m2			
14						
15	Due to the large amount of time and inconvenience to building occupants that would be involved to remove all tiles internally to common areas, the estimate is for the option to re-tile over the existing tiles in gallery walkways, unit entries and internal unit courtyards, only removing existing tiles in front of the fire stair doors, lift doors, unit entry doors and unit courtyard doors to enable the smooth transitions.		note			
16						
	Sundries					
17	Council application fee for temporary permit for skip bin on road.	1.00	item	21.32		21.32
18	Council daily fee for occupancy of non-time restricted parking space (per space) for skip bin	42.00	days	12.00		504.00
19	Temporary site fencing to isolate skip bin	16.00	m	14.19		227.04

20	Skip bin for rubbish and redundant materials	6.00	item	600.00		3,600.00
21	Protection material - supply 50 x 2m roll builder's plastic	8.00	no	84.00		672.00
22	Protection material - Ram Board heavy duty cardboard 30.5 x 965mm wide roll	12.00	ea	84.55		1,014.60
23	Allow duct tape	24.00	rolls	3.48		83.52
24	Rolls of danger tape	12.00	rolls	7.73		92.76
25	Allow for temporary signage for temporary tenant pedestrian diversions	1.00	item	300.00		300.00
26	Hire of kango hammer, incl spade bit	25.00	days	100.82		2,520.50
27						
	Demolition Work					
28	Labour to remove existing floor tiles with kango hammer at rate of 15 min per 1m2 including removal of debris and cleaning of work area. (Ground floor, level 1 and 2 external balconies, total 795m2)	199.00	hrs	56.62		11,267.38
29	Ditto - to locally remove existing tiles within the gallery areas at entries to fire stairs (8 @ 6m2), front of the lift doors (2 @ 6m2), unit entry and internal courtyard and balcony doors (98 @ 2m2 ea), including removal of debris and cleaning of work area.	64.00	hrs	56.62		3,623.68
30	Allow to grind glue from floor where tiles are removed.	1,307.00	m2	14.35		18,755.45
31						
	Rectification and Re-tiling					
32	Allow to clean surface of remaining tiles prior to applying floor prep.	1,144.00	m2	11.87		13,579.28
33	Allow to prep over the floor areas where tiles have been removed with average 3mm floor levelling compound prior to tiling.	1,307.00	m2	30.76		40,203.32
34	Ditto average 1.5mm over areas where existing tiles remain to be tiled over	1,144.00	m2	15.38		17,594.72
35	Nominal allowance for tile sundries including caulking expansion joints, angles & trims	1,939.00	m2	5.00		9,695.00
36	Allow supply quality floor tiles at a provisional rate of \$50/m2. Include 10% additional for waste & cutting plus the specified 1% of spares.	1,939.00	m2	50.00	11.00	107,614.50
37	Labour including to lay floor tiles including glue and grout to floors	1,939.00	m2	65.00		126,035.00
38	Labourer to perform ongoing site cleaning during works and clean on completion of all works (1M/20D)	160.00	hrs	56.62		9,059.20
39	Allowance for cleaning consumables	1.00	item	400.00		400.00
11.1 Non-Compliant Tiling					Total :	366,863.27

ITEM 11.2. – BALCONY GRADIENTS AND TILING

11.2A. OBSERVATION

My inspection of the units extended to the external balconies and to these I observed the following:

Defect	Location
Floor area not provided with minimum gradient of 1:100 or 1%	102, 107, 109, 111, 113, 115, 116, 117, 118, 119, 120, 121, 122, 123, 201, 203, 210, 212, 213, 214, 215, 219, 220, 221, 223, 224
Efflorescence in tile joints	111, 113, 114, 115, 116, 117, 119, 120, 121, 122, 123, 203, 225
Seals to movement joints coming away and between tiles and aluminium edge trim	111, 113, 120, 121, 123
Waterproofing does not extend above the surface of the tiles at hobs or walls.	All units
No waterproof membrane or skirting tiles around service duct. Gap is present at the junction of the service duct and skirting tiles, with framing or similar visible behind.	102, 106, 107, 108, 109, 111, 113, 115, 119, 120, 122, 201, 203, 204, 209, 210, 211, 212, 214, 215, 216, 217, 219, 220, 221, 222, 223, 225
Floor waste is provided, but no provision for surcharge or overflow in case of blockage has been provided	212

11.2B. RECTIFICATION & COST

FLEXIBLE SEALANTS

To all areas where the sealant is poorly applied and/or coming out;

Allow to strip out and remove the sealant to the entire length, clean out the joint and allow to dry.

Prime the surfaces and apply an approved proprietary flexible sealant.

FLOOR GRADIENTS

To all balconies where gradients are less than the minimum;

Allow to take up and remove the floor and skirting tiles.

Allow to locally top the existing screed to achieve the minimum falls.

Apply a new waterproof membrane over the screed to the hob and wall sections where the membrane does not terminate a minimum of 40mm above the finished floor level and to protect against the occurrence of efflorescence.

Supply and lay new tiles and finish with skirting tiles, movement joints and the like.

Allow for all surface protection, sundries, to remove all rubble and debris and clean up on completion.

Item No.	Item Description	Quantity	Unit	Rate	Mark Up %	Amount
<i>Trade : 33 11.2 Balcony Gradients & Tiling</i>						
	11.2 Balcony Gradients & Tiling					
1						
	Labour and materials to perform proposed rectification works in accordance with Section 11.2C of Pink Slip Building Reports "Expert Report" reference PS17079 and dated 30th June 2017.					
2						
3	The assumption has been made that existing floor wastes and trench drains can be re-used.		note			
4						
5	Quantities:					
6	Balcony area - type B, C & E units 102, 107, 109, 113, 115, 116, 117, 118, 119, 120, 121, 122, 123, 201, 203, 210, 212, 215, 219, 220, 221, 223, 224.	177.00	m2			
7	Balcony area - type D units 111, 214.	23.00	m2			
8	Balcony area - type A unit 213.	22.00	m2			
9						
	Sundries					
10	Council application fee for temporary permit for skip bin on road.	1.00	item	21.32		21.32
11	Council daily fee for occupancy of non-time restricted parking space (per space) for skip bin	42.00	days	12.00		504.00
12	Temporary site fencing to isolate skip bin	16.00	m	14.19		227.04
13	Skip bin for rubbish and redundant materials	5.00	item	600.00		3,000.00
14	Protection material - supply 50 x 2m roll builder's plastic	4.00	no	84.00		336.00
15	Protection material - Ram Board heavy duty cardboard 30.5 x 965mm wide roll	6.00	ea	84.55		507.30
16	Allow duct tape	24.00	rolls	3.48		83.52
17	Hire of kango hammer, incl spade bit	11.00	days	100.82		1,109.02
18	Labourer to perform ongoing site cleaning during works and clean on completion of all works (1M/4hr per unit x 26 off)	104.00	hrs	56.62		5,888.48
19						
	Demolition Work					
20	Labour to remove existing floor and skirting tiles with kango hammer at rate of 3hrs per type B, C & E units including setting up protection and removal of debris and cleaning of work (2M/3hrs each area)	138.00	hrs	56.62		7,813.56
21	Ditto - type D units (2M/4hrs each area)	16.00	hrs	56.62		905.92

22	Ditto - type A unit (2M/8hrs)	16.00	hrs	56.62		905.92
23	Allow to grind glue from floor where tiles are removed.	222.00	m2	14.35		3,185.70
24						
	Rectification and Re-tiling					
25	Apply bonding agent over existing topping prior to re-toppping	222.00	m2	7.68		1,704.96
26	Allow to screed over the existing balcony substrate prior to tiling.	222.00	m2	30.76		6,828.72
27	Ceramic Tiler to mix & move by hand sand / cement from ground level up to units (1M/2hrs per unit, 1M/4hrs for type A unit)	54.00	hrs	63.92		3,451.68
28	Waterproofing to balconies.	222.00	m2	39.40		8,746.80
29	Waterproofing band to perimeter of balconies	311.00	m	15.00		4,665.00
30	Allow supply of quality floor and skirting tiles at a provisional rate of \$50/m2. Include 10% additional for waste & cutting plus the specified 1% of spares.	245.00	m2	50.00	11.00	13,597.50
31	Labour to lay floor tiles including adhesive and grout	222.00	m2	65.00		14,430.00
32	Labour to lay skirting tiles including adhesive and grout	150.00	m	15.98		2,397.00
33	Apply flexible sealant to movement joints	157.00	m	8.87		1,392.59
34	Allowance for cleaning consumables	1.00	item	300.00		300.00
35						
	Painting					
36	Allowance for touch-up painting to balconies - 1M/2hrs each unit average	46.00	hrs	57.10		2,626.60
37	Materials per unit	23.00	units	80.00		1,840.00
	11.2 Balcony Gradients & Tiling				Total :	86,468.63

ITEM 11.3. – WET AREA FLOOR GRADIENTS

11.3A. OBSERVATION

My inspection extended to the interior of the units, where in each of the wet areas, including ensuite, laundry and bathroom, I observed that the floors were not provided with the correct falls.

I then proceeded to check the falls with a digital level and recorded my observations.

Ensuite

Defect	Location
The main floor area is not provided with the minimum 1:100 or 1% fall to the waste.	102, 106, 107, 108, 109, 110, 111, 113, 114, 115, 116, 117, 118, 119, 120, 121, 122, 123, 201, 202, 203, 204, 205, 207, 209, 210, 212, 211, 213, 214, 215, 216, 217, 219, 220, 221, 222, 223, 224, 225
Shower floor is not provided with minimum 1:60 or 1.67% fall.	102, 106, 107, 108, 109, 110, 111, 113, 114, 115, 116, 117, 118, 119, 120, 121, 122, 123, 201, 202, 203, 204, 205, 207, 209, 210, 211, 212, 213, 214, 215, 216, 217, 219, 220, 221, 222, 223, 224, 225

Laundry

Defect	Location
The floor area is not provided with the minimum 1:100 or 1% fall.	102, 107, 109, 110, 111, 113, 114, 115, 116, 117, 118, 119, 120, 121, 122, 123, 201, 203, 204, 205, 207, 209, 210, 211, 212, 215, 216, 217, 222, 223, 224, 225

Bathroom

Defect	Location
The main floor area is not provided with the minimum 1:100 or 1% fall.	106, 107, 108, 109, 110, 111, 113, 114, 115, 116, 117, 119, 120, 121, 122, 123, 201, 202, 203, 204, 205, 209, 210, 211, 212, 213, 214, 215, 216, 217, 219, 220, 221, 222, 223, 224, 225
Shower floor is not provided with minimum 1:60 or 1.67% fall.	102, 106, 107, 108, 109, 110, 111, 113, 114, 115, 116, 117, 119, 120, 121, 122, 123, 201, 202, 203, 204, 205, 207, 209, 210, 211, 212, 213, 215, 216, 217, 220, 221, 222, 223, 224, 225

11.3B. RECTIFICATION & COST

Allow for protection of all existing surfaces adjacent to work areas.

Allow to remove all necessary fittings and fixtures to enable the floor tiles to be removed.

Take up and dispose of the floor tiles.

Apply a lightweight topping to the existing screed to achieve the minimum falls.

Supply and lay new floor tiles.

Seal the perimeter junction with a flexible sealant.

Reinstate all fittings and fixtures.

Make good disturbed and adjoining surfaces and clean up on completion.

Item No.	Item Description	Quantity	Unit	Rate	Mark Up %	Amount
<i>Trade : 34 11.3 Wet Area Floor Gradients</i>						
	11.3 Wet Area Floor Gradients					
1						
	Labour and materials to perform proposed rectification works in accordance with Section 11.3C of Pink Slip Building Reports "Expert Report" reference PS17079 and dated 30th June 2017.					
2						
3	Allowance has been made to remove the bottom row of wall tiles from the wall to enable access to perform waterproofing.		note			
4	The assumption has been made that existing floor wastes and trench drains can be re-used.		note			
5	The assumption has been made that all toilets and shower screens can be removed in-tact and without damage for re-installation at the completion of tiling.		note			
6						
7	Quantities:					
8	Ensuite floors	157.00	m2			
9	Ensuite - perimeter	303.00	m			
10	Bathroom floors - complete area	169.00	m2			
11	Bathroom - perimeter	298.00	m			
12	Bathroom floors - shower only	4.00	m2			
13	Bathroom - shower only perimeter	8.00	m			
14	Laundry floors	86.00	m2			
15	Laundry perimeter	159.00	m			
16						
	Sundries					
17	Council application fee for temporary permit for skip bin on road.	1.00	item	21.32		21.32
18	Council daily fee for occupancy of non-time restricted parking space (per space) for skip bin	56.00	days	12.00		672.00
19	Temporary site fencing to isolate skip bin	16.00	m	14.19		227.04
20	Skip bin for rubbish and redundant materials	5.00	item	600.00		3,000.00

21	Protection material - supply 50 x 2m roll builder's plastic	8.00	no	84.00		672.00
22	Protection material - Ram Board heavy duty cardboard 30.5 x 965mm wide roll	8.00	ea	84.55		676.40
23	Allow duct tape	36.00	rolls	3.48		125.28
24	Hire of kango hammer, incl spade bit	36.75	days	100.82		3,705.14
25	Labour to set-up protection materials in units (1M/2hrs per unit average)	82.00	hrs	56.62		4,642.84
26						
	Demolition Work					
27	Plumbing labour to remove toilet cistern & pan and take to storage on site (77 @ 30 mins each)	39.00	hrs	74.49		2,905.11
28	Glazier labour to remove shower screens and take to storage on site (77 @ 2M/0.5hrs each)	77.00	hrs	64.92		4,998.84
29	Labour to remove existing floor and bottom perimeter tiles in ensuites with kango hammer at rate of 2.5hrs each per type B & E units (36 off, approx 3.8m2 each) including setting up protection and removal of debris and cleaning of work area.	90.00	hrs	56.62		5,095.80
30	Ditto - ensuites in type A unit at 4hrs each (1 off, approx 7.2m2).	4.00	hrs	56.62		226.48
31	Ditto - ensuites in type C & D units at 3hrs each (2 off, approx 4.7m2 each).	9.00	hrs	56.62		509.58
32	Labour to remove existing floor and bottom perimeter tiles in bathrooms with kango hammer at rate of 3hrs each per type B, C, D & E units (37 off, approx 4.4m2 each) including setting up protection and removal of debris and cleaning of work area.	111.00	hrs	56.62		6,284.82
33	Labour to remove existing floor and bottom perimeter tiles in laundries with kango hammer at rate of 2.5hrs each per type B, C, D, E (32 off, approx 2.6m2 each) including setting up protection and removal of debris and cleaning of work area.	80.00	hrs	56.62		4,529.60
34	Allow to grind glue from floor where tiles are removed.	416.00	m2	14.35		5,969.60
35	Allow to grind glue from lower row of wall tiles where tiles are removed.	768.00	lm	5.00		3,840.00
36						
	Rectification and Re-tiling					
37	Apply bonding agent over existing topping prior to re-topping	416.00	m2	7.68		3,194.88
38	Allow to screed over the existing floors prior to tiling.	416.00	m2	30.76		12,796.16
39	Labour to mix & move by hand sand / cement from ground level up to units (1M/1.5)hrs per ensuite, bathroom, laundry and 1M/0.75hr per shower)	165.00	hrs	56.62		9,342.30
40	Waterproofing to ensuites, laundries, bathrooms, showers.	416.00	m2	39.40		16,390.40
41	Waterproofing band to ensuites, laundries, bathrooms, showers.	768.00	lm	15.00		11,520.00
42	Allow supply of quality floor and skirting tiles at a provisional rate of \$50/m2. Include 10% additional for waste & cutting plus the specified 1% of spares.	647.00	m2	50.00	10.00	35,585.00
43	Labour to lay floor tiles including adhesive and grout	416.00	m2	65.00		27,040.00
44	Labour to lay skirting tiles including adhesive and grout	768.00	lm	15.98		12,272.64
45	Apply flexible sealant to perimeter junctions and vertical corners where bottom row of wall tiles are reinstated.	547.00	lm	8.87		4,851.89
46	Plumbing labour to take from storage on site and re-install toilet cistern & pan (77 @ 1.5hr each)	116.00	hrs	74.49		8,640.84
47	Allow materials for re-fixing toilets / cisterns (sand / cement / silicone), seals per toilet	77.00	no	25.00		1,925.00
48	Glazier labour to take from storage on site and re-install shower screens (77 @ 2M/1.5hrs each)	231.00	hrs	64.92		14,996.52

49	Allow fixings and silicone for replacing shower screens per screen	77.00	no	15.00		1,155.00
50	Labourer to perform ongoing site cleaning during works and clean on completion of all works (1M/4hr per unit average x 41)	164.00	hrs	56.62		9,285.68
51	Allowance for cleaning consumables	1.00	item	600.00		600.00
52						
	Painting					
53	Allowance for touch-up painting to balconies - 1M/4hrs each per unit average	164.00	hrs	57.10		9,364.40
54	Materials per unit	41.00	units	100.00		4,100.00
<u>11.3 Wet Area Floor Gradients</u>					Total :	231,162.56

ITEM 12.1. – WET AREA WATERPROOFING

12.1A. OBSERVATION

During my inspection of the wet areas of the units, being the bathroom, ensuite and laundry, I observed that in a number of wet areas the door frames and/or architraves extend into the tiles.

In many cases the jambs and architraves have been cut clear of the tiles, in others they extend into the tiles. The locations are as set out below.

To a number of units the water stop angle in the doorway is loose or damaged, resulting in damaged grout.

Ensuite

Defect	Location
Door frames and architraves extend into tiles and would be prone to water damage.	106, 202, 203, 204, 207, 211, 212, 214, 215, 216
Water stop angle in the doorway is of an extremely thin, lightweight material and prone to be damaged and covers the water stop which is set too low	204, 215

Bathroom

Defect	Location
Door frames and architraves extend into tiles and would be prone to water damage.	107, 109, 111, 115, 119, 120, 122, 202, 203, 204, 207, 210, 211, 212, 217, 222, 223

Laundry

Defect	Location
Water stop angle appears to be short and finishes below the tiles, with tiles abutting the timber frame.	215
The water stop angle is poorly finished and grout is cracked	202, 210, 217, 224

12.1B. RECTIFICATION & COST

Allow for protection of all existing surfaces adjacent to work areas.

Allow to remove the tiles that abut the door jamb and architraves, remove the architraves, cleaning out the sand and cement screed from below and fill the area with a waterproof sealant.

Supply and fit new architraves, ensuring the bottom edge of the architrave is sealed prior to installation.

Supply and lay new matching tiles where removed.

Make good all disturbed surfaces, paintwork and flexible sealants.

Allow to clean on completion.

Item No.	Item Description	Quantity	Unit	Rate	Mark Up %	Amount
<i>Trade : 35 12.1 Wet Area Waterproofing</i>						
	12.1 Wet Area Waterproofing					
1	Labour and materials to perform proposed rectification works in accordance with Section 12.1C of Pink Slip Building Reports "Expert Report" reference PS17079 and dated 30th June 2017.					
2	Sundries					
3	Council application fee for temporary permit for skip bin on road.	1.00	item	21.32		21.32
4	Council daily fee for occupancy of non-time restricted parking space (per space) for skip bin	14.00	days	12.00		168.00
5	Temporary site fencing to isolate skip bin	16.00	m	14.19		227.04
6	Skip bin for rubbish	1.00	item	600.00		600.00
7	Protection material - supply 50 x 2m roll builder's plastic	2.00	no	84.00		168.00
8	Protection material - Ram Board heavy duty cardboard 30.5 x 965mm wide roll	4.00	ea	84.55		338.20
9	Allow duct tape	12.00	rolls	3.48		41.76
10	Hire of kango hammer, incl spade bit	6.00	days	100.82		604.92
11	Rectificationl Works - Ensuites					
12	Labourer to set up protection in ensuites and adjacent work areas at start of works and remove door leafs (1M/1 hrs per unit)	10.00	hrs	56.62		566.20
13	Ceramic tiler to neatly cut out grout joints, locally remove floor tiles and tile bed in vicinity of door jambs / architrave to 10 x doorways (1M/1.5hr each)	15.00	hrs	63.92		958.80
14	Carpenter to remove existing architave / door jamb and install new door jamb, architraves and re-fit door leaf (1M/2hrs)	20.00	hrs	69.27		1,385.40
15	Supply timber door jamb	10.00	no	59.16		591.60
16	Supply timber architraves	10.00	doors	31.42		314.20
17	Allow supply of quality floor tiles at 1m2 per unit and a provisional rate of \$50/m2. Include 10% additional for waste & cutting plus the specified 1% of spares.	10.00	m2	50.00	10.00	550.00

18	Waterproofer to apply 2 x coats of waterproofing in doorway (1M/1hr per ensuite)	10.00	hrs	63.92		639.20
19	Allowance to supply waterproofing materials per doorway	10.00	no	25.00		250.00
20	Supply aluminium waterstop angle to units #204 & 215.	2.00	no	12.60		25.20
21	Ceramic tiler to lay new tile bed, and lay tiles including any necessary cutting (1M/2hrs per unit)	20.00	hrs	63.92		1,278.40
22	Allowance to supply sand/cement, tile adhesive and grout per doorway	10.00	no	20.00		200.00
23	Apply flexible sealant around bottom of door frames / architraves and waterstop angles (allowing 1.5m per doorway)	15.00	lm	8.87		133.05
24	Painter to paint door jamb / architraves	10.00	no	87.47		874.70
25	Labourer to remove temporary protection and clean bathroom and surrounding work areas on completion (1M/1.5hr per unit)	15.00	hrs	56.62		849.30
26	Subtotal - Rectification Works - Ensuities					<u>8,616.05</u>
27						
	Rectification Works - Bathrooms					
28	Labourer to set up protection in bathrooms and adjacent work areas at start of works and remove door leafs (1M/1hrs per unit)	17.00	hrs	56.62		962.54
29	Ceramic tiler to neatly cut out grout joints, locally remove floor tiles and tile bed in vicinity of door jambs / architrave to 17 x doorways (1M/1.5hr each)	26.00	hrs	63.92		1,661.92
30	Carpenter to remove existing architrave / door jamb and install new door jamb, architraves and re-fit door leaf (1M/2hrs)	34.00	hrs	69.27		2,355.18
31	Supply timber door jamb	10.00	no	59.16		591.60
32	Supply timber architraves	10.00	doors	31.42		314.20
33	Waterproofer to apply 2 x coats of waterproofing in doorway (1M/1hr per ensuite)	10.00	hrs	63.92		639.20
34	Allowance to supply waterproofing materials per doorway	17.00	no	25.00		425.00
35	Allow supply of quality floor tiles at 1m2 per unit and a provisional rate of \$50/m2. Include 10% additional for waste & cutting plus the specified 1% of spares.	17.00	m2	50.00	10.00	935.00
36	Ceramic tiler to lay new tile bed, and lay tiles including any necessary cutting (1M/2hrs per unit)	34.00	hrs	63.92		2,173.28
37	Allowance to supply sand/cement, tile adhesive and grout per doorway	17.00	no	20.00		340.00
38	Apply flexible sealant around bottom of door frames / architraves and waterstop angles (allowing 1.5m per doorway)	26.00	lm	8.87		230.62
39	Painter to paint door jamb / architraves	17.00	no	87.47		1,486.99
40	Labourer to remove temporary protection and clean bathroom and surrounding work areas on completion (1M/1.5hr per unit)	25.50	hrs	56.62		1,443.81
41	Subtotal - Rectification Works - Bathrooms					<u>13,559.34</u>
42						
	Rectification Works - Laundries					
43	Labourer to set up protection in ensuities and adjacent work areas at start of works and remove door leafs (1M/1hrs per unit)	5.00	hrs	56.62		283.10
44	Ceramic tiler to neatly cut out grout joints, locally remove floor tiles and tile bed in vicinity of door jambs / architrave or water stop angle to 5 x doorways (1M/1hr each)	5.00	hrs	63.92		319.60
45	Carpenter to remove existing architrave / door jamb and install new door jamb, architraves and re-fit door leaf to unit #215 (1M/2hrs)	2.00	hrs	69.27		138.54
46	Supply timber door jamb	10.00	no	59.16		591.60
47	Supply timber architraves	10.00	doors	31.42		314.20
48	Waterproofer to apply 2 x coats of waterproofing in doorway (1M/1hr per ensuite)	10.00	hrs	63.92		639.20

49	Allowance to supply waterproofing materials per doorway	10.00	no	25.00		250.00
50	Allow supply of quality floor tiles at 1m2 per unit and a provisional rate of \$50/m2. Include 10% additional for waste & cutting plus the specified 1% of spares.	5.00	m2	50.00	10.00	275.00
51	Supply aluminium nosing strip to units #202, 210, 217 & 224.	4.00	no	12.60		50.40
52	Ceramic tiler to lay new tile bed, and lay tiles including any necessary cutting (1M/2hrs per unit)	10.00	hrs	63.92		639.20
53	Allowance to supply sand/cement, tile adhesive and grout per doorway	5.00	no	20.00		100.00
54	Apply flexible sealant around bottom of door frames / architraves and waterstop angles (allowing 1.5m per doorway)	8.00	lm	8.87		70.96
55	Labourer to remove temporary protection and clean laundry and surrounding work areas on completion (1M/1.5hr per unit)	8.00	hrs	56.62		452.96
56	Subtotal - Rectification Works - Laundries					<u>4,124.76</u>
<u>12.1 Wet Area Waterproofing</u>					Total :	28,469.39

ITEM 12.2. – HANGING AND FITTING OF INTERNAL DOORS AND HARDWARE

12.2A. OBSERVATION

I inspected the interior of the units and observed the doors were generally a 2340mm height door, fitted with three hinges and a standard type latch set.

In regard to the hanging, fitting and finish of these doors and the door hardware I observed the following:

Kitchen/Living

Defect	Location
Entry door displays an uneven margin	207
Paint marks are visible on all door hardware	207, 213

Bedroom One

Defect	Location
Door displays an uneven margin and rattles in the closed position	102, 106, 107, 108, 110, 113, 115, 117, 119, 120, 121, 122, 123, 209, 210, 211, 214, 215, 216, 219, 220, 222
Door furniture is stiff to operate	102, 117, 121, 122, 204, 209, 212, 215, 219, 220, 222, 223, 224
Door furniture is loose	113, 203, 219

Ensuite

Defect	Location
The door displays an uneven margin	102, 106, 107, 108, 110, 115, 117, 118, 121, 122, 123, 201, 204, 207, 210, 211, 212, 213, 215, 216, 217, 220, 221, 222, 223, 224, 225
The door rattles in the closed position	107, 108, 110, 111, 113, 117, 121, 122, 123, 201, 207, 209, 212, 215, 217, 221, 223

The bottom edge of the door has not been paint sealed	107
Bottom edge of door is water damaged	219
Paint marks are visible on all door hardware	221
Door hinges rusting	108
Door furniture is stiff to operate	102, 109, 117, 118, 204, 210, 211, 213, 216, 220, 222, 224, 225

Bedroom Two

Defect	Location
Door displays an uneven and excessive margin	107, 108, 109, 115, 116, 117, 118, 121, 122, 123, 202, 207, 209, 211, 213, 214, 216, 217, 219, 221, 222, 223, 224
The door rattles in the closed position	102, 106, 107, 108, 110, 111, 115, 116, 117, 118, 119, 121, 122, 123, 202, 204, 209, 210, 211, 212, 213, 214, 216, 217, 223
Door furniture is stiff to operate	119, 120, 123, 205, 213, 219, 220, 224
Paint marks are visible on all door hardware	106, 107, 214
The door is loose on the hinge	222

Bedroom Three

Defect	Location
The door rattles in the closed position	111
Paint marks are present on the door hinges	111

Bathroom

Defect	Location
Door displays uneven margin	107, 109, 113, 115, 116, 117, 122, 123, 201, 202, 203, 207, 210, 211, 212, 213, 214, 217, 219, 220, 221, 224
Water damage visible to bottom edge of the door at the hinge stile; door not adequately sealed on the bottom edge.	102, 207, 212, 219
The door rattles in the closed position	106, 107, 108, 110, 111, 113, 115, 117, 119, 120, 122, 201, 202, 203, 209, 212, 213, 217, 222
Door furniture stiff to operate	109, 117, 123, 209, 210, 211, 212, 220, 221, 223, 224, 225
Door hinges noisy when operated	201
The door is coming off the hinge	102

Laundry

Defect	Location
Uneven door margins	102, 106, 107, 111, 116, 118, 121, 123, 201, 203, 204, 209, 210, 210, 211, 214, 219, 221
The door rattles in the closed position	106, 107, 109, 116, 118, 119, 122, 123, 201, 202, 204, 209, 210, 211, 214, 217, 219, 221, 222, 224

A gap is present between the door architrave and door frame to the bathroom	120
The door is twisted within the frame	220
Paint marks are visible on all door hardware	121

12.2B. RECTIFICATION & COST

Allow for protection of all existing surfaces adjacent to work areas.

Allow to ease and adjust door hardware and/or door leaves to ensure uniform margins to three sides of the door.

Allow to make good damage to the edges of the doors as required.

Prepare and paint affected and unsealed areas of the doors and adjust door hardware to prevent the doors rattling when in the closed position.

DOOR HARDWARE

Allow to remove and refit all loose and incorrectly operating hardware.

Allow to replace rusting hinges and fixings, remove all paint and other plaster marks from the door hardware.

Allow all surface protection, sundries and to clean up on completion.

Item No.	Item Description	Quantity	Unit	Rate	Mark Up %	Amount
<i>Trade : 36 12.2 Hanging & Fitting of Internal Doors & Hardware</i>						
1	12.2 Hanging & Fitting of Internal Doors & Hardware					
2	Labour and materials to perform proposed rectification works in accordance with Section 12.2C of Pink Slip Building Reports "Expert Report" reference PS17079 and dated 30th June 2017.					
3	Quantities:					
4	1. Doors displaying an uneven margin	90.00	no			
5	2. Doors with paint on door hardware	6.00	no			
6	3. Door furniture is stiff to operate	46.00	no			
7	4. Door furniture is loose	3.00	no			

8	5. Door rattles in the closed position	104.00	no		
9	6. Bottom edge of door has not been paint sealed	1.00	no		
10	7. Bottom edge of door is water damaged	1.00	no		
11	8. Door hinges are rusting	1.00	no		
12	9. Door displays an uneven and excessive margin	23.00	no		
13	10. Door is loose / coming off the hinge	2.00	no		
14	11. Door hinges noisy when operated	1.00	no		
15	12. A gap is present between the door architrave and door frame	1.00	no		
16	13. The door is twisted within the frame	1.00	no		
17	14. Water damage visible to bottom edge of door, door not adequately sealed on the bottom edge	4.00	no		
18					
	Sundries				
19	Supply 50 x 2m roll builder's plastic for surface protection	3.00	no	84.00	252.00
20	Temporary site fencing to isolate skip bin	16.00	m	14.19	227.04
21	Skip bin for rubbish	1.00	item	600.00	600.00
22					
	Rectification Works				
23	Labourer to set up protection and perform ongoing site cleaning during works and clean on completion of all works (1M/5D)	40.00	hrs	56.62	2,264.80
	Item #1				
24	Allow Carpenter labour to loosen hinges and pack hinges as necessary (1M/30 mins per door average)	45.00	hrs	69.27	3,117.15
25	Allow to supply packers, sundries ie screws, etc	90.00	doors	1.00	90.00
	Item #2				
26	Allow labourer to clean paint off door hardware (1M/15mins per door average)	2.00	hrs	56.62	113.24
27	Allow to supply turp / rags	1.00	item	25.00	25.00
	Item #3				
28	Allow Carpenter labour to remove door hardware, investigate, fix, oil and re-fit (1M/30 mins per door average)	23.00	hrs	69.27	1,593.21
	Item #4				
29	Allow Carpenter labour to remove door hardware, investigate and fix and re-fit (1M/15 mins per door average)	1.00	hrs	69.27	69.27
	Item #5				
30	Allow Carpenter labour to remove striker plate or door furniture as necessary, adjust as necessary and re-fit (1M/20 mins average)	35.00	hrs	69.27	2,424.45
	Item #6				
31	Allow Carpenter to remove door leaf and paint 2 x coats to bottom of door (1M/30mins between other jobs)	0.50	hrs	69.27	34.64
32	Paint / brush	1.00	item	60.00	60.00
	Item #7				
33	Allow Carpenter labour to remove existing door and hang new door incl painting top and bottom edges (1M/2 hrs)	2.00	hrs	69.27	138.54
34	Supply replacement door - assumed solid core	1.00	item	153.64	153.64
35	Allow painter to re-paint door	3.84	m2	21.75	83.52

Item #8					
36	Allow Carpenter labour to remove door and existing hinges, fit new hinges and re-hang door (1M/20 mins)	0.34	hr	69.27	23.55
37	Allow 100mm stainless steel butt replacement hinges	3.00	no	7.43	22.29
38	Allow new screws	18.00	no	0.05	0.90
Item #9					
39	An assumption has been made that the doors are cut too narrow and/or short and need replacing.		note	69.27	
40	Allow Carpenter labour to remove existing door and hang new door (1M/1.5 hrs per door average)	35.00	hrs	69.27	2,424.45
41	Replacement door - assumed solid core	23.00	item	153.64	3,533.72
42	Allow painter to re-paint door	77.51	m2	21.75	1,685.84
Item #10					
43	Allow Carpenter labour to investigate and fix / re-tighten screws (1M/15 mins per door average)	0.50	hrs	69.27	34.64
Item #11					
44	Allow Carpenter labour to investigate and fix / oil hinges (1M/15 mins per door average)	0.25	hrs	69.27	17.32
Item #12					
45	An assumption has been made that the gap is not excessive and can be caulked and re-painted.		note		
46	Allow painter to caulk the gap and re-paint the door frame and architraves - caulking only (1M/15mins)	57.10	hr	57.10	3,260.41
47	Supply gap caulking	1.00	tube	4.98	4.98
48	Painter to paint door jamb / architraves	1.00	no	87.47	87.47
Item #13					
49	Allow Carpenter labour to remove existing door and hang new door incl painting top and bottom edges (1M/2 hrs per door average)	2.00	hrs	69.27	138.54
50	Replacement door - assumed solid core	1.00	item	153.64	153.64
51	Allow painter to re-paint door	3.37	m2	21.75	73.30
Item #14					
52	Allow Carpenter labour to remove existing door and hang new door incl painting top and bottom edges (1M/2 hrs per door average)	8.00	hrs	69.27	554.16
53	Replacement door - assumed solid core	4.00	item	153.64	614.56
54	Allow painter to re-paint door	13.48	m2	21.75	293.19
12.2 Hanging & Fitting of Internal Doors & Hardware				Total :	24,169.46

ITEM 12.3. – POORLY FITTED AND FINISHED JOINERY

12.3A. OBSERVATION

My inspection of the complex extended to the interior of the units, where I observed that an amount of built-in joinery has been incorporated, generally as detailed in the plans and specifications. These installations included kitchen cabinets, both wall and floor mounted, and built-in cabinets in the laundry and bathrooms.

The majority of the joinery work has been installed to a satisfactory standard; however I observed a number of deficiencies, as set out below.

Kitchen/Living

Defect	Location
Gaps between the top of the overhead cupboard and the bulkhead ceiling	106, 107, 108, 110, 111, 113, 114, 115, 117, 118, 119, 120, 122, 201, 202, 203, 204, 207, 210, 211, 213, 216, 219, 220, 221, 222, 223, 225

Laundry

Defect	Location
Gap present between built-in laundry unit and wall.	102, 107, 111, 121, 201, 203, 204, 209, 212, 213, 214, 217, 220, 221, 222, 223, 224, 225
Kickboard to the built-in cupboard is loose and comes off	207
Base of cupboard is water damaged. Further investigation required to determine the source of the water.	215

12.3B. RECTIFICATION & COST

Allow for protection of all existing surfaces adjacent to work areas.

Allow to access all of the areas referenced above, clean out the junction between the joinery unit and the wall or other surface and seal with an approved flexible sealant.

To units 207 and 215; remove and refit or replace the kickboards which are loose and/or damaged.

Allow all surface protection, sundries and to clean up on completion.

Item No.	Item Description	Quantity	Unit	Rate	Mark Up %	Amount
<i>Trade : 37 <u>12.3 Poorly Fitted & Finished Joinery</u></i>						
	12.3 Poorly Fitted & Finished Joinery					
1						
	Labour and materials to perform proposed rectification works in accordance with Section 12.3C of Pink Slip Building Reports "Expert Report" reference PS17079 and dated 30th June 2017.					
2						
	Sundries					
3	Supply 50 x 2m roll builder's plastic for protection	1.00	no	84.00		84.00
4	Allow duct tape	6.00	rolls	3.48		20.88
5	Labourer to set-up protection material in units and perform ongoing site cleaning during works and clean on completion of all works - joinery works (1M/1hr per unit x 28)	28.00	hrs	56.62		1,585.36
6	Allow for waste removal	1.00	item	150.00		150.00
7						
	Rectification Works - Kitchens					
8	Mask & caulk gaps between the top of the overhead cupboard and the bulkhead ceiling with flexible sealant - unit type A	2.40	lm	9.56		22.94
9	Ditto - unit type B	92.00	lm	9.56		879.52
10	Ditto - unit type D	4.00	lm	9.56		38.24
11	Ditto - unit type E	7.70	lm	9.56		73.61
12						
	Rectification Works - Laundries					
13	Mask & caulk gaps between the built-in laundry unit and wall with flexible sealant - unit type A	5.20	m	9.56		49.71
14	Ditto - unit type B	21.00	m	9.56		200.76
15	Ditto - unit type D	3.00	m	9.56		28.68
16	Ditto - unit type E	1.50	m	9.56		14.34
17	Joiner labour to disassemble the existing laundry joinery unit, re-fit new kickboard and re-assemble joinery - unit #207 (2M/4hrs)	8.00	hrs	69.27		554.16
18	Supply new polyurethane painted kick	3.00	m	88.09		264.27
19	Mask & caulk gaps to the above joinery unit with flexible sealant	1.50	m	9.56		14.34
20	Joiner labour to disassemble the existing laundry joinery unit, re-fit new kickboard and re-assemble joinery - unit #2015 (2M/4hrs)	8.00	hrs	69.27		554.16
21	Supply new polyurethane painted kick	3.00	m	88.09		264.27
22	Mask & caulk gaps to the above joinery unit with flexible sealant	1.50	m	9.56		14.34
	<u>12.3 Poorly Fitted & Finished Joinery</u>				Total :	4,813.58

ITEM 12.4. –DOORS TO SANITARY COMPARTMENTS

12.4A. OBSERVATION

My inspection of the units included the wet areas and to the wet areas containing a WC I observed that the doors have not been provided with lift off hinges where the required space is not provided between the doorway and the pan.

This was observed in all ensuites and bathrooms.

12.4B. RECTIFICATION & COST

Allow for protection of all existing surfaces adjacent to work areas.

Allow to remove the doors from the frame and replace the hinges with proprietary stainless steel lift off hinges.

Allow to trim the top edge of the door to provide the required clearance.

Make good the top rail as required.

Allow to make good the cut edges of the door, paint seal the top edge with two coats of paint and make good the disturbed paintwork to the face of the door.

Allow all surface protection, sundries and to clean up on completion.

Item No.	Item Description	Quantity	Unit	Rate	Mark Up %	Amount
<i>Trade : 38 12.4 Doors to Sanitary Compartments</i>						
	12.4 Doors to Sanitary Compartments					
1						
	Labour and materials to perform proposed rectification works in accordance with Section 12.4C of Pink Slip Building Reports "Expert Report" reference PS17079 and dated 30th June 2017.					
2						
	Sundries					
3	Council application fee for temporary permit for skip bin on road.	1.00	item	21.32		21.32
4	Council daily fee for occupancy of non-time restricted parking space (per space) for skip bin	14.00	days	12.00		168.00
5	Temporary site fencing to isolate skip bin	16.00	m	14.19		227.04
6	Skip bin for rubbish	1.00	item	350.00		350.00
7	Supply 50 x 2m roll builder's plastic for protection	6.00	no	84.00		504.00
8	Allow duct tape	18.00	rolls	3.48		62.64
9						

Rectification Works					
10	Labourer to set up protection (1M/1hr per unit)	49.00	hrs	56.62	2,774.38
11	Carpenter labour to remove each door, cut back in height, fit timber to widen head jamb, change hinges and re-fit door (1M/1hrs per door)	98.00	hrs	69.27	6,788.46
12	Assumed that because of 2340 high door leafs that they are fitted with 3 hinges each		note		
13	Supply 100 x 75 stainless steel lift off hinges and screws	294.00	no	9.70	2,851.80
14	Supply pine DAR head piece to increase thickness of head jamb, including liquid nails, counter-sunk screws, filler and gap sealant	98.00	no	9.44	925.12
15	Painter to paint door jamb head	98.00	no	8.22	805.56
16	Allow painter to re-paint doors	98.00	ea	83.47	8,180.06
17	Labourer to perform ongoing site cleaning during works and clean on completion of all works (1M/average 1 hour per unit)	49.00	hrs	56.62	2,774.38
<u>12.4 Doors to Sanitary Compartments</u>				Total :	26,432.76

ITEM 13.1 WARRANTIES & MANUALS

A. OBSERVATION

As part of my instruction I have been provided with a number of documents, including the plans and specifications.

Each section of the specification requires Warranties and/or Manuals be provided, from my enquiries with the Owner's Corporation, these have not been provided.

B. RECTIFICATION & COST

Allow to inspect the surfaces, as in the specification requiring a maintenance manual and warranty, to ensure compliance.

Allow to either source documents from the manufacturers and suppliers and/or produce new manuals for the maintenance of all installed items and work systems within the specification.

Item No.	Item Description	Quantity	Unit	Rate	Mark Up %	Amount
<i>Trade : 39 13.1 Warranties and Manuals</i>						
	13.1 Warranties and Manuals					
1						
	Labour and materials to perform proposed rectification works in accordance with Section 13.1C of Pink Slip Building Reports "Expert Report" reference PS17079 and dated 30th June 2017.					
2						
3	The assumption has been made that basic written certification and product literature can be provided free of charge from suppliers and subcontractors.		note			
4	The assumption has been made that as-built drawings will involve appointing a consultant to visit site and prepare in office and assumes that free access to the existing project service documentation is available in CAD format for drafting purposes.		note			
5						
	Source and Compile the Required Warranties and As-built Drawings and Compile Handover Manual					
6	Project Manager labour to liaise with suppliers and subcontractors to source and provide all required documentation (1M/2D)	16.00	hrs	195.32		3,125.12
7	Contract Administrator to compile manuals (1M/1D)	8.00	hrs	110.86		886.88
8						
	Consultant Document Preparation					
9	Allowance for the production of electrical services documentation	40.00	hrs	180.00		7,200.00
10	Allowance for the production of fire services documentation	24.00	hrs	180.00		4,320.00
11	Allowance for the production of fire sprinkler documentation	16.00	hrs	180.00		2,880.00
	13.1 Warranties and Manuals				Total :	18,412.00

ITEM 13.2. – NON-COMPLIANCE WITH DEVELOPMENT APPROVAL

13.2A. OBSERVATION

As part of my instruction I have been provided with a number of documents, including the plans, specifications and development approval, to which I observed an amount of non-compliance.

13.2B. RECTIFICATION & COST

Allow to carry out all works for sections of the D.A. as set out at paragraphs 6, 7 and 11 as detailed in the Expert Report and arrange for reinspection and certification of these works.

Item No.	Item Description	Quantity	Unit	Rate	Mark Up %	Amount
<i>Trade : 40 13.2 Non-Compliance with Development Approval</i>						
	13.2 Non-Compliance with Development Approval					
1						
	Labour and materials to perform proposed rectification works in accordance with Section 13.2C of Pink Slip Building Reports "Expert Report" reference PS17079 and dated 30th June 2017.					
2						
3						
	ITEM # 6 - STREET TREES					
4	For both road and pedestrian safety this estimate has been prepared on the assumption that the works will be performed in 4 separate stages and not all at once which would require 2 footpaths to be closed along both road frontages and interfere with traffic.		note			
5	Estimate allows for a volume of 1.2 x 1.2m x 1.5m deep to each tree location.		note			
6	The assumption has been made that the areas where the trees are being planted are clear of ground services and no relocation of services is required.		note			
7	The assumption has been made that the existing concrete at each tree location can be cut and removed neatly and does not require any remediation work to the tree opening perimeter.		note			
8						
	Sundries					
9	Council application fee for temporary permit for skip bin on road.	1.00	item	21.32		21.32
10	Council daily fee for occupancy of non-time restricted parking space (per space) for skip bin	14.00	days	12.00		168.00
11	Skip bin for rubbish	2.00	item	600.00		1,200.00
12	Temporary site fencing to isolate works areas	60.00	m	14.19		851.40
13	Allow for underground services search along both Throsby St and Dickson St frontages.	4.00	hrs	150.00		600.00
14	Allow for preparation of traffic control plans and permit (1 for each street)	2.00	no	250.00		500.00

15	Allowance for a 2-person traffic control team during removal of pavements, excavation and tree pit install.	16.00	hrs	140.00		2,240.00
16	Hire 2 x pedestrian diversion signs.	2.00	weeks	54.55		109.10
17	Hire 2 x temporary kerb access ramps.	2.00	weeks	181.82		363.64
18	Hire of heavy duty electric breaker to assist breaking up concrete.	4.00	day	178.18		712.72
19	Allowance for a Landscape Architect to attend site at the completion of works for inspection, prepare and issue a certificate of practical completion (NCC DA condition 6 f)	6.00	hrs	175.00		1,050.00
20	Allowance for a Landscape Architect to attend site at 52 weeks after planting of trees to conduct and inspection, liaise with the landscaper and obtain maintenance records and compile a report for NCC (DA requirement 6h)	12.00	hrs	175.00		2,100.00
21						
	Demolition and Excavation Work					
22	The assumption has been made that the existing street pavement thickness is no greater than 150mm.		note			
23	The assumption has been made that the tree location areas are 1.2 x 1.2m		note			
24	Carpenter to set out cut-out locations for trees in existing footpaths (1M/4hrs)	4.00	hrs	69.27		277.08
25	Travel and establishment charge per job - saw cutting	1.00	item	90.00		90.00
26	Saw cutting of pavement 150mm deep. Allowing tree openings to be cross-cut centrally for ease of removing concrete. 14 tree openings in total.	101.00	lm	10.80		1,090.80
27	Ditto to cut longitudinally along back of kerb including cross cuts at 600mm centres for ease of removal to form trench for reticulation of irrigation water supply pipe.	278.00	lm	10.80		3,002.40
28	Float 7T excavator.	1.00	item	225.00		225.00
29	7T excavator hire to lift out redundant concrete pavements, load tipper for dumping and excavate holes for tree root cells, allowing allowing 4hrs in each stage of work.	16.00	hr	110.00		1,760.00
30	Labour to assist excavator including moving of site fencing to separate work areas	16.00	hr	56.62		905.92
31	5T tipper hire for dumping of concrete, allowing 4 hrs in each stage to include travel to tip	16.00	hrs	84.00		1,344.00
32	Dumping fees - recycled concrete	16.00	T	55.00		880.00
33						
	Lanscaping Works					
34	Supply of root cells	14.00	no	600.00		8,400.00
35	Installation of root cells (2M/1hr each)	28.00	hrs	56.62		1,585.36
36	Supply gap graded soil	31.00	m3	81.82		2,536.42
37	7T excavator hire to backfill root cells and install (lift) plants into position in 4 seperate visits @ 4hrs each.	16.00	hrs	110.00		1,760.00
38	Allowance for in-ground irrigation system to service 14 individual trees	1.00	allow	9,518.20		9,518.20
39	Allowance for plumber to provide water supply to a new irrigation controller within the ground floor level of the building (1M/12hrs)	12.00	hrs	74.49		893.88
40	Allowance for plumbing materials	1.00	item	450.00		450.00
41	Allowance for electrician to provide power supply to new irrigation controller within the ground floor level of the building (1M/12hrs)	12.00	hrs	73.31		879.72
42	Allowance for electrical materials	1.00	item	350.00		350.00
43	Labourer to dig out shallow trench for irrigation trench and backfill (1M/8hrs per section)	32.00	hrs	56.62		1,811.84
44	Supply of DA specified trees	14.00	no	475.00		6,650.00

45	Supply of tree grates	14.00	no	795.00		11,130.00
46	Landscape labour to assist with backfilling of soil, plant trees, install tree grates, water in and clean work area, in 4 seperate visits (2M/8hrs each per visit)	64.00	hrs	56.62		3,623.68
47	Tree watering maintenance for DA specified 104 weeks (1M/2hrs per week average)	208.00	hrs	56.62		11,776.96
48	Allowance for fertilizer, mulch & soil, sundries, etc required during maintenance period.	104.00	weeks	20.00		2,080.00
49						
	Reinstatement Work					
50	Allowance to drill, and epoxy galvanised dowells into pavement slat adjacent to irrigation trench, reinforce and reinstate concrete pavement.	184.00	m	94.35		17,360.40
51	Subtotal - Item #6 Street Trees					<u>100,297.84</u>
52						
53						
	ITEM #11 - VISITOR PARKING BAYS					
	Sundries					
54	Temporary site fencing to isolate works areas	60.00	m	14.19		851.40
55	Allow for underground services search along both Throsby St and Dickson St frontages.	4.00	hrs	150.00		600.00
56	Hire of heavy duty electric breaker to assist breaking up concrete.	3.00	day	178.18		534.54
57	Hire of plate compactor	2.00	day	105.73		211.46
58						
	Demolition and Excavation Work					
59	The assumption has been made that only the physical car parks need to comply and not the circulation pavements between parking ailes.		note			
60	An assumption has been made that the existing car park slab thickness is no greater than 100mm as documented by the Structural Engineer.		note			
61	The assumption has been made that the documented visitor spaces #1-10 and the loading bay need to comply with the DA condition.		note			
62	Removal of existing wheel stops in Visitor parking bays (1M/4hrs)	4.00	hrs	56.62		226.48
63	Plumbing labour to temporarily relocate the fire hose reel adjacent to commercial tenancy visito parking (1M/4hrs)	74.49	hrs	74.49		5,548.76
64	Miscellaneous plumbinh materials for relocation of FHR	1.00	item	150.00		150.00
65	Allow to hire a traffic controller to assist with tennant parking circulation around work areas whilst excavation and demolition of existing pavements is occurring.	32.00	hr	90.00		2,880.00
66	Travel and establishment charge per job - saw cutting	1.00	item	90.00		90.00
67	Saw cutting of pavement 100mm deep. Allowing perimetre of parking spaces and cross-cuts at 600mm centres centrally for ease of removing concrete.	616.00	lm	6.80		4,188.80
68	Labour to jackhammer concrete against existing walls where excavator has restricted access (1M/3D)	24.00	hr	56.62		1,358.88
69	Float 5T excavator.	1.00	item	225.00		225.00
70	5T excavator hire to lift out redundant concrete pavements, load tipper for dumping, excavate for 100 thk paver support slab, and spread 25mm packing base for pavers to level (4 days)	32.00	hr	105.00		3,360.00
71	Labour to assist excavator and compact road base fill (1M/4D)	32.00	hr	56.62		1,811.84
72	5T tipper hire for dumping of concrete and delivery of road base	32.00	hrs	84.00		2,688.00

73	Dumping fees - recycled concrete	17.00	T	55.00		935.00
74	Supply roadbase 25mm thick under pavement slab	6.00	m3	55.45		332.70
75						
	Brick Paving					
76	Supply materials, labour and pump for 100mm thick 25MPA concrete base slab for pavers, no thickenings or edge beam	106.00	m2	68.85		7,298.10
77	Supply of quality brick pavers, 75mm thick	116.00	m2	64.55		7,487.80
78	Laying of brick pavers	116.00	m2	103.59		12,016.44
79	Labour to re-install existing wheel stops (2M/4hrs)	8.00	hrs	56.62		452.96
80	Labourer to clean during paving works and on completion (1M/3D)	24.00	hrs	56.62		1,358.88
81						
	Line Marking					
82	Establishment cost for line marking	1.00	item	272.73		272.73
83	New line marking to completed car park bays.	88.00	m	1.50		132.00
84	Ditto - chevrons in loading bay	14.00	m2	22.73		318.22
85	Ditto - "Loading Bay" lettering 150mm high	10.00	letter	9.09		90.90
86	Ditto - disabled insignature	1.00	item	109.09		109.09
87	Subtotal - Item #11 Visitor Parking Bays					<u>55,529.98</u>
	13.2 Non-Compliance with Development Approval				Total :	155,827.82

ITEM 13.3. – HEALTH AND AMENITY REQUIREMENTS

13.3A. OBSERVATION

Inspection of the building has revealed that an employee sanitary facility has not been provided to the ground floor level.

13.3B. RECTIFICATION & COST

Construct a new complying sanitary compartment to comply with the BCA.

Alternatively, provide separate access from the carpark to one of the existing sanitary compartments.

Item No.	Item Description	Quantity	Unit	Rate	Mark Up %	Amount
<i>Trade : 41 13.3 Health & Amenity Requirements</i>						
	13.3 Health & Amenity Requirements					
1						
	Labour and materials to perform proposed rectification works in accordance with Section 13.3C of Pink Slip Building Reports "Expert Report" reference PS17079 and dated 30th June 2017.					
2						
3	The assumption has been made that the new sanitary facility would be located within the ground floor and within 10m of the existing sewer and water service.		note			
4	The assumption has been made that the new sanitary facility would be accessible compliant and be approximately 2m wide x 2.7m long & 2.7m high, constructed from masonry, with tiled floor, tiled splashback to vanity basin, skirting tile to the remainder and render and paint finish to other surfaces.		note			
5	No allowance has been made to wall finished on the external side of the room, only face blockwork.		note			
6						
	Sundries					
7	Temporary site fencing to isolate works areas	16.00	m	14.19		227.04
8	Council application fee for temporary permit for skip bin on road.	1.00	item	21.32		21.32
9	Council daily fee for occupancy of non-time restricted parking space (per space) for skip bin	21.00	days	12.00		252.00
10	Temporary site fencing to isolate skip bin	16.00	m	14.19		227.04
11	Skip bin for rubbish	2.00	item	600.00		1,200.00
12	Supply 50 x 2m roll builder's plastic	1.00	no	84.00		84.00
13	Hire of wet vac - saw cutting clean-up	1.00	day	67.09		67.09
14	Hire of heavy duty electric breaker - break up existing concrete slab	2.00	day	178.18		356.36
15						

	Demolition				
16	Travel and establishment charge per job - saw cutting	1.00	item	90.00	90.00
17	Saw cutting of existing slab 100mm depth - allowing cross-cuts at 600mm centres for ease of concrete removal.	24.00	m	6.80	163.20
18	Ditto - cutting of 400mm wide sewer trench from new toilet to an existing sewer line - allowing 10m long, cuts both sides and at 600mm transverse centres.	28.00	m	6.80	190.40

19	Labourer to install protection, jackhammer and remove rubble to skip bin (2M/2D)	32.00	hrs	56.62	1,811.84
20					
	New Works				
21	Plumber to dig by hand new trenches for sewer, install 100mm PVC sewer, break into and connect to existing sewer (2M/1D)	74.49	hrs	74.49	5,548.76
22	Supply 100mm diameter PVC lengths	4.00	no	25.98	103.92
23	Supply 100mm diameter PVC straight joiner	4.00	no	6.35	25.40
24	Supply 100mm diameter PVC trap	1.00	no	10.23	10.23
25	Supply 100 mm diameter PVC bends	6.00	no	3.18	19.08
26	Supply 100mm diameter PVC junction	1.00	no	5.68	5.68
27	Supply 100mm diameter PVC floor flange	2.00	no	1.36	2.72
28	Supply 100mm pan collar	1.00	no	7.73	7.73
29	Supply 100mm dia bolted trap screw inspection cap	1.00	no	6.32	6.32
30	Supply 40mm diameter PVC lengths	2.00	no	14.58	29.16
31	Supply 40mm diameter PVC bends	4.00	no	3.18	12.72
32	Supply 50mm to 100mm diameter PVC socket reducer	1.00	no	5.45	5.45
33	Supply 500mL PVC Primer	1.00	no	6.27	6.27
34	Supply 500mL PVC Solvent	1.00	no	5.64	5.64
35	Supply filling sand for backfilling sewer pipes	1.50	m3	62.73	94.10
36	Supply dowells and dowell cap - allowing perimeter of room and trench @ 450mm c/c	66.00	no	16.59	1,094.94
37	Supply epoxy for dowelling into existing slab	2.00	tubes	48.58	97.16
38	Concrete labour to drill dowells, reinforce and prepare and pour infill slab (2M/1D)	16.00	hrs	69.27	1,108.32
39	Labourer to assist concreter and wheel barrow concrete (1M/1D)	8.00	hrs	56.62	452.96
40	Supply SL82 mesh	2.00	sheet	81.07	162.14
41	Reinforcing sundries - bar chairs, tie wire	1.00	item	80.00	80.00
42	Supply 25MPa concrete	1.10	m3	214.40	235.84
43	Min charge concrete delivery (less than 4m3)	2.90	m3	40.00	116.00
44	Supply 190mm blocks	393.00	no	4.36	1,713.48
45	Bricklayer to lay blocks	393.00	no	5.00	1,965.00
46	Allow to acid clean blocks on the external faces	11.00	m2	7.50	82.50

47	Allow expansion joints in block walls - 2 x vertical corners	8.00	m	19.73	157.84
48	Render walls	23.00	m2	50.00	1,150.00
49	Steel door frame	1.00	no	125.35	125.35
50	Solid core door	1.00	no	153.64	153.64
51	Supply door hardware, hinges and door closer.	1.00	allow	421.00	421.00
52	Carpenter to hand door and install door hardware	2.00	hrs	69.27	138.54
53	Plumber to run water supply from existing point to the new handbasin and toilet (1M/4hrs)	4.00	hrs	74.49	297.96

54	Supply of plastic water pipe, fixings and sundries	15.00	m	15.00		225.00
55	Exhaust system allowing up to 10m duct to external with a fire damper and external grille.	1.00	item	3,000.00		3,000.00
56	Frame new ceiling	5.40	m2	30.00		162.00
57	Set plasterboard ceiling.	5.40	m2	35.21		190.13
58	Supply and install manhole	1.00	item	83.26		83.26
59	Sand & cement screeded floor bed	5.40	m2	30.76		166.10
60	Supply aluminium nosing strip	1.00	no	12.60		12.60
61	Waterproofing floor	5.40	m2	39.40		212.76
62	Waterproof upturn to wall	8.50	lm	15.00		127.50
63	Waterproofing penetrations	1.00	no	15.00		15.00
64	Supply floor and skirting tiles @ \$50/m2	7.10	m2	50.00	10.00	390.50
65	Ceramic tiler to tile floors	5.40	m2	65.00		351.00
66	Ceramic tiler to install skirting tiles	8.50	lm	15.98		135.83
67	Paint walls 1 x coat undercoat and 2 x finish coats	22.00	m2	16.44		361.68
68	Paint ceilings 1 x undercoat and 2 x finish coats	5.40	m2	16.95		91.53
69	Painter to paint door jamb / architraves	1.00	no	56.57		56.57
70	Paint door	3.50	m2	21.75		76.13
71	Supply accessible hand basin	1.00	no	716.55		716.55
72	Supply plug & waste	1.00	no	23.59		23.59
73	Supply chrome bottle trap	1.00	no	113.64		113.64
74	Supply accessible toilet and cistern	1.00	no	1,193.64		1,193.64
75	Supply accessible grab rails	1.00	no	222.36		222.36
76	Supply coat hook	1.00	no	35.00		35.00
77	Supply basin tap	1.00	no	215.45		215.45
78	Supply floor waste	1.00	no	13.82		13.82
79	Supply toilet paper holder	1.00	no	39.64		39.64
80	Supply mirror	1.00	no	376.36		376.36
81	Plumber to fit-out toilet and basin (1M/6hrs)	6.00	hrs	74.49		446.94
82	Plumber sundries - sand / cement for toilet pan, silicon, screw & plugs	1.00	item	25.00		25.00
83	Carpenter to fit off bathroom hardware incl grabrails, toilet paper holder, mirror, door sign (1M/4hrs)	4.00	hrs	69.27		277.08
84	Carpentry sundries	1.00	item	20.00		20.00
85	Supply door sign	1.00	item	35.00		35.00
86	Labourer to clean during the course of the works and on completion (1M/3D)	24.00	hrs	56.62		1,358.88
13.3 Health & Amenity Requirements				Total :		30,896.68

ITEM 13.4. – STORMWATER

13.4A. OBSERVATION

WESTERN CARPARK

- A large stormwater detention tank is provided in the floor of the carpark, the grated covers to this are not locked and step irons have not been provided to access the tank.
- The sump in the carwash bay is full of water and contained a large quantity of debris.
- The pump was found to be not automatically operated and will overflow and requires manual operation when the alarm sounds

13.4B. RECTIFICATION & COST

Allow to gain safe access to the detention tank, noting it is a confined or reticulated space; allow to barricade around the work area.

Supply and fit step irons or compliant access ladder.

Supply and fit locking mechanism and keyed locks to work in with the master key system.

Clean the carwash bay sump.

Disconnect and remove the existing pump and alarm.

Supply and fit new pump and alarm system.

Item No.	Item Description	Quantity	Unit	Rate	Mark Up %	Amount
Trade : 42 <u>13.4 Stormwater</u>						
	13.4 Stormwater					
1						
	Labour and materials to perform proposed rectification works in accordance with Section 13.4C of Pink Slip Building Reports "Expert Report" reference PS17079 and dated 30th June 2017.					
2						
	Sundries					
3	Temporary site fencing to isolate works areas	20.00	m	14.19		283.80
4						
	Carwash Bay					
5	The assumption has been made that there is no fault in the existing control panel and that a new pump can be swapped over and the full system be operational.		note			
6	Plumber to attend site, pump out and clean sump and disconnect existing pump (1M/4hrs)	4.00	hrs	74.49		297.96
7	Hire submersible pump	1.00	day	104.55		104.55

8	Electrician to disconnct power supply to pump (1M/2hrs)	2.00	hrs	73.31		146.62
9	Replacement pump - 415V Flameproof 1000L/H suction pump - DT25EXE	1.00	item	1,820.00		1,820.00
10	Plumber to change over pump and comission (1M/4hrs)	4.00	hrs	74.49		297.96
11	Electrician to connect pump and comission (1M/2hrs)	2.00	hrs	73.31		146.62
12	Allowance for miscellaneous plumbing and electrical sundries	1.00	item	200.00		200.00
13						
	Detention Tank Access					
14	Allow for a fabricated and galvanised access ladder to be manufactured for fixing to the side wall of the detention basin below the man hole.	1.00	item	1,619.20		1,619.20
15	Standby person for confined space entry (1M/4hrs)	4.00	hrs	69.27		277.08
16	Hire gas detector for confined space entry	1.00	day	107.27		107.27
17	Tradesmen to drill and epoxy install galvanised threaded studs to wall of detention tank and fix pre-fabricated ladder (1M/4hrs)	4.00	hrs	69.27		277.08
18	Supply M16 galvanised threaded rod stud and nut	8.00	ea	3.94		31.52
19	Supply epoxy for dowelling into existing slab	2.00	tube	48.58		97.16
20						
	Detention Tank Lockable Grate					
21	The method of locking is to bolt a short length of galvanised chain to the side wall of the detention tank and a padlock to lock the grate to the chain	1.00	note			
22	Supply 0.5m 10mm galvanised chain	0.50	m	14.73		7.37
23	Supply galvanised D shackle for padlocked end	1.00	item	5.16		5.16
24	Galvanised 100mm x 10mm dynabolt for fixing chain to wall	1.00	item	2.03		2.03
25	Supply padlock	1.00	item	50.00		50.00
26	Master keying	1.00	item	120.00		120.00
27	Carpenter to install chain and padlock (1M/2hrs)	2.00	hrs	69.27		138.54
	13.4 Stormwater				Total :	6,029.92

ITEM 13.5. – SERVICE CUPBOARDS AND RISERS

13.5A. OBSERVATION

The buildings electrical and/or telecommunication services enclosures are located within the Level 1 and Level 2 public corridors immediately beside the Carpark exhaust riser shaft.

The doors providing access into these enclosures are not fitted with non-combustible internal linings (i.e. fibre cement sheeting, galvanised steel sheeting, Zinalume sheeting etc.).

The floor surface within the Level 1 services enclosure is constructed of plywood and does not achieve a fire resistance level of not less than 180/180/180 in accordance with Clause C2.9 and Specification C1.1 of the BCA.

The Level 2 services enclosure is not provided with a floor surface beneath and is considered to be a substantial OH&S safety issue.

13.5B. RECTIFICATION & COST

The electrical and/or telecommunication services enclosures located within the Level 1 and Level 2 public corridors are to be upgraded to ensure full compliance with Clause D2.7(d) of the BCA. This will require the enclosure to be fully rated, including the removal of the existing doors and frames and replaced with non-combustible doors and frames to comply with the BCA.

The floor surface within the Level 1 services riser enclosure is to be upgraded to reinforced concrete construction capable of achieving a fire resistance level of not less than 180/180/180 in accordance with Clause C2.9 and Specification C1.1 of the BCA. The slab is to be designed and certified by a professional Structural Engineer.

Install a non-combustible structural floor within the Level 2 services riser enclosure, designed and certified by a professional Structural Engineer.

Allow all surface protection, sundries and to clean up on completion.

Item No.	Item Description	Quantity	Unit	Rate	Mark Up %	Amount
<i>Trade : 43 13.5 Service Cupboards & Risers</i>						
	13.5 Service Cupboards & Risers					
1	Labour and materials to perform proposed rectification works in accordance with Section 13.5C of Pink Slip Building Reports "Expert Report" reference PS17079 and dated 30th June 2017.					
2	Sundries					
3	Council daily fee for occupancy of non-time restricted parking space (per space) for skip bin	14.00	days	12.00		168.00
4	Skip bin for rubbish	1.00	item	600.00		600.00

5	Supply 50 x 2m roll builder's plastic	1.00	no	84.00	84.00
6	Protection material - Ram Board heavy duty cardboard 30.5 x 965mm wide roll	1.00	ea	84.55	84.55
7	Rolls of danger tape	1.00	rolls	7.73	7.73
8	Supply 30m x 48mm roll of duct tape	3.00	no	3.83	11.49
9					
	Fire Rated Doors and Door Frames				
10	The assumption has been made that the existing door furniture is suitable for fire rated doors and can be re-used.		note		
11	Allowance to remove existing pair of doors and frame at the first and second floor electrical / comms services cupboards and install a retrofitted fire rated steel door frame and fire door (1M/2D)	16.00	hrs	69.27	1,108.32
12	Labourer to assist with removal of doors and frames, take to skip bin and carry materials up to work area (1M/4hrs per door)	8.00	hrs	56.62	452.96
13	Supply new retrofitted fire rated steel door frames and rebated pairs of fire rated doors	2.00	pair	1,110.00	2,220.00
14	Supply countersunk anchor fixings 135mm x 10mm diameter	12.00	no	1.43	17.16
15					
	Painting				
16	Paint door frames.	2.00	no	69.13	138.26
17	Paint doors.	2.00	no	311.14	622.28
18					
	Reinforced Concrete Floor - Level 1 slab				
19	The assumption has been made that the infill slab be 250mm thick, reinforced with 2 x layers of F92 mesh and be dowelled around it's perimeter at 300mm centres. Fire pillow and sealant will be used to encapsulate the penetration that will be left for the existing services.		note		
20	Allow for Engineer to provide sketch design for floor infills	6.00	hrs	150.00	900.00
21	Labourer to protect the existing services in the vicinity of the new work, ie wrapping and taping up existing cables, covering surfaces, etc (1M/2hrs)	2.00	hrs	56.62	113.24
22	Electrician to attend site and tidy existing reticulation on the services cupboard and isolate power while reinforcing and pouring the new slab (1M/8hrs)	8.00	hrs	73.31	586.48
23	Formwork labour to make-shift form up the soffit of the Level 1 insill slab around the existing services (2M/1D)	16.00	hrs	69.27	1,108.32
24	Lost formwork materials allowance and fixing sundried (eq bolts for timbers through concrete / masonry walls.	1.00	item	300.00	300.00
25	Labourer to drill and epoxy galvanised dowells into existing slab and clean on completion (1M/ 4hrs)	4.00	hrs	56.62	226.48
26	Supply dowells and dowell cap	19.00	no	16.59	315.21
27	Supply epoxy for dowelling into existing slab	2.00	tubes	48.58	97.16
28	Supply SL92 mesh	1.00	sheet	102.96	102.96
29	Allow Engineer's pre-pour site inspection	1.00	item	300.00	300.00
30	Supply 32MPa concrete	0.33	m3	220.80	72.86
31	Min charge concrete delivery (less than 4m3)	3.67	m3	40.00	146.80
32	Concretor to prepare and pour concrete, including barrowing concrete into job (2M/4hrs)	8.00	hrs	69.27	554.16
33	Allowance to strip formwork (1M/2hrs)	2.00	hrs	69.27	138.54
34	Promaseal medium fire pillows 200 x 250 x 40mm - allow 10	20.00	no	5.58	111.64

35	Promaseal 600mL sausage	6.00	no	11.00		66.00
36	Electrician labour to pack fire pillows around existing services risers and seal around the perimetres (1M/2hrs)	2.00	hrs	73.31		146.62
37						
	Non-combustable Floor Platform at Level 2.					
38	Allow to frame up timber infill at level 2 floor level and line the base with 2 layers of 13mm fire rated plasterboard and the surface with 20mm Scyon fibre cement flooring. Fire pillow and sealant will be used to encapsulate the penetration that will be left for the existing services.		note			
39	The assumption has been made that a timber framed floor using 95 x 45mm LVL wall plates and joists spanning in the shorted directions will suffice.		note			
40	Supply 95 x 45mm LVL	10.80	m	8.18		88.34
41	Supply Scyon FC flooring 2.7 x 0.6m x 19mm	1.00	sheet	103.64		103.64
42	Supply joist hangers	12.00	no	1.45		17.40
43	Supply M16 x 190mm threaded rod stud for fixing timber floor plates to existing slab/wall at 450mm centres	12.00	no	3.94		47.28
44	Supply epoxy for dowelling into existing slab	2.00	tubes	48.58		97.16
45	Allowance for sundries incl nails and screws	1.00	item	15.00		15.00
46	Carpenter labour to frame, sheet floor infill and line the underside of the structure with 2 layers of fire rated plaster and seal the perimeter with fire caulking (1M/1.5D)	12.00	hrs	69.27		831.24
47	Supply 3000 x 1200 x 13mm sheet fire rated plasterboard.	1.00	ea	50.22		50.22
48	Promaseal 600mL sausage	8.00	no	11.00		88.00
49	Promaseal medium fire pillows 200 x 250 x 40mm - allow 20	20.00	no	5.58		111.64
50	Electrician labour to pack fire pillows around existing services risers and seal around the perimetres (1M/2hrs)	2.00	hrs	73.31		146.62
13.5 Service Cupboards & Risers				Total :		12,397.76

ITEM 13.6. – PIPE INSULATION

13.6A. OBSERVATION

My inspection to the interior included the ceiling void, within the void I observed:

- Drainage lines from the units above have not been insulated.
- When in the units, when the facilities in the unit above were in use, noise was emitted to the unit below.

13.6B. RECTIFICATION & COST

Allow for protection of all existing surfaces adjacent to work areas.

Allow to gain access to the ceiling void and remove plasterboard as required.

Supply and fit lagging to the drainage lines.

Remove insulation to be clear of lights by 200mm.

Refit ceiling lining and make good all surfaces and finishes.

Clean all areas on completion.

Item No.	Item Description	Quantity	Unit	Rate	Mark Up %	Amount
<i>Trade : 44 <u>13.6 Pipe Insulation</u></i>						
	13.6 Pipe Insulation					
1	Labour and materials to perform proposed rectification works in accordance with Section 13.6C of Pink Slip Building Reports "Expert Report" reference PS17079 and dated 30th June 2017.					
2	Sundries					
3	Council application fee for temporary permit for skip bin on road.	1.00	item	21.32		21.32
4	Council daily fee for occupancy of non-time restricted parking space (per space) for skip bin	35.00	days	12.00		420.00
5	Temporary site fencing to isolate skip bin	16.00	m	14.19		227.04
6	Skip bin for rubbish	6.00	item	600.00		3,600.00
7	Supply 50 x 2m roll builder's plastic	4.00	no	84.00		336.00
8	Protection material - Ram Board heavy duty cardboard 30.5 x 965mm wide roll - 1 per unit	23.00	ea	84.55		1,944.65
9	Allow supply of protection materials to protect tiled floors, fixtures and fittings.	1.00	item	250.00		250.00
10	Supply 30m x 48mm roll of duct tape	12.00	no	3.83		45.96
11	Labourer to set up, ongoingly clean and remove protection and clean each unit upon completion (1M/5hrs ea)	115.00	hrs	56.62		6,511.30

12					
	Removal of Existing Ceilings				
13	Labour to cut and remove existing ceiling linings in bathrooms, ensuites and laundries and cut out side of riser shaft within all first floor units to access to insulate hydraulic services (servicing units on level 2). Labour includes manually handling demolished materials to the street to place in skip bins. 2M/6hrs per unit.	276.00	hrs	56.62	15,627.12
14					
	Insulation				
15	Plumbing labour to insulate				
16	Supply & install mass loaded vinyl insulation - 100mm diameter pipes	274.00	m	101.20	27,728.80
17	Ditto - 65mm diameter pipes	139.00	m	71.50	9,938.50
18	Ditto - 100mm bend	71.00	ea	62.70	4,451.70
19	Ditto - 65mm bend	92.00	ea	37.40	3,440.80
20	Ditto - 100mm tee / junction	137.00	ea	53.90	7,384.30
21	Ditto - 65mm tee / junction	23.00	ea	33.55	771.65
22	Ditto - floor waste gully	114.00	ea	147.40	16,803.60
23					
	Reinstate ceilings (fix plasterboard to existing ceiling, setting & sanding)				
24	Level 1 type 'B' units (19 x 12.81m2 ea)	243.22	m2	40.20	9,777.40
25	Level 1 type 'C' unit (1 x 13.58m2)	13.58	m2	40.20	545.92
26	Level 1 type 'D' unit (1 x 14.12m2)	14.12	m2	40.20	567.62
27	Level 1 type 'E' unit (2 x 13.02m2)	26.04	m2	40.20	1,046.81
28	Square setting perimeter to the above units	535.00	m	12.26	6,559.10
29					
	Reinstate Walls (Riser Shafts in walk in robes)				
30	Plasterboard to walls in all riser shafts, one face - all units	63.00	m2	33.75	2,126.25
31	Extra-over plastering labour for small sized work areas and access into individual units (1M/1hr per unit)	23.00	hrs	66.20	1,522.60
32					
	Painting				
33	Repaint above ceilings including 1 x coat undercoat and 2 top coats	296.96	m2	16.95	5,033.47
34	Repaint above walls including 1 x coat undercoat and 2 top coats	38.00	m2	16.44	624.72
	13.6 Pipe Insulation			Total :	127,306.63

SUMMARY OF COSTS

Trd No.	Trade Description	Trade %	Cost/m2	Sub Total	Mark Up %	Trade Total
	5.1 Throsby St Awning	0.51		15,339		15,339
	5.2 Glass Roof Panels	7.50		223,809		223,809
	5.3 Roof Penetrations	3.23		96,449		96,449
	5.4 Roof Sheet Installation	0.76		22,764		22,764
	5.5 Swarf & Metal Debris	0.48		14,331		14,331
	5.6 Downpipes	0.50		14,819		14,819
	5.7 Roof Access & Safety System	4.36		130,067		130,067
	5.8 Skylights	2.00		59,609		59,609
	6.1 Smoke Hazard Management	0.42		12,461		12,461
	6.2 Hydrants - Reduced SOW to booster room due to alternate Solution prepared by Warrington Fire	0.20		6,047		6,047
	6.3 Fire Hose Reels and Travel Distances	0.27		8,085		8,085
	6.4 Sprinklers	1.01		29,995		29,995
	6.5 Separation of Classifications in the Same Storey	2.87		85,697		85,697
	6.6 Protection of Vent Outlets in External Walls	0.39		11,569		11,569
	6.7 Openings in Walls to the Corridor	19.43		579,769		579,769
	6.8 Gallery Walkways - Levels 1 & 2 - Included in item					
	6.9 Door Clearances	0.11		3,156		3,156
	6.10 Penetrations for Services	3.93		117,172		117,172
	6.11 Main Switch Room	0.19		5,666		5,666
	7.1 Fire Stairs 2 & 3 Passageways	1.30		38,854		38,854
	7.2 Access to Eastern Fire Isolated Passageway	0.02		484		484
	8.1 Carpark Exit Door Width No Rectification Required due to Alternate Solution by Warrington Fire					
	8.2 Residential Lobby Entry / Exit Doors	0.02		707		707
	8.3 Exit Door Signage	0.10		2,946		2,946
	8.4 Residential Lobby Ramp	0.47		14,024		14,024
	8.5 Disabled Access	0.40		11,896		11,896
	9.1 Corroded Building Elements	1.01		30,018		30,018
	9.2 Water Penetration - Southern & Western Walls	3.74		111,742		111,742
	10.1 Non-Compliant Stair Construction	3.79		113,051		113,051

10.2 External Handrails	2.15		64,030		64,030
10.3 Gallery Handrails	1.34		40,032		40,032
11.1 Non-Compliant Tiling	12.30		366,864		366,864
11.2 Balcony Gradients & Tiling	2.90		86,469		86,469
11.3 Wet Area Floor Gradients	7.75		231,163		231,163
12.1 Wet Area Waterproofing	0.95		28,470		28,470
12.2 Hanging & Fitting of Internal Doors & Hardware	0.81		24,170		24,170
12.3 Poorly Fitted & Finished Joinery	0.16		4,814		4,814
12.4 Doors to Sanitary Compartments	0.89		26,433		26,433
13.1 Warranties and Manuals	0.62		18,412		18,412
13.2 Non-Compliance with Development Approval	5.22		155,828		155,828
13.3 Health & Amenity Requirements	1.04		30,897		30,897
13.4 Stormwater	0.20		6,030		6,030
13.5 Service Cupboards & Risers	0.42		12,398		12,398
13.6 Pipe Insulation	4.27		127,307		127,307
13.7 Mechanical Services - Item Not Pressed					
13.8 Electrical - Item Not Pressed					
	100.00		2,983,843		2,983,843

Mark Up 30.00% : **895,153**

Final Total : \$ **3,878,996**

G.S.T. 10.00% : **387,899**

Final Total Incl. G.S.T. : \$ **4,266,895**

6. EXPERT'S EXPERIENCE

RELEVANT EXPERTISE

- a) I have been actively engaged in the building and construction industry at a technical level since 1981 and have continued ongoing experience throughout my career.
- b) I have personally undertaken and also supervised the construction of residential and small scale commercial buildings during my career as a carpenter and joiner, construction supervisor and builder during the period 1981 – 1999.
- c) I have personally prepared construction costs for the purpose of tendering on residential and small scale commercial buildings during the period 1981 – 1999.
- d) I have personally managed/overseen the construction of residential building works including new homes, insurance rectification following fire, storm or flood as well as the preparation of cost estimates for budgetary or assessment purposes and administered construction contracts to ensure compliance with plans and specifications, assessment of progress claims and variations, during the period 1999 – current.
- e) Attached to this report is a copy of my Curriculum Vitae.
- f) I have previously inspected similar properties and prepared expert reports and remedial costs estimates for the Consumer, Trader & Tenancy Tribunal as well as Supreme and District Courts in NSW.
- g) I hold a current builder's license with the Office of Fair Trading, number 40941 and I have held this licence since 1989.
- h) I have been involved in remedial defect assessment to properties similar to the subject property where issues of quality of workmanship, non-compliance with the relevant standards, suitability of materials and technique have been addressed.

My experience with rectification work commenced following the Newcastle earthquake of 1989 when I was engaged to assess and rectify hundreds of properties damaged during the earthquake.

During my time as a licensed builder I was also engaged to undertake rectification works for the Mine Subsidence Board and I have also during my time as a building contractor been engaged in the assessment and rectification of damage to buildings for various types of insured events including wind, rain and hail damage, fire damage and earthquake damage.

This experience was gained over a ten year period from approximately 1989 to the end of 1999.

Over the eighteen years I have been operating as a building consultant, commencing in approximately the year 2000 to date, I have been engaged to assess and report on building defects to in excess of 500 residential and commercial properties with approximately 200 of these jobs being subject to litigation

I am regularly engaged to assess damage and prepare scopes of works in residential and commercial property by building owners, strata managers and home owners.

7. CURRICULUM VITAE AND SUMMARY OF RELEVANT EXPERIENCE

Curriculum Vitae of Peter James Shepherd

Professional qualifications and Affiliations

Pre apprenticeship Hunter Institute Technology

Carpentry and Joinery Apprenticeship Hunter Institute Technology

Building Foreman and Clerk of Works Hunter Institute of Technology

Diploma of Business Law in real estate course Contract law for real estate

Property law

Contracts for the sale of land

Commercial law principles

Bachelor of Laws – University of New England

Graduate Diploma of Legal Practice – College of Law

Other Qualifications

Licensed Builder No 40941

OFT – Building Consultants Licence BC159 (category of licence now removed)

Field Experience

1981-1988-Sub-contract carpentry work- residential construction inc new and renovation work on projects up to \$1m

1988-1989-Construction Supervisor- Streitberger Homes all aspects of supervisor works of subcontractors for all residential projects.

1989-1999-Managing Director- Multi Award winning Hunter Building Company
COOKS HILL CONSTRUCTIONS

- Financial management and control
- Tendering and Contract administration
- Building Inspection and reporting
- Construction of large architectural designed residences
- Commercial and residential projects and developments
- Particular Projects Redevelopment of Foster Post Office for Australia Post
- Various works for Mindaribba Aboriginal Land Council new auditorium, childcare centre, preschool and all amenities. Winner of Charles Davis Award 1996
- Heritage listed building development and works Old Flour Mill Hudson St Newcastle. Winner Newcastle MBA Building Awards
- Winner Excellence in Building Awards 1997 outstanding quality workmanship
- Finalist HIA Top Home Awards 1994

Jan. 1999-2001

- Building consultancy/Construction management
- Pre purchase Inspections of residential and commercial properties
- Building disputes including representation at Tribunal Hearings
- All consultancy requirements as listed by Master Builders Association, ABC membership including monthly seminars and all training as required
- Construction, contract and project administration and management
- Commercial and residential rectifications and new works
- Development advice and Project costing

2001 – Current

- Expert Witness - Court and Tribunal, regarding building defects, quantum and incomplete works, including:
 - Building dispute matters
 - Family Law
 - Estate matters
- Building Consultancy
- Client representation in Building Tribunals
- Preparation of Scott Schedules
- Dispute Mediation and Resolution
- Construction Management
- Contract Management
- Construction Costing and Planning
- Preparation of construction and replacement costs for Herron Todd White (Newcastle) Valuers
- Preparation and costing of scopes of works for defect and rectification works.
- Preparation of bills of quantities for new projects, rectification works for owners, rectification cost for use in NSW Civil and Administrative Tribunal and court.

8. EXPERT WITNESS CODE OF CONDUCT DECLARATION

- 8.1 Annexed to this expert report and marked "B" is a copy of the Uniform Civil Procedure Rules Expert Witness Code of Conduct.
- 8.2 I confirm that I have read the Chairperson's Directions regarding the Expert Witness Code of Conduct and agree to be bound by it.

PINK SLIP BUILDING REPORTS

A handwritten signature in dark ink, appearing to read 'Peter Shepherd', with a long horizontal stroke extending to the right.

Peter Shepherd

Annexure “A”

Letter of Instruction From Wilde Legal



t 02 4905 0101
e admin@wildelegal.com.au
a PO Box 672
The Junction NSW 2291

27 February 2019

Mr Peter Shepherd
Pink Slip Building Reports
PO Box 3325
MEREWETHER NSW 2291

Dear Mr Shepherd,

**Re: Owners Corporation SP91174 Throsby Street Whickham and RPF
Building Pty Ltd and RPF Throsby Pty Ltd.
New South Wales District Court Case No. 2017/00048114**

We refer to our previous instructions in relation to 18 Throsby Street, Whickham NSW 2293 and your Expert Report in Reply dated 30 June 2017.

In addition to our earlier instructions to investigate any defective and/or non-compliances with reference to the application of any relevant Building Code of Australia sections, Australian Standards, council conditions and standards of workmanship, we ask that you now provide a detailed breakdown of the required rectification works and the likely cost of those works.

We would be grateful if you could please address the following in your detailed breakdown;

- A. Calculate the quantum on a basis of individual defects, showing all assumptions, quantities and rates; and
- B. Identify any areas where there are repeated similar defects and there may be a cost savings by pricing those items as a group, and show as an alternate to the acceptance of individual item priced in accordance with the instructions detailed at "A".

Further, please confirm that you continue to be bound by Schedule 7 of the *Uniform Civil Procedure Rules 2005* (NSW) and NCAT Expert Witness Guidelines and adhere to same when preparing your breakdown.

We thank you for your assistance in this matter and please do not hesitate to contact our office should you have any queries regarding the above.

Yours faithfully,
WILDE LEGAL

Per:

Melanie Wilde

wildelegal.com.au

Liability limited by a scheme approved under Professional Standards Legislation

ABN 22 153 251 864

ACN 153 251 864

Annexure “B”

UCPR Expert Witness Code of Conduct

Uniform Civil Procedure Rules 2005

Current version for 9 December 2016 to date (accessed 16 February 2017 at 09:24)

Schedule 7

Schedule 7 Expert witness code of conduct

(Rule 31.23)

1 Application of code

This code of conduct applies to any expert witness engaged or appointed:

- (a) to provide an expert's report for use as evidence in proceedings or proposed proceedings, or
- (b) to give opinion evidence in proceedings or proposed proceedings.

2 General duties to the Court

An expert witness is not an advocate for a party and has a paramount duty, overriding any duty to the proceedings or other person retaining the expert witness, to assist the court impartially on matters relevant to the area of expertise of the witness.

3 Content of report

Every report prepared by an expert witness for use in court must clearly state the opinion or opinions of the expert and must state, specify or provide:

- (a) the name and address of the expert, and
- (b) an acknowledgement that the expert has read this code and agrees to be bound by it, and
- (c) the qualifications of the expert to prepare the report, and
- (d) the assumptions and material facts on which each opinion expressed in the report is based (a letter of instructions may be annexed), and
- (e) the reasons for and any literature or other materials utilised in support of each such opinion, and
- (f) (if applicable) that a particular question, issue or matter falls outside the expert's field of expertise, and
- (g) any examinations, tests or other investigations on which the expert has relied, identifying the person who carried them out and that person's qualifications, and
- (h) the extent to which any opinion which the expert has expressed involves the acceptance of another person's opinion, the identification of that other person and the opinion expressed by that other person, and
- (i) a declaration that the expert has made all the inquiries which the expert believes are desirable and appropriate (save for any matters identified explicitly in the report), and that no matters of significance which the expert regards as relevant have, to the knowledge of the expert, been withheld from the court, and
- (j) any qualification of an opinion expressed in the report without which the report is or may be incomplete or inaccurate, and
- (k) whether any opinion expressed in the report is not a concluded opinion because of insufficient research or insufficient data or for any other reason, and

Uniform Civil Procedure Rules 2005 [NSW]

- (l) where the report is lengthy or complex, a brief summary of the report at the beginning of the report.

4 Supplementary report following change of opinion

- (1) Where an expert witness has provided to a party (or that party's legal representative) a report for use in court, and the expert thereafter changes his or her opinion on a material matter, the expert must forthwith provide to the party (or that party's legal representative) a supplementary report which must state, specify or provide the information referred to in clause 3 (a), (d), (e), (g), (h), (i), (j), (k) and (l), and if applicable, clause 3 (f).
- (2) In any subsequent report (whether prepared in accordance with subclause (1) or not), the expert may refer to material contained in the earlier report without repeating it.

5 Duty to comply with the court's directions

If directed to do so by the court, an expert witness must:

- (a) confer with any other expert witness, and
- (b) provide the court with a joint report specifying (as the case requires) matters agreed and matters not agreed and the reasons for the experts not agreeing, and
- (c) abide in a timely way by any direction of the court.

6 Conferences of experts

Each expert witness must:

- (a) exercise his or her independent judgment in relation to every conference in which the expert participates pursuant to a direction of the court and in relation to each report thereafter provided, and must not act on any instruction or request to withhold or avoid agreement, and
- (b) endeavour to reach agreement with the other expert witness (or witnesses) on any issue in dispute between them, or failing agreement, endeavour to identify and clarify the basis of disagreement on the issues which are in dispute.



PERFORMANCE SOLUTION REPORT

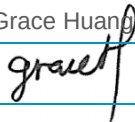
18 Throsby St, Wickham

Client: Owners Corporation Strata Plan 91174 c/o Lake Group Strata

Job number: SY180335 Issuing consultant: Grace Huang

Date: 13 February 2019 Revision: R1.0

Amendment schedule

Version	Date	Information relating to report		
R1.0	13/02/2019	Reason for issue	Report issued to Lake Group Strata, Ausgrid and Pink Slip Building Services.	
			Prepared by	Reviewed by
		Name	Grace Huang	Greg Leach
		Signature		
		Reason for issue		
			Prepared by	Reviewed by
		Name		
		Signature		
		Reason for issue		
			Prepared by	Reviewed by
		Name		
		Signature		
		Reason for issue		
			Prepared by	Reviewed by
		Name		
		Signature		

Executive summary

This report documents the findings of a fire safety engineering assessment undertaken to determine whether the existing building at 18 Throsby St, Wickham complies with the relevant performance requirements of the National Construction Code 2013 Volume One – Building Code of Australia (BCA). Warringtonfire undertook the assessment in accordance with the International Fire Engineering Guidelines (IFEG) at the request of Owners Corporation Strata Plan 91174 c/o Lake Group Strata.

A BCA Assessment Report was prepared by Building Code Professionals for the Owners Corporation of Strata Plan 91174 to ascertain the level of compliance with the deemed-to-satisfy provisions of the BCA and existing fire engineering reports applicable to the building. Warringtonfire have been engaged to address non-compliances identified in the BCA Assessment Report by way of fire engineering where possible.

Exova Defire rebranded to Warringtonfire on 1 December 2018. Apart from the change to our brand name, no other changes have occurred. The introduction of our new brand name does not affect the validity of existing documents previously issued by us.

The project involves an existing three storey mixed use building. These include residential, retail, commercial and carparking on the ground floor (class 2, 5, 6 and 7a) and two residential (class 2) storeys above. The ground floor residential lobby is connected to the level 1 and level 2 gallery areas via an open staircase in the centre of the building. The internal gallery of level 2 is characterised by an elevated roof structure allowing natural venting and lighting of the communal areas below. The building is further connected by floor voids in the level 2 gallery area.

The design of the building includes areas that do not comply with the deemed-to-satisfy (DTS) provisions of the BCA. Table 1 describes the BCA requirements associated with the performance solutions.

No	Description of performance solutions	DTS provision	Performance requirements	Method of meeting performance requirements	Assessment method
1.	The unobstructed width of the exit door serving the residential carpark egressing onto Dickson Street is 650mm instead of 750mm.	Clause D1.6	DP4 and DP6	Complies with performance requirements A0.3(a)(i) and A0.3(b)	Verification method A0.5(b)(ii)
2.	The fire brigade booster assembly is not provided with fire rated protection extending 2m each side of and 3m above the upper hose connections.	Clause E1.3 and AS 2419.1-2005	EP1.3	Complies with performance requirements A0.3(a)(i) and A0.3(b)	Verification method A0.5(b)(ii)
3.	The sprinkler protected ground floor is not fire separated from the non-sprinkler protected residential levels above.	Specification E1.5 and AS 2118.1-1999	EP1.4	Complies with performance requirements A0.3(a)(i) and A0.3(b)	Verification method A0.5(b)(ii)

Table 1 BCA requirements associated with the performance solutions

The building has been the subject of previous fire safety engineering assessments by GHD. The assessments documented in this report are not considered to affect or be affected by the findings of the previous fire safety engineering reports.

The fire safety engineering assessment found that the design of the building achieves compliance with the relevant performance requirements of the BCA, subject to the following recommendations:

- This report and the fire safety measures listed in section 5 must be implemented into the design and identified on the fire safety schedule for the building. They must be maintained and certified in accordance with the Environmental Planning and Assessment Regulations 2000 and relevant Australian standards.

- If there are building alterations or additions, a change in use or changes to the fire safety system in the future, a reassessment will be needed to verify consistency with the assessment contained in this report.

Contents

Amendment schedule	2
Executive summary	3
Contents	5
1. Introduction	6
2. Fire engineering brief	6
2.1 Stakeholders	6
2.2 FEB process	6
3. Description of the building and performance solutions	7
3.1 Building description	7
3.2 Preventive and protective measures	8
3.3 Occupant characteristics	8
3.4 Performance solutions.....	9
4. Scope, objective and assumptions.....	10
4.1 Scope and objective	10
4.2 Assumptions	10
5. Fire safety measures	11
5.1 General	11
5.2 Compartmentation and separation	11
5.3 Access and egress.....	11
5.4 Services and equipment.....	11
6. Safety in design	13
7. Performance solution 1 – Dimension of exits	14
7.1 Introduction	14
7.2 Intent of the BCA.....	14
7.3 Methodology	14
7.4 Acceptance criteria.....	15
7.5 Fire hazards.....	15
7.6 Assessment	15
7.7 Conclusion	16
8. Performance solution 2 – Protection of hydrant booster assembly.....	17
8.1 Introduction	17
8.2 Intent of the BCA.....	17
8.3 Methodology	18
8.4 Acceptance criteria.....	18
8.5 Fire hazards.....	18
8.6 Fire scenarios	19
8.7 Assessment	19
8.8 Conclusion	21
9. Performance solution 3 – Separation of sprinklered and non-sprinklered portions	22
9.1 Introduction	22
9.2 Intent of the BCA.....	22
9.3 Methodology	22
9.4 Acceptance criteria.....	22
9.5 Fire hazards.....	23
9.6 Assessment	23
9.7 Conclusion	23
Appendix A Drawings and information	24
Appendix B Fire safety statement	25

1. Introduction

This report documents the findings of a fire safety engineering assessment undertaken to determine whether the existing building at 18 Throsby St, Wickham complies with the relevant performance requirements of the National Construction Code 2013 Volume One – Building Code of Australia (BCA)¹. Warringtonfire undertook the assessment in accordance with the International Fire Engineering Guidelines (IFEG)² at the request of Owners Corporation Strata Plan 91174 c/o Lake Group Strata.

A BCA Assessment Report was prepared by Building Code Professionals³ for the Owners Corporation of Strata Plan 91174 to ascertain the level of compliance with the deemed-to-satisfy provisions of the BCA and existing fire engineering reports applicable to the building. Warringtonfire have been engaged to address non-compliances identified in the BCA Assessment Report by way of fire engineering where possible.

Exova Defire rebranded to Warringtonfire on 1 December 2018. Apart from the change to our brand name, no other changes have occurred. The introduction of our new brand name does not affect the validity of existing documents previously issued by us.

2. Fire engineering brief

The purpose of the fire engineering brief (FEB) is to consult with the relevant stakeholders to define the scope of the project and to agree on the objectives, fire safety measures, methods of analysis and acceptance criteria for the performance solutions. The IFEG states that the scope of the project and the method by which it will receive regulatory approval dictates the extent of the FEB process required.

2.1 Stakeholders

The relevant stakeholders identified for this project are listed in Table 2.

Name	Role	Organisation
-	Client	Owners Corporation Strata Plan 91174
Cassandra McLean	Client representative	Lake Group Strata
Tony Daley	Project manager	Ausgrid
Peter Shepherd	Building defects consultant	Pink Slip Building Reports
Grace Huang	Fire safety engineer	Warringtonfire
Greg Leach	Accredited fire safety engineer C10 – BPB 2402	Warringtonfire

Table 2 Stakeholders

2.2 FEB process

A site inspection / meeting was held at 18 Throsby St, Wickham on 6 December 2018 between Peter Shepherd of Pink Slip Building Reports and Greg Leach and Grace Huang of Warringtonfire to review the non-compliances identified in the BCA Assessment report.

Warringtonfire subsequently prepared a consultant advice letter SY180335 CA1.0 dated 20 December 2018 to provide a review of the issues identified in the BCA Assessment report and to confirm the scope of works for the proposed performance solutions to be undertaken.

It was noted that issues associated with the smoke separation and bounding construction to the levels 1 and 2 public corridors requires further detailed smoke modelling to be undertaken to determine whether the existing design is acceptable, which is not included within this report.

¹ National Construction Code 2013, Volume One – Building Code of Australia, Australian Building Codes Board, Australia.

² International Fire Engineering Guidelines – Edition 2005, Australian Building Codes Board, Australia.

³ Building Code Professionals, 20 March 2017, Fire Safety and Building Code of Australia assessment report, 70-16 Revision 1.

3. Description of the building and performance solutions

3.1 Building description

The project involves an existing three storey mixed use building. These include residential, retail, commercial and carparking on the ground floor (class 2, 5, 6 and 7a) and two residential (class 2) storeys above. The ground floor residential lobby is connected to the level 1 and level 2 gallery areas via an open staircase in the centre of the building. The internal gallery of level 2 is characterised by an elevated roof structure allowing natural venting and lighting of the communal areas below. The building is further connected by floor voids in the level 2 gallery area. Refer to Figure 1 and Figure 2.

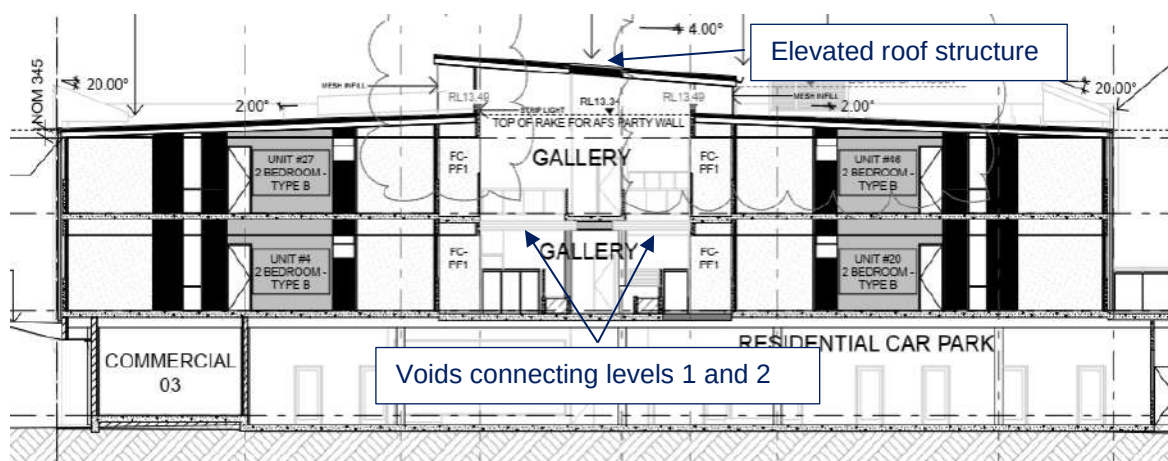


Figure 1 Building section showing elevated roof and internal voids

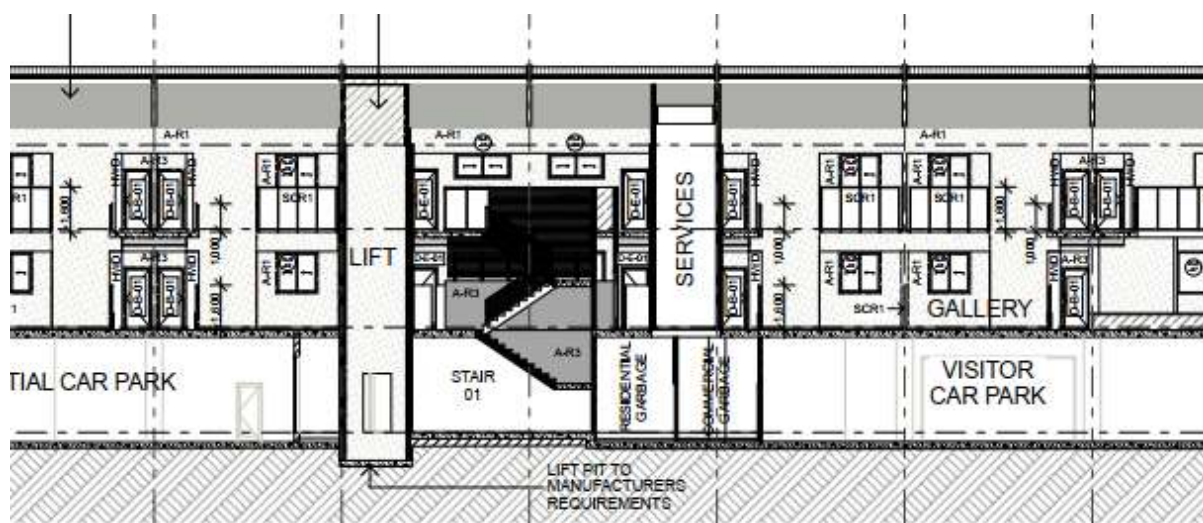


Figure 2 Building section showing connection of levels by central staircase

Table 3⁴ shows the main characteristics of the building for determining compliance with the BCA. Table 4 shows the proposed use and classification of the building or part in accordance with clause A3.2 of the BCA.

Characteristic	BCA provision	Description
Effective height	A1.1	Less than 25m
Type of construction required	C1.1	Type A
Rise in storeys	C1.2	Three

⁴ Building Code Professionals, 20 March 2017, Fire Safety and Building Code of Australia assessment report, 70-16 Revision 1.

Characteristic	BCA provision	Description
Levels contained	-	Three

Table 3 Main building characteristics

Part of building	Use	Classification (A3.2)
Ground floor	Residential lobby, office, retail and carpark	Class 2, 5, 6 and 7a
Level 1	Residential and office/retail	Class 2 and 5/6
Level 2	Residential	Class 2

Table 4 Use and classification

3.2 Preventive and protective measures

The fire safety measures provided in the building are listed on the fire safety statement in Appendix B. The BCA Assessment Report prepared by Building Code Professionals⁴ provides further clarification with respect to the compliance of the building with these requirements.

Additional fire safety measures required as part of the performance solution are listed in Section 5.

3.3 Occupant characteristics

The characteristics of the occupants expected to be in the building are listed in Table 5.

Characteristic	Description
Familiarity	Occupants associated with the commercial areas are expected to be staff who are familiar with the layout of the building. Visitors may also be present, however they are expected to be accompanied by staff. Occupants associated with the retail areas are expected to be primarily shoppers who may not be familiar with the layout of the building and location of fire exits. A limited number of staff are also expected to be present who are familiar with the layout of the building. Occupants in the residential sole-occupancy units are expected to be long-term residents who are familiar with the building layout and exit locations. Occupants in the carpark are mainly expected to be associated with the residential and commercial portions and be within the carpark for short periods.
Awareness	Occupants within the residential portions may be asleep at the time of a fire which could delay their response time for evacuation. Occupants within the commercial, retail and carpark areas are expected to be awake and alert to a potential emergency event such as a fire in the building.
Mobility	Occupants are assumed to have the same level of mobility as the general population. This may include a limited proportion of mobility impaired occupants. These occupants may require crutches, a wheelchair or similar to evacuate on their own or need assistance from other occupants.
Age	Occupants of all ages may be present within the building.
Language	Although occupants may have English as their second language, they are expected to understand signs and verbal instructions in English enough to not adversely impact evacuation.
Occupant load	Population densities used in this assessment are based on table D1.13 of the BCA which specifies: 30m²/person for carparking portions of the ground floor.

Table 5 Occupant characteristics

3.4 Performance solutions

The design of the building includes areas that do not comply with the DTS provisions of the BCA. We intend to use a performance solution to meet relevant performance requirements of the BCA. Table 6 shows the BCA requirements associated with the performance solutions.

No	Description of performance solutions	DTS provision	Performance requirements	Method of meeting performance requirements	Assessment method
1.	The unobstructed width of the exit door serving the residential carpark egressing onto Dickson Street is 650mm instead of 750mm.	Clause D1.6	DP4 and DP6	Complies with performance requirements A0.3(a)(i) and A0.3(b)	Verification method A0.5(b)(ii)
2.	The fire brigade booster assembly is not provided with fire rated protection extending 2m each side of and 3m above the upper hose connections.	Clause E1.3 and AS 2419.1-2005	EP1.3	Complies with performance requirements A0.3(a)(i) and A0.3(b)	Verification method A0.5(b)(ii)
3.	The sprinkler protected ground floor is not fire separated from the non-sprinkler protected residential levels above.	Specification E1.5 and AS 2118.1-1999	CP2 and EP1.4	Complies with performance requirements A0.3(a)(i) and A0.3(b)	Verification method A0.5(b)(ii)

Table 6 BCA requirements associated with the performance solutions

Warringtonfire sought clarification regarding any previous performance solutions developed for the overall building – it is noted that prior to 2016, performance solutions were referred to as alternative solutions. Table 7 shows the BCA requirements associated with these previous performance solutions. The assessments documented in this report are not considered to affect or be affected by the findings of the previous report.

No	Description of performance solutions	DTS provision	Performance requirements
Throsby Development fire engineering report 21/23311 revision 02 dated February 2015 prepared by GHD			
1.	Stair 01 is non-fire-isolated and serves two residential levels and an additional level which includes carpark areas and commercial spaces.	Clause D1.3	CP2 and DP5
2.	Window openings to units 11 and 23 are located within 3m of the adjacent side boundaries and are not protected in accordance with clause C3.4 of the BCA.	Clause C3.2	CP2

Table 7 Previously addressed performance solutions

4. Scope, objective and assumptions

4.1 Scope and objective

- The scope of this report is limited to the performance solutions described in section 3.4.
- The objective of this report is to demonstrate compliance with the fire safety aspects of the performance requirements of the BCA. Matters such as property protection (other than protection of adjoining property), business interruption, public perception, environmental impacts and broader community issues – such as loss of a major employer and impact on tourism – have not been considered as they are outside the scope of the BCA.
- This report considers fires involving a single ignition point. Arson or destructive acts involving:
 - large amounts of accelerants which significantly change the expected burning behaviour of materials
 - multiple ignition sources
 - terrorismare not considered in the scope of this assessment.
- The scope of our works is limited to considering evacuation and fire safety issues for people with disabilities to the same degree as the DTS provisions of the BCA. Specifically, the evacuation from the building of people with disabilities under the provisions of the Disability Discrimination Act 1992 is excluded.
- If there are building alterations or additions, a change in use or changes to the fire safety systems in the future, a reassessment will be needed to verify consistency with the assessment in this report.
- The data, methodologies, calculations and conclusions documented in this report specifically relate to the building and must not be used for any other purpose.
- The documentation that forms the basis for this report is listed in Appendix A.
- This report has been prepared based on information provided by others. Warringtonfire has not verified the accuracy and/or completeness of this information and will not be responsible for any errors or omissions that may be incorporated into this report as a result.

4.2 Assumptions

- It is understood that the existing building was assumed to have complied with the applicable building standards at the time of construction. The BCA assessment report prepared by Building Code Professionals has subsequently identified a number of items deemed non-compliant with the relevant requirements. With the exception of those addressed through performance solutions described in section 3.4, remediation works are assumed to take place to ensure that the building complies with the building standards at the time of construction.
- The design must comply with the requirements of fire engineering report 21/23311 revision 02 dated February 2015 prepared by GHD.
- All the fire safety systems are assumed to be designed, installed and operated in accordance with the appropriate Australian standards, other design codes, legislation and regulations relevant to the project unless specifically stated otherwise.
- For a satisfactory level of fire safety to be achieved, regular testing and maintenance of all fire safety systems and measures – including management-in-use systems – is essential and is assumed in the conclusion of this assessment.

5. Fire safety measures

The fire safety measures required as part of the performance solution are listed in the following sections:

5.1 General

1. The existing building is to comply with the applicable building standards at the time of construction relating to fire safety unless specifically mentioned. This section does not provide a comprehensive list of fire safety measures. The fire safety measures listed here only relate to the performance solutions. They must be read together with the applicable building standards at the time of construction and/or the DTS provisions of the BCA.
2. This report and the requirements listed in this section must be implemented into the design and identified on the fire safety schedule for the building. They must be maintained and certified in accordance with the Environmental Planning and Assessment Regulations 2000 and relevant Australian standards.
3. We recommend periodic inspection, testing and maintenance of all fire safety measures be undertaken in accordance with the AS 1851-2012 series of standards.

5.2 Compartmentation and separation

4. The ground floor residential lobby must be fire separated from the adjoining commercial unit 02 and the carpark in accordance with the requirements of the GHD fire engineering report 21/23311 revision 02.
5. The ground floor residential entry lobby is openly connected to the levels above via stair 01. Separation of the sprinklered ground floor residential entry lobby and the non-sprinklered levels above in accordance with specification E1.5 of the BCA and AS 2118.1-1999 is not required.

5.3 Access and egress

6. The southern exit doorway within the residential carpark which provides egress onto Dickson Street may have a reduced unobstructed width of 650mm instead of 750mm – refer to Figure 3.

5.4 Services and equipment

7. A sprinkler system in accordance with the requirements of specification E1.5 of the BCA and AS 2118.1-1999 must be provided throughout the ground floor of the building, including within the carpark, office / retail areas and the residential entry lobby, with the exception that the ground floor residential entry lobby is not required to be fire separated from the non-sprinklered levels above – refer to item 5.
8. A fire hydrant system must be installed throughout the building in accordance with requirements of clause E1.3 of the BCA and AS 2419.1-2005, with the exception that the booster assembly is not provided with fire rated protection extending 2m on each side of and 3m above the upper hose connections in the booster assembly. The booster assembly is located within the northern external façade of the building, adjacent to the switch room and the Commercial 03 tenancy. Refer to Figure 3.

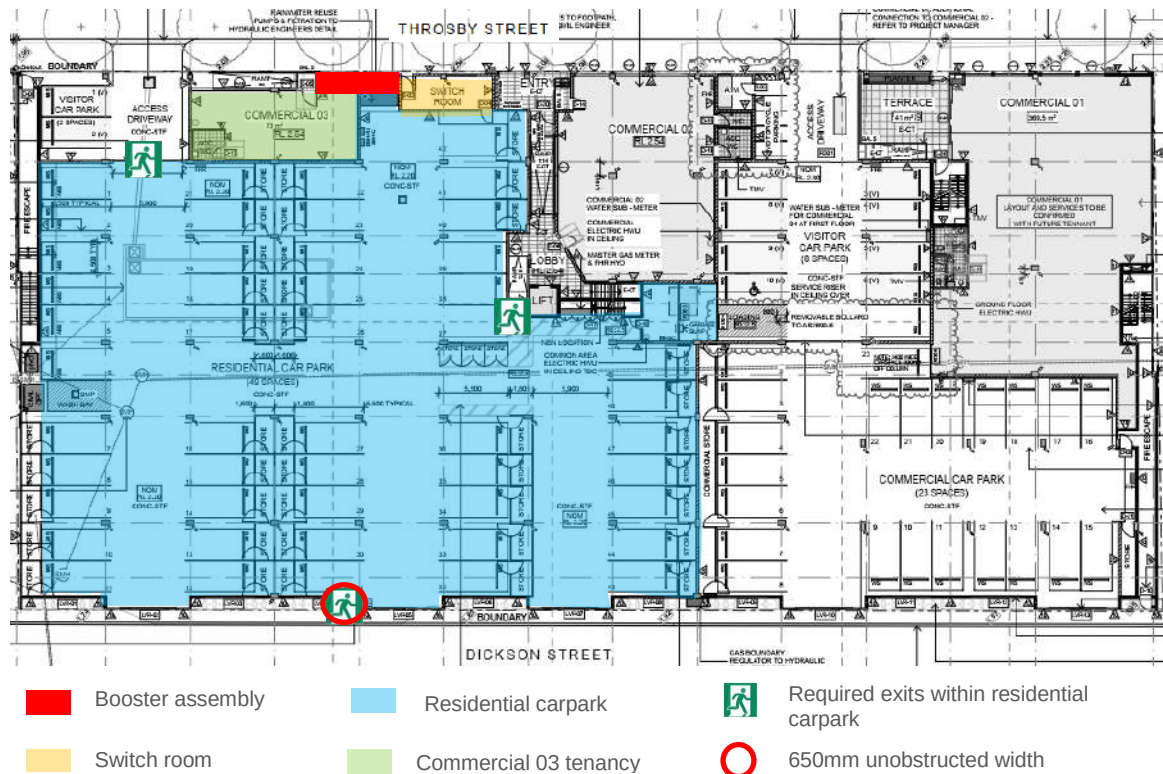


Figure 3 Location of the hydrant booster assembly and residential carpark exits – ground floor

6. Safety in design

Our scope of works is to assess the level of fire safety and demonstrate the design achieves compliance with the relevant performance requirements of the BCA. A preliminary safety in design review considered whether the recommended fire safety measures in section 5 could reasonably be expected to introduce unique or unusual hazards that would not otherwise be present in the construction, installation and/or maintenance of building. The fire safety measures in section 5 are performance specifications for other consultants to incorporate into their designs. The detailed designers retain discretion over where and how systems and structures are installed and are therefore responsible for the safety in design for the detailed design. It is important to note that the outcomes of our review are limited to issues that could reasonably be foreseen by a fire safety engineer within our limited scope and involvement in the project. It is likely that other parties involved in detailed design, installation and/or maintenance will identify additional issues.

No unique or unusual hazards that would not otherwise be present in the construction, installation and/or maintenance of building have been identified in relation to the performance solution as a result of our preliminary safety in design review.

Note: Residual risks are to be considered and addressed by appropriate persons within the design, construction and maintenance teams who have duties under the health and safety legislation.

7. Performance solution 1 – Dimension of exits

7.1 Introduction

Clause D1.6(b) of the BCA stipulates that the unobstructed width of each exit or path of travel to an exit must be not less than 1m for class 7a buildings, with the exception that the unobstructed width of a doorway may be 250mm less than the width of the exit – ie for a standard 1m exit a doorway may be reduced to 750mm.

The southern exit door located on the ground floor residential carpark providing egress out to Dickson Street has an unobstructed width of 650mm instead of 750mm – refer to Figure 4.

This assessment was undertaken to demonstrate that the design complies with performance requirements DP4 and DP6 of the BCA.

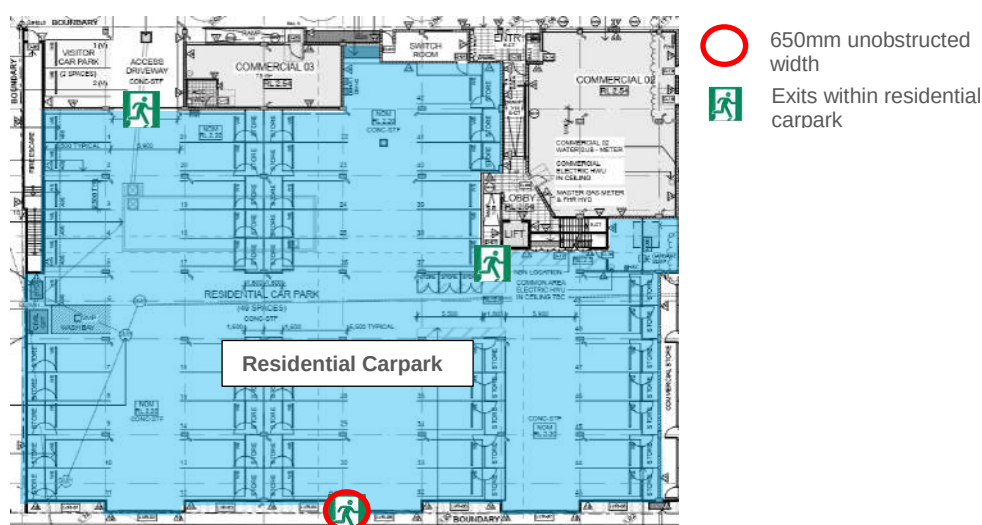


Figure 4 Exits within the residential carpark – ground floor

7.2 Intent of the BCA

The Guide to the BCA⁵ states that the intent of clause D1.6 is 'to require exits and paths of travel to an exit to have dimensions to allow all occupants to evacuate within a reasonable time.' The guide explains that 'the required exit and path of travel widths have been determined on the basis of an estimate of the width required to allow the safe exit of a given number of people expected in particular buildings'. It also states that 'the width of a doorway comprising part of the exit or path of travel is permitted to be 250mm less than the width of each exit. This allows for the installation of a standard door frame.'

It is Warringtonfire's interpretation that the 750mm clear width of a doorway is to allow a continuous and efficient flow of occupants through the exit without excessive crowding. If the exit width is reduced below a minimum width, occupants may find it difficult to negotiate the doorway if crowding occurs at the exit.

7.3 Methodology

The approach and method of assessment used to determine whether the performance solution meets the performance requirements of the BCA are summarised in Table 8.

Assessment approach	
Method of meeting performance requirements of the BCA	Clauses A0.3(a)(i) and A0.3(b): Complying with the performance requirements
BCA assessment methodology	Clause A0.5(b)(ii): Other verification methods

⁵ Guide to NCC Volume One 2013 – Building Code of Australia, Australian Building Codes Board, Australia.

Assessment approach	
Type of assessment	Qualitative absolute
Fire safety sub-systems addressed	Sub-system E – Occupant evacuation and control

Table 8 Performance solution approach and method of assessment

7.4 Acceptance criteria

The acceptance criteria for this assessment is that the reduced unobstructed width of the southern residential carpark exit does not impede or slow occupant evacuation from the building.

7.5 Fire hazards

Table 9 identifies potential fire hazards associated with the departures from the DTS provisions of the BCA.

Hazards	Preventative and protective measures
The reduced unobstructed width may impede on occupants negotiating through the exit in the event of an evacuation, causing longer evacuation times	No specific preventative and protective measures.

Table 9 Hazards and preventative / protective measures related to the assessment

7.6 Assessment

7.6.1 Body Dimensions

A survey of key body dimensions was undertaken for people in the United Kingdom (UK)⁶. The results of this survey are summarised in Table 10. Although conducted in the UK, the results are considered to be applicable to the general Australian population. This is based on the assumption that the deviations of body dimensions between the two countries are minimal. The results suggest that the maximum shoulder width of occupants is unlikely to exceed 510mm. This indicates that the reduced unobstructed width of the southern exit within the residential carpark – ie down to 650mm – can accommodate the 95th percentile shoulder width (510mm) of the population with a significant safety margin to allow for future changes to the average population's body dimensions.

	Male percentiles			Female percentiles		
	5th	50th	95th	5th	50th	95th
Seat width (mm)	310	360	405	310	370	435
Shoulder width (mm)	420	465	510	355	395	435

Table 10 Summary of measurements from UK survey

7.6.2 Population and crowding

Occupants within the residential carpark area expected to utilise the exit will mainly be associated with the residential sole-occupancy units of level 1 and 2. The population expected in the residential carpark is estimated to be 53 in accordance with table D1.13 of the BCA. The residential carpark is provided with three required exits in compliance with the travel distance requirements of clauses D1.4 and D1.5 of the BCA – refer to Figure 4. Assuming an even distribution of occupants through all three available exits, each exit is expected to serve 17 – 18 occupants. On this basis, no significant crowding is expected at the southern exit. It should also be noted that the assumed population is substantially less than the 100 persons implied by clause D1.6 of the BCA to be catered for by an unobstructed exit with a 750mm doorway.

⁶ Adler D, 1999, Metric Handbook: Planning and Design Data, 2nd edition, Architectural Press.

As crowding of the exit paths is not expected, occupants can evacuate at their own comfortable walking speed, not at a speed determined by crowd dynamics. Because occupants will be in control of their egress speed the critical factor for the design of the exits is whether the exit routes have sufficient clear width to accommodate the expected population.

Furthermore, the information presented in section 7.6.1 indicates that the reduced unobstructed width of the southern residential carpark exit exceeds the minimum acceptable passage width based on human ergonomics. As a result, the unobstructed width of the exit is not expected to impede or slow evacuation.

7.7 Conclusion

The assessment demonstrates that the reduced unobstructed width of the southern residential carpark exit does not impede or slow occupant evacuation from the building. The design of the building is therefore considered to comply with performance requirements DP4 and DP6 of the BCA, subject to compliance with the fire safety measures given in section 5.

8. Performance solution 2 – Protection of hydrant booster assembly

8.1 Introduction

Clause E1.3 of the BCA requires that the building is provided with a hydrant system in accordance with AS 2419.1-2005.

Clause 7.3(c) of AS 2419.1-2005 stipulates that fire brigade booster assemblies 'if within or affixed to the external wall of the building, the booster shall be –

- (i) within sight of the main entrance to the building; and
- (ii) separated from the building by a construction with a fire resistance rating of not less than FRL 90/90/90 for a distance of not less than 2m each side of and 3m above the upper hose connections in the booster assembly.'

The hydrant booster assembly is not provided with fire rated protection extending 2m on each side of the suction and booster valves and for a height of not less than 3m above the upper hose connection.

This assessment was undertaken to demonstrate that the design complies with performance requirement EP1.3 of the BCA.

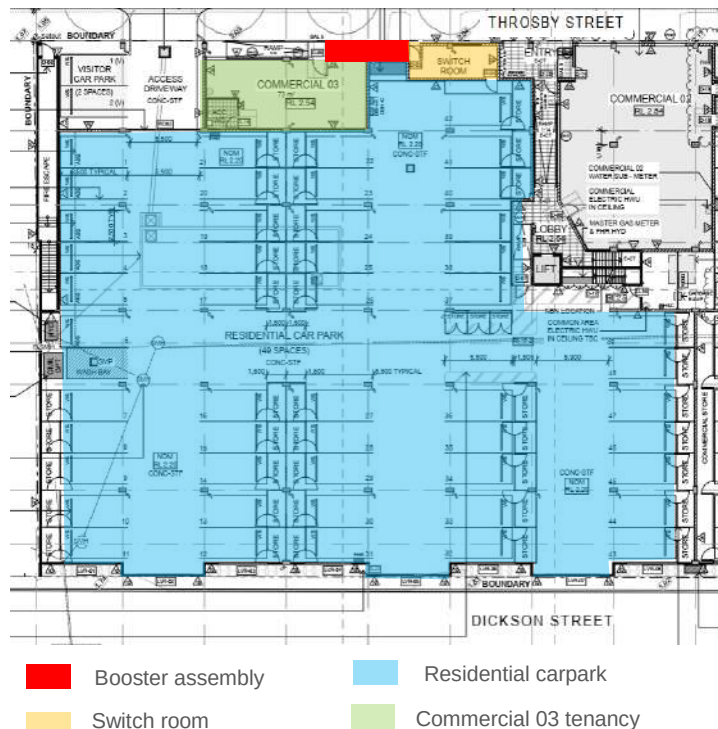


Figure 5 Location of booster assembly – ground floor

8.2 Intent of the BCA

The Guide to the BCA states that the intent of clause E1.3 is 'to require the installation of suitable fire hydrant systems to facilitate fire brigade firefighting operations.'

It is considered that the intent of clause 7.3(c) of AS 2419.1-2005 requiring booster assemblies to be either located more than 10m from the building or separated from the building by 90/90/90 construction is to protect fire brigade personnel from radiant heat exposure from a fire which may be in close proximity whilst accessing the booster during firefighting operations.

8.3 Methodology

The approach and method of assessment used to determine whether the performance solution meets the performance requirements of the BCA are summarised in Table 11.

Assessment approach	
Method of meeting performance requirements of the BCA	Clause A0.3(a)(i) and A0.3(b): Complying with the performance requirements
BCA assessment methodology	Clause A0.5(b)(ii): Other verification methods
Type of assessment	Quantitative absolute Deterministic
Fire safety sub-systems addressed	Sub-system C – Fire spread and impact and control Sub-system D – Fire detection, warning and suppression Sub-system F – Fire services and intervention

Table 11 Performance solution approach and method of assessment

8.4 Acceptance criteria

The acceptance criteria for the assessment is that the design of the existing building facilitates safe fire brigade access to, and operation of the booster assembly. The criteria for firefighters in full turnout gear based on the recommendations in the fire brigade intervention model (FBIM)⁷ are identified in Table 12.

Radiant heat at 1.5m above floor level (kW/m ²)	Convected heat at 1.5m above floor level (°C)	Maximum exposure time (minutes)
1	100 (lower layer)	25
3	120 (lower layer)	10
4-4.5	160 (lower layer) / 280 (upper layer)	1
10	235 (lower layer)	< 1

Table 12 Tenability limits for firefighters

Fire brigade personnel must be able to approach the booster assembly without being exposed to radiation levels exceeding the tolerance levels outlined in Table 12. The critical value of 3kW/m² for an exposure time of 10 minutes for firefighters in full turnout gear must not be exceeded at the booster assembly. Upon approach of the booster assembly, a maximum of 4.5kW/m² is acceptable for up to 1 minute.

8.5 Fire hazards

8.5.1 Hazard identification

Table 13 identifies potential fire hazards associated with the departures from the DTS provisions of the BCA.

⁷ Fire Brigade Intervention Model V2.2, October 2004, Australian Fire Authorities Council, Australia.

Hazards	Preventative and protective measures
Unprotected booster assembly may result in hazardous conditions for the fire brigade to engage in fire-fighting activities.	• Sprinkler system installed within the ground floor of the building which mitigates potential radiant heat exposure to fire brigade personnel. • The floor of level 1 is located a minimum of 3m above the upper hose connections in the booster assembly enclosure.

Table 13 Hazards and preventative / protective measures related to the assessment

8.5.2 Layout

The fire hydrant booster assembly is located within the northern external façade of the building, adjacent to the switch room and the Commercial 03 tenancy. To the south of the booster is the residential car park. Directly above the booster assembly on level 1 are residential sole-occupancy units Unit 4 and Unit 5. The main vehicular and pedestrian entries to the building are from Throsby Street to the north. Refer to Figure 5.

8.6 Fire scenarios

The selection of appropriate fire scenarios must be take into consideration the:

- likelihood of occurrence
- potential consequences
- impact on the issues being assessed.

The following fire scenarios have been identified for assessment:

1. Fire within the ground floor: Sprinkler controlled.
2. Fire within unit 5 on level 1: Non-sprinklered controlled.

8.7 Assessment

8.7.1 Fire scenario 1 – Fire within the ground floor: Sprinkler controlled

Sprinklers

The ground floor of the building is provided with a sprinkler system in accordance with specification E1.5 of the BCA and AS 2118.1-1999. The successful activation of the sprinklers should have the following benefits:

- A reduction in the rate of burning and quantity of smoke produced, subsequently increasing the available safe evacuation time.
- A reduced fire intensity and duration, which in turn reduces the severity of fire exposure to structural and fire separating elements.
- A reduction in the chances of a fire becoming large – ie spreading beyond the area / room of origin or flashover occurring.

It can generally be assumed that successful operation of the sprinkler system will have the following impact on compartment temperatures during a fire^{8,9,10}.

- The average temperatures outside the immediate area of operation of the sprinkler system will be below 100°C.
- The temperature in the localised area above the fire will be somewhat higher than the mean compartment temperature but is still unlikely to exceed 200°C.

⁸ England JP, Young SA, Hui MC and Kurban N, 2000, Guide for the design of fire resistant barriers and structures, Warrington Fire Research Australia and Building Control Commission, Melbourne VIC.

⁹ Technical Memoranda TM19:1995 – Relationships for smoke control calculations, CIBSE, London UK.

¹⁰ Loughheed GD, 1997, Expected size of shielded fires in sprinklered office buildings, ASHRAE Transactions, vol 103, pt 1, pp 395-410.

Statistics on US experience with sprinklers show that 88% of fires are controlled by one or two heads when sprinklers were effective¹¹. Data provided by Marryatt concludes that 92% of fires are controlled by 1-5 heads¹².

Sprinkler systems have been demonstrated to achieve high operational reliability through numerous statistical studies. Budnik estimated that the mean reliability of sprinkler systems was 93-96%, based on the analysis of 16 separate studies¹³. Reliability is likely to be even higher where sprinkler systems are correctly designed, commissioned and maintained.

Radiant heat

The radiant heat flux received at any point cannot be more than the amount emitted from the source. Assuming the compartment temperature is 200°C based on the above, the maximum radiant heat flux (q'') that could be emitted from the building in the event of a sprinkler controlled fire on the ground floor can be calculated using the Stefan-Boltzmann law, which is given in Equation 1:

$$q'' = \sigma T_s^4$$

where:

T_s = absolute temperature of the surface (K)

σ = Stefan-Boltzmann constant = $5.67 \times 10^{-8} \text{ W/m}^2 \text{ K}^4$

Equation 1 Stefan-Boltzmann law

The calculated value of 2.84 kW/m^2 is below the critical value of 3 kW/m^2 for an exposure time of 10 minutes for firefighters in full turnout gear as identified in Table 12.

It is therefore considered that due to the sprinkler protection provided on the ground floor, the intent of facilitating the fire brigades' firefighting operations is achieved by allowing fire brigade personnel in full turnout gear to safely approach the hydrant booster.

8.7.2 Fire scenario 2 – Fire within unit 5 of level 1: Non-sprinkler controlled

Sprinkler protection is not provided to levels 1 and 2. Therefore for a fire within these levels there is the potential for a fully developed fire to occur. Unit 5 is located on level 1 directly above the hydrant booster enclosure and therefore this location represents the worst credible scenario within these non-sprinkler controlled portions of the building with respect to exposure to fire fighters approaching and connecting to the booster assembly.

As noted in section 8.1, AS 2419.1 requires fire brigade booster assemblies that are within or affixed to the external wall of the building to be separated from the building by fire rated construction for a distance of not less than 2m each side of and 3m above the upper hose connections in the booster assembly. AS 2419.1-2005 requires that the height of feed fire hydrant outlets and fire brigade booster inlets to be not less than 750mm and not more than 1200mm above the floor.

The distance from the floor of the hydrant booster enclosure to the floor of level 1 is 4.2m. Therefore, on the basis of the upper hose connections in the booster assembly being located at the maximum height above the floor of 1200mm, the distance from the upper hose connections to the floor of level 1 is at least 3m. Therefore, a fire within unit 5 of level 1 represents an equivalent risk to fire fighters as a building provided with compliant fire separation to the booster, with exposure to fire located 3m above the upper hose connections being considered acceptable by AS 2419.1.

¹¹ Hall Jr JR, 2013, US experience with sprinklers and other fire extinguishing equipment, Fire Analysis and Research Division NFPA, Quincy MA.

¹² Marryatt HW, 1988, Fire: A century of automatic sprinkler protection in Australia and New Zealand 1886-1986, Australian Fire Protection Association, Melbourne VIC.

¹³ Budnick EK, 2001, Automatic sprinkler system reliability, Fire Protection Engineering, Winter 2001, issue 9, pp 7-12.

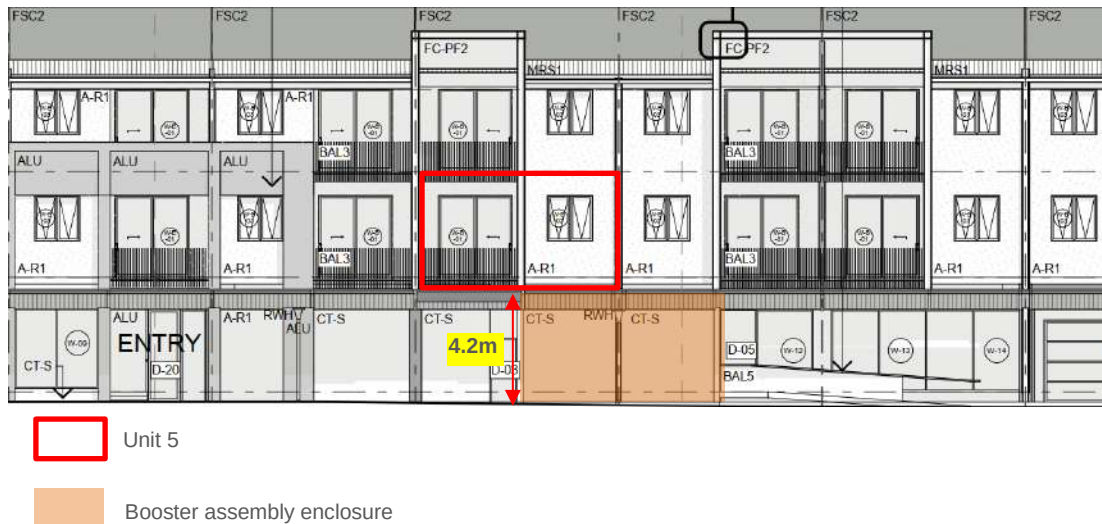


Figure 6 North elevation – hydrant booster assembly enclosure and unit 5 on level 1

8.8 Conclusion

The assessment demonstrates that the design of the existing building facilitates safe fire brigade access to, and operation of the booster assembly. The proposed design of the building is therefore considered to achieve compliance with performance requirement EP1.3 of the BCA, subject to compliance with the fire safety measures given in section 5.

9. Performance solution 3 – Separation of sprinklered and non-sprinklered portions

9.1 Introduction

Clause 3 of specification E1.5 of the BCA requires that where a part of a building is not protected with sprinklers, the sprinklered and non-sprinklered parts must be fire-separated with a wall or floor that complies with any specific requirement of the DTS provisions of the BCA, or where there is no specific requirement, comply with the relevant part of AS 2118.

Clause 3.1 of AS 2118.1-1999 stipulates that *'where it is proposed to protect a portion of a building only...it shall be sprinkler protected throughout and shall be separated from non-sprinkler protected areas by a construction having an FRL of not less than 120/120/120.'*

The sprinklered ground floor contains the residential entry lobby, commercial and carparking uses and is situated below two non-sprinkler protected levels. The ground floor residential entry lobby is openly connected to the levels above via stair 01. Fire separation of the sprinklered ground floor residential entry lobby and the non-sprinklered levels above is not provided.

This assessment was undertaken to demonstrate that the design complies with performance requirements CP2 and EP1.4 of the BCA.

9.2 Intent of the BCA.

The Guide to the BCA states that the intent of clause 3 of specification E1.5 of the BCA is *'to require the fire separation of sprinklered parts of a building from non-sprinklered parts of the building.'*

The Guide clarifies that *'the design of a sprinkler system is based on the size and intensity of an assumed fire in the building. The BCA assumes that fire size is controlled by the sprinkler system.'*

If a fire starts in a non-sprinklered part of the building, its development will be uncontrolled. It can even reach a size which could over-ride the sprinkler system if it spreads to the sprinklered part of the building (ie it could be beyond the design capacity of the system).'

AS 2118.1 generally requires a 120/120/120 FRL separation between the sprinklered and non-sprinklered parts of a building to minimise the risk of fire spread from non-sprinklered parts – where a fire's development is substantially uncontrolled, to a sprinklered part – where the sprinkler system is designed on the basis of a likely fire in that part of the building.'

9.3 Methodology

The approach and method of assessment used to determine whether the performance solution meets the performance requirements of the BCA are summarised in Table 14.

Assessment approach	
Method of meeting performance requirements of the BCA	Clauses A0.3(a)(i) and A0.3(b): Complying with the performance requirements
BCA assessment methodology	Clause A0.5(b)(ii): Other verification methods
Type of assessment	Qualitative absolute
Fire safety sub-systems addressed	Sub-system C – Fire spread and impact and control

Table 14 Performance solution approach and method of assessment

9.4 Acceptance criteria

The acceptance criteria for this assessment is that the existing design does not represent an undue risk of fire spread from the non-sprinklered portions to the sprinklered portions of the building.

9.5 Fire hazards

Table 15 identifies potential fire hazards associated with the departures from the DTS provisions of the BCA.

Hazards	Preventative and protective measures
The non-provision of fire separation between the sprinklered and non-sprinklered portions of the building may result in a fire within the unsprinklered portion of level 1 spreading to the sprinklered ground floor and over-riding the sprinkler system, resulting in fire spread throughout the ground floor.	- The non-sprinklered portions of the building re located on the levels above the sprinklered portions. - The adjoining areas of the sprinklered and non-sprinklered portions of the building are circulation areas containing low fire loads.

Table 15 Hazards and preventative / protective measures related to the assessment

9.6 Assessment

As discussed in section 9.2, the intent of separating sprinklered and non-sprinklered portions of a building is to prevent a fire originating within the non-sprinklered portion, which has developed in a relatively uncontrolled manner, from spreading to the sprinklered portion at a size which exceeds what the sprinkler system is designed to control. The significant risk of this occurring is generally within an area on the same floor, where fire can directly spread between combustible items from the non-sprinklered portion to the sprinklered portion.

The subject building consists of a sprinkler protected ground floor and two non-sprinklered levels above. The worst case scenario is therefore a fire originating within level 1 which has the potential to spread downwards to the ground floor.

The risk of downwards fire spread is considered to be low, with fire generally spreading upwards instead of downwards due to the buoyancy effects of the fire. This is further acknowledged within the guide to the BCA in relation to the fire rating required for floors, which explains that the reason floors are required to adopt the ratings of the lower storey for certain types of construction is because 'a fire on one storey will affect the storey above to a greater degree than any storey below.'

Fire may spread downwards in the event of fire involving materials such as thermoplastics, which will tend to melt and drip when exposed to fire and may result in secondary pool fires below the area of the primary fire. Secondary fire spread may also occur via flaming debris or radiant heat exposure. However, such secondary fires would typically be able to be controlled by a sprinkler system, without reaching a size that would override the sprinklers, further noting that the adjoining areas of the sprinklered and non-sprinklered portions of the building are circulation areas containing low fire loads.

Therefore, the likelihood of an uncontrolled fire originating within level 1 spreading downwards to the sprinkler protected ground floor and as a result accelerating fire spread throughout the building is considered to be low.

9.7 Conclusion

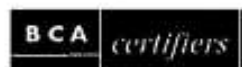
The assessment demonstrates that the existing design does not represent an undue risk of fire spread from the non-sprinklered portions to the sprinklered portions of the building. The design of the building is therefore considered to comply with performance requirements CP2 and EP1.4 of the BCA, subject to compliance with the fire safety measures given in section 5.

Appendix A Drawings and information

Drawing title	Dwg no	Date	Drawn
Ground floor plan	A-102 issue 04	06/01/14	CKDS Architecture
First floor plan	A-103 issue 03	06/01/14	CKDS Architecture
Second floor plan	A-104 issue 01	06/01/14	CKDS Architecture
North and south elevations	A-401 issue 01	06/01/14	CKDS Architecture
East and west elevations	A-402 issue 0	06/01/14	CKDS Architecture

Other information	Ref no	Date	Prepared by
Fire Safety & Building Code of Australia assessment report	70-16 – Revision 1	20/03/17	Building Code Professionals
Fire Engineering Report	21/23311 – Revision 2	February 2015	GHD

Appendix B Fire safety statement



building approvals, certification and compliance

FIRE SAFETY SCHEDULE

CLAUSE 168 EP & A REG. 2000

PROPERTY

Address: 18 Throsby Street Wickham

Lot/Sec/DP: Lot 100 DP 1193182

CERTIFICATE NO. CN130444cc2

Date of Certificate: 20/05/2014

Details of Building (or part): 3 Storey Residential & Commercial Building & Carpark

BCA Classification: 2/5/8/7a

REQUIRED FIRE SAFETY MEASURES (PROPOSED)	CRITICAL FIRE SAFETY MEASURE (Y/N)	INTERVAL FOR SUPPLEMENTARY FIRE SAFETY STATEMENTS	MINIMUM STANDARD OF PERFORMANCE (BCA 2013/Referenced Australian Standards/Other)
Statutory			
Automatic fire detection and alarm systems	N	12 months	BCA Spec E2.2a, AS3786-1993 Amdt 4, AS1670.1-2004 Amdt 1
Automatic fire suppression system (Ground Floor)	N	12 months	BCA Spec E1.5, AS2118.1-1998 Amdt 1 FER 21/23311 Rev 1 GHD Pty Ltd Date: 17/03/14
Emergency lighting	N	12 months	BCA E4.4 & AS2293.1-2005 Amdt 1
Exit signs	N	12 months	BCA E4.8 & AS2293.1-2005 Amdt 1
Fire doors (SQUs, F.I. Stairways)	N	12 months	BCA Spec C3.4 & AS1905.1-2005
Fire hydrant systems	N	12 months	BCA E1.3 & AS2419.1-2005 Amdt 1
Fire seals protecting openings in fire resisting components of the building	N	12 months	BCA C3.15 & BCA Spec C3.15 AS1530.4, AS4072.1-2005
Hose reel systems	N	12 months	BCA E1.4 and AS 2441-2005 Amdt 1
Lightweight Construction	N	12 months	BCA C1.8 BCA Spec C1.8
Portable fire extinguishers	N	12 months	BCA E1.6 & AS2444-2001
Warning & operational signs	N	12 months	BCA D2.23, E3.3
Other			
Fire doors (commercial tenancy to Residential lobby)	N	12 months	FER 21/23311 Rev 1 GHD Pty Ltd Date: 17/03/14; BCA Spec C3.4 & AS1905.1-2005
Natural ventilation (elevated roof & Level 2 floor voids)	N	12 months	FER 21/23311 Rev 1 GHD Pty Ltd Date: 17/03/14; Architectural plans CKDS Project No. 1405 A-000 – A-806 Issue 0.

1/2



building approvals, certification and compliance

Smoke seals (doors from Commercial tenancy to Residential lobby)	N	12 months	FER 21/23311 Rev 1 GHD Pty Ltd Date: 17/03/14
Wall wetting sprinklers (glazing Between commercial tenancy & residential lobby)	N	12 months	FER 21/23311 Rev 1 GHD Pty Ltd Date: 17/03/14; AS2118.2-2010

EXISTING FIRE SAFETY MEASURES

NII



Peer review of fire engineering report

18 Throsby Street, Wickham

Client: Owners Corporation Strata Plan 91174 C/o Lake Group Strata

Job number: SY230030

Date: 28 March 2023 Revision: PR1.0

Quality management

Version	Date	Information about the report		
PR1.0	28 Mar 2023	Description	Report issued to Lake Group Strata and Pink Slip Building Services.	
		Name Signature	Prepared by Greg Leach	Reviewed by James Dominguez
				
			Authorised by Greg Leach	

Contents

1.	Introduction	4
2.	Scope	4
3.	Description of report	5
3.1	Identification	5
3.2	Performance solutions	6
4.	Limitations and clarifications	7
5.	Report comments	8
6.	Conclusion	13
Appendix A	Drawings and information	14

1. Introduction

Owners Corporation Strata Plan 91174 C/o Lake Group Strata has requested that Warringtonfire undertake a peer review of the fire engineering report prepared by AED Fire relating to the existing building at 18 Throsby Street, Wickham. The peer review is intended to provide an independent technical evaluation of the report by an appropriately qualified and experienced fire safety engineer. The review was undertaken in general accordance with the Australian Fire Engineering Guidelines (AFEG)¹.

The building was initially subject to a performance solution report prepared by GHD – report 21/23311, revision 02, dated February 2015.

Subsequent to the completion of construction of the building, building defects were identified. Warringtonfire prepared a performance solution report for the building, and a separate fire engineering report. The latter documented the findings of a fire safety engineering assessment undertaken to determine whether provisions to the existing building – constructed in accordance with the requirements of an external balcony on levels 1 and 2 instead of a public corridor – complied with the relevant performance requirements of the NCC. The intent of these reports was to address the findings of the building defects report previously prepared for The Owners.

Subsequent to the issue of the reports, the matter concerning the identified building defects was referred to the Supreme Court. As part of the proceedings, a building defects report was also prepared by AED Consulting. The outcome of the proceedings is documented in the Deed of Settlement NRA 17336 dated 10 August 2020, which outlines the rectification works required. The deed allowed for the incorporation of further performance solutions for selected items noted in AED's building defects report. Fire engineering report F2323 FER, Rev 02, dated 7 November 2018 was subsequently prepared by AED to address these items.

Warringtonfire has been requested to undertake a peer review of the fire engineering report prepared by AED.

2. Scope

The scope of the peer review includes detailed review of the fire engineering report prepared by AED Fire.

The peer review will consider the following components of the report:

- objectives and regulatory scope
- performance-based design brief and stakeholder consultation
- applicable codes, standards, and guidance documents referenced
- appropriateness of the fire safety strategy and fire safety measures
- appropriateness of the methods of assessments and models applied in the analysis
- input data and assumptions to the assessment method and models
- correctness of the fire engineering analysis and outputs of models
- appropriateness of recommendations and conclusions.

Architectural drawings and other supporting documentation – identified in Appendix A – will be reviewed as necessary to assist in the peer review of the report.

The scope does not include a design review of project documentation to check compliance with the National Construction Code Volume One – Building Code of Australia (NCC) 2016 Amendment 1² or applicable standards.

¹ Australian Fire Engineering Guidelines, 2021, version 1.0, Australian Building Codes Board, Australia.

² National Construction Code Volume One – Building Code of Australia 2016 Amendment 1, Australian Building Codes Board, Australia

3. Description of report

3.1 Identification

The peer reviewed document is identified in Table 1. The main characteristics of the building to which the document relates are summarised in Table 2.

Table 1 Report details

Report	
Company	AED Fire
Report reference	F2323 FER Rev 02
Current revision	02
Date	07 November 2018
Fire safety engineer	Lee Clark
Accreditation details	BPB 2770

Table 2 General building characteristics

Details	Comment
Applicable building or part	Whole of building
Class of building or part	2, 5, 6, 7a and 7b
Rise in storeys	3
Levels contained	3
Effective height	Less than 12 m

3.2 Performance solutions

Table 3 describes the NCC requirements associated with the performance solutions included in the report.

Table 3 NCC requirements associated with the performance solutions

No	Description of performance solutions	DTS provision	Performance requirements
1.	Roof-lights in adjacent compartments are located within 3 m of each other.	Clause 3.6 of specification C1.1	CP2 and CP8
2.	The fire hydrant booster assembly is within 10 m of the building and is not protected with a radiation shield.	Clause E1.3	EP1.3
3.	Roller shutters are located within path of travel to exits, which cannot be operated manually. The shutters also block fire hose reel coverage.	Clauses D2.19 and E1.4	DP4 and EP1.1
4.	The fire separation between the following compartments needs to be updated from the design requirements of the existing GHD fire engineering report: - Lobby and carpark - Lobby and commercial lot 2 - Lobby and non-fire-isolated stairway	Clause C2.8	CP1, CP2, CP8 and EP2.2
5.	Bounding construction to sole-occupancy units incorporate non-fire rated glazed openings that open into the common corridor / gallery.	Clause C3.11	CP2 and CP8
6.	Common corridors in residential areas exceeding 40 m in length are not smoke separated.	Clause C2.14	CP2 and EP2.2
7.	The rear exit door from the residential carpark has a width of only 650 mm instead of 750 mm	Clause D1.6	DP4
8.	The door from the ground floor lobby to open space swings against the direction of travel.	Clause D2.20	DP4
9.	The first floor commercial lots are not provided with disability access. Access is proposed to be based on a path of travel via the residential lobby and ground floor lift. Note: This is a Disability Discrimination Act issue that will not be covered in our fire engineering review.	Clauses D3.1 and D3.2	DP1 and DP2

4. Limitations and clarifications

- Matters such as property protection (other than the protection of adjoining property), business interruption, public perception, environmental impacts and broader community issues – such as loss of a major employer and impact on tourism – have not been considered as they are outside the scope of the NCC.
- The views expressed in this report are Warringtonfire's professional opinion only, at the time of this report's preparation, and based upon the information available at the time of its preparation. Where information has been provided to us but not verified by us, we have assumed that it is correct.
- The scope of the review documented within this report is limited to technical compliance with the relevant performance requirements of the NCC. It is important to note that the scope and perspective of any comment from Fire and Rescue NSW may not be limited to technical compliance with the relevant performance requirements of the NCC. Fire and Rescue NSW also have separate obligations under their acts / regulations. Therefore, Fire and Rescue NSW may have differing opinions to those offered within this peer review report. Warringtonfire shall not be held responsible for any loss, damage, liability, claim or demand in connection with any written or verbal comments from Fire and Rescue NSW that occur at any time.
- This peer review relates specifically to the report identified in Table 1. Any changes to the report, or changes to the design of the building which impact the report, may affect the outcomes of the peer review.
- Performance solution 9, relating to disabled access, is not included within the scope of this review.
- All the fire safety systems are to be designed, installed, operated and maintained in accordance with the appropriate Australian standards, other design codes, legislation and regulations relevant to the project unless specifically stated otherwise.
- We have not assessed or tested the existing fire safety systems in the building. The ongoing maintenance of these systems is the responsibility of the building owner / manager. It is assumed that the fire safety systems installed throughout the building are maintained in accordance with the applicable standard of performance unless specifically stated.
- Warringtonfire has not undertaken a design review of project documentation to check compliance with the National Construction Code Volume One – Building Code of Australia (NCC) 2016 Amendment 1 or applicable standards.

5. Report comments

Detailed comments on the fire engineering report are provided in Table 4. These comments relate specifically to revision 2 of the document reviewed.

The comments are identified as either:

- **Observation** – Identification of key information or endorsement of technical methods and analysis.
- **Minor** – Issues which would not typically impact on the overall outcomes of the peer review. Comments provided to identify minor errors, improve clarity, correctness, missing references, technical clarifications, and typographical errors where they impact the assessment.
- **Major** – Essential technical issues which need to be addressed and may significantly impact the outcomes of the assessment and peer review.

Table 4 Comments on Rev 02

No.	Section reference (page)	Comment (Warringtonfire)	Type of comment	Response (Company name)	Status (Warringtonfire)
1.	Section 3.1	It is recommended that the Principal Building Characteristics include a more detailed description of the layout of levels 1 and 2 containing the residential units, including the voids connecting the storeys, openings to the common corridor/gallery, the elevated roof, and the rooftop screened ventilation openings.	Observation		Open
2.	Section 5 (pages 28-32)	This section provides a performance solution to address the roof lights. The fire safety measures, fire engineering analysis and conclusions are considered to be appropriate.	Observation	None required	Closed
3.	Section 6 (pages 33-40)	This section provides a performance solution to address the hydrant booster protection. The fire safety measures, fire engineering analysis and conclusions are considered to be appropriate.	Observation	None required	Closed

No.	Section reference (page)	Comment (Warringtonfire)	Type of comment	Response (Company name)	Status (Warringtonfire)
4.	Section 7 (pages 41-42)	This section is identified to provide a performance solution to address the roller shutters that are located within the path of travel to exits, and also block fire hose reel coverage. Section 7.3 is titled 'Qualitative Assessment', however the first paragraph states 'No assessment will be proposed as the non-compliances will be addressed as part of the rectification works as noted under item 6.3 of the BCA Fire Safety Defects Expert Response report.' Only proposed remedial works are included in this section, as per the BCA Fire Safety Defects Expert Response report. Section 7 is therefore not considered to comprise of a performance solution and should be deleted from this report.	Minor		Open
5.	Section 8 (pages 43-49)	This section provides a performance solution to address the separation of classifications. The fire safety measures, fire engineering analysis and conclusions are considered to be appropriate.	Observation	None required	Closed

No.	Section reference (page)	Comment (Warringtonfire)	Type of comment	Response (Company name)	Status (Warringtonfire)
6.	Section 9 (pages 50-57)	This section provides a performance solution to address the openings in construction bounding the residential corridor / gallery on the first floor and second floor. The acceptance criteria is primarily based on occupant exposure to radiant heat from the proposed unprotected door and window openings, but does also identify occupants to be subjected to minimal smoke along the path of travel to a safe place. The results of the radiant heat assessment conclude that the openings from the commercial unit on the First Floor require protection. However, the assessment does not address the effect of smoke spread to the corridor from the non-fire rated residential windows. Smoke spread is discussed in the assessment for smoke separation of the common corridor in section 10, which is not considered to address the issue. Refer to the comments provided for section 10. The fire safety measures, fire engineering analysis and conclusions are not considered to be appropriate.	Major		Open

No.	Section reference (page)	Comment (Warringtonfire)	Type of comment	Response (Company name)	Status (Warringtonfire)
7.	Section 10 (pages 58-61)	This section provides a performance solution to address the smoke separation of the common corridor. The assessment notes the following: <i>'The open nature of the common corridor/gallery would benefit for smoke venting as it allows for smoke leakage into the void areas to disperse. Considering the open air feature of the common courtyard areas on the First Floor and Second Floor, any potential smoke leakage into the common area is expected to be dispersed via the elevated roof and level 2 floor voids. Natural smoke venting will then occur through the rooftop screened ventilation openings and therefore significantly reducing the risk of people being dangerously exposed to toxic gases during a fire emergency evacuation.'</i> Whilst it is acknowledged that natural smoke venting may occur through the rooftop screened ventilation openings, a qualitative assessment alone is not considered appropriate. The adequacy of the natural smoke venting should be demonstrated by quantitative analysis (smoke modelling), having regard to the potential effects of wind. The fire safety measures, fire engineering analysis and conclusions are not considered to be appropriate.	Major		Open
8.	Section 11 (pages 62-65)	This section provides a performance solution to address the carpark exit door width. The type of assessment in the Assessment Methodology in Section 11.1 has not been qualified and is indicated as 'Absolute/Equivalent, Qualitative/Quantitative'. An absolute qualitative assessment has been undertaken. The fire safety measures, fire engineering analysis and conclusions are considered to be appropriate.	Minor		Open

No.	Section reference (page)	Comment (Warringtonfire)	Type of comment	Response (Company name)	Status (Warringtonfire)
9.	Section 12 (pages 67-69)	This section provides a performance solution to address the door from the main entry lobby on the ground floor swinging against the direction travel. The fire safety measures, fire engineering analysis and conclusions are considered to be appropriate.	Observation	None required	Closed
10.	Section 13 (pages 70-74)	This section provides a performance solution to address the disabled access to the first floor commercial lots. This performance solution is not part of the scope of this peer review.	Observation	None required	Closed
11.	Section 17 (page 84)	Tyco Model WS Sprinkler Specification is not included in the section – the page has been left blank. However, it is not considered necessary to include this specification in the report.	Minor		Open

6. Conclusion

Warringtonfire have undertaken a peer review of the fire engineering report relating to 18 Throsby Street, Wickham prepared by AED Fire.

The design of the residential levels with unprotected windows opening to the common corridor/gallery is not considered to be appropriately assessed. Significant changes to the design or fire engineering assessment are required.

Appendix A Drawings and information

Drawing title	Dwg no	Date	Drawn
Ground Floor Plan	A-102 Issue 0	06/01/2014	CKDS Architects
First Floor Plan	A-103 Issue 0	06/01/2014	CKDS Architects
Second Floor Plan	A-104 Issue 0	06/01/2014	CKDS Architects
North and south elevations	A-401 issue 1	19/06/2014	CKDS Architects
East and west elevations	A-402 issue 0	17/04/2014	CKDS Architects
Sections	A-501 issue 3	20/06/2014	CKDS Architects
Sections	A-502 issue 0	20/06/2014	CKDS Architects

Other information	Ref no	Date	Prepared by
Deed of Settlement	MWM : NRA :17336	10/08/2020	Nexus Law Group

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NEW SOUTH WALES LAND REGISTRY SERVICES - TITLE SEARCH

FOLIO: CP/SP91174

SEARCH DATE	TIME	EDITION NO	DATE
16/6/2025	12:23 PM	5	23/7/2024

LAND

THE COMMON PROPERTY IN THE STRATA SCHEME BASED ON STRATA PLAN 91174
WITHIN THE PARCEL SHOWN IN THE TITLE DIAGRAM

AT WICKHAM
LOCAL GOVERNMENT AREA NEWCASTLE
PARISH OF NEWCASTLE COUNTY OF NORTHUMBERLAND
TITLE DIAGRAM SP91174

FIRST SCHEDULE

THE OWNERS - STRATA PLAN NO. 91174
ADDRESS FOR SERVICE OF DOCUMENTS:
18 THROSBY STREET, WICKHAM 2293

SECOND SCHEDULE (12 NOTIFICATIONS)

- 1 RESERVATIONS AND CONDITIONS IN THE CROWN GRANT(S)
- 2 BK 3040 NO 422 LAND EXCLUDES MINERALS WITHIN THE PART SHOWN SO
INDICATED IN THE TITLE DIAGRAM
- 3 BK 1215 NO 272 LAND EXCLUDES MINERALS WITHIN THE PART SHOWN SO
INDICATED IN THE TITLE DIAGRAM
- 4 THE LAND ABOVE DESCRIBED IS LIMITED IN STRATUM IN THE MANNER
DESCRIBED IN THE TITLE DIAGRAM
- 5 ATTENTION IS DIRECTED TO THE STRATA MANAGEMENT STATEMENT FILED
WITH SP91174
- 6 EASEMENT FOR SUBJACENT AND LATERAL SUPPORT AND EASEMENT FOR
SHELTER IMPLIED BY SECTION 8AA STRATA SCHEMES (FREEHOLD
DEVELOPMENT) ACT 1973. SEE SP91174
- 7 DP1204114 EASEMENT FOR PEDESTRIAN ACCESS VARIABLE WIDTH
(LIMITED IN STRATUM) AFFECTING THE PART(S) SHOWN SO
BURDENED IN THE TITLE DIAGRAM
- 8 DP1204114 EASEMENT FOR MAILBOX 0.43 METRE(S) WIDE (LIMITED IN
STRATUM) AFFECTING THE PART(S) SHOWN SO BURDENED IN
THE TITLE DIAGRAM
- 9 DP1204114 EASEMENT FOR VEHICULAR ACCESS AND FOOTWAY 5.875
METRE(S) WIDE (LIMITED IN STRATUM) APPURTENANT TO THE
LAND ABOVE DESCRIBED
- 10 DP1204114 EASEMENT FOR SERVICES 5.5 METRE(S) WIDE (LIMITED IN
STRATUM) AFFECTING THE PART(S) SHOWN SO BURDENED IN
THE TITLE DIAGRAM
- 11 AM830661 INITIAL PERIOD EXPIRED

END OF PAGE 1 - CONTINUED OVER

dda1122000

PRINTED ON 16/6/2025

NEW SOUTH WALES LAND REGISTRY SERVICES - TITLE SEARCH

FOLIO: CP/SP91174

PAGE 2

SECOND SCHEDULE (12 NOTIFICATIONS) (CONTINUED)

12 AU266237 CONSOLIDATION OF REGISTERED BY-LAWS

SCHEDULE OF UNIT ENTITLEMENT (AGGREGATE: 10000)

STRATA PLAN 91174

LOT	ENT	LOT	ENT	LOT	ENT	LOT	ENT
1	- 198	2	- 198	3	- 198	4	- 198
5	- 198	6	- 198	7	- 193	8	- 195
9	- 198	10	- SP91462	11	- 254	12	- 205
13	- 205	14	- 205	15	- 205	16	- 203
17	- 203	18	- 203	19	- 203	20	- 203
21	- 203	22	- 203	23	- 203	24	- 198
25	- 198	26	- 198	27	- 198	28	- 198
29	- 198	30	- 193	31	- 195	32	- 198
33	- 198	34	- 203	35	- 205	36	- 253
37	- 253	38	- 205	39	- 205	40	- 205
41	- SP91462	42	- 203	43	- 203	44	- 203
45	- 203	46	- 203	47	- 203	48	- 203
49	- 203						

STRATA PLAN 91462

LOT	ENT	LOT	ENT
50	- 198	51	- 205

NOTATIONS

UNREGISTERED DEALINGS: NIL

*** END OF SEARCH ***

dda1122000

PRINTED ON 16/6/2025

Lodger Details

Lodger Code 505858Q
Name KERIN BENSON LAWYERS PTY LTD
Address SE 9.02, 46 MARKET ST
SYDNEY 2000
Lodger Box 1W
Email ALLISON@KERINBENSONLAWYERS.COM.AU
Reference 007690

Land Registry Document Identification

AU266237

STAMP DUTY:

Consolidation/Change of By-laws

Jurisdiction NEW SOUTH WALES

Privacy Collection Statement

The information in this form is collected under statutory authority and used for the purpose of maintaining publicly searchable registers and indexes.

Land Title Reference	Part Land Affected?	Land Description
CP/SP91174	N	

Owners Corporation

THE OWNERS - STRATA PLAN NO. SP91174
Other legal entity

Meeting Date

24/06/2024

Repealed by-law No.

Details N/A

Amended by-law No.

Details N/A

Added by-law No.

Details Special By-law 2

The subscriber requests the Registrar-General to make any necessary recording in the Register to give effect to this instrument, in respect of the land or interest described above.

Attachment

See attached Conditions and Provisions

See attached Approved forms

Execution

The Certifier has taken reasonable steps to verify the identity of the applicant or his, her or its administrator or attorney.

The Certifier holds a properly completed Client Authorisation for the Conveyancing Transaction including this Registry Instrument or Document.

The Certifier has retained the evidence supporting this Registry Instrument or Document.

The Certifier has taken reasonable steps to ensure that this Registry Instrument or Document is correct and compliant with relevant legislation and any Prescribed Requirement.

Executed on behalf of THE OWNERS - STRATA PLAN NO. SP91174
Signer Name ASHLEY HOWARD
Signer Organisation KERIN BENSON LAWYERS PTY LTD
Signer Role PRACTITIONER CERTIFIER
Execution Date 22/07/2024

Annexure "A"
Consolidated By-Laws
SP: 91174



Contents

1 Dictionary and Interpretation	5
1.1 Dictionary	5
1.2 Interpretation	7
1.3 Headings	7
2 Life @ Throsby	7
2.1 Structure	7
2.2 Contents of Life @ Throsby	7
3 About the By-Laws	8
3.1 Purpose	8
3.2 By-Laws and the Strata Management Statement	8
3.3 Who must comply?	8
3.4 Amendment of the Exclusive Use By-Laws	8
3.5 Amending other By-Laws	8
4 Strata Management Statement	8
4.1 Purpose	8
4.2 Inconsistencies between a By-Law and the Strata Management Statement	8
4.3 Who must comply with the Strata Management Statement?	8
4.4 Appointing a representative to the Building Management Committee	8
4.5 Consents under the By-Laws and the Strata Management Statement	8
5 Architectural Guidelines	9
5.1 Architectural Guidelines	9
5.2 Compliance with the Guidelines	9
6 Owner and Occupier responsibilities	9
6.1 Occupiers and visitors	9
6.2 Obligations	9
6.3 Your Lot	10
6.4 Consents	10
6.5 No enclosure of Car Spaces	10
7 Balconies	10
7.1 Items on Balconies	10
7.2 General requirements for Balconies	10
7.3 Owners Corporation Powers	11
7.4 Barbeques	11
7.5 Types of portable barbeques	12
7.6 Interference	12
7.7 Balcony furniture	12

7.8 Removing furniture, pots etc	12
8 Storage Areas.....	12
8.1 An Owner and Occupier must not:.....	12
8.2 Before an Owner or Occupier encloses the Storage Area of a Lot, they must:	12
9 Moving items within the Residential Scheme.....	13
9.1 General Requirements.....	13
9.2 Regular Deliveries	13
10 Garbage and Recyclable Materials.....	13
10.1 Obligations.....	13
10.2 Owners Corporation	13
10.3 Rules about Garbage and Recyclable Materials	13
11 Windows.....	13
11.1 Cleaning.....	13
11.2 Treatments	13
12 Floor Coverings and Other Acoustic Controls	14
12.1 Floor Coverings	14
12.2 Consent from the Owners Corporation.....	14
12.3 General Obligations.....	14
12.4 Equipment and machinery.....	14
12.5 Power Tools	14
12.6 Playing musical instruments	14
12.7 Playing music.....	14
13 Fire Safety	14
13.1 General Requirements	14
13.2 Compliance with fire control laws.....	14
14 Building Works	15
14.1 Consent	15
14.2 Procedures.....	15
14.3 General Requirements	15
14.4 Arrangements with the Owners Corporation	15
15 Load bearing and non-load bearing walls	16
15.1 Alterations to load bearing walls	16
15.2 When is consent required?	16
15.3 Non-Load Bearing Walls	16
15.4 Owners Corporation may impose conditions	16
16 Security	16
16.1 Owners Corporation Obligations.....	16
16.2 Audio Visual Security.....	17
16.3 Further Owners Corporation's obligations.....	17
16.4 Owner and Occupier Obligations.....	17
16.5 Security Keys	17
16.6 Obligations in relation to Security Keys.....	17
16.7 Installing Security Devices	17

16.8 Alarms	17
17 Common Property Damage	18
17.1 General Requirements	18
17.2 Consent	18
18 Traffic	18
18.1 Owners Corporation Powers	18
19 Parking on Common Property	19
20 Animals	19
21 Rules	19
22 Applications and complaints	20
23 Consents	21
24 Records	21
25 Enforcement	22
26 Facilities Manager	22
27. Hunter Water	23
Special By Law 1-Internal Courtyards (passed 12 July 2017)	24
Special By Law 2 - Minor Renovations (passed 24 June 2024)	25

1 Dictionary and Interpretation

1.1 Dictionary

In the By-Laws these meanings apply unless the contrary intention appears:

Architectural Guidelines means the architectural guidelines for the Building.

Authority means a governmental or semi-governmental administrative, fiscal or judicial department or entity.

Balcony means a balcony shown as part of or attached to a Lot or Common "Property on the strata plan for the Residential Scheme other than the Landscaped Area.

Building Management Committee is the committee established under the, Strata Management Statement and the Development Act to administer the Commercial Scheme and the Residential Scheme.

Building -means the structure and improvements comprising the Life@ Throsby development which building includes the Commercial Scheme and the Residential Scheme.

Building Works are any works, alterations, installations, additions, damage, removal, repairs or replacement of:

(a) Common Property: structures, including the Common Property walls, floor and ceiling enclosing a Lot or Car Space or Storage Area (Common Property walls include windows and doors in those walls and any signs on those walls or windows); or

(b) the structure of a Lot; or

(c) internal partitioning or suspended ceilings; or

(d) Common Property services; or

(e) any screen installed over or ground, any air conditioning condenser or other equipment situated on, any Balcony or on Common Property; or

(f) -Services in the Residential Scheme, whether or not they are for the exclusive use of a Lot.

Building Works exclude damaging, altering or removing a load bearing wall or non-load bearing wall. Building Works exclude minor works or alterations to the interior of Common Property walls enclosing a Lot (eg painting walls or hanging pictures or attaching items to those walls).

By-Laws means the strata by-laws and Exclusive Use By-Laws for the Commercial Scheme and the Residential Scheme.

Car Park means that part of the Residential Scheme and the Commercial Scheme situated in the Building containing Car Spaces and visitors car spaces, Storage Areas and Common Property.

Car Space is that part of a lot within the Car Park which is designated on the strata plan for the Residential Scheme as a car space.

Commercial Scheme is Strata Scheme No. 91173.

Common Property is:

(a) common property in the Residential Scheme; and

(b) the personal property of the Owners Corporation.

Under these By-Laws, Common Property does not include:

(a) Shared Facilities located in the Residential Scheme; or

(b) Common Property which an Owner must maintain, repair or replace under an Exclusive Use By-Law.

Development Act is the Strata Schemes (Freehold Development) Act 1973.

Executive Committee is the executive committee of the Owners Corporation.

Exclusive Use By-Law is a By-Law granting an Owner or Occupier exclusive use and special privileges over Common Property in accordance with the Management Act.

Facilities Manager is the person appointed by the Building Management Committee or the Owners Corporation to provide management, operational and other services for the Building or the Residential Scheme.

Lot is a lot in the Residential Scheme (and any lots into which a lot is subdivided or resubdivided).

Management Act is the Strata Schema Management-Ad 1996.

Occupier means an occupier, lessee, licensee, sub-lessee or sub-licensee of a Lot in the Residential Scheme.

Owner means:

(a) the Owner of a Lot; and

(b) if a Lot is subdivided or resubdivided, the Owners for the time being of the new Lots; and

(c) for an Exclusive Use By-Law, the Owner(s) of the Lot(s) benefiting from the Exclusive Use By-Law; and

(d) a mortgagee in possession of a Lot.

Owners Corporation is The. Owners — Strata Plan No.. 91174.

Residential Garbage Area means any area designated as a garbage area for garbage or recyclables originating in the Residential Scheme.

Residential Scheme means Strata Scheme No. 91174.

Rules are rule made by the Owners Corporation according to, these. By-Laws,.

Security Key is a key, magnetic card or other device or information used to open and close doors, gates or locks or to operate alarms, security systems or communication systems.

Shared Facilities are, facilities used by both the Commercial Scheme and the Residential Scheme and which are Shared Facilities under the Strata Management Statement.

Special Resolution has the Same meaning as is ascribed to that term in the Management Act.

Strata Management Statement is the strata management statement for the Building.

Strata Manager is the person appointed by the Owners Corporation as its strata managing agent under section 27 of the Management Act. If the Owners Corporation does not appoint a strata managing agent, Strata Manager means the secretary of the Owners Corporation.

Strata Scheme is a. strata scheme created upon registration of a strata plan in respect of a lot within the Building according to the Development Act

Stratum Lot is a lot in the Building which has been subdivided by a strata plan according to the. Development Act.

Storage Area is that part of a Lot within the Residential Scheme which is designated on the strata plan for the Residential Scheme as a storage area.

1.2 Interpretation

Unless the context otherwise requires:

- (a) headings do not affect the interpretation of these By-Laws;
- (b) words importing the singular include the plural and vice versa;
- (c) words importing a gender include any gender;
- (d) words defined in the Strata Management Statement which are not separately defined in these By-Laws have the same meaning as is ascribed to them in the Strata Management Statement;
- (e) a reference to a person includes any natural person, corporation or other body corporate or governmental body and vice versa;
- (f) references to legislation or legislative provisions include modifying, consolidating or replacement legislation or legislative provisions;
- (g) a reference applying to or binding more than one person will refer to or bind them jointly and each of them severally;
- (h) references to months and years means calendar months and Calendar years;
- (i) where any word or phrase is given a defined meaning any other grammatical form of that word or phrase will have a corresponding meaning;
- (j) if the day on which any act, matter or thing is to be done is not a Business Day, that act, matter or thing may be done on the next Business Day;
- (k) a person includes their executors, administrators, successors, substitutes and assigns; and
- (l) a thing includes the whole or each part of it.
- (m) "GST", "Input Tax Credit", "Supply", "Supplies", "Taxable Supply" and "Tax Invoice" have the same meanings in these By-Laws as in A New Tax System (Goods and Services Tax) Act, 1999.

1.3 Headings

Headings do not affect the interpretation of these By-Laws.

2 Life @ Throsby

2.1 Structure

Life @ Throsby is a mixed use development comprising two separate components being:

- (a) the Residential Scheme; and
- (b) the Commercial Scheme.

2.2 Contents of Life @ Throsby

The Residential Scheme comprises one stratum within Life @ Throsby and contains 49 residential units while the Commercial Scheme comprises the other stratum within Life @ Throsby and contains 7 Commercial Lots.

3 About the By-Laws

3.1 Purpose

The By-Laws regulate the day to day management and operation of the Residential Scheme. They are an essential document for the Owners Corporation and each Owner and Occupier within the Residential Scheme.

3.2 By-Laws and the Strata Management Statement

These By-Laws should be considered in conjunction with the Strata Management Statement.

3.3 Who must comply?

An Owner or Occupier of a Lot in the Residential Scheme must comply with the By-Laws. The Owners Corporation must also comply with the By-Laws.

3.4 Amendment of the Exclusive Use By-Laws

The Owners Corporation may amend or cancel an Exclusive Use By-Law only by Special Resolution and with the written consent of each Owner who has the exclusive use under the By-Law.

3.5 Amending other By-Laws

The Owners Corporation may add, change or cancel By-Laws if it complies with the provisions in the Strata Management Statement about adding, changing and cancelling By-Laws.

4 Strata Management Statement

4.1 Purpose

The Strata Management Statement regulates the management and operation of the Commercial Scheme and the Residential Scheme.

4.2 Inconsistencies between a By-Law and the Strata Management Statement

If there is an inconsistency between a By-Law and the Strata Management Statement, the Owners Corporation must amend the inconsistent By-Law to make it consistent with the Strata Management Statement.

4.3 Who must comply with the Strata Management Statement?

The Owners Corporation, Owners and Occupiers must all comply at their own cost with the Strata Management Statement.

4.4 Appointing a representative to the Building Management Committee

The Owners Corporation must, by Special Resolution according to the Development Act, appoint two representatives to represent it and vote at meetings of the Building Management Committee.

4.5 Consents under the By-Laws and the Strata Management Statement

A consent under the By-Laws does not relieve the Owners Corporation, an Owner or an Occupier from any obligations they may have to obtain necessary consents under the Strata Management Statement.

5 Architectural Guidelines

5.1 Architectural Guidelines

The Architectural Guidelines for the Residential Scheme are any architectural guidelines which are established under the Strata Management Statement.

5.2 Compliance with the Guidelines

The Owners Corporation, Owners and Occupiers must comply with any Architectural Guidelines and obtain all necessary consents under any Architectural Guidelines before carrying out works in the Residential Scheme.

6 Owner and Occupier responsibilities

6.1 Occupiers and visitors

An Owner who leases or licenses their Lot must:

(a) ensure that Occupiers and their visitors comply with the By-Laws and the Strata Management Statement; and

(b) take all action available to them, including action under the lease or licence agreement, to make Occupiers and their visitors comply or leave the Residential Scheme.

6.2 Obligations

An Owner or Occupier must not:

(a) allow another person to do anything which they cannot do under these By-Laws or the Strata Management Statement; or

(b) make noise or behave in a way that might unreasonably interfere with the use and enjoyment of a Lot or Common Property by another Owner or Occupier; or

(c) use language or behave in a way that might offend or embarrass another Owner or Occupier or their visitors; or

(d) smoke cigarettes, cigars or pipes while they are on Common Property or allow smoke from them to enter Common Property; or

(e) obstruct the legal use of Common Property by any person; or

(f) do anything in the Residential Scheme which is illegal; or

(g) do anything which might damage the good reputation of the Owners Corporation, the Residential Scheme or the Building; or

(h) use frisbees, skateboards or rollerblades upon Common Property; or

(i) cause any damage to any other Lot or Common Property through use or misuse of any taps within their Lot, including on any Balcony; or

(j) subject to any Exclusive Use By-Laws, access or interfere with any hot water service, air conditioning unit or associated equipment or screens situated upon Common Property; or

(k) subject to the Strata Management Statement and these By-Laws, park or stand a vehicle on Common Property.

6.3 Your Lot

Each Owner and Occupier must:

- (a) keep their Lot clean and tidy and in good repair and condition; and
- (b) properly maintain, repair and, where necessary, replace an installation or alteration made under the By-Laws or Strata Management Statement which services a Lot (whether or not they made the installation or alteration); and
- (c) notify the Owners Corporation and the Building Management Committee if they change the existing use of their Lot or do anything in their Lot which may affect premiums for insurances effected for the Residential Scheme; and
- (d) notify the Building Management Committee if they change the existing use of their Lot or do anything in their Lot which may affect premiums for insurances effected for the Residential Scheme by the Building Management Committee.

6.4 Consents

Subject to the Strata Management Statement and these By-Laws, an Owner or Occupier must have consent from the Owners Corporation to:

- (a) store things in any Car Space forming part of or used in conjunction with a Lot (other than a vehicle); or
- (b) keep anything in a Lot that is visible from outside the Lot and is not in keeping with the appearance of the Residential Scheme; or
- (c) attach or hang an aerial, satellite dish or wires outside a Lot or the Residential Scheme.

6.5 No enclosure of Car Spaces

An Owner or Occupier may not enclose the Car Space(s) of a Lot.

7 Balconies

7.1 Items on Balconies

Subject to the other requirements of this By Law an Owner or Occupier may keep the following items on a Balcony:

- (a) pot plants and planter boxes; and
- (b) occasional furniture; and
- (c) recreational equipment (other than bicycles); and
- (d) air conditioning condensers and associated equipment and screens;
- (e) portable barbecues (subject to compliance with the other provisions of this By-Law); and
- (f) other items approved by the Owners Corporation,

7.2 General requirements for Balconies

An Owner or Occupier must:

- (a) keep items on the Balcony clean and tidy and in good condition and well maintained; and

(b) ensure that items on the Balcony of their Lot are secure against the prospect of being dislodged by wind; and

(c) ensure that items on the Balcony are of a high quality and finish and are in keeping with the appearance of the Building; and

(d) when watering plants on the Balcony, take steps to ensure that water does not leave the Balcony; and

(e) ensure that any plants or landscaping on the Balcony is kept neat and tidy and that no landscaping hangs or grows over the edge of the Balcony; and

(f) not use a hose on the Balcony and

(g) not install or construct additional bayonets or gas outlets on the Balcony; and

(h) not hang laundry, bedding or other articles over the Balcony railing; and

(i) not keep flammable materials or items which are likely to cause damage or injury to any person or property on the Balcony;

(j) not store any bicycles on the Balcony; and

(k) keep any air conditioning condenser or similar equipment well maintained and secure and screened from view outside the Lot and not allow any person to climb upon the unit or any screening; and

(l) comply with any Owners Corporation requirements or Rules in relation to screening, installation or maintenance of air conditioning units and associated screens in the Building.

7.3 Owners Corporation Powers

The Owners Corporation may require an Owner or Occupier, at their cost, to remove items from the Balcony that are not Common Property (and to replace those items) to enable the Owners Corporation to:

(a) inspect Common Property;

(b) maintain, repair and replace Common-Property;

(c) comply with the obligations of the Owners Corporation under the By Laws or the Strata Management Statement, or any consent or requirement of any Authority or the Management Act.

7.4 Barbeques

An Owner or Occupier may store and operate a portable barbeque on a Balcony if:

(a) it is a type permitted under By-Law 7.5; and

(b) it will not (or is not likely to) cause damage; and

(c) it is not (or is not likely to become) dangerous; and

(d) they keep it covered when they are not operating it; and.

(e) they keep it clean and tidy; and

(f) they comply with this By-Law 7.

7.5 Types of portable barbeques

The types of barbeques permitted under this clause 7 are:

- (a) covered gas or electric portable barbeque; or
- (b) any other type approved by the Committee.

Solid fuel burning barbeques are prohibited.

7.6 Interference

If an Owner or Occupier uses a portable barbeque on a Balcony, it must not create smoke, odours or noise which interfere unreasonably with another Owner or Occupier.

7.7 Balcony furniture

An Owner or Occupier does not need consent from the Executive Committee to keep outdoor furniture on the Balcony provided that the outdoor furniture is of a high quality and finish and is otherwise in keeping with the appearance of the Building and complies with any requirements set out in the Strata Management Statement or By-Laws.

7.8 Removing furniture, pots etc

Each Owner or Occupier must immediately remove furniture and landscaping from a Balcony if:

- (a) they do not comply with their obligations under this By-Law; or
- (b) the furniture or landscaping causes (or may cause) damage to another part of the Building.

8 Storage Areas

8.1 An Owner and Occupier must not:

- (a) use any Storage Area other than for domestic storage;
- (b) store any garbage, recyclable materials or flammable materials within any Storage Area;
- (c) do anything within any Storage Area which causes damage or unreasonable interference with any neighbouring Lot or Common Property;
- (d) use a hose in any Storage Area; or
- (e) install any gas or electrical fitting or equipment in any Storage Area.

8.2 Before an Owner or Occupier encloses the Storage Area of a Lot, they must:

- (a) provide the Owners Corporation with a certificate by an appropriately qualified person reasonably acceptable to the Owners Corporation, confirming that the enclosure does not interfere with or prejudice any service; and
- (b) obtain evidence of consent from all relevant Authorities and provide copies of those consents to the Owners Corporation.

9 Moving items within the Residential Scheme

9.1 General Requirements

Each Owner and Occupier must:

(a) make arrangements with the Owners Corporation or Facilities Manager at least 48 hours before they move furniture or goods through the Residential Scheme; and

(b) Only move furniture and goods through the Residential Scheme in accordance with instructions given by the Owners Corporation or Facilities Manager; and

(c) not use the loading dock situated within the Commercial Scheme,

9.2 Regular Deliveries

An Owner or Occupier may make standing arrangements with the Owners Corporation and the Facilities Manager about the regular deliveries to a Lot.

10 Garbage and Recyclable Materials

10.1 Obligations

An Owner or Occupier must:

(a) periodically take all recyclable materials to the Residential Garbage Area and place them in the receptacles provided for that purpose and not leave garbage or recyclable materials on Common Property; and

(b) comply with the instructions of the Owners Corporation and Facilities Manager about the storage and removal of garbage and recyclable Materials from their Lot to the Residential Garbage Area; and

(c) handle recyclable items in accordance with instructions from The Owners Corporation and Facilities Manager and relevant Authorities.

10.2 Owners Corporation

The Owners Corporation is responsible for the storage and removal of garbage and recyclable-materials from the Residential Garbage Area.

10.3 Rules about Garbage and Recyclable Materials

The Owners Corporation may make Rules about the storage and removal of garbage and recyclable materials in the Residential Scheme.

11 Windows

11.1 Cleaning

Unless the Owners Corporation resolves to clean glass in some or all of the windows in the Residential Scheme, an Owner or Occupier must regularly clean or cause to be cleaned the glass in windows and doors of a Lot (even if they are Common Property).

11.2 Treatments

An Owner or Occupier may install curtains, blinds, louvres, shutters and other window and door treatments in a Lot provided they have an appearance from outside the Lot which is consistent with the existing colour scheme of the Building and that part of the Building within which the Lot is located. An

Owner or Occupier must have consent from the Owners Corporation to place, install or retain internal curtains, blinds and window and door treatments other than those specified in this clause. No external louvres, shutters, solar film or similar treatments, Shades, blinds, awnings or other shading devices may be placed on the exterior surfaces of any doors or windows.

12 Floor Coverings and Other Acoustic Controls

12.1 Floor Coverings

All Owners and Occupiers must keep all floors in their Lot covered or treated to inhibit the transmission of noise that might unreasonably disturb another Owner or Occupier,

12.2 Consent from the Owners Corporation

An Owner or Occupier must have consent from the Owners Corporation to remove or interfere with fixed floor coverings or treatments in a Lot.

12.3 General Obligations

An Owner or Occupier must not make noise which might unreasonably interfere with the use and enjoyment by another Owner or Occupier of their Lot or Common Property.

12.4 Equipment and machinery

An Owner or Occupier must ensure that equipment and machinery in a Lot or Common Property does not cause vibrations or noise in another Lot or other part of the Building:

12.5 Power Tools

An Owner or Occupier may use power tools (for example, impact drills, electric saws or angle grinders) only between the hours of 7.30am to 5.30pm Mondays to Fridays and 9.00am to 3.00pm on Saturdays. They must not use power tools on Sundays or public holidays in New South Wales.

12.6 Playing musical instruments

Subject to this By-Law 12, an Owner or Occupier may play or rehearse on musical instruments (other than percussion instruments) only between 9.00am to 8.00pm. They must not play or rehearse on percussion instruments.

12.7 Playing music

Subject to this By-Law 12, an Owner or Occupier must, not play live or other music which exceeds 65dB(A) at the boundary of a Lot after 11.00pm (or another hour determined by the Owners Corporation acting reasonably).

13 Fire Safety

13.1 General Requirements

Subject to By-Law 7.2, an Owner or Occupier may keep flammable materials in a Lot other than in a Car Space or Storage Area forming part of a Lot if:

- (a) they are used in: connection with the lawful use of the Lot; and
- (b) they are kept in reasonable quantities according to the guidelines of Authorities.

13.2 Compliance with fire control laws

Each Owner and Occupier;

- (a) Must comply with laws about fire safety;

- (b) must not keep flammable materials on Common Property;
- (c) must not interfere with fire safety equipment; and
- (d) must not obstruct fire stairs or fire escapes.

14 Building Works

14.1 Consent

Subject to By-Laws 15 and 22 an Owner or Occupier must have consent from the Owners Corporation to do Building Works in a Lot or in Common Property: The Owners Corporation's consent may include conditions.

14.2 Procedures

Before Building Works are commenced:

- (a) an Owner or Occupier must:
 - (i) obtain necessary consents from the Owners Corporation and Authorities; and
 - (ii) find out where services are located; and
- (b) if the Building Works are also "Works" as defined in the Strata Management Statement, the Owners Corporation must, at the Owner's or Occupier's cost, obtain any necessary consent to the Building Works from the Building Management Committee.

14.3 General Requirements

If Owner or Occupier carries out Building Works, they must:

- (a) comply with any conditions of the Owners Corporation or the Building Management Committee or any Authority attached to its approval; and
- (b) use qualified, reputable and, where appropriate, licensed contractors approved by the Owners Corporation; and
- (c) carry-out the Building Works in a proper manner and to the reasonable satisfaction of the Owners Corporation; and
- (d) repair any damage and indemnify for any loss caused to Common Property, Shared Facilities or the property of another Owner or Occupier or to other parts of the Building.

14.4 Arrangements with the Owners Corporation

Before Building Works are carried out the Owner or Occupier of the relevant Lot must:

- (a) arrange with the Owners Corporation a suitable time and means by which to access the Residential Scheme; and
- (b) comply with the reasonable requirements of the Owners Corporation about the time and means by which they must access the Residential Scheme; and
- (c) ensure that contractors and any persons involved in carrying out the Building Works comply with the reasonable requirements of the Owners Corporation about the times and means by which they must access the Residential Scheme.

15 Load bearing and non-load bearing walls

15.1 Alterations to load bearing walls

An Owner or Occupier must have consent from the Owners Corporation and relevant Authorities to damage, alter or remove:

- (a) a load bearing wall in a Lot
- (b) a Common Property load bearing wall on the boundary of a Lot.

15.2 When is consent required?

The Owners Corporation will only consent to alteration to or removal of a load bearing wall if, before an Owner or Occupier carries out the work:

- (a) they provide the Owners Corporation with a certificate from a qualified structural engineer reasonably acceptable to the Owners Corporation that the proposed alteration or removal of the wall and the method by which the work will be done will not adversely affect the structural integrity of the Residential Scheme or any structure within the Residential Scheme or the Commercial Scheme or any Shared Facility; and
- (b) if the load bearing wall divides two Lots, the Owner of the adjoining Lot consents in writing to the alteration or removal of the load bearing wall.

15.3 Non-Load Bearing Walls

An Owner or Occupier may:

- (a) damage, alter or remove non-load bearing walls in a Lot; and
- (b) make openings in non-load bearing Common Property walls between two adjacent Lots that they own or occupy (subject to the Owner or Occupier obtaining all necessary consents from the Owner of the Lot),

If before they carry out the alteration or removal, they provide the Owners Corporation with a certificate from a qualified structural engineer reasonably acceptable to the Owners Corporation that the proposed alteration or removal of the non-load bearing wall and the method by which the work will be done will not adversely affect the structural integrity of the Residential Scheme or any structure within the Residential Scheme or the Commercial Scheme or any Shared Facility.

15.4 Owners Corporation may impose conditions

The Owners Corporation may impose conditions if it gives an Owner or Occupier consent to damage, alter or remove a load bearing wall. The conditions must be reasonable in the circumstances and may include conditions to reduce interference with other Owners and Occupiers which might arise from carrying out the works.

16 Security

16.1 Owners Corporation Obligations

The Owners Corporation must take reasonable steps to:

- (a) stop intruders coming into the Residential Scheme; and
- (b) prevent fires and other hazards.

16.2 Audio Visual Security

In addition to its powers under the Management Act, the Owners Corporation:

- (a) has the power to install and operate in Common Property audio visual security cameras and other audio visual surveillance equipment for the security of the Residential Scheme; and
- (b) Close off or restrict by Security Keys access to parts of Common Property; and
- (c) allow the Strata Manager, Facilities Manager and security personnel to use part of Common Property to operate or monitor security of the Residential Scheme. The Owners Corporation may exclude Owners or Occupiers from using these parts of Common Property..

16.3 Further Owners Corporation's obligations

When it exercises its rights under this By-Law, the Owners Corporation must not unreasonably:

- (a) shut down or interfere with the integrated security system for the Building; or
- (b) restrict access to parts-of Common Property which are Shared Facilities.

16.4 Owner and Occupier Obligations

An Owner or Occupier must:

- (a) not interfere with security cameras or surveillance equipment; and
- (b) not do anything that might prejudice the security or safety of the Residential Scheme; and
- (c) take reasonable care to make sure that fire and security doors are locked or closed when they are not being used.

16.5 Security Keys

The Owners Corporation may charge the Owner or Occupier a fee or bond if they want extra or replacement Security Keys. Security Keys belong to the Owners Corporation.

16.6 Obligations in relation to Security Keys

Each Owner and Occupier must:

- (a) take all reasonable steps not to lose Security Keys; and
- (b) notify the Owners Corporation immediately if they lose a Security Key; and
- (c) not copy a Security Key; and
- (d) not give a Security Key to someone-who is not an Owner or Occupier or the Owners Corporation; and
- (e) comply with the reasonable instructions of the Owners Corporation or the Facilities Manager and any Rules about Security Keys and, in particular, instructions about re-coding and returning Security Keys.

16.7 Installing Security Devices

An Owner and Occupier may not install external security devices including, without limitation, screens, grilles on external doors or windows of a Lot or on Common Property.

16.8 Alarms

An Owner or Occupier may install a security alarm in a Lot without consent from the Owners Corporation only if;

- (a) the alarm is a "back to base" facility; and
- (b) the alarm is silent; and
- (c) the alarm does not have flashing lights; and
- (d) the installation is not attached to and does not interfere with Common Property; and
- (e) the installation is not attached to and does not interfere with a Shared Facility,

If the installation of a security alarm is attached to or interferes with:

- (a) Common Property, the Owner or Occupier must have consent from the Owners Corporation before they install the alarm; or
- (b) a Shared Facility, the Owner or Occupier must obtain consent from the Building Management Committee before they install the alarm.

17 Common Property Damage

17.1 General Requirements

Subject to the By-Laws and the Strata Management Statement; each Owner and Occupier must:

- (a) only use Common Property and equipment situated on Common Property for their intended purposes; and
- (b) notify the Owners Corporation if they become aware of any damage to or a defect in Common Property or any equipment situated on Common Property; and
- (c) compensate the Owners Corporation for any damage to Common Property or any equipment on Common Property caused by the Owner or Occupier; their visitors or persons doing work or carrying out Building Works in the Residential Scheme on their behalf.

17.2 Consent

Subject to the By-Laws and the Strata Management Statement, each Owner and Occupier must have consent from the Owners Corporation to:

- (a) interfere with or damage Common Property; or
- (b) remove anything from Common Property that belongs to the Owners Corporation; or
- (c) interfere with the operation of Common Property equipment; or
- (d) do anything which might invalidate, suspend or increase the premium or any other charge on any insurance policy effected by the Owners Corporation.

18 Traffic

18.1 Owners Corporation Powers

In addition to its powers under the Management Act and subject to the Strata Management Statement, the Owners Corporation has the power to:

- (a) impose a speed limit for traffic on Common Property; and
- (b) impose reasonable restrictions on the use of Common Property driveways and parking areas; and
- (c) install speed humps, barriers and other traffic control devices in Common Property; and

(d) install signs about parking and to control vehicular and pedestrian traffic in Common Property.

19 Parking on Common Property

19.1 An Owner or Occupier may only park or stand a vehicle on Common Property other than designated Car Spaces with prior consent from the Owners Corporation.

19.2 Each Owner and Occupier must:

(a) not park in any car space designated from time to time as visitor parking; and

(b) ensure that any visitor parks only in car spaces designated from time to time as visitor parking and that they obey any Rules made in relation to visitor parking.

20 Animals

20.1 Keeping Animals

An Owner or Occupier may keep:

(a) goldfish or other similar fish in secure indoor aquarium;

(b) one cat;

(c) one small dog;

(d) one small caged bird.

20.2 Other than animals specified in By law 20,1 or a guide dog, hearing dog or other animal trained to assist to alleviate the effects of a disability, an Owner or Occupier must not, without the prior written approval of the Owners Corporation keep any animal within a Lot or on Common Property.

20.3 The Owners Corporation must not unreasonably withhold its approval of the keeping of an animal within a Lot.

20.4 Visitors' Animals

An Owner or Occupier must not allow a visitor to bring an animal into the Residential Scheme unless the animal is a guide dog, hearing dog or other animal trained to assist to alleviate the effect of a disability.

21 Rules

21.1 Owners Corporation may make Rules

The Owners Corporation may:

(a) make Rules about the security, control, management, operation, use and enjoyment of the Residential Scheme; and

(b) add to or change the Rules at anytime..

21.2 Compliance

All Owners and Occupiers must comply with the Rules.

21.3 Inconsistencies

If a Rule is inconsistent with a By-Law, the Strata Management Statement or a requirement of an Authority, then the By-Law, Strata Management Statement or requirement of an Authority prevail to the extent of the inconsistency.

22 Applications and complaints

22.1 Complaints

An Owner or Occupier must make any complaints to the Owners Corporation in writing and address them to the Strata Manager.

22.2 Making an application

The Owners Corporation may, either generally or in specific cases, specify the plans, drawings and other documents which an Owner or Occupier must submit with an application under the By-Laws.

22.3 What information must be included in an application?

An application for consent under the By-Laws must:

(a) be in writing; and

(b) include the plans, drawings and other documents specified by the Owners Corporation for the type of works for which approval is sought; and

(c) include enough information to give the Owners Corporation enough information to make a decision about the application.

22.4 Lodging applications

An Owner or Occupier who makes an application ("Applicant") must address the application to the Strata Manager.

22.5 Appointing consultants

The Owners Corporation may appoint consultants to review and make recommendations about applications to it under the By-Laws.

22.6 Paying the costs for a consultant

The Owners Corporation may require an Applicant to pay the reasonable costs of consultants they appoint.

22.7 Time frame for making a decision

Subject to the Applicant complying with the requirements of this By-Law, the Owners Corporation must review and make a decision about an application within 20 Business Days after receiving the application (where the Applicant is not required to provide further information) or 10 Business Days after the Owners Corporation receives the last of the further information requested or the consultant's report (where the Applicant is required to provide further information or a consultant has been appointed), or another period agreed between the parties.

22.8 Notifying the Applicant of a decision

The Owners Corporation must immediately advise an Applicant in writing when they have made a decision about an application. The advice must clearly describe any conditions which attach to any approval and, if the application is not approved, explain in full detail the reasons for the decision.

22.9 Conditional approvals

The Owners Corporation may make conditions if they approve an application.

The conditions may include:

- (a) a reasonable time frame in which the works must be completed; and
- (b) the hours and days during which the works must be carried out; and
- (c) methods of accessing the Common Property or the relevant Lot.

22.10 Revocation

The Owners Corporation may revoke their approval if an Applicant does not comply with the conditions for the approval.

23 Consents

23.1 Mode of Consent

Unless a By-Law states otherwise, consents under the By-Laws may be given by:

- (a) the Owners Corporation at a general meeting; or
- (b) the Executive Committee at a meeting of the Executive Committee.

23.2 Conditions

The Owners Corporation or the Executive Committee may make conditions if they give consent under the By-Laws and each Owner or Occupier affected by the consent must comply.

23.3 Revocation

The Owners Corporation Or the Executive Committee May revoke their consent if an Owner or Occupier who is the applicant for or is affected by a consent does not comply with:

- (a) conditions made by them when they gave consent; or
- (b) the By-Law under which they gave consent.

24 Records

24.1 General Requirements

In addition to the books and records which the Owners Corporation must maintain under the Management Act, the Owners Corporation must maintain all correspondence, agendas, minutes and other documents relating to:

- (a) the Building Management Committee; and
- (b) the Strata Management Statement.

24.2 Obligations of the Owners Corporation

The Owners Corporation must:

- (a) maintain the records under By-Law 24.1 for at least seven years; and
- (b) make the records available for inspection under section 108 of the Management Act.

25 Enforcement

25.1 Powers of the Owners Corporation

The Owners Corporation may do anything on a Lot that an Owner or Occupier should have done under the Management Act, the Strata Management Statement or the By-Laws but which that Owner or Occupier has not done or in the opinion of the Owners Corporation acting reasonably, has not done properly.

25.2 Entering a Lot

The Owners Corporation must give an Owner or Occupier a written notice specifying when it will enter a Lot to do the work. An Owner or Occupier of the Lot must:

(a) give the Owners Corporation (or persons authorised by it) access to the Lot according to the notice and at the Owner or Occupier's cost; and

(b) pay the Owners Corporation for its costs for doing the work.

25.3 Recovery of money

The Owners Corporation may recover any money owed to it under the By Laws as a debt.

25.4 Management Act

The powers of the Owners Corporation under this By-Law are in addition to those which it has under the Management Act.

26 Facilities Manager

26.1 Agreement

In addition to its powers under the Management Act, the Owners Corporation has the power both as a member of the Building Management Committee and in its own right to appoint and enter into agreements with a Facilities Manager to provide management and operational services for the Building and the Residential Scheme.

26.2 Terms of the agreement

The agreement may have provisions about:

(a) the rights of the parties to the agreement and the Facilities Manager to terminate the agreement early; and

(b) the rights of the Facilities Manager to assign the agreement,

26.3 Remuneration

The remuneration for the Facilities Manager is at the discretion of the Owners Corporation and the parties to the agreement.

26.4 Owners and Occupiers Obligations

An Owner or Occupier must not:

(a) interfere with or stop the Facilities Manager or Strata Manager performing their obligations or exercising their rights under their agreements with the Owners Corporation or the Building Management Committee; or

(b) interfere with or stop the Facilities Manager or Strata Manager using Common Property that the Owners Corporation permits them to use.

27. Hunter Water

Hunter Water Corporation

1. In this By-Law the following provisions apply:

Accessible means the unfettered and unencumbered ability of Hunter Water to access the Master meter and the Sub meters for reading and recording purposes.

Automated Meter Reading means the system to be developed by Hunter Water for implementation in the future as another means of reading meters.

Common Property has the same meaning as in the *Strata Schemes Management Act 1996* (NSW).

Hunter Water means Hunter Water Corporation, a public authority within the meaning given to that term in the *Strata Schemes Management Act 1996* (NSW) and a state owned corporation within the meaning given to that term in the *State Owned Corporations Act 1991* (NSW) its successors and assigns.

Hunter Water Design Criteria means the Hunter Water design criteria as varied from time to time.

Lot has the same meaning as in the *Strata Schemes (Freehold Development) Act 1973* (NSW).

Occupier means any person in lawful occupation of the Lot.

Owner means the registered proprietor for the time being of any Lot, their successors and assigns.

Owners Corporation means a corporation constituted under section 11 of the *Strata Schemes Management Act 1996* (NSW).

Sub meter means the sub meter installed for each Lot to record the amount of water used by each Owner or Occupier.

2. All Owners and Occupiers of Lots must:

- a) ensure all water connections (including the water meter assembly) are approved by Hunter Water and are installed in accordance with Hunter Water Design Criteria and ensure that all water connections including the water meter assembly are repaired and maintained at the sole expense of the Owner as required by Hunter Water (acting reasonably) from time to time;
- b) modify the water meter assembly when necessary or required to do so by Hunter Water to comply with Hunter Water Design Criteria;
- c) ensure the water meter assembly is situated as close as possible to the street boundary of the Lot or in an accessible location on the Common Property and is Accessible at all times;
- d) ensure that the water meter assembly is not installed behind fences or in an enclosed area or confined space;
- e) ensure that the position of the water meter assembly minimises the risk of harm to Hunter Water employees/contractors. This includes the hazards such as pets, overgrown vegetation or any other obstruction in the vicinity of the water meter which would prevent safe access to the meter for reading and maintenance;
- f) pay any account raised by Hunter Water from a reading of the Sub meter, in accordance with Hunter Water's Customer Contract;
- g) comply with any request by Hunter Water to upgrade the water meter assembly to enable Hunter Water to implement Automated Meter Reading, promptly when requested to do so;

- h) when requested to do so by either the Owners Corporation or Hunter Water, promptly provide access to any water meter or associated water equipment situated within the Lot to Hunter Water's authorised personnel or personnel authorised by the Owners Corporation to allow those personnel to read any water meter, inspect all water connections including the water meter assembly and, if reasonably required by Hunter Water and subject to the Owner's obligations under paragraph (a) above carry out repair and maintenance work upon those items;

3. Either the Owners Corporation or Hunter Water may give a notice to the Owner or Occupier of a Lot requiring the Owner or Occupier to comply with the terms of this by-law. If any Owner or Occupier fails to comply with any requirement relating to access to the Lot or any part of the Lot or repair and maintenance of the Hunter Water meter, the meter assembly or any water equipment within a reasonable time after receipt of a notice requiring compliance, the Owners Corporation or Hunter Water may take such steps as may be reasonable to secure such access or to carry out the relevant repair and maintenance at the expense of the Owner or Occupier of the Lot.

Special By Law 1- Internal Courtyards (passed 12 July 2017)

1.1 Items on Internal Courtyards

Subject to the other requirements of this By Law an Owner or Occupier may keep the following items on a Courtyard:

- (a) Pot plants and planter boxes; and
- (b) Occasional furniture; and
- (c) Recreational equipment including bicycles; and
- (d) Other items approved by the Owners Corporation.

1.2 General requirements for Internal Courtyards.

An Owner or Occupier must:

- a) Keep items on the Courtyard clean and in a tidy manner and in good condition and well maintained; and
- b) Ensure that items on the Courtyard are of a high quality and finish and are in keeping with the appearance of the building; and
- c) When watering plants on the Courtyard, take steps to ensure that water does not leave the Courtyard; and
- d) Ensure that any plants or landscaping on the Courtyard is kept neat and tidy and that no landscaping hangs or grows over the edge of the Courtyard; and
- e) Not install or construct additional bayonets or gas outlets on the Courtyard; and
- f) Not hang laundry, bedding or other articles over the courtyard railing; and
- g) Not keep flammable materials or items which are likely to cause damage or injury to any person or property in the Courtyard; and
- h) Not use the Courtyard as a general storage area. Storage for excess goods is provided for each lot in the garage area; and
- i) Not install air conditioning condenser or similar equipment on the courtyard; and
- j) Not use a portable barbeque in the Courtyard area.

1.3 Owners corporation powers

The Owners Corporation may require an Owner or Occupier, at their cost, to remove items from the Balcony that are not Common Property (and to replace those items) to enable the Owners Corporation to:

- a) inspect Common Property;
- b) maintain, repair and replace Common Property;
- c) comply with the obligations of the Owners Corporation under the By-Law of the Strata Management Statement, or any consent or requirement of any Authority or the Management Act.

1.4 Balcony Furniture

An Owner or Occupier does not need consent from the Executive Committee to keep outdoor furniture on the Balcony provided that the outdoor furniture is of a high quality and finish and is otherwise in keeping with the appearance of the Building and complies with any requirements set out in the Strata Management Statement or By-Laws.

1.5 Removing furniture, pots etc

Each Owner or Occupier must immediately remove furniture and landscaping from a Balcony-if:

- a) they do not comply with their obligations under this By-Law; or
- b) the furniture or landscaping causes (or may cause) damage to another part of the Building.

Special By Law 2 - Minor Renovations (passed 24 June 2024)

The Owners Corporation in accordance with Section 110 of the *Strata Schemes Management Act* delegate authority to the Strata Committee to approve Minor Renovations.



Form: 15CH
Release: 2.3

**CONSOLIDATION/
CHANGE OF BY-LAWS**

New South Wales

Strata Schemes Management Act 2015

Real Property Act 1900

Leave this space clear. Affix additional
pages to the top left-hand corner.

PRIVACY NOTE: Section 31B of the Real Property Act 1900 (RP Act) authorises the Registrar General to collect the information required by this form for the establishment and maintenance of the Real Property Act Register. Section 96B RP Act requires that the Register is made available to any person for search upon payment of a fee, if any.

(A) **TORRENS TITLE**

For the common property
CP/SP91174

(B) **LODGED BY**

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Customer Account Number (IF APPLICABLE) Reference 007690

CODE

CH

(C) The Owner-Strata Plan No. 91174 certify that a special resolution was passed on 24/6/2024

(D) pursuant to the requirements of section 141 of the Strata Schemes Management Act 2015, by which the by-laws were changed as follows

(E) Repealed by-law No. NOT APPLICABLE

Added by-law No. Special By-Law 2

Amended by-law No. NOT APPLICABLE

as fully set out below :

Annexure A: Special By-Law 2, as set out at page 25.

(F) A consolidated list of by-laws affecting the above mentioned strata scheme and incorporating the change referred to at Note (E) is annexed hereto and marked as Annexure A

(G) The seal of The Owners-Strata Plan No. 91174 was affixed on 11/7/24 in the presence of the following person(s) authorised by section 273 Strata Schemes Management Act 2015 to attest the affixing of the seal:

Signature :

Name :

Authority :

Signature :

Name :



Special By-Law No.1 – Solar Panels SP 91174

1. Definitions

In this by-law:

“owner” means an owners corporation SP 91174, and

2. Special Privileges

The owner shall have special privileges in respect of the common property to be occupied by the Solar Panels for the purpose of installing and keeping it on that common property upon and subject to the conditions set out below.

3. The Conditions

Installation of the Solar Panels

(a) The Solar panels must be installed in a proper and workmanlike manner utilising only first quality materials which are new condition and suitable for the purpose for which they are used.

(b) The Solar Panels must be installed in accordance with the manufacturer's instructions.

(c) Any holes created, or penetrations made in the common property during the installation of the Solar Panels must be adequately sealed and waterproofed.

(d) The owner must ensure that the Solar panels are installed with due diligence and within a reasonable time from the date of commencement.

Noise and Disturbance

(e) The owner must ensure that minimum disturbance is caused to the common property and the owners and occupiers of the strata scheme during the installation and operation of the Solar Panels.

Appearance

(f) The Solar Panels must not have an appearance, when viewed from ground level immediately outside the building and within the boundaries of the strata scheme.

Costs of the Solar Panels

(g) The owner must pay all costs associated with the installation of the Solar panels.

Compliance with all Laws

(h) The owner must comply with all statutes, by-laws, regulations, rules and other laws for the time being in force, and which are applicable to the Solar Panels and, if required, must obtain the consent of Council to the Solar Panels.

Maintenance of the Solar Panels

(i) After completion the owner must, at the owner's expense, properly maintain and keep in a state of good and serviceable repair the Solar panels and any part of the common property occupied by the Solar panels and, when necessary, renew or replace any fixtures or fittings comprised in the Solar Panel system or that common property.

Restoration

(j) Immediately upon completion of the installation of the Solar Panels the owner must restore all other parts of the common property affected by the installation of the Solar Panel system as nearly as possible to the state which they were in immediately prior to the installation of the Solar Panel.

Repair of Damage

(k) The owner must, at the owner's expense, make good any damage to the common property caused as a result of the Solar Panels no matter when such damage may become evident.

Access

(l) The owner's corporation must permit the owner reasonable access through the common property of the strata scheme for the owner and their contractors and all their reasonable tools and machinery for the purpose of installing the Solar panels and meeting any requirement imposed on the owner by this by-law.

Indemnity

(m) The owner will indemnify and keep indemnified the owner's corporation against all actions, proceedings, claims, demands, costs, damages and expenses which may be incurred by or brought or made against the owner's corporation arising out of the Solar Panels or the altered state or use of the common property arising therefrom.

Costs of this By-Law

(n) The owners corporation must pay all of the costs incurred in connection

with the preparation, passing and registration of this by-law.

Breach of this By-Law

(p) If the owner is in breach of any condition of this by-law and fails to rectify that breach within thirty (30) days of service of a written notice from the owner's corporation requiring rectification of that breach, then the owner's corporation may rectify any such breach and may recover as a debt due from the owner the costs of the rectification together with the expenses of the owner's corporation incurred in recovering those costs



TAX INVOICE

This document will be a tax invoice for GST when payment is made in full

PAGE 1

Ausure Insurance Newcastle | ABN: 92 494 457 394
Authorised Representative of Ausure Pty Ltd | AFSL: 238433 | ABN: 94 096 971 854

REPRESENTATIVE
Ausure Insurance Newcastle
Linda McInnes - AR: 1283945
PO Box 1123
Newcastle NSW 2300
Tel **02 4941 0011**
Fax **02 4027 5033**
Email linda.mcinnnes@ausure.com.au

SP91174, SP91173, DP1204114
Po Box 175
Charlestown NSW 2290

Renewal

NOTES: Renewal 25/26

Invoice date 26-Mar-2025

Invoice number 13248056

TYPE OF POLICY Strata - Domestic

THE INSURED SP91174

INSURER Strata Unit Underwriting Agency Pty Ltd
Unit 5, 263 Alfred Street
North Sydney NSW 2060
ABN: 300 892 01534

POLICY NUMBER 06S7953130

PERIOD OF COVER From **31/03/2025** to **31/03/2026**

YOUR PREMIUM

Premium	\$	2,168.06
Underwriter Fee	\$	200.00
U/W Fee GST	\$	20.00
Fire/ES Levy	\$	0.00
GST	\$	216.81
Stamp Duty	\$	214.64
Broker Fee	\$	63.17
Broker Fee GST	\$	6.32

TOTAL DUE \$ 2,889.00

DATE DUE 31-Mar-2025

PAYMENT OPTIONS



Billers Code: 30510
Reference: 2132480563

Telephone & Internet Banking - BPAY®

Contact your participating financial institution to make BPAY payments using the biller code and reference number as detailed above. More info: www.bpay.com.au



Payments can be made in person at a Post Office by cheque or EFTPOS. Please present this page intact. Please make cheque payable to **DEFT Payment Systems for Ausure Pty Ltd**



*498 402594 2132480563



Pay by Credit Card either
Online - (Visit www.ausure.com.au/Pay-My-Bill) or by Phone (please contact your Broker on 02 4941 0011)
Note: Visa/Mastercard payments will incur a 0.95% fee of \$ 27.45 which includes \$ 2.50 GST.
Amex payments will incur a 2.15% fee of \$ 62.11 which includes \$ 5.65 GST.



Instalments – Premium Finance is available. Please contact your Broker for Terms and Conditions

IMPORTANT INFORMATION

PLEASE READ CAREFULLY

YOUR DUTY OF DISCLOSURE

Before you enter into a contract of general insurance with an insurer, you have a duty, under the Insurance Contracts Act 1984, to disclose to the insurer every matter that you know, or could reasonably be expected to know, is relevant to the insurer's decision whether to accept the risk of the insurance and, if so, on what terms. You have the same duty to disclose those matters to the insurer before you renew, extend, vary or reinstate a contract of general insurance.

Your duty however does not require disclosure of matter:

- that diminishes the risk to be undertaken by the insurer;
- that is of common knowledge;
- that your insurer knows or, in the ordinary course of his business, ought to know;
- as to which compliance with your duty is waived by the insurer.

NON-DISCLOSURE

If you fail to comply with your duty of disclosure, the insurer may be entitled to reduce his liability under the contract in respect of a claim or may cancel the contract. If your non-disclosure is fraudulent, the insurer may also have the option of avoiding the contract from its beginning.

CONTRACTING OUT OR REMOVING INSURERS RIGHTS OF SUBROGATION

You will prejudice your rights to a claim if, without prior agreement from your insurer you make any agreement that will prevent the insurer from recovering a loss from a third party. These 'hold harmless' are often found in leases and maintenance or supply contracts from burglar alarm or fire protection installers and in repair contracts.

INSURING THE INTEREST OF OTHER PARTIES

If you require the interests of another party to be covered you must request this and ensure they are noted on your policy. Most policy conditions will exclude indemnity to other parties (eg mortgagees, lessors or principals etc) unless their interest is noted on the policy.

UTMOST GOOD FAITH

A contract of insurance is a contract based on the utmost good faith and there is implied in such a contract a provision requiring each party to it to act towards the other party with the utmost good faith. If you fail to do so it may prejudice your claim.

UNDER INSURANCE

Your contract of insurance may contain an average provision. It is important that you nominate a sum insured to represent the full value of the property insured. If you fail to insure the full value your claim may be reduced in proportion with your underinsurance.

DUTY TO NOT TO MISREPRESENT- CONSUMER PRODUCTS

When purchasing insurance wholly or predominantly for personal, domestic, or household purposes, you have a duty to take reasonable care not to make a misrepresentation to the insurer. This means that it is essential that you answer questions honestly and to the best of your knowledge, including when you confirm or update information when you enter into, vary, extend, reinstate or renew a Policy. The responsibility to take reasonable care not to make a misrepresentation applies to everyone who will be insured under the policy. If you answer questions on behalf of others, the insurer will treat your answers or representations as theirs. **If You do not meet the above Duty**, the insurer may refuse or not fully pay your claim and/or cancel your policy.

If the misrepresentation was deliberate or reckless, the insurer may refuse to pay a claim and treat your policy as if it never existed

CHANGE IN RISK CIRCUMSTANCES

You must inform your broker of any material changes in your business; if you fail to do so an insurer may be entitled to deny a potential claim. You should inform your broker about any changes in location, new products/procedures or any departure from your ordinary business. If you are in doubt as to whether you should disclose any changes please contact your broker for advice.

CLAIMS MADE POLICIES

Certain policies (eg many types of professional indemnity policies) are claims made policies. These policies do not cover events that occurred before the contract was entered into. If you give an insurer notice of circumstances that may give rise to a claim during the policy period, the insurer will cover claims made later that arise out of those circumstances.

LEASING, HIRING & BORROWING PROPERTY

When you lease, hire or borrow property, make sure that the contract clearly identifies who is responsible for insuring the property. Industrial Special Risks policies automatically cover property which you are responsible to insure, subject to the policy excess. Public liability insurance may assist you meet claims relating to property damage to property which you lease or hire. A sub-limit usually applies to the amount you can claim for damage to property in your care, custody or control.

INSURER SOLVENCY

We do not warrant or guarantee the current or ongoing solvency or financial viability of the insurer because we have no control over the insurer's performance and this can be affected by many complex commercial and economic factors.

PREMIUM FINANCE

If you choose to finance your premium Ausure and your representative will receive up to 4% of the amount financed for providing the referral and assisting you to arrange the facility. This will not result in any additional costs to you. We recommend that you carefully read the finance contract to understand the implications in the event you cancel your insurance policy before expiry.

CANCELLATIONS AND AMENDMENTS

We do not refund our fees or commission received for arranging the policy. Please note that premium finance contracts contain terms that reduce the amount you will receive from any refund. Please see the terms of your contract for more information.

HOW DO WE RESOLVE COMPLAINTS?

In the event that you have a complaint about the manner in which we provide any financial service please contact Ausure's Complaints Manager by phone on (07) 3319 5100 or by writing to the address shown on the front of this invoice. If your complaint remains unresolved, Ausure's dispute committee will review the matter and respond within 15 days. Your complaint will be dealt with fairly and promptly but if you remain dissatisfied with the final decision you may refer the matter to the Australian Financial Complaints Authority (AFCA), which acts as Ausure's external dispute resolution provider. AFCA can be contacted on 1800 931 678 or info@afca.org.au.

NON PAYMENT OF PREMIUM

Our usual payment terms are 14 days from the date shown on the invoice. If this invoice is unpaid after 30 days we will advise the insurer that the policy is unpaid. The insurer may cancel the policy and/or pursue payment from you.

Policy Particulars:

Insured: Strata Plan 91174

Situation: **16-24 Throsby Street, Wickham NSW 2293**

Period of Insurance: 31/03/2025 TO 31/03/2026 AT 4.00pm Local time

		SUM INSURED
Section 1:	Building including common contents	Not included
	Loss of Rent/Temporary Accommodation (15%)	Not included
	Catastrophe or Emergency	Not included
	Additional Loss of Rent/Temporary Accommodation	Not included
	Floating Floors	Not included
	Flood	Not included
Section 2:	Glass	Not included
Section 3:	Theft	Not included
Section 4:	Liability	\$20,000,000
Section 5:	Fidelity Guarantee	\$100,000
Section 6:	Office Bearers Liability	\$1,000,000
Section 7:	Voluntary Workers (Weekly/Capital Benefit)	\$2,000/\$200,000
Section 8:	Government Audit Costs	\$25,000
Section 9:	Legal Expenses	\$50,000
Section 10:	Workplace, Health and Safety Breaches	\$100,000
Section 11:	Machinery Breakdown	Not Insured
Section 12:	Lot Owners Improvements (Per Lot)	Not Insured

IMPORTANT NOTICES

It is important to read and consider the Product Disclosure Statement when deciding whether to purchase this insurance. You should consider whether this product is appropriate for your financial circumstances, objectives and needs. After reading this notice if any matter relating to your policy is unclear to you or you have any questions at all in relation to the insurance, please contact us for an answer or explanation as soon as possible.

Strata Unit Underwriting Agency Pty Limited T/A Strata Unit Underwriters (SUU) hereby gives notice that this contract is issued under an authority by the Insurer/s named on Your Quotation or Policy Schedule. SUU is an agent of the Insurer and not the Insured.

Clients who are not fully satisfied with our services should contact our Internal Disputes Resolution Officer. SUU also subscribes to the Australian Financial Complaints Authority, a free customer service. Further information is available within the Product Disclosure Statement (PDS) or via our website.

Please review the sums insured as noted on your Quotation or Policy Schedule to ensure they are up-to-date and take into account your objectives, financial situation, needs and requirements of any relevant legislation.

When answering our questions you must be honest, as the answers will form the basis of our decision to insure you. Your answers apply to you and to anyone else that may be insured under the policy. If you have not answered our questions in this way, we may reduce or refuse to pay a claim or cancel the policy.

GENERAL ADVICE WARNING

The general advice provided has not taken into account your objectives, financial situation or needs. You must therefore assess whether it is appropriate, in the light of your own individual objectives, financial situation or needs, to act upon this advice.

CERTIFICATE OF CURRENCY



To whom it may concern,

Strata Unit Underwriting Agency Pty Ltd
T/A Strata Unit Underwriters | ABN 30 089 201 534 | AFSL 246719
Level 14/141 Walker Street, North Sydney, New South Wales 2060
info@suu.com.au | www.suu.com.au | T: 1300 668 066 | F: 1300 668 166

Date: 27/03/2025
Reference No: DOC0000977801

This policy referred to is current at the date of issue of this certificate and whilst a due date has been indicated, it should be noted that the policy may be cancelled in the future. Accordingly, reliance should not be placed on the expiry date. This is to certify cover has been granted in terms of the Insurers Standard Policy, a copy of which is available on request. This certificate is not a substitute for the Policy of Insurance issued to you. The Policy, not this certificate, details your rights and obligations and the extents of your insurance cover.

Insured: Strata Plan 91174
Type of Insurance: Residential Strata

Policy Number: 06S7953130
Period of Insurance: From 4:00PM 31/03/2025
To 4:00PM 31/03/2026

OVERVIEW

Insured:	Strata Plan 91174	
Situation:	16 THROSBY STREET, WICKHAM NSW 2293	
Section 1:	Building including common contents	Not included
	Loss of Rent/Temporary Accommodation (15%)	Not included
	Catastrophe or Emergency (15%)	Not included
	Additional Loss of Rent/Temporary Accommodation	Not included
	Additional Catastrophe or Emergency	Not included
	Floating Floors	Not included
	Flood	Not included
Section 2:	Glass	Not included
Section 3:	Theft	Not included
Section 4:	Liability	\$ 20,000,000
Section 5:	Fidelity Guarantee	\$100,000
Section 6:	Office Bearers Liability	\$ 10,000,000
Section 7:	Voluntary Workers (Weekly/Capital Benefit)	\$2,000/\$200,000
Section 8:	Government Audit Costs	\$25,000
Section 9:	Legal Expenses	\$50,000
Section 10:	Workplace, Health and Safety Breaches	\$100,000
Section 11:	Machinery Breakdown	Not Insured
Section 12:	Lot Owners Improvements (Per Lot)	Not Insured

CERTIFICATE OF CURRENCY



Policy Number: 06S7953130

Insured: Strata Plan 91174

CERTIFICATE OF CURRENCY



IMPORTANT NOTICES

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Clients who are not fully satisfied with our services should contact our Internal Disputes Resolution Officer. SUU also subscribes to the Australian Financial Complaints Authority, a free customer service. Further information is available within the Product Disclosure Statement (PDS) or via our website.

Please review the sums insured as noted on your Quotation or Policy Schedule to ensure they are up-to-date and take into account your objectives, financial situation, needs and requirements of any relevant legislation.

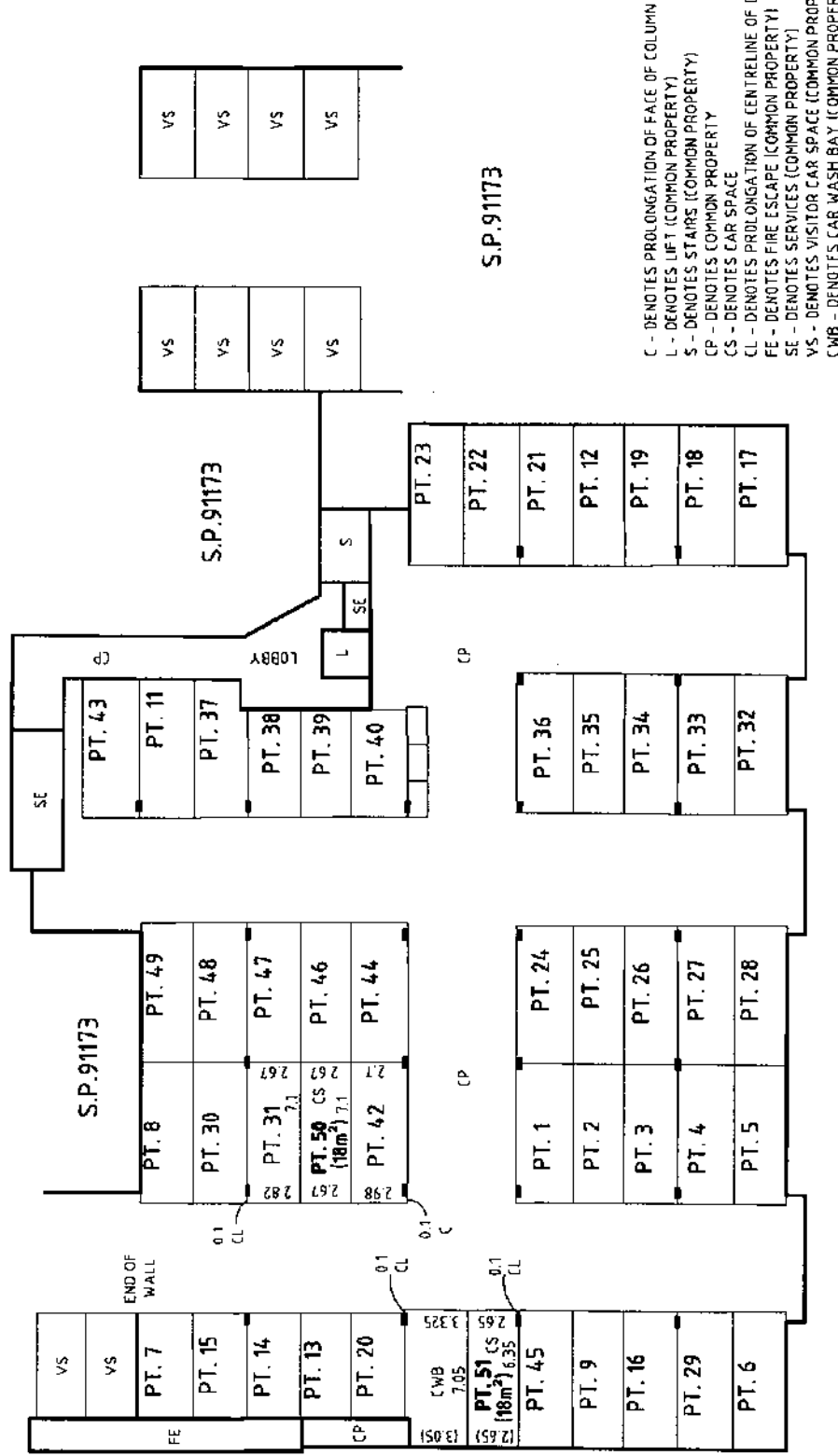
When answering our questions you must be honest, as the answers will form the basis of our decision to insure you. Your answers apply to you and to anyone else that may be insured under the policy. If you have not answered our questions in this way, we may reduce or refuse to pay a claim, or cancel the policy.

GENERAL ADVICE WARNING

The general advice provided has not taken into account your objectives, financial situation or needs. You must therefore assess whether it is appropriate, in the light of your own individual objectives, financial situation or needs, to act upon this advice.

GROUND FLOOR

AREAS SHOWN ARE FOR THE PURPOSE OF THE STRATA SCHEMES (FREEHOLD DEVELOPMENT) ACT 1973 ONLY AND ARE APPROXIMATE.



- ALL COMMON SERVICE LINES ARE COMMON PROPERTY. ANY SERVICE LINE WITHIN ONE LOT SERVING ANOTHER LOT IS COMMON PROPERTY.
- THE STRUCTURE OF ALL STORAGE CAGES IS COMMON PROPERTY

Surveyor:
JOHN JOSEPH WILSON
DEWITT CONSULTING

Surveyor's Ref:
4531

Subdivision No:
SC 2400

Lengths are in metres. Reduction Ratio 1:250

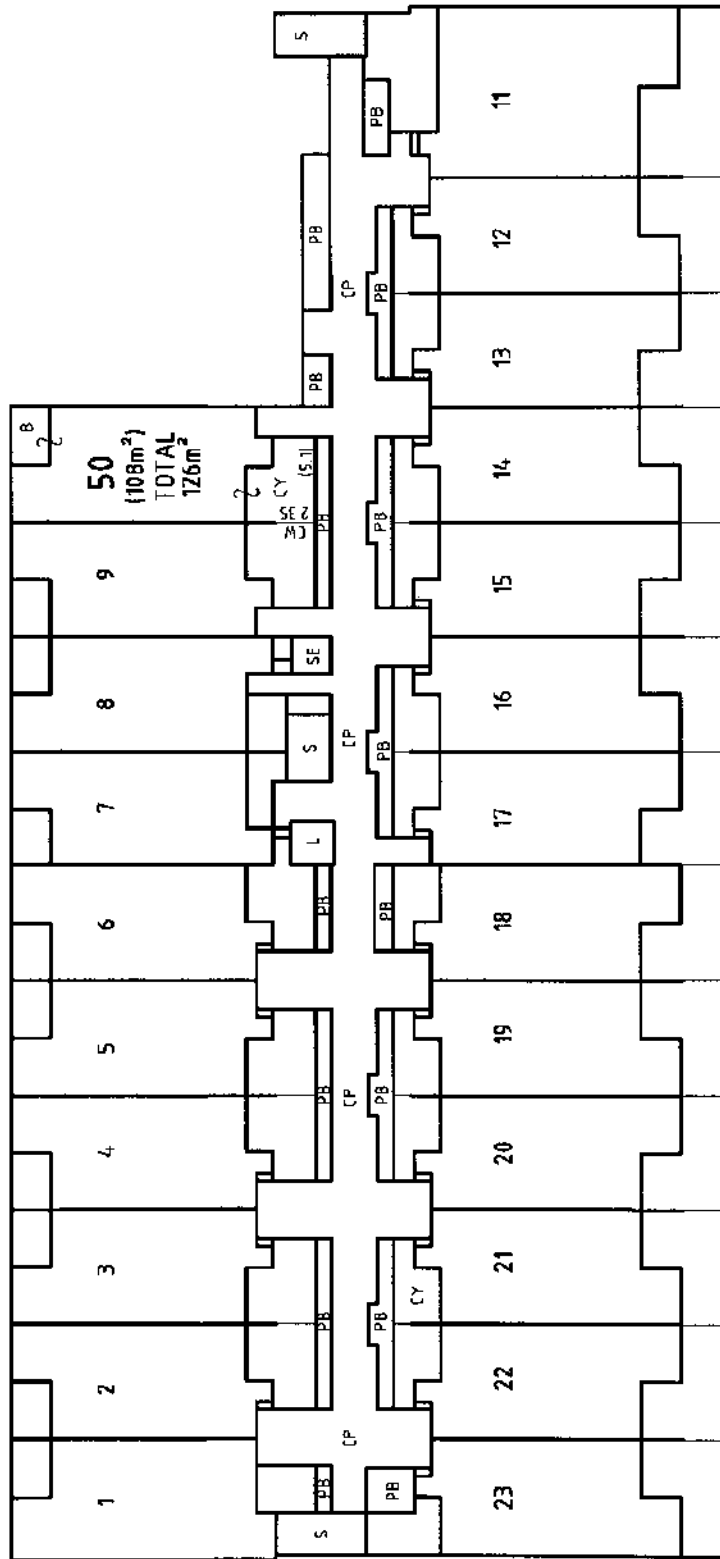
Registered
14.5.2015

SP91462

M. G. A.

LEVEL 1

AREAS SHOWN ARE FOR THE PURPOSE OF THE STRATA
SCHEMES (FREEHOLD DEVELOPMENT) ACT 1973 ONLY
AND ARE APPROXIMATE



- B - DENOTES BALCONY
- L - DENOTES LIFT (COMMON PROPERTY)
- S - DENOTES STAIRS (COMMON PROPERTY)
- CY - DENOTES COURTYARD
- CP - DENOTES COMMON PROPERTY
- CW - DENOTES PROLONGATION OF CENTRELINE OF WALL
- PB - DENOTES PLANTER BOX (COMMON PROPERTY)
- SE - DENOTES SERVICES (COMMON PROPERTY)

- ALL COMMON SERVICE LINES ARE COMMON PROPERTY. ANY SERVICE LINE WITHIN ONE LOT SERVING ANOTHER LOT IS COMMON PROPERTY.
- THE STRATUM OF THE COURTYARDS IS LIMITED IN HEIGHT TO 3 METRES ABOVE THEIR RESPECTIVE CONCRETE FLOOR EXCEPT WHERE COVERED.
- THE STRATUM OF THE BALCONIES IS LIMITED IN HEIGHT TO 3 METRES ABOVE THEIR RESPECTIVE CONCRETE FLOOR EXCEPT WHERE COVERED.

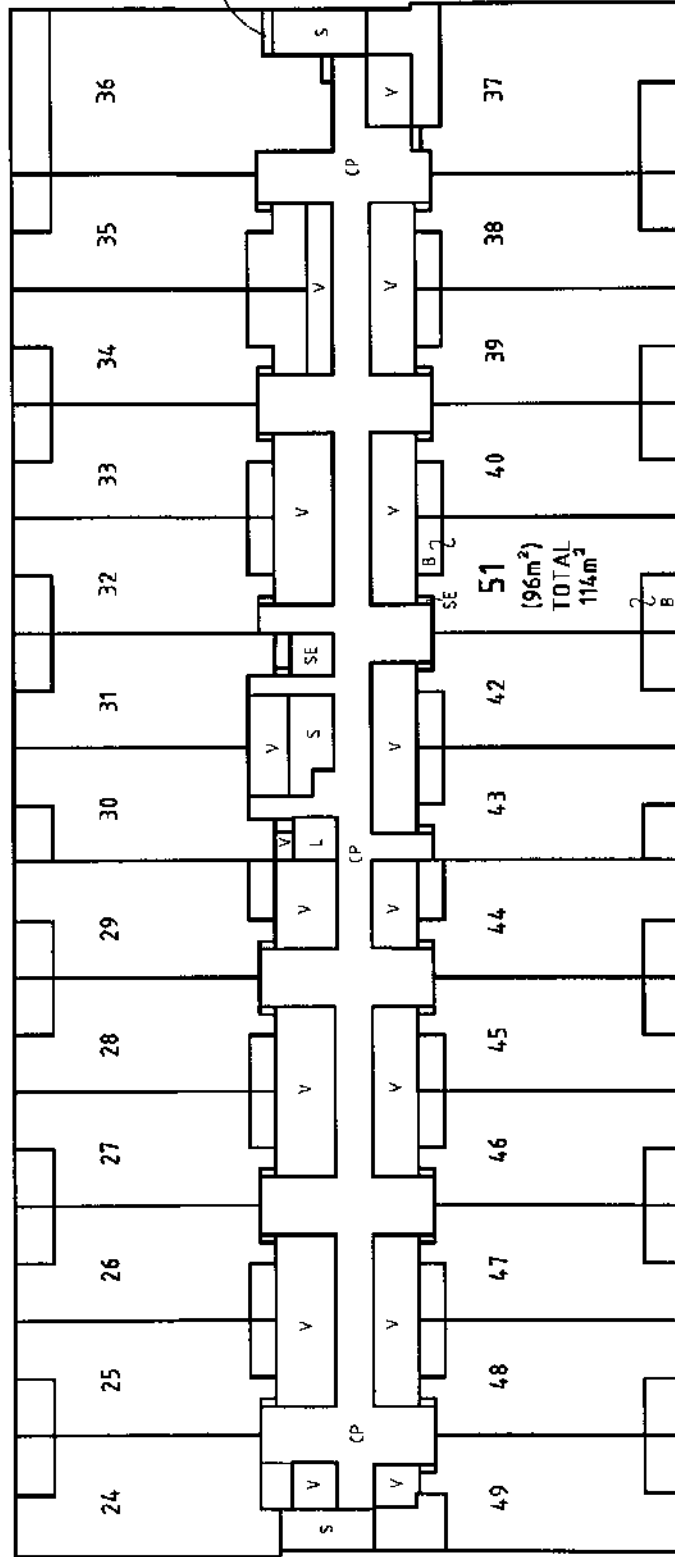
Surveyor: JOHN JOSEPH WILSON
DEWITT CONSULTING
Surveyors Ref: 4331
Subdivision No: SC 2400
Lengths are in metres. Reduction Ratio 1:300

Registered
14.5.2015

SP91462

LEVEL 2

M. G. A.



- AREAS SHOWN ARE FOR THE PURPOSE OF THE STRATA SCHEMES (FREEHOLD DEVELOPMENT) ACT 1973 ONLY AND ARE APPROXIMATE.
- ALL COMMON SERVICE LINES ARE COMMON PROPERTY. ANY SERVICE LINE WITHIN ONE LOT SERVING ANOTHER LOT IS COMMON PROPERTY.
- THE STRUTUM OF THE BALCONIES IS LIMITED IN HEIGHT TO 3 METRES ABOVE THEIR RESPECTIVE CONCRETE FLOOR EXCEPT WHERE COVERED.

B - DENOTES DENOTES BALCONY
L - DENOTES LIFT (COMMON PROPERTY)
S - DENOTES STAIRS (COMMON PROPERTY)
V - DENOTES VOID (COMMON PROPERTY)
CP - DENOTES COMMON PROPERTY
SE - DENOTES SERVICES (COMMON PROPERTY)

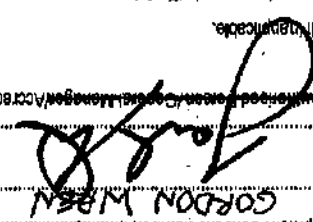
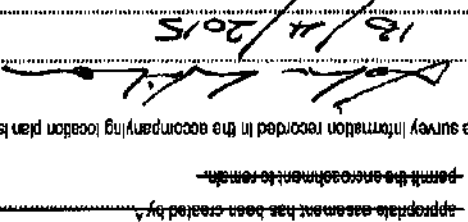
Surveyor: JOHN JOSEPH WILSON
DEWITT CONSULTING
Surveyors Ref: 4331
Subdivision No: SC 2400
Lengths are in metres. Reduction Ratio 1:300

Registered
14.5.2015

SP91462

STRATA PLAN ADMINISTRATION SHEET

Sheet 1 of 4 sheet(s)

Office Use Only Registered: 14.5.2015 Purpose: STRATA PLAN PLAN OF SUBDIVISION OF LOTS 10 & 41 S.P.91174 LGA: NEWCASTLE Locality: WICKHAM Parish: NEWCASTLE County: NORTHUMBERLAND	Office Use Only
SP91462	STRATA Certificate (Approved Form 5) (1) The Council of The Accredited Certifier GORDON WREN 555 0447 Accreditation number: 555 0447 has made the required inspections and is satisfied that the requirements of: (a) Section 37 or 37A Strata Schemes (Freehold Development) Act 1973 and clause 29A Strata Schemes (Freehold Development) Regulation 2012, and (b) Section 58 or 58A Strata Schemes (Leasehold Development) Act 1996 and clause 30A of the Strata Schemes (Leasehold Development) Regulation 2012, have been complied with and approves of the proposed strata plan illustrated in the plan with this certificate. (2) The Accredited Certifier is satisfied that the plan is consistent with a relevant development consent in force, and that all conditions of the development consent that by its terms are required to be complied with before a strata certificate may be issued, have been complied with. (3) The strata plan is a development scheme. The council or accredited certifier is satisfied that the plan is consistent with any applicable conditions of the relevant development consent and that the plan gives effect to the stages of the development consent to which it relates. (4) The building encroaches on a public place and (a) The Council does not object to the encroachment of the building on the public alignment of (b) The Accredited Certifier is satisfied that the building complies with the relevant development consent which is in force and allows the encroachment. (5) This approval is given on the condition that (a) a are created as utility lots in accordance with section 68 of the Strata Schemes (Freehold Development) Act 1973 or section 68 of the Strata Schemes (Leasehold Development) Act 1996. Date: 16th April 2015 Subdivision number: SC 2400 Relevant Development Consent number: GDC 800 Issued by: GORDON WREN Signature:  Accredited Certifier / Council Manager / Accredited Certifier * Strike through if inapplicable. ^ Insert lot numbers or proposed utility lots.
Name of, and address for service of notices on, the Owners Corporation. (Address required on original strata plan only) The Owners - Strata Plan No. NO. 18 THROSBY STREET WICKHAM NSW 2293 The Owners - Strata Plan No 91174 The adopted by - laws for the scheme are: Model By-laws together with, keeping of animals - Option A/B/C By-laws in - choice filed with plan. * Strike through if inapplicable ^ Insert the type to be adopted (Schedules 2-7 Strata Schemes Management Regulation 2010) Surveyor's Certificate (Approved Form 3) JOHN JOSEPH WILSON of de Witt Consulting, P.O. Box 850 CHARLESTOWN 2290 a surveyor registered under the Surveying and Spatial Information Act 2002, hereby certify that (1) Each applicable requirement of Schedule 1A of the Strata Schemes (Freehold Development) Act 1973 has been met * Schedule 1A of the Strata Schemes (Leasehold Development) Act 1996 has been met (2) (a) The building encroaches on a public place; (b) The building encroaches on land (other than a public place), and on appropriate assessment has been created by - permit the encroachment to remain. (3) The survey information recorded in the accompanying location plan is accurate. Signature:  Date: 18/4/2015 ^ Insert the deposited plan number or dealing number of the instrument that created the easement * Strike through if inapplicable.	Surveyor's Reference: 4531

STRATA PLAN ADMINISTRATION SHEET

Sheet 2 of 4 sheet(s)

Office Use Only

Office Use Only



Registered

14.5.2015

PLAN OF SUBDIVISION OF
LOTS 10 & 41 S.P.91174

Subdivision Certificate number
SC22400

Date of endorsement
16th April 2015

- This sheet is for the provision of the following information as required:
- A Schedule of Unit Entitlements.
 - Statements of intention to create and release affecting interests in accordance with section 88B Conveyancing Act 1919.
 - Signatures and seals - see 195D Conveyancing Act 1919.
 - Any information which cannot fit in the appropriate panel of sheet 1 of the administration sheets.

SP91462

SCHEDULE OF UNIT ENTITLEMENT

(If insufficient space use additional annexure sheet)

LOT	UNIT ENTITLEMENT
50	198
51	205
AGGREGATE	403

See SHEET 4

EXECUTED BY RPF THROSBY PTY LIMITED ACN - 146 403 573
IN ACCORDANCE WITH SECTION 127 OF THE CORPORATIONS ACT, 2001.

REG PLANNERY

SOLE DIRECTOR/SECRETARY

EXECUTED BY WESTPAC BANKING CORPORATION

I certify that the Attorney for the
Mortgagee, with whom I am personally
acquainted or as to whose identity I am
otherwise satisfied, signed this
in my presence.
DAN APPELBY JP

Signature of Witness

Name of Witness

Address: 27 DONARD ST, HAMMILL RD, 2305

Signature
Name of Attorney
TIER THREE ATTORNEY
UNDER POWER OF ATTORNEY
BOOK 4299 NO 332
Address: 27 DONARD ST, HAMMILL RD, 2305
not applicable

If space is insufficient use additional annexure sheet

Surveyor's Reference: 4531

STRATA PLAN ADMINISTRATION SHEET

Sheet 3 of 4 sheet(s)

PLAN OF SUBDIVISION OF
LOTS 10 & 41 S.P.91174

SP91462

Office Use Only

Registered:



14.5.2015

Strata Certificate Details : Subdivision No. SC 21100 Date: 16th April 2015.

Approved Form 10
Certificate re Initial Period

(1) The Owners - Strata Plan No. 91174 hereby certifies that in respect of their strata scheme that

(a) The local council or accredited certifier issued a strata certificate consenting to a subdivision on 16/4/2015

(b) The local council or accredited certifier issued a strata certificate consenting to a notice of conversion on

(c) The owners corporation issued a certificate in relation to the passing of a special resolution authorising the execution of a dwelling on and

(2) The initial period expired before the above date.

(3) At the above date the original proprietor owned all of the lots in the strata scheme and any purchaser under an exchanged contract for purchase of a lot in the strata scheme consented to any plan or dealing that is being lodged along with this certificate.

The common seal of the Owners - Strata Plan No. 91174 was hereunto affixed on 20/4/15 in the presence of *Bradley, Corbille* being the person(s) authorised by section 238 Strata Schemes Management Act 1986 to attest the affixing of the seal.



* Strike through if inapplicable.
* Insert appropriate date

Surveyor's Reference: 4531

STRATA PLAN ADMINISTRATION SHEET

Sheet 4 of 4 sheet(s)

PLAN OF SUBDIVISION OF
 LOTS 10 & 41 S.P.91174

SP91462

Registered:



14.5.2015

Strata Certificate Details : Subdivision No. SC2400

Date: 16th APRIL 2015

SCHEDULE OF UNIT ENTITLEMENT

(If insufficient space use additional annexure sheet)

LOT	UNIT ENTITLEMENT	LOT	UNIT ENTITLEMENT	AGGREGATE	10,000
1	198	33	198		
2	198	34	203		
3	198	35	205		
4	198	36	253		
5	198	37	253		
6	198	38	205		
7	193	39	205		
8	195	40	205		
9	198	42	203		
		43	203		
11	254	44	203		
12	205	45	203		
13	205	46	203		
14	205	47	203		
15	205	48	203		
16	203	49	203		
17	203	50	198		
18	203	51	205		
19	203				
20	203				
21	203				
22	203				
23	203				
24	198				
25	198				
26	198				
27	198				
28	198				
29	198				
30	193				
31	195				
32	198				

CU**Client Update****NOT FOR PAPER
LODGMNT**

Name Strata Plan 91174

Date of birth

TFN 968 525 093 /

ABN /

Please select the role level to update in ATO systems

Client ☒Account ☐**Adding Or Deleting Clients**

Are you adding a client ?

Print Y for yes ☐

Are you deleting a client ?

Print Y for yes ☐**Update Address**

Effective date

End date

Update Contact Details

Effective date

End date

Email

Notify email address incorrect. ☐

Internet

Notify internet address incorrect. ☐

Electronic Service Address Alias

Notify Electronic Service address alias incorrect. ☐**Update Financial Institution Account Details**Use Agent Trust Account? ☐

BSB number

Account number

Account name

This financial institution account belongs to a third party?

Print Y for Yes
or N for No ☐

This account is closed or no longer valid?

Print Y for Yes
or N for No ☐**Advise Return Not Necessary**

Return not necessary for specified years

2020

To

2020

OR

Further returns not necessary commencing (and including) from year

Update Details

Date of Death (for an Individual)

Residency for tax purposes?

Print Y for Yes
or N for No ☐

Declaration

Agent's phone		Client's reference	SP91174
Contact name	Todd Hearne	Agent's reference no	24776187

Privacy
For information about your privacy, visit our website at ato.gov.au/privacy

I declare that:

- All of the information I have provided to the agent for the preparation of this document is true and correct.
- I authorise the agent to give this document to the Commissioner of Taxation.

Agent's signature		Date	
Taxpayer's signature		Date	

Ausure Insurance Newcastle | ABN: 92 494 457 394
Authorised Representative of Ausure Pty Ltd | AFSL: 238433 | ABN: 94 096 971 854

REPRESENTATIVE
Ausure Insurance Newcastle
Linda McInnes - AR: 1283945
PO Box 1123
Newcastle NSW 2300
Tel **02 4941 0011**
Fax **02 4027 5033**
Email linda.mcinnnes@ausure.com.au

SP91174, SP91173, DP1204114
Po Box 175
Charlestown NSW 2290

Renewal

NOTES: Renewal 25/26

Invoice date 26-Mar-2025

Invoice number 13248027

TYPE OF POLICY **Strata - Domestic**

THE INSURED SP91174, SP91173, DP1204114

INSURER Strata Unit Underwriting Agency Pty Ltd
Unit 5, 263 Alfred Street
North Sydney NSW 2060
ABN: 300 892 01534

POLICY NUMBER 06S7953129

PERIOD OF COVER From **31/03/2025** to **31/03/2026**

YOUR PREMIUM

Premium	\$	62,065.65
Underwriter Fee	\$	350.00
U/W Fee GST	\$	35.00
Fire/ES Levy	\$	7,279.28
GST	\$	6,934.50
Stamp Duty	\$	6,865.14
Broker Fee	\$	67.66
Broker Fee GST	\$	6.77

TOTAL DUE \$ 83,604.00

DATE DUE 31-Mar-2025

PAYMENT OPTIONS



Billers Code: 30510
Reference: 2132480274

Telephone & Internet Banking - BPAY®

Contact your participating financial institution to make BPAY payments using the biller code and reference number as detailed above. More info: www.bpay.com.au



Payments can be made in person at a Post Office by cheque or EFTPOS. Please present this page intact. Please make cheque payable to **DEFT Payment Systems for Ausure Pty Ltd**



*498 402594 2132480274



Pay by Credit Card either
Online - (Visit www.ausure.com.au/Pay-My-Bill) or by Phone (please contact your Broker on 02 4941 0011)
Note: Visa/Mastercard payments will incur a 0.95% fee of \$ 794.24 which includes \$ 72.20 GST.
Amex payments will incur a 2.15% fee of \$1,797.49 which includes \$ 163.41 GST.



Instalments – Premium Finance is available. Please contact your Broker for Terms and Conditions

IMPORTANT INFORMATION

PLEASE READ CAREFULLY

YOUR DUTY OF DISCLOSURE

Before you enter into a contract of general insurance with an insurer, you have a duty, under the Insurance Contracts Act 1984, to disclose to the insurer every matter that you know, or could reasonably be expected to know, is relevant to the insurer's decision whether to accept the risk of the insurance and, if so, on what terms. You have the same duty to disclose those matters to the insurer before you renew, extend, vary or reinstate a contract of general insurance.

Your duty however does not require disclosure of matter:

- that diminishes the risk to be undertaken by the insurer;
- that is of common knowledge;
- that your insurer knows or, in the ordinary course of his business, ought to know;
- as to which compliance with your duty is waived by the insurer.

NON-DISCLOSURE

If you fail to comply with your duty of disclosure, the insurer may be entitled to reduce his liability under the contract in respect of a claim or may cancel the contract. If your non-disclosure is fraudulent, the insurer may also have the option of avoiding the contract from its beginning.

CONTRACTING OUT OR REMOVING INSURERS RIGHTS OF SUBROGATION

You will prejudice your rights to a claim if, without prior agreement from your insurer you make any agreement that will prevent the insurer from recovering a loss from a third party. These 'hold harmless' are often found in leases and maintenance or supply contracts from burglar alarm or fire protection installers and in repair contracts.

INSURING THE INTEREST OF OTHER PARTIES

If you require the interests of another party to be covered you must request this and ensure they are noted on your policy. Most policy conditions will exclude indemnity to other parties (eg mortgagees, lessors or principals etc) unless their interest is noted on the policy.

UTMOST GOOD FAITH

A contract of insurance is a contract based on the utmost good faith and there is implied in such a contract a provision requiring each party to it to act towards the other party with the utmost good faith. If you fail to do so it may prejudice your claim.

UNDER INSURANCE

Your contract of insurance may contain an average provision. It is important that you nominate a sum insured to represent the full value of the property insured. If you fail to insure the full value your claim may be reduced in proportion with your underinsurance.

DUTY TO NOT TO MISREPRESENT- CONSUMER PRODUCTS

When purchasing insurance wholly or predominantly for personal, domestic, or household purposes, you have a duty to take reasonable care not to make a misrepresentation to the insurer. This means that it is essential that you answer questions honestly and to the best of your knowledge, including when you confirm or update information when you enter into, vary, extend, reinstate or renew a Policy. The responsibility to take reasonable care not to make a misrepresentation applies to everyone who will be insured under the policy. If you answer questions on behalf of others, the insurer will treat your answers or representations as theirs. **If You do not meet the above Duty**, the insurer may refuse or not fully pay your claim and/or cancel your policy.

If the misrepresentation was deliberate or reckless, the insurer may refuse to pay a claim and treat your policy as if it never existed

CHANGE IN RISK CIRCUMSTANCES

You must inform your broker of any material changes in your business; if you fail to do so an insurer may be entitled to deny a potential claim. You should inform your broker about any changes in location, new products/procedures or any departure from your ordinary business. If you are in doubt as to whether you should disclose any changes please contact your broker for advice.

CLAIMS MADE POLICIES

Certain policies (eg many types of professional indemnity policies) are claims made policies. These policies do not cover events that occurred before the contract was entered into. If you give an insurer notice of circumstances that may give rise to a claim during the policy period, the insurer will cover claims made later that arise out of those circumstances.

LEASING, HIRING & BORROWING PROPERTY

When you lease, hire or borrow property, make sure that the contract clearly identifies who is responsible for insuring the property. Industrial Special Risks policies automatically cover property which you are responsible to insure, subject to the policy excess. Public liability insurance may assist you meet claims relating to property damage to property which you lease or hire. A sub-limit usually applies to the amount you can claim for damage to property in your care, custody or control.

INSURER SOLVENCY

We do not warrant or guarantee the current or ongoing solvency or financial viability of the insurer because we have no control over the insurer's performance and this can be affected by many complex commercial and economic factors.

PREMIUM FINANCE

If you choose to finance your premium Ausure and your representative will receive up to 4% of the amount financed for providing the referral and assisting you to arrange the facility. This will not result in any additional costs to you. We recommend that you carefully read the finance contract to understand the implications in the event you cancel your insurance policy before expiry.

CANCELLATIONS AND AMENDMENTS

We do not refund our fees or commission received for arranging the policy. Please note that premium finance contracts contain terms that reduce the amount you will receive from any refund. Please see the terms of your contract for more information.

HOW DO WE RESOLVE COMPLAINTS?

In the event that you have a complaint about the manner in which we provide any financial service please contact Ausure's Complaints Manager by phone on (07) 3319 5100 or by writing to the address shown on the front of this invoice. If your complaint remains unresolved, Ausure's dispute committee will review the matter and respond within 15 days. Your complaint will be dealt with fairly and promptly but if you remain dissatisfied with the final decision you may refer the matter to the Australian Financial Complaints Authority (AFCA), which acts as Ausure's external dispute resolution provider. AFCA can be contacted on 1800 931 678 or info@afca.org.au.

NON PAYMENT OF PREMIUM

Our usual payment terms are 14 days from the date shown on the invoice. If this invoice is unpaid after 30 days we will advise the insurer that the policy is unpaid. The insurer may cancel the policy and/or pursue payment from you.

Policy Particulars:**Insured:** Strata Plan 91173 and Strata Plan 91174 in Deposit Plan 1204114**Situation:** 16-24 Throsby Street WICKHAM NSW 2293**Period of Insurance:** 31/03/2025 TO 31/03/2026 AT 4.00PM LOCAL TIME

		SUM INSURED
Section 1	PROPERTY INSURED	
	Building(s) including Common Contents	\$27,758,912
	Additional Benefits	
	-Loss of Rent/Temp Accommodation	\$4,163,837
	-Catastrophe or emergency (15%)	\$4,163,837
	-Optional Additional Benefits	
	-Additional Catastrophe Cover	not insured
	-Additional Loss of Rent	not insured
	-Floating Floors	not insured
	- Flood	Insured
Section 2	Glass	Included
Section 3	Theft	Included
Section 4	Liability	\$20,000,000
Section 5	Fidelity Guarantee	\$100,000
Section 6	Office Bearers Liability	\$10,000,000
Section 7	Voluntary Workers (Weekly/Capital Benefit)	\$2000/200,000
Section 8	Government Audit Costs	\$25,000
Section 9	Legal Expenses	\$50,000
Section 10	Workplace, Health & Safety Breaches	\$100,000
Section 11	Machinery Breakdown	\$100,000
Section 12	Lot Owners Improvements (Per Unit)	\$250,000
Section 13	Workers Compensation	Not Insured

EXCESSES

Section 1 - Building including Common Contents
\$2,000.00 all other claims + as per policy wording
\$2,500.00 all storm and tempest claims

Section 2 - Glass
\$2,000.00 all claims

Section 3 - Theft
\$2,000.00 all claims

Section 11 - Machinery Breakdown
\$1,000.00 all claims

SPECIAL TERMS/CONDITIONS

Machinery Breakdown - Blanket Cover excluding Chillers & Lifts

Machinery Breakdown cover includes all electrical and mechanical plant and equipment at the situation but excludes:

1. centrifugal chillers
2. lifts not having in force at all times a full maintenance agreement including parts & labour.

Stratum Complex

Sections 4,5,6,7,8,9 & 10 - cover applies to insured parties jointly & not severally. Cover under Section 4 is provided in respect to 'common areas' only.

Section 6 - Office Bearers - Extension of cover 3 'CROSS LIABILITY' is deleted.

General Condition "CROSS LIABILITY" on page 83 of this policy is deleted.

Flood

This policy is extended to include flood. The word 'flood' is deleted from exclusion 1.e on page 36 and exclusion e on page 41.

IMPORTANT NOTICES

It is important to read and consider the Product Disclosure Statement when deciding whether to purchase this insurance. You should consider whether this product is appropriate for your financial circumstances, objectives and needs. After reading this notice if any matter relating to your policy is unclear to you or you have any questions at all in relation to the insurance, please contact us for an answer or explanation as soon as possible.

Strata Unit Underwriting Agency Pty Limited T/A Strata Unit Underwriters (SUU) hereby gives notice that this contract is issued under an authority by the Insurer/s named on Your Quotation or Policy Schedule. SUU is an agent of the Insurer and not the Insured.

Clients who are not fully satisfied with our services should contact our Internal Disputes Resolution Officer. SUU also subscribes to the Australian Financial Complaints Authority, a free customer service. Further information is available within the Product Disclosure Statement (PDS) or via our website.

Please review the sums insured as noted on your Quotation or Policy Schedule to ensure they are up-to-date and take into account your objectives, financial situation, needs and requirements of any relevant legislation.

When answering our questions you must be honest, as the answers will form the basis of our decision to insure you. Your answers apply to you and to anyone else that may be insured under the policy. If you have not answered our questions in this way, we may reduce or refuse to pay a claim, or cancel the policy.

GENERAL ADVICE WARNING

The general advice provided has not taken into account your objectives, financial situation or needs. You must therefore assess whether it is appropriate, in the light of your own individual objectives, financial situation or needs, to act upon this advice.

CERTIFICATE OF CURRENCY



To whom it may concern,

Strata Unit Underwriting Agency Pty Ltd
T/A Strata Unit Underwriters | ABN 30 089 201 534 | AFSL 246719
Level 14/141 Walker Street, North Sydney, New South Wales 2060
info@suu.com.au | www.suu.com.au | T: 1300 668 066 | F: 1300 668 166

Date: 27/03/2025

Reference No: DOC0000977749

This policy referred to is current at the date of issue of this certificate and whilst a due date has been indicated, it should be noted that the policy may be cancelled in the future. Accordingly, reliance should not be placed on the expiry date. This is to certify cover has been granted in terms of the Insurers Standard Policy, a copy of which is available on request. This certificate is not a substitute for the Policy of Insurance issued to you. The Policy, not this certificate, details your rights and obligations and the extents of your insurance cover.

Insured: Strata Plan 91173 & Strata Plan 91174 in DP 1204114 & the Building Management Committee for their Respective Rights and Interests.

Policy Number: 06S7953129

Type of Insurance: Residential Strata

Period of Insurance: From 4:00PM 31/03/2025
To 4:00PM 31/03/2026

OVERVIEW

Insured: Strata Plan 91173 & Strata Plan 91174 in DP 1204114 & the Building Management Committee for their Respective Rights and Interests.

Situation: 16 THROSBY STREET, WICKHAM NSW 2293

Section 1: Building including common contents	\$27,758,912
Loss of Rent/Temporary Accommodation (15%)	\$4,163,837
Catastrophe or Emergency (15%)	\$4,163,837
Additional Loss of Rent/Temporary Accommodation	Not included
Additional Catastrophe or Emergency	Not included
Floating Floors	Not included
Flood	Included

Section 2: Glass Automatically Included

Section 3: Theft Automatically Included

Section 4: Liability \$ 20,000,000

Section 5: Fidelity Guarantee \$100,000

Section 6: Office Bearers Liability \$ 10,000,000

Section 7: Voluntary Workers (Weekly/Capital Benefit) \$2,000/\$200,000

Section 8: Government Audit Costs \$25,000

Section 9: Legal Expenses \$50,000

Section 10: Workplace, Health and Safety Breaches \$100,000

On behalf of the Insurers: Insurance Australia Limited
Trading as CGU Insurance | ABN: 11 000 016 722

CERTIFICATE OF CURRENCY



Section 11: Machinery Breakdown

\$100,000

Section 12: Lot Owners Improvements (Per Lot)

\$250,000

Policy Number: 06S7953129

Insured: Strata Plan 91173 & Strata Plan 91174 in DP 1204114 & the Building Management Committee for their Respective Rights and Interests.

EXCESSES

Section 1 - Building including Common Contents

\$2,000.00 all other claims + as per policy wording

\$2,500.00 all storm and tempest claims

Section 2 - Glass

\$2,000.00 all claims

Section 3 - Theft

\$2,000.00 all claims

Section 11 - Machinery Breakdown

\$1,000.00 all claims

SPECIAL TERMS/CONDITIONS

Machinery Breakdown - Blanket Cover excluding Chillers & Lifts

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CERTIFICATE OF CURRENCY



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The logo for Humby Property Consultants, featuring the letters 'HPC' in a large, white, serif font on a dark, textured background.

Humby Property Consultants
Quantity Surveyors

BUILDING AND CONSTRUCTION ECONOMISTS

PO Box 381 Newcastle NSW 2300

T 02 4953 9999 F 02 4953 9998 E info@humby.com.au

24 February 2022

File #: 25177.005

Liz Thomas
C/- Lake Group Strata
PO Box 175
Charlestown NSW 2290

Dear Madam

PROPERTY INSURANCE REINSTATEMENT COST ASSESSMENT FOR

LIFE @ THROSBY 18 THROSBY STREET WICKHAM NSW

DP 1204114

Further to your instruction we are pleased to enclose one copy of our Property Insurance Reinstatement Cost Assessment relating to the above property.

Should you have any queries please do not hesitate to contact Mark Humby of this office.

Yours faithfully

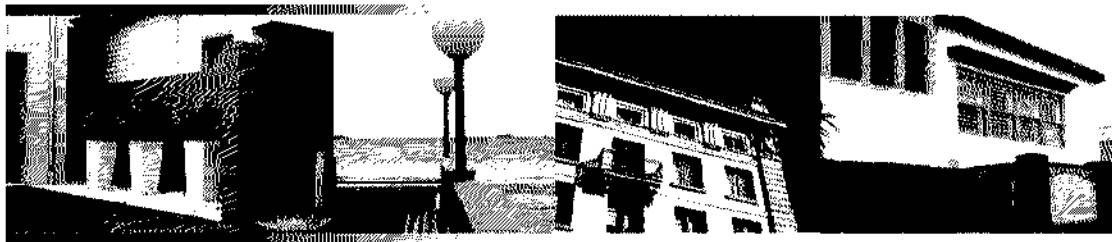
A handwritten signature in dark ink, appearing to read 'Mark Humby', written over a light background.

HUMBY PROPERTY CONSULTANTS

Enc.



Humby Property Consultants
Quantity Surveyors
Building & Construction Economists



**Property Insurance Reinstatement Cost
Assessment For
18 Throsby Street Wickham NSW**

February 2022
File #: 25177.005

Prepared for:

BMC – DP 1204114

Contents

1.	Introduction	1
2.	Property Description	1
3.	Methodology	2
4.	Reinstatement Cost Assessment	3
5.	Explanation of Terminology	4
6.	Exclusions	6
7.	Summary	6
8.	Disclaimer	7
9.	Additional Services	7

Humby Property Consultants

Insurance Reinstatement Cost Assessment

1. Introduction

The purpose of this property reinstatement cost assessment is to assist the owners of the property to obtain quotations for insurance of their property from their insurance brokers and/ or insurance companies.

Humby Property Consultants have not witnessed the proposed policy and it is therefore for the parties to the insurance policy to satisfy themselves as to the wording of the policy and to the risks covered.

2. Property Description

This report analyses the property described as Life @ Throsby 18 Throsby Street Wickham NSW as set out in Deposited Plan 1204114. The property incorporates ground level car parking and retail space with 2 levels of residential apartments above.



3. Methodology

The cost assessment envisages total “as new” reconstruction of the property.

The assessment includes an allowance for the demolition and removal of any remains and debris. The reinstatement cost is based on upgrading the works to meet current Building Regulations where appropriate.

Council charges and professional fees are also taken into consideration.

The cost assessment also considers an inflation provision, which allows for the period of demolition, re-documentation and re-construction.

The cost assessment has been based on the assumption that conventional tendering will take place on completed documentation.

The cost assessment is based upon information obtained from one or a combination of the following sources:

- Information provided by Lake Group Strata
- Information obtained from the site inspection we undertook.

4. Reinstatement Cost Assessment For

Life @ Throsby 18 Throsby Street Wickham NSW

Date of commencement of policy	01-Feb-2022
Date 12 months after commencement of policy	31-Jan-2023
Cost of complete demolition and disposal of the building as at policy commencement date	\$1,303,000
Reinstatement cost of building as at policy commencement date	\$19,405,000
Professional fees as at policy commencement date	\$1,455,000
Base Reinstatement Cost	\$22,163,000
Demolition, re-documentation and re-application period	14 months
Re-construction period	18 months
Escalation Rate per month	0.3%

REINSTATEMENT COST ASSESSMENT

With regard to the information established above and the notes contained in this report we provide our estimated overall cost of reinstatement of the complete building, including foundations, external pavings and works, assuming destruction and including allowance for predicted cost escalation to the base reinstatement cost for the period of demolition, re-documentation and reconstruction.

	Exclusive of GST	Inclusive of GST
Total Cost of Reinstatement as at 31-Jan-2023	\$24,255,000	\$26,681,000

5. Explanation of Terminology

Date of Commencement of Policy:

It is assumed that the date for the commencement of the policy is at the 1 February 2022. The estimated value of the base reinstatement cost is as per this date.

Cost of Complete Demolition and Disposal:

This amount allows for the demolition of any remaining structure or infrastructure that will need to be removed to complete the reinstatement process. Costs include grubbing up foundations, sealing off services and removing debris.

Reinstatement Cost of Complete Building:

The reinstatement cost allows for the construction of a building having the same functional use and of the same usable area as the old building, but built in the modern idiom and, of necessity, conforming to regulations and by-laws which may have been adopted since the original building

This amount allows for the anticipated value of a building contract as at the date of the commencement of the policy. There is no inclusion of professional fees or escalation.

Professional Fees:

The allowance for professional fees will cover the following disciplines when appropriate:

- | | |
|------------------------------------|----------------------------------|
| * Architect | * Project Manager |
| * Quantity Surveyor | * Structural Engineer |
| * Council Fees | * Building and Design Approval |
| * Mechanical and Electrical design | * Disbursements and sundry costs |

Explanation of Terminology (Continued)

Base Reinstatement Cost:

The base reinstatement cost is the cost as at the commencement date of the policy to demolish and remove debris, and reinstate the building including an allowance for professional fees. It does not allow for escalation and the fact that the reinstatement cost will be based on prices in the future, atleast to the extent of the period of time taken for demolition, re-documentation and re-application

Demolition, Re-documentation and Re-construction Periods:

Demolition, re-documentation and construction periods are expressed in months and based on the current Award Agreements of a thirty-eight hour, five day week.

It is assumed that demolition will be carried out in conjunction with re-documentation and that the normal period for obtaining permits and approvals for this type of building will be required.

Escalation Rate:

The escalation rate is expressed as a rate per month and allows for consideration for inflation to be applied to the base reinstatement cost for the period of demolition, re-documentation and reconstruction.

Total Cost of Reinstatement as at 1 February 2022/ 31 January 2023:

This report illustrates the total cost of re-construction assuming destruction occurs 12 months following the date of commencement of the damage policy.

Goods and Services Tax (GST):

Our reinstatement cost assessment includes two options. One inclusive of GST and the other exclusive of GST. It is recommended that this matter be discussed with your tax advisor and insurer to determine which figures should be adopted.

6. Exclusions

The proceeding reinstatement cost assessment excludes the following items:

- Cost of professional fees incurred in the preparation of a claim
- Cost of renting alternative accommodation
- Variations to the current building design
- External works beyond the site boundary
- Finance charges for reconstruction
- Loss of rent
- Unexpected delays in obtaining approvals caused by abnormal factors
- No allowance has been made for the presence and subsequent removal of asbestos

7. Summary

The principal cost of any reinstatement assessment, and one which affects all other on-costs, is the building cost, and Humby Property Consultants in our capacity as Quantity Surveyors are pleased to be able to provide our professional advice in this regard. We believe that to protect your investment it is important to arrange periodic cost reviews of the property in terms of inflation and the cost effect of the introduction of statutory and other building regulations.



HUMBY PROPERTY CONSULTANTS

PO Box 381

Newcastle NSW 2300

Tel: 02 4953 9999

8. Disclaimer

This reinstatement cost assessment has been prepared solely for the purpose of insurance and should not be used for any other purpose.

9. Additional Services

Humby Property Consultants is a firm specialising in a comprehensive range of property financial and construction cost management services. People associated with property, use our independent advice at every stage of the property cycle to protect, enhance and maximise returns. Our following management services provide informed, objective and up to date advice that maximise returns and control future building expenditure.

- Property Tax Depreciation Allowances - maximise after tax profits and cash flow,
- Sinking funds - save for future building expenses,
- Reinstatement costs for insurance purposes – be adequately covered for a disaster,
- Preliminary estimates – determine building costs before construction,

Please contact our office if you require additional information on the above services.