Form 15—Compliance Certificate for building Design or Specification

NOTE	This is to be used for the purposes of section 10 of the <i>Building Act</i> 1975 and/or sect on A6 of <i>Building Regulation 2006.</i>				
	RESTRICTION: A building certifier (class B) can only give a compliance certificate about wheth building work complies with the BCA or a provision of the QDC. A building certifier (Class B) of not give a certificate regarding QDC boundary clearance and site cover provisions.				
1. Property description	Street address (include no., street, suburb / locality & postcode)				
his section need only be completed if	156 Finucane Road, Alexandra Hills				
etails of street address and property escription are applicable.	Rostsode 4161				
G. In the case of (standard/generic)	Lot & plan details (attach list if necessary)				
ool design/shell manufacture and/or atio and carport systems this section					
and and carport systems this section hay not be applicable.	In which lead any arrange is the lead situated?				
	In which local government area is the land situated?				
e description must identify all land the bject of the application	Redland City Council				
he lot & plan details (eg. SP / RP) are nown on title documents or a rates notice the plan is not registered by title, provide revious lot and plan details.					
. Description of component/s certified					
Clearly describe the extent of work covered by this certificate, e.g. all structural aspects of the steel roof beams.	Structural design of Buildings and Carports. Specifically, slab-on-ground and footings; reinforced block retaining walls; steel beams; steel columns, invoer floor framing; timber wall framing; roof framing (excluding pre-engineered timber roof trusses designed by others); wind bracing and tie- down.				
	(1)				
Basis of certification tetail the basis for giving the certificate and the xtent to which tests, specifications, rules, tandards, codes of practice and other ublications, were relied upon.	Design criteria includes: The Building Code of Australia and all relevant Australian Standards including AS/NZS 11/9 Parts 0, 1-2002, AS1684 (1) – 1999; AS1684 (2-4) – 2010; AS 4100 – 1998; AS 4600 – 2005; AS 3700 – 2011; AS2870 – 2011; AS3600 – 2009; AS4055-2006 as required.				
4. Reference documentation Clearly identify any relevant documentation, e.g. numbered structural engineering plans	Number: 30421-13CS including any reports, drawings and associated Annexures prepared by Structerre Consulting Engineers Structerre Drawing Nos. S00-S25 inclusive, dated 01-10-2013.				
m	Architect Drawing Nos: 12-05-08 Dated:17/06/13 Prepared by: John Marsson & Associates Pty Ltd.				
	Geotechnical Report by Soil Surveys, No. 1-15345 LR VER 0, dated 14 June 2013.				
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\land	Reference Manufacture :				
\sim	- 与强执法				
100 00 13 / A					



5. Building certifier reference number	Building certifier reference number					
6. Competent person details A competent person for building work, means a	Name (in full) Greg Anderson					
person who is assessed by the building certifier for the work as competent to practise in an						
aspect of the building and specification design,	Company name (<i>if applicable</i>)	Contact person				
of the building work because of the individual's skill, experience and qualifications in the	Structerre Consulting Engineers	Greg Anderson				
aspect. The competent person must also be registered or licensed under a law applying in	Phone no. <i>business hours</i> Mobile no. (07) 3307-8300	Fax nd Fa				
the State to practice the aspect.		[10(12307-030]				
If no relevant law requires the individual to be	Email address					
licensed or registered to be able to give the help, the certifier must assess the individual as	Brisbane@structerre.com.au					
having appropriate experience, qualifications or	Postal address					
skills to be able to give the help.	PO Box 621					
If the chief executive issues any guidelines for assessing a competent person, the building	HAMILTON	Postcode 4007				
certifier must use the guidelines when	Licence or registration number (if applicable)	\frown				
assessing the person.	FIEAust CPEng RPEQ 1359					
7. Signature of competent person	Signature	Date				
This certificate must be signed by the individual assessed by the building certifier as competent.		9 October 2013				
assessed by the building certifier as competent.	Citres Andora					

Version 3 – March 2013

Form 15—Compliance Certificate for building Design or Specification

NOTE	This is to be used for the purposes of section 10 of the <i>Building Act</i> 1975 and/or sect on A6 of <i>Building Regulation</i> 2006.			
	RESTRICTION: A building certifier (class B) can only give a compliance certificate aboyt wheth building work complies with the BCA or a provision of the QDC. A building certifier (Class B) of not give a certificate regarding QDC boundary clearance and site cover provisions.			
1. Property description	Street address (include no., street, suburb / locality & postcode)			
This section need only be completed if details of street address and property	156 Finucane Road, Alexandra Hills			
description are applicable.	Rostsode 4161			
EG. In the case of (standard/generic)	Lot & plan details (attach list if necessary)			
pool design/shell manufacture and/or patio and carport systems this section				
nay not be applicable.	In which local government area is the land situated?			
The description must identify all land the	Redland City Council			
subject of the application				
The lot & plan details (eg. SP / RP) are shown on title documents or a rates notice				
If the plan is not registered by title, provide previous lot and plan details.	$\langle \langle \rangle$			
2. Description of component/s certified	Structural design of Buildings and Cornerts Charlingly, slob on ground and fastings, raisforged			
Clearly describe the extent of work covered by this certificate, e.g. all structural aspects of the	Structural design of Buildings and Carports. Specifically, slab-on-ground and footings; reinforced block retaining walls; steel beams; steel column s; try ber floor framing; timber wall framing; roof			
steel roof beams	framing (excluding pre-engineered timber root trusses designed by others); wind bracing and tie-			
	down.			
	V/07			
3. Basis of certification Detail the basis for giving the certificate and the extent to which tests, specifications, rules, standards, codes of practice and other publications, were relied upon	Design criteria includes: The Building Code of Australia and all relevant Australian Standards including AS/NZS 1170 Parts 0, 1-2002, AS1684 (1) – 1999; AS1684 (2-4) – 2010; AS 4100 – 1998; AS 4600 – 2005, AS 3700 – 2011; AS2870 – 2011; AS3600 – 2009; AS4055-2006 as required:			
4. Reference documentation	Number: 30421-13CS including any reports, drawings and associated Annexures prepared by			
Clearly identify any relevant documentation,	Structerre Consulting Engineers			
	Structerre Drawing Nos. S00-S25 inclusive, dated 01-10-2013.			
\sim	Architect Drawing Nos: 12-05-08 Dated:17/06/13 Prepared by: John Marsson & Associates Pty			
2 m	Ltd. Geotechnical Report by Soil Surveys, No. 1-15345 LR VER 0, dated 14 June 2013.			
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The Building Act 1975 is a				
Department of Housing a	Ind Public Works Government			

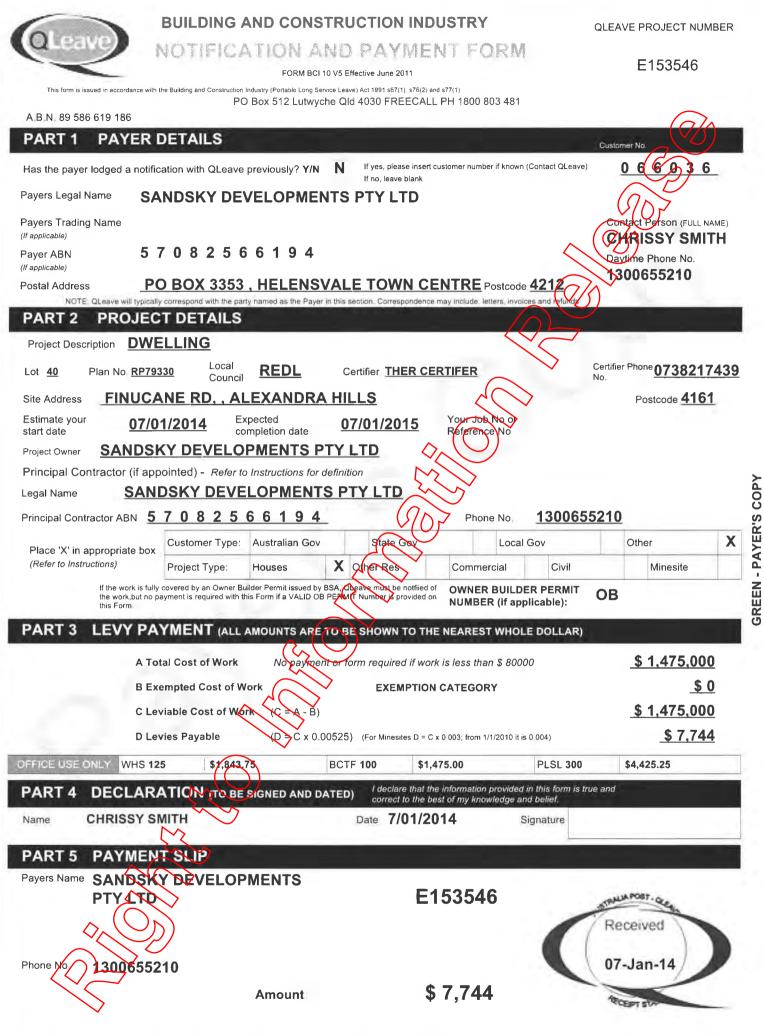
For the work as competent to practise in an aspect of the building and specification design, of the building and specification design, of the building and specification design. Company name (<i>if applicable</i>) Contact person Structerre Consulting Engineers Greg Anderson Greg Anderson Structerre Consulting Engineers Phone no. <i>business hours</i> Mobile no. Fax no (07) 3307-8300 Fax no Fax no Fax no (07) 3307-8300 Email address Brisbane@structerre.com.au Postal address Postal address Postal address Postcode 4007 Postcode 4007 Structerre or registration number (<i>if applicable</i>) FleAust CPEng RPEQ 1359 Date A. Signature of competent person Signature Date		Building certifier reference number					
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FM/LV/00047-14 QLeave is collecting the information on this form for the purposes of administering the Building and Construction Industry (Portable Long Service Leave) Act 1991, as required by that Act QLeave may give some or all of this information to various other Government departments and agencies, as required or permitted by law.



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Environmental Develo	Traffic Noise Level Study for Proposed Residential pment, 156 Finucane Road, Alexandra Hills
	conducted/for
	C-Change Investments Rty Ltd
	Report No: R12095A/D2698/Rev.1/24.09.12
M(O)	
Revision No. Date 0 31.07.12	Comment Original report.
1 24,09.12	Report amended in response to 1 m increase in DTMR resumption
	setback and amended site plan.

 Report prepared for:

Authorised by:

Consultants:

Dates of assessment:

C-Change Investments Pty Ltd PO Box 276 CLEVELAND QLD 4163

Telephone:07 3821 2699Fax:07 3821 6799

Mr Greg Barry Director C-Change Investments Pty Ltd

Monday 2 to Wednesday 4 July 2012

David Moore & Associates Pty Ltd PO Box 1221 GYMPIE QLD 4570

Telephone:07 5486 7998Mobile:0417 717 506

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David Hom

David Moore, B App Sc, MAAS R12095A/D2698/Rev.1/24.09.12

Our reference:

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EXECUTIVE SUMMARY

For the proposed residential development at 156 Finucane Road, Alexandra Hills, the only potential noise level impact is traffic on Finucane Road. Traffic noise limits are defined for both external living areas and internal habitable rooms. These noise limits are defined by both the Department of Transport and Main Roads (DTMR) and Redland City Council.

Allowing for the future widening of Finucane Road, the following noise control measures are required to comply with both the DTMR and Redland City Council noise limits for external private living areas:

- Unit 4 patio southern side of patio to be a wall 1.8 m high <u>OR</u> complete northern side of Unit 4 car space to be an acoustic barrier 2.1 m high;
- Unit 6 balcony southern side of balcony to be a full height wall. This wall could have glazing incorporated into it;
- Unit 7 patio eastern side of patio to be a wall 1.8 m high <u>OR</u> complete eastern side of Unit 7 private open space to be an acoustic barrier 1.8 m high;
- Unit 8 patio 1.8 m and 2.1 m high acoustic barriers located as per Figure 5 and southern side of
 patio to be a full height wall, for the complete length of this side of the patio. This full height wall
 could incorporate glazing;
- Unit 9 balcony eastern side of balcony to be a full height wath. This wall could have glazing incorporated into it;
- Unit 10 balcony southern side of balcony to be a full height wall. This wall could have glazing incorporated into it. Eastern side of balcony to have minimum 1000 mm high solid balustrading.

For the communal external living are on the western side of Units 7 and 8 the 2.1 m high acoustic barrier must extend to the western side boundary of the subject site, with a 1.8 m high acoustic barrier along the western boundary, 20 m long and both located as per Figure 5. As the 2.1 m high acoustic barrier is crossing the access path, a gate must be incorporated into this barrier. This gate must also comply with the 'barrier' requirements of DTMR.

For internal habitable rooms, the following must be airconditioned and/or mechanically ventilated:

- Unit 6: Bedroom 1 and 2;
- Unit 7: Bedroom 1 and 2;
- Unit 7: Living area and Bedroom 1;
- Unit 8: Living area and Bedrooms 1 and 2;
- Unit 9: Living area and Bedroom 1;
- Unit 10: Living area and Bedrooms 1 and 2.

Table 3 details the minimum Rw requirements for the above rooms.

Once the location of any on-site airconditioning units has been decided (and the noise level of these airconditioning units obtained from the manufacturer) an acoustic consultant should calculate airconditioning units noise levels to all of the closest residences and compare these noise levels to the noise limits

No note control measures are required for on-site vehicle activities.

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INTRODUCTION

It is proposed to develop the subject site at 156 Finucane Road, Alexandra Hills (Lot 40 on RP78320) with three multi unit dwelling buildings.

Based on the consultant's site inspection, the only potential noise impact upon this residential development is traffic on Finucane Road, a Department of Transport and Main Roads (DTMR) or controlled road.

To determine current ambient noise levels a 48-hour study was conducted from the subject site, from the existing Finucane Road boundary of the subject site approximately midway between the two side boundaries, with the microphone elevated 1.8 metres, at monitoring location A. This location is approximately 16 metres from the centre of traffic on Finucane Road.

This report details the results of this noise assessment, current and ultimate traffic noise levels, traffic noise impact to external and internal areas and any required control measures.

In preparing this report, the following drawings, prepared by John Marsson & Associates Pty Ltd, were referenced:

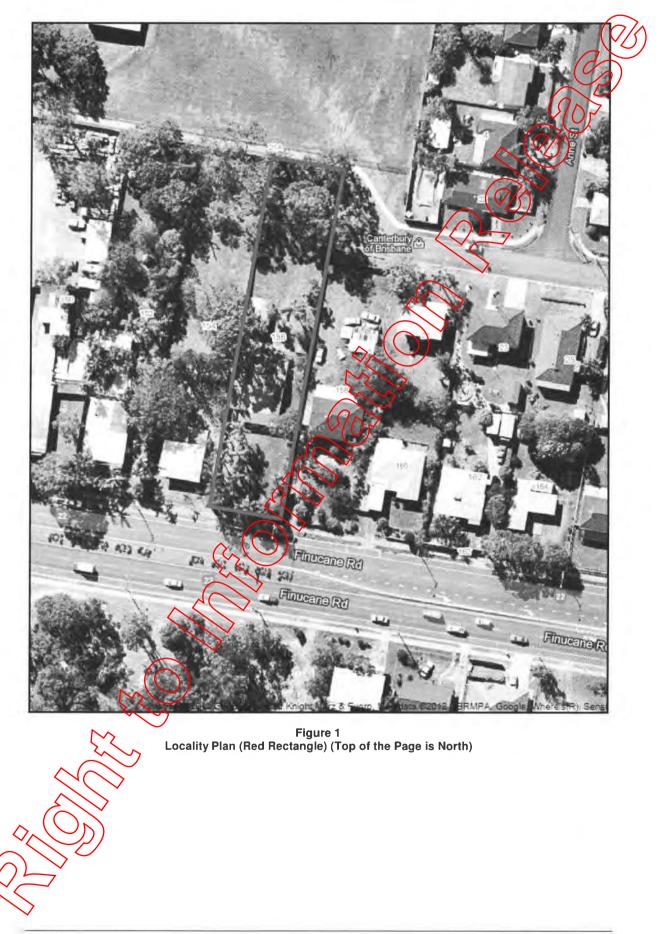
- 12-05-02: Site Plan, Building 1 and Building 3 Floor Plans?
- 12-05-04: Existing Site Plan;
- 12-05-05, F: Site Plan and Site Section A Looking West;
- 12-05-06: Site Plan Part A, Building 1, jocurding Elevations;
- 12-05-07: Site Plan Part B, Building 2, hctbding Elevations;
- 12-05-08: Site Plan Part C, Building 3, Including Elevations.

In addition to the above the survey plan of the existing stee ayout, prepared by Ken McDonald Surveys, drawing 12087-01, Revision A.

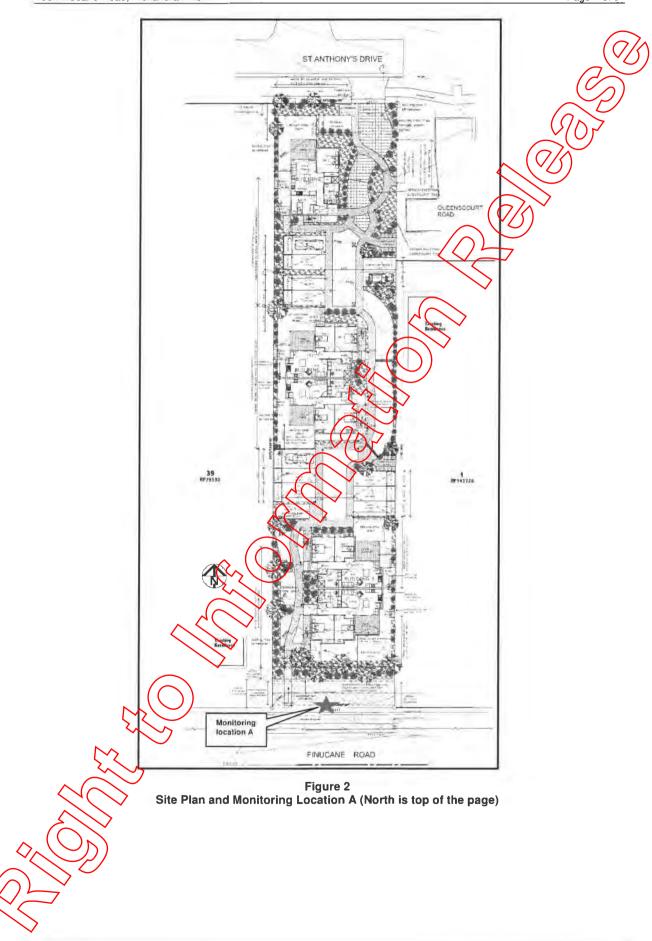
Refer Figure 1 for locality plan, Figure 2 for stee plan and monitoring location A, Figure 3 for Ground Floor plan for Building 1 and Figure 4 for Ground Floor plan for Building 3. The floor plan for Building 2 is very similar to that of Building 3, and the first floor plan for all three buildings is the same as the ground floor plan.

David Moore & Associates Pty Ltd

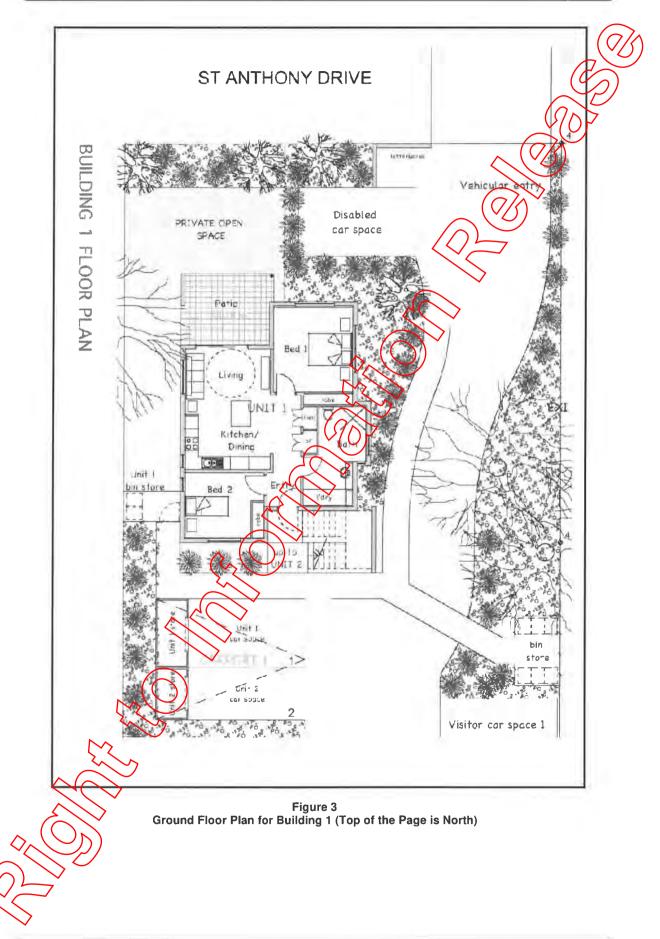
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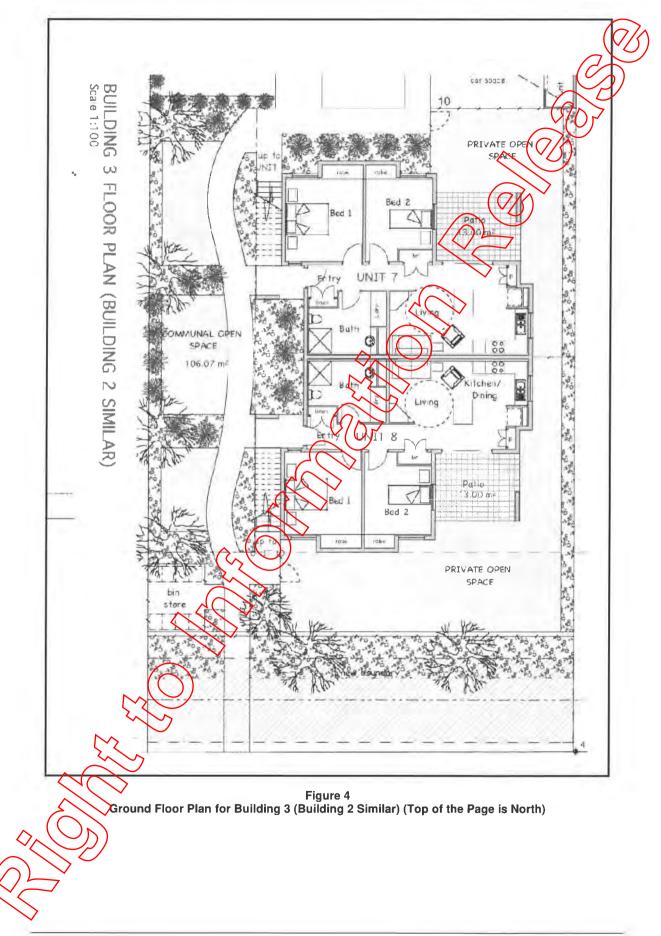
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CRITERIA

Measurements and Calculations

All noise level measurements were conducted in accordance with the following:

- general requirements of the Queensland environmental protection legislation;
- Environmental Protection (Noise) Policy 2008;
- Road Traffic Noise Management: Code of Practice, Queensland Department of Main Roads, Version 2, January 2000;
- Redland City Council Planning Scheme;
- Noise Measurement Manual, Queensland Government Environmental Protection Agency, 3rd Edition, March 2000; and
- Australian Standard AS 2702-1984, Acoustics Methods for the Measurement of Road Traffic Noise.

All traffic noise calculations were performed in accordance with the following:

- Calculation of Road Traffic Noise, Department of Transport, Welsh Office, HMSO, 1988; and
- Australian Standard AS 3671-1989, Acoustics Road Traffic Noise Intrusion Building Siting and Construction.

Noise Limits - Department of Transport and Main Roads

The Department of Transport and Main Roads, Road Traffic Noise Management: Code of Practice, Section B-6 provides the following:

For Residential Developments, on each abitable floor:

- 60 dB(A) L_{A10} (18 hour) or less, where existing levels measured at the local government deemed-to-comply dwelling setback distance are greater than 40 dB(A) L_{A90} (8 hour) between 10 pm and 6 am; or
- 57 dB(A) L_{A10} (18 hour) or less, where existing levels measured at the local government deemed-to-comply dwelling setback distance are less than or equal to 40 dB(A) L_{A90} (8 hour) between 10 pm and 6 and

Where the above criteria cannot be met, internal maximum design criterion levels specified in Table 1, AS 2107 1987.

For Balconies and Formal External Open Space, Section B6 requires:

- 60 dB(A) L_{A10} (18 hour) or less, where existing levels measured at the local government deemed-to-comply dwelling setback distance are greater than 45 dB(A) L_{A90} (18 hour); or
- 57 dB(A) L_{A10} (18 hour) or less, where existing levels measured at the local government deemed to comply dwelling setback distance are less than or equal to 45 dB(A) L_{A90} (18 hour).

All of the above traffic noise levels are free field.

or any communal external living areas the noise limit is 63 dB(A) $L_{A10.12H}$.

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Noise Limits – Redland City Council

Redland City Council, in Division 10 – Road and Rail Noise Impacts Overlay, provides the following noise level criteria for a state-controlled road:

- For a State-controlled road, facade corrected (as applicable):
 - 63 dB(A) assessed as the L₁₀ (18 hour) level; or
 - 55 dB(A) L_{Aea.1H} daytime and evening for external private open space;
 - 63 dB(A) L_{A10,18H} for the balance of the external areas;
 - 50 dB(A) L_{Amax(10pm-6am)} and 35 dB(A) L_{Aeq(1hr)(10pm-6am)} inside bedrooms; and
 - 40 dB(A) L_{Aeq(1hr)(10pm-6am)} inside living rooms.

For noise from the subject site this is either steady state (airconditioning units) or time varying (vehicle activities on the subject site).

For steady state noise the noise limit is 35 dB(A) L_{Aeq} during the daytime and sevening and 30 dB(A) L_{Aeq} during the night-time, inside the adjoining residences.

For time varying noise sources the noise limit is that, for like parameters, the source noise level alone, for the stated parameter, should not exceed the ambient noise level, after due consideration of tonality and impulsiveness.

Therefore, for time-varying noise, the noise limit is that the adjusted source noise should not exceed the ambient noise, for the daytime and evening. For the night-time, the noise limit criteria is that of the World Health Organisation document *Guidelines for Community Noise*, 1999:

"... For a good sleep, it is believed that indoor sound pressure levels should not exceed approximately 45 dB(A) L_{Amax} more than 10-15 times per night. ..."

This is the noise limit that has been adopted for the night-time period and is assessed for inside the closest residences (whereas the time-varying noise limits for daytime and evening are external to the residences.

TRAFFIC NOISE IMPACT - DEPARTMENT OF TRANSPORT AND MAIN ROADS

For details of the measurement equipment, equipment settings, calibration, monitoring location and atmospheric conditions, refer Appendix A. Appendix B contains all of the detailed results of the noise level measurements.

From Appendix B, the following noise levels should be noted for monitoring location A:

<u>Day 1</u>

- $L_{A10,18h} = 73.0 \, d\beta(A)$
- $L_{A10,12h}$ (6 a 1 to 6 pm) = 73.6 dB(A).
- $L_{A90.8h}$ (10 prove 6 am) = 44.5 dB(A)
- L_{A90,18h} (6 am to midnight) = 60.1 dB(A)

<u>Day 2</u>

- KATO, 8h = 78,9 dB(A)
- $L_{A10,42h}$ (6 am to 6 pm) = 73.5 dB(A).
- $A_{20,84}$ (10 pm to 6 am) = 44.9 dB(A)
- $(A_{A90,BR})$ (6 am to midnight) = 60.6 dB(A)
- David Moore & Associates Pty Ltd

Average

- L_{A10,18h} = 73.0 dB(A)
- $L_{A10,12h}$ (6 am to 6 pm) = 73.6 dB(A).
- L_{A90,8h} (10 pm to 6 am) = 44.7 dB(A)
- $L_{A90,18h}$ (6 am to midnight) = 60.4 dB(A)

All of the above noise levels were free field with the microphone elevated 1.8 metres, at Monitoring Location A, which was on the existing Finucane Road boundary of the subject site. The microphone was approximately 16 metres from the centre of Finucane Road traffic.

Calculated Traffic Noise Levels

In accordance with CORTN88 and the DTMR, current traffic noise levels or Finucane Road have been calculated.

From the monitoring location there is complete line of sight to Finucane Road.

From CORTN88, Table 1 details the calculated current traffic noise the restriction of the second to Monitoring Location A, with the receptor elevated 1.8 metres above the ground (same location as the microphone).

For 2012, the number of vehicles on Finucane Road will be 39,898 upd.

Table Calculated Current Traffic Noise Levels for Monitorin Free Field	precation A, Receptor 1.8 metres High,
Description	Traffic Noise Level, dB(A) LA10,18h
Base traffic noise level, 39,898 vpd (37,504 vp18h)	74.8
Speed (60 kph) and commercial vehicles (3.4%)	-0.6
Road gradient adjustment	0
Separation distance	-0.7
Ground absorption	0
Barrier	0
Road surface	0
Angle of view	-0.5
Total	73.0 dB(A) LA10,18h

The measured value was 73.0 dB(A) free field, which is the same as the calculated value. As the difference between the measured and calculated values is less than 2 dB(A), this is acceptable in accordance with the DTMR criteria. The adopted current traffic noise level at Monitoring Location A is 73.0 dB(A).

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Ultimate Traffic Noise Levels

Based on the DTMR web site, the traffic data for Finucane Road is as follows:

- 37,245 vpd AADT (2010)
- 3.4% commercial vehicles
- 3.5% annual growth for 10-year horizon.

Based on the above advice, traffic volume increase to the year 2022 will be as follows

2010 37.245 vpd 2011 38.549 vpd 2012 39.898 vpd 2013 41,294 vpd 2014 42,739 vpd 2015 44,235 vpd 2016 45,783 vpd 2017 47,385 vpd 2018 49,044 vpd 2019 50,761 vpd 2020 52,538 vpd 2021 54,377 vpd 2022 56,280 vpd.

By calculation, the increase in traffic volume will increase traffic obise levels by the following margin:

• (29.1 + 10 log₁₀ 56,280) - (29.1 + 10 log₁₀ 39,898) → (5 dB(A).

Therefore, the ultimate traffic noise level from Finucane Road, at Monitoring Location A, would be 73.0 + $1.6 = 74.6 \text{ dB}(A) L_{A10,18h}$.

This exceeds the noise limit by 14.6 dB(A) de 10 tent at Monitoring Location A, which is approximately 16 metres from the centre of traffic on Finucane Roas and elevated 1.8 metres.

Traffic Noise Control – External Areas

The private external living area (paties at ground level, balcony at first floor level) for Units 1 to 10, allowing for the additional road decleation to DTMR, increased separation distance and reduced angle of view to the road, are detailed in Table 2.

The ultimate traffic noise level will be $29.1 + 10\log_{10}(56,280 \times 0.94) = 76.3 \text{ dB}(\text{A}) \text{ L}_{A10,18\text{H}}$.

	Calculatio		ate Traffic No at Ground F				ng Areas
	Base Traffic		Adjı	ustments, dl	B(A)		Noise Level at
Unit Unit UB(A)	% CV	Distance	Barrier	Ground	Angle of View	Private Externa Area, dB(A), L _{A10,18H}	
~	76.3	-0.6	-8.7	-	-4.9	-12.6	49.5
2	76.3	-0.6	-8.7	1.00	-3.3	-12.6	51.1
3	76.3	-0.6	-7.1		-4.3	-12.6	51.7
4	76.3	-0.6	-6.5	-	-4.1	-7.8	57.3

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	Calculatio		ate Traffic No at Ground F				ng Areas
	Base Traffic		Adju	ustments, dl	B(A)		Noise Level at
Unit	Noise Level, dB(A) L _{A10_18H}	% CV	Distance	Barrier	Ground	Angle of View	Private External Area, dB(A) L _{A10,18}
5	76.3	-0.6	-7.1	- 19 - 1	-2.8	-12.6	532
6	76.3	-0.6	-6.5	-	-2.5	-7.8	58.9
7	76.3	-0.6	-4.4	٠	-2.3	-12.6	56.4
8	76.3	-0.6	-2.9	-9.3	0	-4.1	() 59.4
9	76.3	-0.6	-4.5	(•)	-1.3	-12.6	57.3
10	76.3	-0.6	-3.0	P .	0	-15.8	57.1

With respect to Table 2, traffic noise control measures have been inquded for Units 8 and 10, namely:

- Unit 8: 1.8 m and 2.1 m high acoustic barriers located as per Figure 5 <u>OR</u> southern side of patio is a full height wall, for the complete length of this side of the patio. This full height wall could incorporate glazing;
- Unit 10: southern side of balcony is a full height wall, for the complete length of this side of the balcony. This full height wall could incorporate glazing;

<u>IF</u> the traffic noise control for the Unit 8 patio is to be a 2. (In high acoustic barrier, then this acoustic barrier must be located as per Figure 5, be 2.0 metres high relative to finished floor level of Unit 8 (on the side elevation of this Unit the ground level at the location of the acoustic barrier is shown as 100 mm below the floor level of this Unit), be continuous and gap free, have a minimum surface area density of 12.5 kg/m² and have a return at the eastern end 1.8 metres high relative to existing ground levels. The length of this return is as denoted on Figure 5. The construction of this acoustic barrier must comply with MRS 11.15.

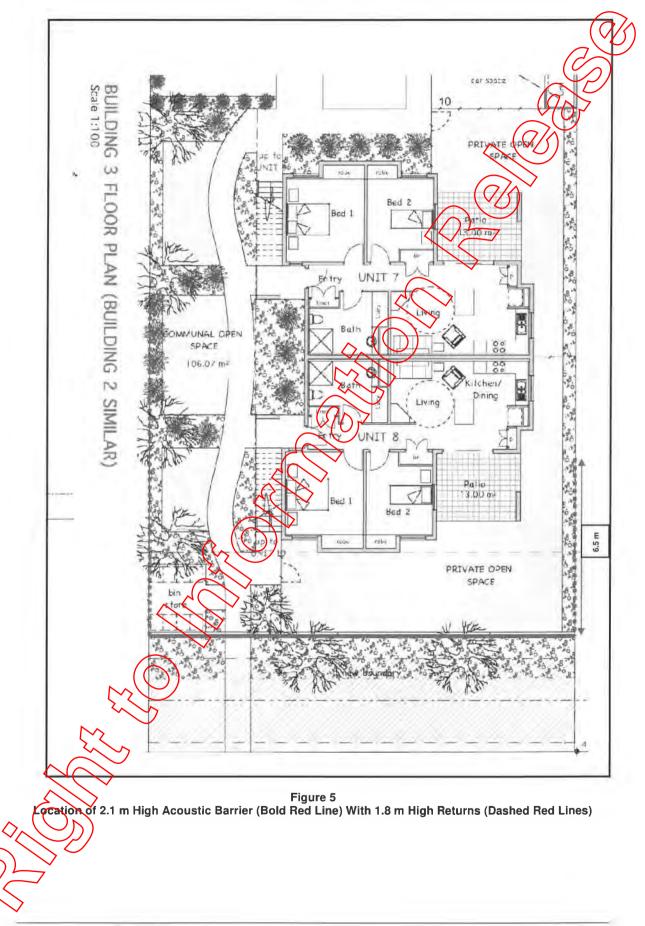
Examples of suitable materials of construction of the acoustic barrier include:

- reinforced concrete;
- concrete block;
- brick;
- sheet metal at least 2 min thick;
- kiln dried softwood overlapping palings, palings a minimum 23 mm thick;
- any combination of the above.

For the communal external)living area the noise limit is 63 dB(A) L_{A10,12H}. To comply with this noise limit the 2.1 m high accustic barrier must extend to the western side boundary of the subject site, with a 1.8 m high accustic barrier along the western boundary, 20 m long and both located as per Figure 5.

As the 2.1 m high acoustic barrier is crossing the access path, a gate must be incorporated into this barrier. The top of this gate must be the same height as the acoustic barrier, have a minimum surface area density of 12.5 kg/m², be gap free, fully jambed on both sides and the gap at the base of this gate must be not greater than 10 to 12 mm from the finished level of the path.

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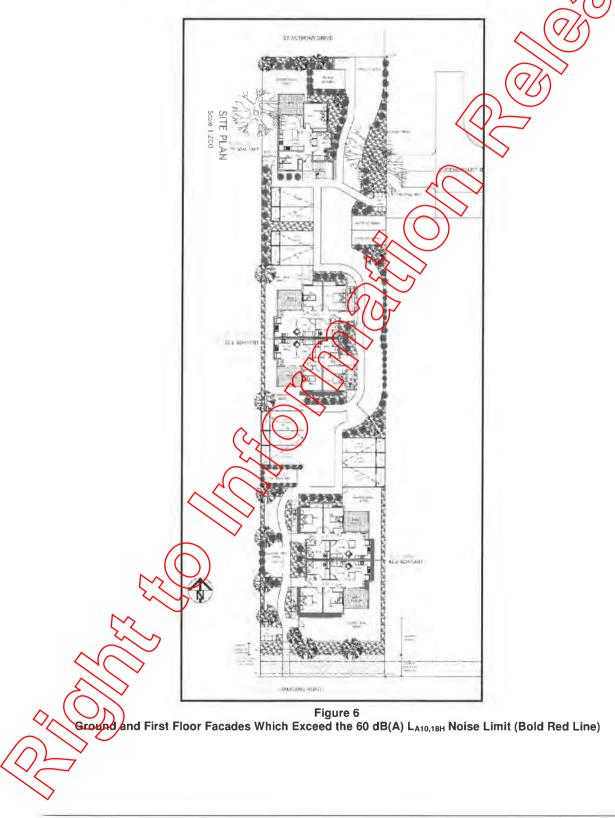


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Traffic Noise Control – Internal Areas

As the LA90,8h was greater than 40 dB(A), the noise limit for internal living areas is 60 dB(A) LA10,16h

For the ground level those facades which exceed the 60 dB(A) noise limit are detailed in Figure 6. The same facades would exceed the noise limits for the first floor level as well.



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In accordance with Figure 6 the following rooms exceed the traffic noise limit:

- Unit 6: Bedroom 1 and 2:
- Unit 7: Bedroom 1 and 2:
- Living area and Bedroom 1; Unit 7:
- Living area and Bedrooms 1 and 2; Unit 8:
- Unit 9: Living area and Bedroom 1:
- Unit 10: Living area and Bedrooms 1 and 2.

As the external openings must be closed for these rooms to achieve compliance with the internal noise limit stipulated by Australian Standard AS 2107:2000, these rooms must all be aicconditioned and/or mechanically ventilated. This air conditioning/mechanical ventilation must be designed and installed such that it maintains the internal noise limit and, furthermore, complies with the ventilation requirements of the Building Code of Australia.

As the 60 dB(A) LA10,18h noise limit is exceeded, in accordance with DTMR, minimum Rw values must be calculated in accordance with the following formula from AS 3671-1989:

$$TNA_{C} = TNR + 10 \log_{10} [(S_{C} \div S_{f}) \times (3 \div h) \times 2T_{60} \times C]$$

- where TNA_{c} = traffic noise attenuation required for the compone
 - TNR = traffic noise reduction
 - = surface area of the component Sc
 - = surface area of the floor Sf
 - = ceiling height h
 - = reverberation time = 0.5 seconds T_{60}
 - = number of components. С

 $Rw = TNA_{C} + 6$ (approximately).

The measured LAeq, T values at Monitoring Location A were a maximum (average of the two maximum levels for Day 1 and Day 2) of:

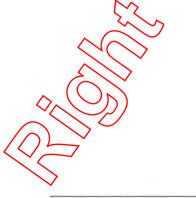
- daytime and evening: 73.7 dB(A 70,5 dB(A
- night-time:

In accordance with Australian Standard AS 2107-2000 the internal maximum design sound level for habitable rooms near a main road is 40 dB(A) for living areas and 35 dB(A) for bedrooms. Therefore the TNR values would be relative to monitoring location A:

- 73.7 dB(A) + 1.6 (ultimate traffic volume) 40 = 35.3 dB(A) $L_{Aeq,T}$; and living area:
- bedroom:

X0.5 dB(A) + 1.6 (traffic volume) - 35 = 37.1 dB(A) L_{Aeg.T}.

Table 3 details the calculated minimum Rw requirements for those rooms of Units 6, 7, 8, 9 and 10 whose facades exceed the noise limit. Refer Appendix C for complete details of calculations.



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		Table Calculated Minimum		6					
	Minimum Rw Requirements								
Unit Area		External wall	Roof/ceiling	Window	Sliding glass				
4	Bedroom 1	30	+	20	a				
4	Bedroom 2	31	2-1	22					
6	Bedroom 1	32	37	24					
6	Bedroom 2	34	39	25 📿					
7	Living/Kitchen	27	-	K	-				
7	Bedroom 1	33	-	28	-				
8	Living/Kitchen	31	-	19	26				
8	Bedroom 1	36	-	26					
8	Bedroom 2	37		28 (facing) 84 (side)	-				
9	Living/Kitchen	29	37	20					
9	Bedroom 1	36	30	25	-				
10	Living/Kitchen	32	39	21	27				
10	Bedroom 1	38	at	28					
10	Bedroom 2	39	V Our	29 (facing) 25 (side)					

For the minimum Rw ratings detailed above, the following <u>examples</u> of materials of construction and their associated Rw ratings should be noted:

Roof/Ceiling	
Rw 33 to 35:	standard metal of the pitched roof with 10 mm thick plasterboard ceiling
Rw 36 to 38:	as above, but with two-sided aluminium foil over the rafters
Rw 39 to 41	standard metal or tile pitched roof with 10 mm thick plasterboard ceiling and 50 mm thick 12 kg/m ³ glass fibre blanket between the ceiling joists
Rw 42 to 44:	standard metal or tile pitched roof with 10 mm thick plasterboard ceiling and 75 mm thick miperal wool batts between ceiling joists
Rw 45 to 47:	as above, but with 100 mm thick 4.5 kg/m ³ cellulose fibre fluff between ceiling joists.
Rw 48 to 50:	concrete slab 100 mm thick.
External Walls	
Rw 39 to 41	conventional brick veneer with wall vents
Rw 42/10-44.	double skin (cavity) clay brick wall, 270 mm thick
Rw 45 to 47.	single skin 150 mm thick masonry of hollow, dense concrete blocks
Rw 48 to 50:	poured dense concrete 100 mm thick; or
	single-leaf wall of 230 mm x 110 mm x 76 mm rendered 13 mm both sides.
Rw 50:	unrendered hollow concrete blocks 390 mm x 190 mm x 140 mm, wall thickness 140 mm.

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Doors	
Rw 15	hollow core plywood door, no gaskets
Rw 20	hollow core plywood door, rubber gasket around sides and top
Rw 27 to 29	solid core 35 mm thick plywood door, soft plastic gasket around sides and top, and drop seal at base
Rw 30 to 33	solid core 42 mm thick plywood door, soft plastic gasket around sides and top, and trap seal at base
Rw 30:	openable sliding glass doors with 6.38 mm thick laminated glass and improved acoustic seals, tested by the manufacturer in accordance with Australian Standards to comply with the stated Rw rating.
Rw 32 to 33:	openable sliding glass doors or windows with 10.38 mm thick laminated gass and improved acoustic seals, tested by the manufacturer in accordance with Apstralian Standards to comply with the stated Rw rating.
Glazing	
Rw 24 to 26:	6 mm thick glass in standard horizontally sliding aluminium framed window
Rw 30 to 31	openable sliding glass window with 6.38 mm thick laminated glass and improved acoustic seals, tested by the manufacturer in accordance with Australian Standards to certify compliance with the stated Rw rating.
Rw 33:	openable sliding glass windows with 10.38 mm thick laminated glass and improved acoustic seals, tested by the manufacturer in accordance with Australian Standards to comply with the stated Rw rating.
Rw 32 to 34:	awning window, 6.38 mm thick laminated glass with acoustic seals
Rw 36 to 38:	Duo-Tec secondary glazing system, or similar, tested by the manufacturer in accordance with Australian Standards to comply with the stated Rw rating.
Rw 41 to 42:	tandem sliding windows, minimum 108 mm apart, 6 mm float glass for outer window and 4 mm float glass for inner window
Rw 43 to 46:	commercial double-glazed window system, consisting of two separate frames and laminated glass from 6.38 mm to 12.76 mm thick with improved acoustic seals.

With respect to the above minimum Fw requirements it should be noted that standard materials of construction are considered to have the following Rw values:

- external wall:
- roof/ceiling:
- Glazing:

Rw 35, Rw 35, and Rw 24 to 26.

TRAFFIC NOISE - REDLAND CITY COUNCIL

In accordance with Redland City Council the relevant current traffic noise levels are, for monitoring location A and measured free field:

- 73.0 dB(A) LA10,18H;
- 73.7 dB(A) by g1H maximum for daytime and evening;
- 70.5 dB(A) LAeq,1H maximum for night-time;
- 83, 1 dB(A), P_{Amax,T} night-time.

For metre in front of the closest building facade to the road, the noise limit is 63 dB(A) L_{A10,18H}. Based on the measured values (above) the following ultimate traffic noise level has been calculated:

73.0 dB(A) $L_{A10,18H}$ + 1.6 (ultimate traffic volume) + 2.5 (facade correction) – 9.3 (2.1 m high acoustic barrier) – 3 (separation distance) = 64.8 dB(A), which exceeds with the 63 dB(A) noise limit by 1.8 dB(A).

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A difference in noise level of 1 to 2 dB(A) is not discernible to the human ear. Therefore a noise limit exceedence of up to 2 dB(A) would sound the same as the noise limit and effectively comply with the noise limit. Based on the human subjective response an ultimate traffic noise level of 64.8 dB(A) $L_{A10,18H}$ effectively complies with the noise limit.

For the private external living area the noise limit is 55 dB(A) $L_{Aeq,1H (0600 to 2200hours)}$, for ultimate traffic volumes. The highest measured value was 73.7 dB(A) $L_{Aeq,15min}$ at monitoring location A, compared to 73.0 dB(A) $L_{A10,18H}$. Applying this difference (0.7 dB(A)) to Table 2, plus 2.5 dB(A) for facade reflection, enables calculation of ultimate traffic noise levels to all private external living areas). The adopted base traffic noise level is 76.3 dB(A) from Table 2 plus 0.7 dB(A) to convent to $L_{Aeq,1H}(_{0600})$ to 2200hours) plus 2.5 dB(A) for facade reflection equals 76.3 + 0.7 + 2.5 = 79.5 dB(A)

	Calculatio		ate Traffic No at Ground F				ng Areas	
Unit	Base Traffic		Adji	\frown	Noise Level at			
	Noise Level, dB(A) L _{Aeq,1H}	% CV	Distance	Barrier	Ground	Angle of View	Private External Area, dB(A), L _{Aeg,1H}	
1	79.5 -0.6 -8.7 -		1 A S	-4.9	-12.6	52.7		
2	79.5	-0.6	-8.7		1-83	-12.6	54.3	
3	79.5	-0.6	-7.1	- 5	-4.3	-12.6	54.9	
4	79.5	-0.6	-6.5	-6	4.1	-7.8	60.5	
5	79.5	-0.6	-7.1	-07	07-2.8	-12.6	56.4	
6	79.5	-0.6	-6.5	1	-2.5	-7.8	62.1	
7	79.5	-0.6	-4.4	$\langle \rangle$	-2.3	-12.6	59.6	
8	79.5	-0.6	-2.9	-9.3	0	-4.1	62.6	
9	79.5	-0.6	-4.5	-	-1.3	-12.6	60.5	
10	79.5	-0.6	-8.0	-	0	-15.6	60.3	

Based on the calculated ultimate traffic noise level values calculated in Table 4, within 2 dB(A) of the noise limit the following private external living areas comply with the 55 dB(A) $L_{Aeq,1h}$ (0600-2200hours) noise limit:

- Unit 1 patio;
- Unit 2 balcony;
- Unit 3 patio;
- Unit 5 patio.

To control ultimate traffic noise levels to the noise limit for the other private external living areas the following noise control measures would need to be implemented:

- Unit 4 patio southern side of patio to be a wall 1.8 m high <u>OR</u> complete northern side of Unit 4 car space to be an acoustic barrier 2.1 m high;
- Unit 6 balcony southern side of balcony to be a full height wall. This wall could have glazing incorporated into it;

Unit 7 patio – eastern side of patio to be a wall 1.8 m high <u>OR</u> complete eastern side of Unit 7 private open space to be an acoustic barrier 1.8 m high;

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- Unit 8 patio 1.8 m and 2.1 m high acoustic barriers located as per Figure 5 and southern side of patio to be a full height wall, for the complete length of this side of the patio. This full height wall could incorporate glazing;
- Unit 9 balcony eastern side of balcony to be a full height wall. This wall could have glazing incorporated into it;
- Unit 10 balcony southern side of balcony to be a full height wall. This wall could have glazing
 incorporated into it. Eastern side of balcony to have minimum 1000 mm high solid balustrating.

For the 63 dB(A) L_{A10,18H} noise limit for the balance of the external site area, this is complied with for the complete site.

For internal areas the TNR values are the same as those required by the DTMR for Hying areas and bedrooms, with the additional requirement for bedrooms of $L_{Amax,T}$ not to exceed 50 dB(A) during the night-time. From 2200 to 0600 hours (night-time) the highest maximum noise level was 83.1 dB(A), giving an effective TNR value of 83.1 – 50 = 33.1 dB(A) for bedrooms during the night-time. The TNR value applied to bedrooms (and based on the highest night-time $L_{Aeq,1H}$) is 37.1 dB(A). Therefore, applying the TNR of 37.1 dB(A) for bedrooms at night would also result in compliance with the 50 dB(A) maximum noise limit for bedrooms during the night-time.

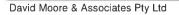
For internal habitable areas compliance with the DTMR noise limits would also result in compliance with the Redland City Council noise limits – Table 3 refers.

AMBIENT NOISE LEVELS

Refer Appendix B for details of all of the results of the applient noise level measurements conducted from monitoring location A. Table 5 details the range and average daytime, evening and night-time noise levels for this monitoring location. The time periods are:

- daytime:
- 0700 to 1800 hours
- evening:night-time:
- 1800 to 2200 hours; and 2200 to 0700 hours.

	Res	ults of Am		Level l	Table 5 Measureme Road, Alexa		nitoring Loc IIs	ation A				
		Time	Ambient Noise Level, dB(A)									
Day	Date		Aeq		L _{A1}		LA10		L _{A90}			
		1 01100	Range	Av.	Range	Av.	Range	Av.	Range	Av.		
Monday	02.07.12	Daytime	72.8-74.0	73.5	80.1-83.8	81.8	73.2-74.4	73.7	60.0-67.2	64.		
Monday	02.07.12	Evening	69.1-73.6	71.8	79.3-81.7	80.4	70.7-73.8	72.5	48.4-66.0	59.0		
Monday/ Tuesday	02/03 /07.12	Night	60.4-72.9	68.2	73.3-83.1	79.1	59.1-74.0	69.6	35.9-65.8	56.0		
Tuesday	03.0742	Daytime	72.7-73.9	73.3	79.3-84.6	80.8	72.9-74.3	73.6	56.4-66.6	64.		
Tuesday	83.8Z.18	Evening	69.4-73.8	71.9	78.3-80.9	79.5	71.3-74.0	72.6	49.2-64.6	58.		
Tuesday/ Wednesday	03/04	Night	59.3-72.7	67.5	73.4-81.1	77.9	59.1-73.1	68.5	36.4-63.5	54.8		



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NOISE IMPACT FROM SUBJECT SITE

Airconditioning Units

Potential noise impacts from the subject site to adjoining residential uses include vehicle movements and airconditioning units. At the time of preparing this report no airconditioning unit locations has been nominated for any of the Units.

Once the location of any on-site airconditioning units has been decided (and the noise level of these airconditioning units obtained from the manufacturer) an acoustic consultant should calculate airconditioning unit noise levels to all of the closest residences and compare the service levels to the noise limits, namely:

- 35 dB(A) during the daytime and evening for living areas (conversation disturbance criteria);
- 30 dB(A) during the night-time (sleep disturbance criteria).

On-Site Vehicle Activities

The other potential noise source from the subject site would be rehicle activities, particularly during the daytime and evening. Noise sources associated with vehicle (activi)ies are time varying, with the following source noise levels:

- car driving on driveway:
 - 50 dB(A) L_{A10,adj,T} @ 8 m 52 dB(A) L_{A10,adj,T} @ 30 m;
- car door closing: car engine starting:
 - 52 dB(A) LA10, adj, T @ 30 m

At the closest adjoining residential to the east, at he way of the subject site, vehicle noise levels would be:

- car driving on driveway:
- $50 dB(A) L_{A10,adj,T} @ 8 m = 50 dB(A) L_{A10,adj,T};$
- car door closing (carwash): $52 dB(A) L_{A10,adj,t} @ 30 m + 11 (distance) = 63 dB(A);$
- car engine starting (carwash):
- $52 dB(A) L_{A10,adj,t} @ 30 m + 11 (distance) = 63 dB(A).$

At the closest adjoining residential to the east, at the front of the subject site, vehicle noise levels would be:

- car driving on driveway: 50 dB(A) $L_{A10,adj,T}$ @ 8 m - 2 (distance) = 48 dB(A) $L_{A10,adj,T}$;
- car door closing (carwash):
 - car engine starting (carwash)
- 52 dB(A) $L_{A10,adj,t}$ @ 30 m + 10 (distance) = 63 dB(A); 52 dB(A) L_{A10.adi.t} @ 30 m + 10 (distance) = 63 dB(A).

At the closest adjoining residential to the west vehicle noise levels would be:

- car driving on driveway
- car door closing (carwash):
- car engine starting (earwash):

50 dB(A) L_{A10.adi,T} @ 8 m - 6 (distance) = 44 dB(A) L_{A10.adi,T}; 52 dB(A) L_{A10,adj,t} @ 30 m + 6 (distance) = 58 dB(A); 52 dB(A) $L_{A10,adi,t}$ @ 30 m + 6 (distance) = 58 dB(A).

The noise limits would be (for the above time varying noise sources):

front section of the subject site: 74 dB(A) L_{A10,T}; daytime: evening: 73 dB(A) L_{A10,T}; rear section of subject site (monitoring location A noise levels less 7 dB(A) for increased separation distance and 3 dB(A) for reduced angle of view): 0 daytime: 64 dB(A) L_{A10,T}; \cap evening: 63 dB(A) L_{A10,T}.

The noise limit for the above noise sources, which are time-varying, is that the adjusted source noise and ambient noise combined should not exceed the ambient noise level alone, for the same parameter, by more than 3 dB(A). This is equivalent to the adjusted source noise alone not exceeding the ambient noise level, for the same parameter.

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The noise limits at the closest residence to the east (adjacent the rear of the subject site) are

- daytime: 64 dB(A) L_{A10,T}; and
- evening: 63 dB(A) L_{A10,T}.

and adjacent to the closest residences to the east and west (adjacent the front of the subject site) are:

- daytime: 74 dB(A) L_{A10,T}; and
- evening: 73 dB(A) L_{A10,T}.

The noise of vehicle activities on the proposed residential development (for the closest vehicle activity to the closest adjoining residences) comply with the daytime and evening noise limits, with no noise control measures in place. Therefore, for on-site vehicle activities, no noise control measures are required.

CONCLUSIONS

It is proposed to develop the subject site at 156 Finucane Road, Alexandra Hills (Lot 40 on RP79330) with three multi unit dwelling buildings.

Based on the consultant's site inspection, the only potential poise impact upon this residential development is traffic on Finucane Road, a Department of Transport and Main Roads (DTMR) controlled road.

To determine current ambient noise levels a 48-hour ctudy was conducted from the subject site, from the existing Finucane Road boundary of the subject site approximately midway between the two side boundaries, with the microphone elevated 1.8 metres, at monitoring location A. This location is approximately 16 metres from the centre of traffic on Finucane Road.

For the private external living areas (patios at ground level, balcony at first floor level) for Units 1 to 10, and allowing for the additional road dedication to DTMR, increased separation distance and reduced angle of view to the road, ultimate traffic noise levels comply with the noise limits, provided the following noise control measures are incorporated into the development:

- Unit 8: 1.8 m and 2.1 m high acoustic barriers located as per Figure 5 <u>OR</u> southern side of patio is a full height wall, for the complete length of this side of the patio. This full height wall could incorporate glazing:
- Unit 10: southern side of balcony is a full height wall, for the complete length of this side of the balcony. This full height wall could incorporate glazing;

For the communal external living area on the western side of Units 7 and 8 the 2.1 m high acoustic barrier must extend to the western side boundary of the subject site, with a 1.8 m high acoustic barrier along the western boundary, 20 m long and both located as per Figure 5.

As the 21 m high acoustic barrier is crossing the access path, a gate must be incorporated into this barrier. The top of this gate must be the same height as the acoustic barrier, have a minimum surface area density of 12.5 kg/m², be gap free, fully jambed on both sides and the gap at the base of this gate must be rob greater than 10 to 12 mm from the finished level of the path.

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For internal areas the facade of the following rooms exceed the 60 dB(A) LA10.18H noise limit criteria:

- Unit 6: Bedroom 1 and 2;
- Unit 7: Bedroom 1 and 2;
- Unit 7: Living area and Bedroom 1;
- Unit 8: Living area and Bedrooms 1 and 2;
- Unit 9: Living area and Bedroom 1;
- Unit 10: Living area and Bedrooms 1 and 2.

As the external openings must be closed for these rooms to achieve compliance with the internal noise limit stipulated by Australian Standard AS 2107:2000, these rooms must all be arcorditioned and/or mechanically ventilated. This air conditioning/mechanical ventilation must be designed and installed such that it maintains the internal noise limit and, furthermore, complies with the ventilation requirements of the Building Code of Australia.

As the 60 dB(A) L_{A10,18h} noise limit is exceeded, in accordance with the DTMR, minimum Rw values must be calculated in accordance with AS 3671-1989. Table 3 details the minimum Rw requirements for these rooms.

The Redland City Council noise limit of 55 dB(A) L_{Aeq,1H (0600 to 2200 hours)} is complied with in the following private external living areas:

- Unit 1 patio;
- Unit 2 balcony;
- Unit 3 patio;
- Unit 5 patio.

To control ultimate traffic noise levels to the noise timit for the other private external living areas the following noise control measures need to be implemented:

- Unit 4 patio southern side of patio to be a wall M8 m high <u>OR</u> complete northern side of Unit 4 car space to be an acoustic barrier 2.1 m high;
- Unit 6 balcony southern side of balcony to be a full height wall. This wall could have glazing incorporated into it;
- Unit 7 patio eastern side of patio to be a wall 1.8 m high <u>OR</u> complete eastern side of Unit 7 private open space to be an acoustic barrier 1.8 m high;
- Unit 8 patio 1.8 m and 8 1 m high acoustic barriers located as per Figure 5 and southern side of
 patio to be a full height wall, for the complete length of this side of the patio. This full height wall
 could incorporate glazing;
- Unit 9 balcony eastern side of balcony to be a full height wall. This wall could have glazing incorporated into it;
- Unit 10 balcony southern side of balcony to be a full height wall. This wall could have glazing
 incorporated into it. Eastern side of balcony to have minimum 1000 mm high solid balustrading.

For the 63 dB(A) L_{A10,18H} noise limit for the balance of the external site area, this is complied with for the complete site.

Potential noise impacts from the subject site to adjoining residential uses include vehicle movements and arcorrditioning units. At the time of preparing this report no airconditioning unit locations had seen normated for any of the Units.

Once the location of any on-site airconditioning units has been decided (and the noise level of these airconditioning units obtained from the manufacturer) an acoustic consultant should calculate

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airconditioning unit noise levels to all of the closest residences and compare these noise levels to the noise limits.

The noise of vehicle activities on the proposed residential development (for the closest vehicle activity to the closest adjoining residences) comply with the daytime and evening noise limits, with no to be control measures in place. Therefore, for on-site vehicle activities, no noise control measures are required.

RECOMMENDATION

It is recommended that, from an environmental noise perspective, the proposed residential development be approved, provided the noise control measures detailed in this report are incorporated into this development.

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APPENDIX A: AMBIENT NOISE LEVEL MEASUREMENT EQUIPMENT

Measurement Equipment

The following equipment was used to conduct the 48-hour ambient noise level study at Monitoring Location A:

- Bruel and Kjaer Type 2260I Modular Precision Sound Analyzer Observer Serial No. 2409371, with Type BZ 7220 Software and Prepolarised free-field ½" microphone, Type 4189, Serial No. 2395445;
- Bruel and Kjaer Type 3592 outdoor microphone kit, including Type UA1404 putdoor microphone;
- Bruel and Kjaer Type AO 0442 ten metre microphone extension cable; and
- Bruel and Kjaer Type 4231 Sound Level Calibrator, Serial No. 2292747

All of the above equipment is Type 1 in accordance with the requirements of Australian Standard AS 1259-1990, *Acoustics – Sound Level Meters*, as required by Australian Standard AS 2702-1984.

Measurement Equipment Settings

The above equipment was used with the following settings

RMS

FAST

-26.1 dB 20-100 dB

Α

- Detector:
- Time Weighting:
- Frequency Weighting:
- Sound Incidence: FRONTAL
- Microphone sensitivity:
- Range:

Calibration

The sound level meter was calibrated to the required value of 93.8 dB at 1000 Hz immediately before and after the noise level measurements were conducted. At no time was an adjustment of more than ± 0.5 dB required. This complies with the requirements of the Australian Standard.

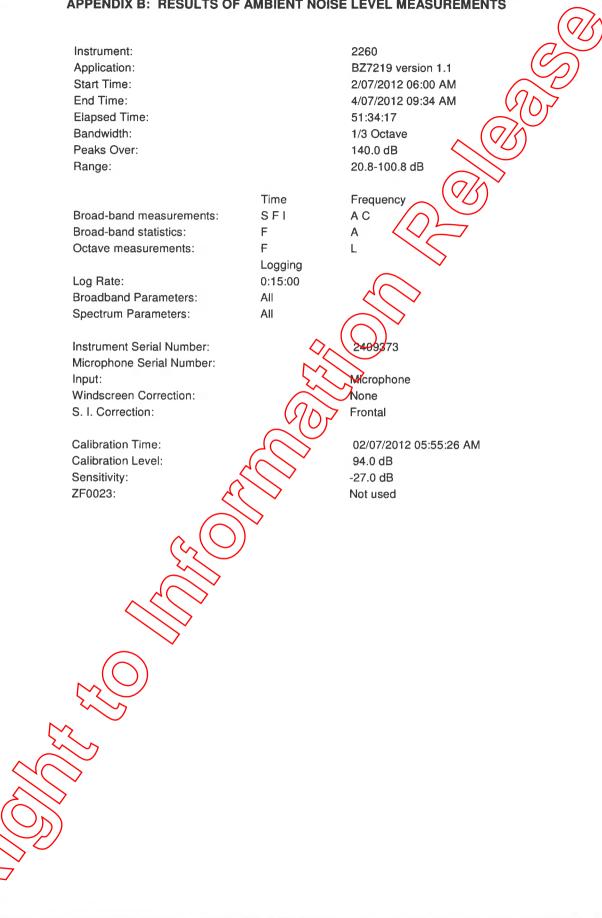
Monitoring Location

Monitoring Location A was on the Julia Street boundary of the subject site adjacent to the eastern side boundary with the microphone elevated 1.8 metres. This location was approximately 75 metres from the centre of traffic on Sandgate Road. Refer Figure 2 for further details of Monitoring Location A.

Atmospheric Conditions

Throughout the 48-hour period, atmospheric conditions complied with the requirements of the Australian Standard.

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APPENDIX B: RESULTS OF AMBIENT NOISE LEVEL MEASUREMENTS

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Start date	Start time	LAeq	LAFmax	LAFmin	LAF1	LAF10	LAF50	LAF90	LAF99
02/07/2012	06:00:00 AM	71.1	85.9	54.8	80,8	71.9	67.6	62.0	\$TA
02/07/2012	06:15:00 AM	72.5	95,0	55.1	80.9	73.5	68.4	62.3	57.3
02/07/2012	06:30:00 AM	72.7	84.5	53.3	80.4	73.1	69.2	63.5	57
02/07/2012	06:45:00 AM	72.3	83.0	54.7	80.4	72.9	68.4	61.7	(56)4
02/07/2012	07:00:00 AM	73.2	89.0	56.6	82.6	73.9	69.2	63.27	58.3
02/07/2012	07:15:00 AM	73.3	89.5	54.9	81.4	74.4	69.0	68.5	57.0
02/07/2012	07:30:00 AM	72.8	86.0	52.6	80.1	74.1	69.1	63.2	56.6
02/07/2012	07:45:00 AM	73.8	86.2	53.0	80.9	74.0	70.	68.1	54.9
02/07/2012	08:00:00 AM	73.1	84.4	52.2	80.9	73.2	69.6	62.9	55.0
02/07/2012	08:15:00 AM	73.7	91.3	53.4	82.1	73.8	71.0	64.1	56.1
02/07/2012	08:30:00 AM	73.8	87.4	53.0	82.3	73.9	71.7	64.0	56.1
02/07/2012	08:45:00 AM	73.5	86.6	54.2	82.1	73.6	70.6	63.7	56.6
02/07/2012	09:00:00 AM	73.6	90.1	51.3	83.8	18.7	70.0	62.4	55.2
02/07/2012	09:15:00 AM	73.3	87.4	50.4	82.2	78.5	70.6	62.0	53.8
02/07/2012	09:30:00 AM	73.5	84.8	52.8	81.9	738	70.5	63.2	56.1
02/07/2012	09:45:00 AM	73.1	85.7	53.6	87.6	72.3	70.0	62.5	57.6
02/07/2012	10:00:00 AM	73.3	89.2	54.4	181.2	73.4	70.3	63.1	57.3
02/07/2012	10:15:00 AM	73.8	90.9	57.2	~83.07	73.9	70.0	63.5	59.2
02/07/2012	10:30:00 AM	73.8	92.5	55.4	7 82.9	73.8	70.9	63.0	57.5
02/07/2012	10:45:00 AM	73.5	88.6	50.0	82.7	73.7	69.7	60.0	51.8
02/07/2012	11:00:00 AM	73.8	89.3	50.3	82.2	73.9	71.0	63.0	55.6
02/07/2012	11:15:00 AM	73.5	97.8 🗸	52.4	83.1	73.8	70.8	62.7	56.1
02/07/2012	11:30:00 AM	73.8	89.0	53.6	82.4	73.9	71.5	61.7	55.6
02/07/2012	11:45:00 AM	73.4	86.3	53.3	81.5	73.5	71.3	62.5	56.1
02/07/2012	12:00:00 PM	73.6	85.9	50.4	81.0	73.6	71.9	61.1	52.4
02/07/2012	12:15:00 PM	73.8	86.6	56.1	81.5	73.6	70.6	64.5	58.1
02/07/2012	12:30:00 PM	73.1	92.2	51.8	82.1	73.6	70.3	63.8	55.5
02/07/2012	12:45:00 PM	13.2	85.7	51.5	81.1	73.4	70.0	62.9	54.6
02/07/2012	01:00:00 PM	73.2	87.3	51.0	81.2	73.5	70.2	62.8	54.2
02/07/2012	01:15:00 PM	73.6	90.1	52.8	81.7	73.5	70.4	63.5	55.0
02/07/2012	01:30:00 PM	73.4	88.4	56.8	81.5	73.5	70.6	62.2	58.3
02/07/2012	01:45:00 PM	73.6	84.7	54.5	81.5	73.6	70.2	63.2	56.8
02/07/2012	02.00.00 PM	73.4	87.4	52.3	81.5	73.5	70.2	63.6	55.3
02/07/2012	02:45:00 PM	73.1	86.3	53.4	81.7	73.7	71.5	64.7	57.3
02/07/2012	02:30:00 PM	73.7	88.9	51.1	81.4	73.7	71.8	63.5	54.3
02/07/2012	02.4500 PM	73.9	85.4	52.7	81.2	74.4	71.4	65.6	56.8
02/07/2012	03:00:00 PM	73.0	87.3	52.0	81.0	73.8	71.4	64.0	55.4
02/07/2012	03:15:00 PM	73.0	83.8	57.1	81.0	73.4	71.9	66.4	59.9
02/07/2012	03:30:00 PM	73.4	86.6	59.1	82.4	73.6	71.2	66.3	61.6
02/07/2012	03:45:00 PM	73.9	86.5	58.5	80.9	73.9	71.7	66.7	61.4
08/07/2012	04:00:00 PM	73.2	92.8	57.0	81.5	73.2	71.2	67.2	59.4
02/07/2012	04:15:00 PM	73.2	88.1	58.2	81.2	73.4	72.0	66.5	61.2

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Start date	Start time	LAeq	LAFmax	LAFmin	LAF1	LAF10	LAF50	LAF90	LAF99
02/07/2012	04:30:00 PM	73.0	85.1	56.0	80.6	73.3	71.3	64.9	58.5
02/07/2012	04:45:00 PM	74.0	89.1	53.2	81.7	74.0	71.6	65.9	55.5
02/07/2012	05:00:00 PM	73.3	89.9	55.5	82.8	73.5	71.5	65.7	60.6
02/07/2012	05:15:00 PM	73.8	88.2	57.8	81.9	73.9	71.2	64.4	59.2
02/07/2012	05:30:00 PM	73.6	87.3	56.4	82.6	73.6	71.7	64.4	O58.0
02/07/2012	05:45:00 PM	73.1	86.9	58.7	81.2	73.6	71.8	(65,8/	61.9
02/07/2012	06:00:00 PM	73.5	92.3	58.5	81.7	73.7	71.1	86.0	59.8
02/07/2012	06:15:00 PM	73.5	86.2	54.5	81.4	73.4	71.7	62.5	57.7
02/07/2012	06:30:00 PM	73.3	85.7	54.8	81.0	73.4	71.8	63.9	57.0
02/07/2012	06:45:00 PM	73.6	88.8	54.6	81.5	73.8	89.4	60.2	56.3
02/07/2012	07:00:00 PM	72.9	84.5	50.3	80.9	73.2	67.1	56.1	52.3
02/07/2012	07:15:00 PM	72.4	83.5	52.0	80.7	73.2	67,8	58.2	53.5
02/07/2012	07:30:00 PM	71.9	82.3	48.8	80.0	72.0	66.0	55.9	50.5
02/07/2012	07:45:00 PM	71.4	87.0	46.7	80.3	(2.1	65.9	55.3	49.1
02/07/2012	08:00:00 PM	70.5	84.1	47.7	79.3	81.6	64.4	52.8	48.5
02/07/2012	08:15:00 PM	70.4	86.4	46.8	80.	71.3	63.7	54.0	50.2
02/07/2012	08:30:00 PM	71.0	85.1	46.2	80.4	12.8	64.5	53.5	48.1
02/07/2012	08:45:00 PM	71.3	88.2	46.1	80.7	71.9	64.3	54.8	47.9
02/07/2012	09:00:00 PM	70.6	86.8	50.5	79.47	71.4	64.8	56.4	51.9
02/07/2012	09:15:00 PM	70.1	82.6	45.	7977	71.0	63.0	51.1	46.6
02/07/2012	09:30:00 PM	69.6	85.8	46.8	79.4	71.4	62.8	52.8	48.7
02/07/2012	09:45:00 PM	69.1	88.4	4.2	79.4	70.7	60.9	48.4	45.2
02/07/2012	10:00:00 PM	69.8	85.0	44.4	80.3	71.7	63.0	51.5	46.0
02/07/2012	10:15:00 PM	68.4	82.8	43.3	79.2	70.4	59.5	47.5	44.3
02/07/2012	10:30:00 PM	68.3	84.0	44.3	79.1	71.0	60.3	49.6	45.3
02/07/2012	10:45:00 PM	68.1	83.6	38.7	79.1	70.0	58.1	43.4	40.4
02/07/2012	11:00:00 PM	68.4	87.8	42.5	79.7	70.9	58.4	46.8	44.0
02/07/2012	11:15:00 PM	66.9	86.5	38.4	78.4	69.6	53.4	42.5	39.7
02/07/2012	11:30:00 PM	66.3	82.8	36.8	77.8	68.0	51.6	40.8	37.5
02/07/2012	11:45:00 PM	66.8	85.2	39.8	78.3	70.8	53.8	45.1	41.0
03/07/2012	12:00:00 AM	68.1	94.6	37.4	78.5	69.3	54.6	43,1	38.7
03/07/2012	12:15:00 AM	64.5	86.7	35.6	77.7	64.7	49.3	38.7	36.7
03/07/2012	12:30:00 AM	63.2	82.1	34.7	77.2	64.1	44.8	37.6	35.6
03/07/2012	12:4500 AM	60.4	81.7	35.0	74.9	59.3	41.1	37.6	36.4
03/07/2012	01:00:00 AM	62.4	81.7	37.7	76.2	63.8	48.6	40.1	38.8
03/07/2012	01:15:00 AM	61.5	82.9	35.2	75.5	61.6	43.3	37.4	36.1
03/07/2012	01:30:00 AM	60.6	82.0	33.1	75.6	59.1	42.7	35.9	34.1
03/02/2012	01:45:00 AM	66.4	89.1	33.0	78.8	65.6	46.7	37.6	34.5
03/07/2012	02:00:00 AM	60.8	85.8	34.0	73.3	59.7	40.7	37.0	35.2
03/07/2012	02:15:00 AM	60.8	81.6	35.4	75.6	59.9	42.3	37.8	36.6
03/07/2012	02:30:00 AM	60.6	80.6	35.1	74.7	62.7	42.1	37.4	36.1
03/07/2012	02:45:00 AM	63.1	83.7	37.4	76.7	63.6	46.7	40.3	38.4
03/07/2012	03:00:00 AM	64.1	86.8	35.7	77.3	64.4	50.0	40.6	36.7
JUNIEUIE	30.00.00 AW	U JT.1	50.0	00.7	11.0	5	50.0	-0.0	00.1

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Start date	Start time	LAeq	LAFmax	LAFmin	LAF1	LAF10	LAF50	LAF90	LAF99
03/07/2012	03:15:00 AM	62.8	80.9	36.4	76.0	64.8	49.3	39.7	38.0
03/07/2012	03:30:00 AM	63.0	85.1	36,7	77.3	64.0	47.8	39.6	BT
03/07/2012	03:45:00 AM	61.9	86.2	34.6	73.9	62.9	43.6	37.6	35.8
03/07/2012	04:00:00 AM	64.1	84.8	39.3	76.8	66.2	53.1	42.8	7 40.0
03/07/2012	04:15:00 AM	65.3	81.9	39.4	77.0	66.3	57.8	46.0	41.2
03/07/2012	04:30:00 AM	67.2	84.5	44.4	78.6	67.7	61.9	¢10/	46.7
03/07/2012	04:45:00 AM	69.8	92.5	52.4	81.1	71.6	63.0	56.6	53.9
03/07/2012	05:00:00 AM	69.9	86.6	48.7	80.4	72.1	65.2	58.7	51.4
03/07/2012	05:15:00 AM	71.7	88.1	52.4	82.4	74.0	67.4	6.1	55.9
03/07/2012	05:30:00 AM	71.8	85.9	53.9	81.1	73.9	682	61.4	56.2
03/07/2012	05:45:00 AM	72.7	86.3	53.0	82.2	73.7	68.9	62.0	54.5
03/07/2012	06:00:00 AM	72.4	85.5	56.6	81.1	72.6	69.0	62.9	58.2
03/07/2012	06:15:00 AM	72.8	89.4	56.9	83.1	78.6	70.3	64.5	59.2
03/07/2012	06:30:00 AM	72.9	86.6	56.7	82.4	131	69.9	65.8	58.7
03/07/2012	06:45:00 AM	72.5	93.6	54.2	83.0	-72.8	69.8	63.0	57.1
03/07/2012	07:00:00 AM	73.0	86.6	53.4	81.7	73.2	67.7	56.4	54.5
03/07/2012	07:15:00 AM	73.0	86.9	58.7	82.4	73.2	71.9	65.8	61.2
03/07/2012	07:30:00 AM	73.3	87.8	55.9	82.1	73.5	70.9	65.5	58.3
03/07/2012	07:45:00 AM	72.9	86.0	56.1	82.4	73.0	71.3	65.0	58.8
03/07/2012	08:00:00 AM	73.3	87.2	54.1	1825	73.2	72.7	64.2	57.4
03/07/2012	08:15:00 AM	73.2	96.4	54.3	\$2.6	73.9	71.0	65.4	57.3
03/07/2012	08:30:00 AM	73.1	84.0	54.9	80.0	73.4	69,5	63.6	58.8
03/07/2012	08:45:00 AM	73.2	86.7	52.9	80.3	74.1	70.3	63.3	55.4
03/07/2012	09:00:00 AM	73.1	84.8	58.0	81.4	73,2	69.2	62.0	55.7
03/07/2012	09:15:00 AM	73.1	94.1	54.6	80.5	73.3	68.9	61.7	56.8
03/07/2012	09:30:00 AM	72.8	86.0	56.5	79.8	72.9	69.7	63.2	58.8
03/07/2012	09:45:00 AM	73.0	83.3	53.7	79.8	73.3	69.5	62.4	56.7
03/07/2012	10:00:00 AM	73.5	84.2	54.4	79.5	73.3	71.7	62.1	56.0
03/07/2012	10:15:00 AM	786	85.3	57.6	80.7	73.4	70.8	63.3	59.9
03/07/2012	10:30:00 AM	73.2	85.4	56.2	79.7	73.0	70.8	63.2	59.4
03/07/2012	10:45:00 AM	72.7	84.5	53.6	79.7	73.8	69.7	61.6	55.6
03/07/2012	11:00:00 AM	72.7	83.1	53.7	79.8	73.8	69.1	60.8	55.3
03/07/2012	11:15:00 AM	72.7	85.4	54.2	79.8	73.6	70.1	60.9	56.9
03/07/2012	11:30:00 AM	73.5	84.6	48.8	81.0	73.5	71.0	62.4	52.1
03/07/2012	11:45:00 AM	73.6	82.9	50.0	80.2	73.7	70.8	61.8	53.0
03/07/2012	2:00:00 PM	73.0	88.2	52.5	80.4	73.8	69.6	62.8	54.8
03/07/2012	18:15:00 PM	73.4	89.1	54.1	80.0	74.0	70.9	63.4	57.6
03/07/2012	12 80:00 PM	73.5	85.1	55.7	80.4	73.3	70.8	62.5	57.8
03/07/2012	12:45:00 PM	73.4	90.1	55.7	80.2	73.3	70.2	61.8	57.6
03/07/2012	01:00:00 PM	73.6	88.7	59.1	81.3	73.5	70.8	64.3	61.2
05/07/2012	01:15:00 PM	73.9	91.6	57.7	80.7	73.9	70.1	63.5	59.8
03/87/2012	01:30:00 PM	73.8	88.6	57.2	80.6	74.3	70.8	64.8	59.0
03/07/2012	01:45:00 PM	73.4	83.1	53.1	79.5	73.9	70.2	64.1	56.1

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Start date	Start time	LAeq	LAFmax	LAFmin	LAF1	LAF10	LAF50	LAF90	LAF99
03/07/2012	02:00:00 PM	73.0	101.4	53.5	80.5	73.5	70.9	62.8	56.3
03/07/2012	02:15:00 PM	73.3	93.8	54.6	82.3	73.3	70.4	63.0	57.9
03/07/2012	02:30:00 PM	73.0	85.1	46.5	80.5	73.4	70.6	64.1	54 2
03/07/2012	02:45:00 PM	73.4	96.5	54.6	84.6	73.8	70.0	63.6	57.5
03/07/2012	03:00:00 PM	73.6	82.7	53.6	79.5	74.0	70.4	65.6	057.8
03/07/2012	03:15:00 PM	73.5	86.5	54.3	79.8	73.9	70.2	64.8	59.0
03/07/2012	03:30:00 PM	73.6	85.4	54.8	79.5	73.6	70,7	86.1	59.0
03/07/2012	03:45:00 PM	73.3	84.2	56.3	79.7	73.6	70.2	65.7	58.8
03/07/2012	04:00:00 PM	73.9	88.8	57.1	80.0	73.7	70 8	66.6	59.2
03/07/2012	04:15:00 PM	73.7	83.6	56.0	79.8	73.9	70.6	66.5	61.0
03/07/2012	04:30:00 PM	73.1	83.3	58.3	80.4	73.3	702	64.8	60.4
03/07/2012	04:45:00 PM	73.3	86.3	60.2	80.5	73.5	78.4	65.3	61.9
03/07/2012	05:00:00 PM	73.4	89.8	55.8	80.7	73.1	70.7	65.1	60.3
03/07/2012	05:15:00 PM	73.9	93.3	55.9	81.3	13.8	70.8	65.6	60.5
03/07/2012	05:30:00 PM	73.0	88.0	60.6	80.4	73.9	70.2	66.0	62.0
03/07/2012	05:45:00 PM	73.7	83.5	53.3	79.3	73.6	70.2	64,7	58.9
03/07/2012	06:00:00 PM	73.8	85.6	56.6	79.3	74.0	71.0	64.6	59.8
03/07/2012	06:15:00 PM	73.4	86.1	54.1	80.2	74_0	70.8	62.4	56.2
03/07/2012	06:30:00 PM	73.1	83.5	52.7	79.47	73.8	70.2	61.8	54.8
03/07/2012	06:45:00 PM	73.0	97.7	51.0	7978	73.7	70.0	61.0	54.2
03/07/2012	07:00:00 PM	72.6	84.9	50.0	80.0	72.7	69.7	58.8	53.7
03/07/2012	07:15:00 PM	71.9	84.2	49.6	79.6	72.3	67.7	57.8	52.2
03/07/2012	07:30:00 PM	72.4	91.0	50.7	80.9	72.5	67.3	57.6	52.3
03/07/2012	07:45:00 PM	71.6	85	46.0	79.6	72.2	66.7	55.9	48.6
03/07/2012	08:00:00 PM	71.4	90.8	52.7	79.9	72.0	66.0	57.4	54.1
03/07/2012	08:15:00 PM	70.8	81.8	47.1	79.0	71.6	65.9	56.1	49.7
03/07/2012	08:30:00 PM	70.9	80.6	46.5	78.6	71.8	65.7	53.4	48.3
03/07/2012	08:45:00 PM	69.9	80.8	44.2	78.3	71.9	64.6	52.9	45.9
03/07/2012	09:00:00 PM	70.5	84.6	47.7	78.8	72.2	65.7	54.4	49.2
03/07/2012	09:15:00 PM	70.6	84.5	46.4	79.6	71.4	64.4	53.4	48.1
03/07/2012	09:30:00 PM	71.8	94.1	42.1	79.4	72.5	64.9	52.3	43.9
03/07/2012	09:45:00 PM	69.4	83.5	42.2	79.4	71.3	62.1	49.2	43.6
03/07/2012	10:00:00 PM	69.7	88.7	48.2	79.2	70.9	63.6	54.7	50.7
03/07/2012	10.4500 PM	69.3	88.0	44.0	79.0	70.2	62.8	52.9	46.3
03/07/2012	10:30:00 PM	68.3	82.5	45.8	77.7	70.3	61.4	51.5	47.6
03/07/2012	10:45:00 PM	69.8	101_1	39.7	78.1	70.6	58.9	47.6	41.2
03/07/2012	11:00:00 PM	66.9	82.4	45.5	77.8	69.4	60.0	50.7	47.0
03/04/2017	11:15:00 PM	68.7	90.3	40.1	79.6	70.6	57.1	46.1	42.3
03/07/2012	11:30:00 PM	66.4	86.1	40.5	77.9	68.7	55.7	45.2	42.4
03/07/2012	11:45:00 PM	67.9	87.7	39.0	80.1	69.4	54.7	44.4	40.8
4/07/2012	12:00:00 AM	64.4	79.3	37.3	76.7	67.9	50.0	41.2	39.0
4/07/2012	12:15:00 AM	65.7	86.2	37.9	77.4	69.5	52.0	43.0	40.0
4/07/2012	12:30:00 AM	64.2	85.6	35.6	76.9	64.8	48.5	39.8	37.2

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Start date	Start time	LAeq	LAFmax	LAFmin	LAF1	LAF10	LAF50	LAF90	LAF99
4/07/2012	12:45:00 AM	64.7	85.3	35.9	77.6	65.7	49.2	40.0	37.3
4/07/2012	01:00:00 AM	61.2	81.0	34.7	74.7	62.5	46.4	38.8	85.8
4/07/2012	01:15:00 AM	60.2	80.5	34,4	74.4	59.1	41.7	37.9	36.0
4/07/2012	01:30:00 AM	61.8	84.7	33.4	74.9	62.0	42.9	36.4	A4.4
4/07/2012	01:45:00 AM	64.2	89.3	34.7	76.0	62.1	44.7	38 1	35,9
4/07/2012	02:00:00 AM	63.1	88.2	34.4	75.9	60.4	43.2	868	35.3
4/07/2012	02:15:00 AM	59.3	78.5	35.1	73.4	60.9	43.3	88.2	36.2
4/07/2012	02:30:00 AM	61.1	80.5	35.6	74.7	62.7	45.0	38.1	36.5
4/07/2012	02:45:00 AM	60.8	80.5	35.1	75.4	60.8	43.4	38.6	36.7
4/07/2012	03:00:00 AM	63.2	85.4	35.5	76.6	62.8	479	38.7	37.0
4/07/2012	03:15:00 AM	61.3	82.1	36.9	74.2	62.9	49.2	40.2	38.5
4/07/2012	03:30:00 AM	61.3	81.3	36.0	73.5	63.8	51.7	40.6	37.4
4/07/2012	03:45:00 AM	63.3	89.7	35.9	76.2	68.8	46.6	40.5	37.7
4/07/2012	04:00:00 AM	61.5	80.3	35.5	74.1	1042	51.0	41.1	37.0
4/07/2012	04:15:00 AM	64.3	83.7	41.7	76,5	66.8	56.0	45.6	43.1
4/07/2012	04:30:00 AM	65.4	87.0	42.8	77.1	66.0	59.4	50.3	44.6
4/07/2012	04:45:00 AM	66.5	86.5	43.6	78.6	87.9	60.4	50.0	46.4
4/07/2012	05:00:00 AM	66.6	83.1	43.0	72.3	69.5	62.4	52.5	44.9
4/07/2012	05:15:00 AM	69.8	86.7	51.5	80.3	70.3	64.9	58.9	54.0
4/07/2012	05:30:00 AM	70_4	85.3	48.7	180Z	70.1	66.5	59.2	54.0
4/07/2012	05:45:00 AM	70.9	89.5	\$1.3	\$1.1	71.5	66.4	58.6	53.4
4/07/2012	06:00:00 AM	71.1	85.9	54.8	80.8	71.9	67.6	62.0	57.4
4/07/2012	06:15:00 AM	72.5	95.0	55.1	80.9	72.5	68.4	62.3	57.3
4/07/2012	06:30:00 AM	72.7	84,5	583	80.4	73.1	69.2	63.5	57.1
4/07/2012	06:45:00 AM	72.3	83.6	54.7	80.4	72.9	68.4	61.7	56.4
4/07/2012	07:00:00 AM	73.2	(89.0)	56.6	82.6	73.9	69.2	63.2	58.3
4/07/2012	07:15:00 AM	73.	89.5	54.9	81.4	73.4	69.0	63.5	57.0
4/07/2012	07:30:00 AM	72.8	86.0	52.6	80.1	73.1	69.1	63.2	56.6
4/07/2012	07:45:00 AM	73(8	86.2	53.0	80.9	75.0	70.1	63.1	54.9
4/07/2012	08:00:00 AM	73.1	84.4	52.2	80.9	73.2	69.6	62.9	55.0
4/07/2012	08:15:00 AM	73.5	86.4	51.2	80.9	73.4	69.9	63.6	53.9
4/07/2012	08:30:00 AM	73.1	84.0	54.9	80.0	73.4	69.5	63.6	58.8
4/07/2012	08:45:00 AM	73.2	86.7	52.9	80.3	73.1	70.3	63.3	55.4
4/07/2012	09:00:00 AM	73.1	84.9	53.0	81.4	73.2	69.2	62.0	55.7
4/07/2012	09:15:00 AM	73.1	94.1	54.6	80.5	73.3	68.9	61.7	56.8
4/07/2012	9:30:00 AM	67.9	71.0	66.6	68.9	68.7	67.4	64.8	64.5

C-Change Investments Pty Ltd	
Environmental Traffic Noise Level Stud	y for Proposed Residential Development, 156 Finucane Road, Alexandra Hills

APPENDIX C: CALCULATION OF MINIMUM Rw REQUIREMENTS

	Room	Component	TNR	Sc	Sf	۲	2760	υ	sum prior to log	log	log x 10	Adjustment: angle of view	Adjustment: distance	Adjustment: barrier/omd		N H
	Bedroom 1	External wall	37,1	17,1	12	2,7	1	2	3,167	0.501	5.006	1.8	-6.3	$\mathcal{Q}_{\mathcal{I}}$	23.9	30
	i	Window	37.1	1.8	12	2.7	1	2	0.333	-0,477	-4.771	-7.8	63	-4.1	14.1	20
	Bedroom 2	External wall	37,1	15.3	12	2.7	1	3	4.250	0.628	6.284	-7.8	-6.3	-4.1	25.2	31
		Window	37.1	1.8	12	2.7	1	3	0.500	-0.301	-3 010	-7.8	-6.3	-4,1	15.9	22
		Window	37,1	1.8	12	2,7	1	3	0.500	-0.301	-3010	7.8	-6.3	-4.1	15.9	22
	Bedroom 1	External wall	37.1	17.1	12	2.4	1	2	3.504	0 545	5.448	-7.8	-6.3	-2.5	25.9	32
1		Roof/Ceiling	37.1	12	12	2.4	1	3	3.689	9.567	5.669	-5	-6.3		31.5	37
		Window	37,1	1.8	12	2,4	1	3	0.563	0.257	-2.571	-7.8	-6.3	-2.5	17.9	24
	Bedroom 2	External wall	37.1	15.3	12	2.4	1	1	152.270	0.797	7.973	-7.8	-6.3	-2.5	28,5	34
		Roof/Ceiling	37,1	12	12	2.4	1	Y	(A. 948	0.692	6.918	-5	-6.3	-	32.7	39
		Window	37.1	1.8	12	2.4	6	4	0.738	-0.132	-1,321	-7.8	-6.3	-2,5	19.2	25
		Window	37,1	1.8	12	24	1	4	0.738	-0,132	-1.321	-7.8	-6.3	-2,5	19.2	25
	Living/Kitchen	External wall	35.3	9.72	28	27	\checkmark	2	0.771	-0.113	-1.127	-6.5	-4.5	-2,3	20.9	27
		Window	35.3	(F.98)	28	2.7	1	2	0.086	-1.067	10.669	-6.5	-4.5	-2.3	11.3	17
	Bedroom 1	External wall	371	12.4	12	2,7	1	2	2.300	0.362	3.617	-6.5	-4.5	-2.3	27.4	33
		Window	37.1	1.08	12	2.7	1	2	0.200	-0.699	-6.990	-6.5	-4.5	-2.3	16.8	23
	Living/Kitchen	External wall	35.3	15.5	28	2.7	1	3	1.843	0.265	2.655	-6.5	-4.5	-2.3	24.7	31
		Window	\$5.9	1.08	28	2.7	1	3	0.129	-0.891	-8.909	-6.5	-4.5	-2.3	13.1	19
		Sliding Glass Dopr	35.3	5.04	28	2.7	1	3	0.600	-0.222	-2.218	-6.5	-4.5	-2.3	19.8	26
	Bedroom 1	External wall	37.1	17,1	12	2.7	1	2	3.167	0.501	5.006		-3	-9.3	29.8	36
	\wedge	Window	37.1	1.8	12	2.7	1	2	0.333	-0.477	-4.771		-3	-9.3	20.0	26
	Bedroom 2	External wall	37.1	15.3	12	2.7	1	3	4.250	0.628	6.284		-3	-9.3	31.1	37
		Window	37.1	1.8	12	2.7	1	3	0.500	-0.301	-3.010		-3	-9.3	21.8	28
		Window	37.1	1.8	12	2.7	1	3	0.500	-0.301	-3.010	-4.1	-3	-9.3	17.7	24
	Living/Kitchen	External wall	35.3	9.72	28	2.4	1	3	1.280	0.107	1.074	-6.5	-4.5	-2.3	23.1	29
-	-100	Roof/Ceiling	35.3	28	28	2.4	1	3	3.689	0.567	5.669	-5	-4.5		31.5	37
1		Window	35.3	1.08	28	2,4	1	3	0.142	-0.847	-8.469	-6.5	-4.5	-2.3	13.5	20

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Our reference R12095A/D2698/Rev 1/24 09 12

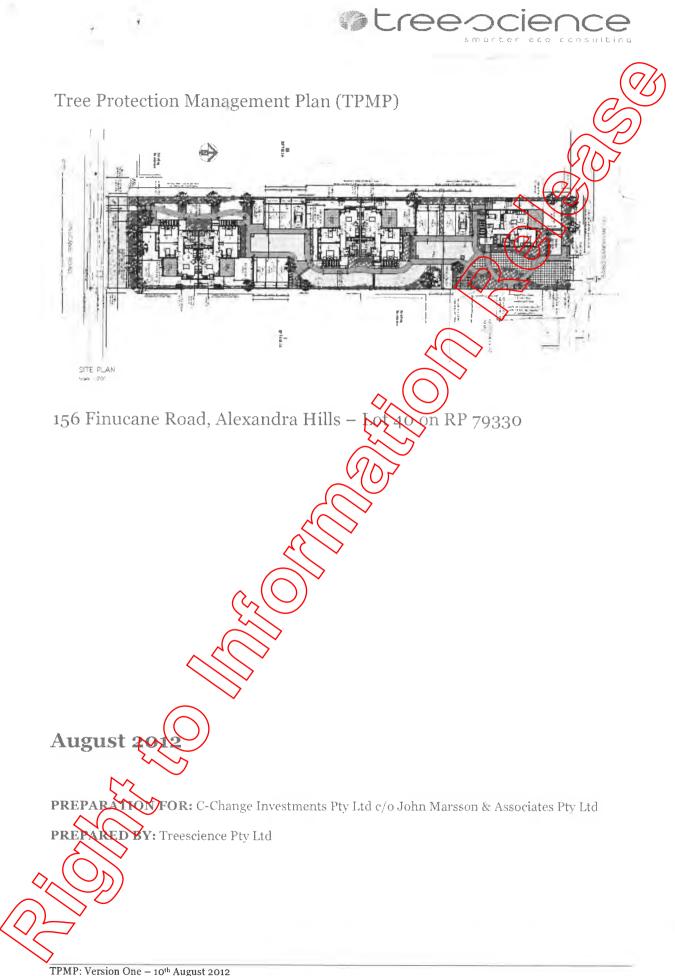
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Unit	Room	Component	TNR	Sc	Sţ	ч	2T60	С	sum prior to log	łog	log x 10	Adjustment: angle of view	Adjustment: distance	Adjustment: barrier/grnd	TNAC	
9	Bedroom 1	External wall	37.1	12.4	12	2.4	1	3	3,818	0.582	5.818	-6.5	-4.5	2.3	29.6	36
_		Roof/Ceiling	37.1	12	12	2.4	1	3	3.689	0.567	5.669	-5	-4.5	$\langle \rangle$	38.3	39
		Window	37.1	1.08	12	2.4	1	3	0.332	-0.479	-4_789	-0.5	<u>)</u> 4,5 \	-2.3	19.0	25
10	Living/Kitchen	External wall	35.3	15.5	28	2.4	1	4	2,719	0.434	4.344	-6.5	45	-2.3	26.3	32
		Roof/Ceiling	35.3	28	28	2.4	1	4	4.918	0.692	6.918	-5	4.5		32.7	39
_		Window	35.3	1.08	28	2.4	1	4	0.190	-0.722	7.219	-6.5	-4.5	-2.3	14.8	21
		Sliding Glass Door	35.3	5.04	28	2.4	1	4	0.885	-0.053	-0.528	-6.5	-4.5	-2.3	21.5	27
10	Bedroom 1	External wall	37.1	17.1	12	2.4	1	3	5.256	0.72	7/202		-3	-9.3	32.0	38
_		Roof/Ceiling	37.1	12	12	2.4	1	3	3.689	0,567	5.669	-5	-3	1	34.8	41
		Window	37.1	1.8	12	2.4	1	3	0.553	-0 257	-2.571		-3	-9.3	22.2	28
10	Bedroom 2	External wall	37.1	15.3	12	2.4	1	4	6.270	0.797	7.973		-3	-9.3	32.8	39
		Roof/Ceiling	37.1	12	12	2.4	1	N	(4,018)	0.692	6.918	-5	-3		36.0	42
		Window	37.1	1.8	12	2.4	α	¥	0.738	-0,132	-1.321		-3	-9.3	23.5	29
_		Window	37.1	1.8	12	C.Y	1	4	0.738	-0_132	-1.321	-4.1	-3	-9.3	19.4	25
		Roof/Ceiling Window	37.1 37.1	12 1.8	12 12	2.4 2.4	5	X	(4,918) 0.738	0.692	6.918 -1.321		-3 -3	-9.3	36.0 23.5	

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In preparing this report we have made certain assumptions. We have assumed that all information and documents provided to us by the Client or as a result of a specific request or enquiry were complete, accurate and up to date. Where we have obtained information from a government register or database, we have assumed that the information is accurate. Where an assumption has been made, we have not made any independent investigations with report in the matters the subject of that assumption. We are not aware of any reason why any of the assumptions are incorrect.

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Limitation

This report is only concerned with the condition and management strategies required for the subject tree(s). It includes an assessment based on the site visits and the information that I have been advised.

This report does not take into account the possibility of extreme climatic events not normally expected in this locality. Such events could include, but we not verticated to, severe windstorms, floods or drought. This report also does not take into account the possibility of future outbreaks of pests or diseases.

No decay detection equipment and/or soils and/or wood tissue samples have been sent for laboratory analysis.

DETAIL of REVISION AMENDMENTS

Tree Protection Management Plan (TPMP) Control - the latest approved version of the *TPMP* is to be made available for all project personnel in consultation Treescience Pty Ltd and/or John Marsson & Associates Psy t

working with you

Amendments

Each new revision to the TPMP will be distributed to all required personnel for review and approved

The revision type is noted in the footer of each page. The document will be allocated a new revision type if the changes made affect the overall meaning of the document.

When a new revision to the document is available, a notification email is to be distributed wall project personnel by Treescience Pty Ltd and/or John Marsson & Associates Pty Ltd advising of the update. All individuals working near protected trees, if applicable, are responsible for the implementation and very of the *TPMP*.

Document Version Control

Rev	Description	Originator	Reviewed	Approved	Date
Rev A	proposed 10 x 2 bed unit development at 156 Finucane Road, Alexandra Hill	Jason-jay	Jason-jay	Jason-jay	10/08/2012

Distribution

Copies	Recipient	Date
1 x PDF	John Marsson & Associates Jy Ltd	10/08/2012
1 x WORD	Treescience Ptv Ld	10/08/2012
File reference:	156 Finucane Rd, Alexandra Hills TPMP_August 2012_TREESCIPNCEPTY LTD_version 1	10/08/2012

This document was prepared for the sole use of John Marsson & Associates Pty Ltd and the regulatory agencies that are directly involved in this project – 156 Fnucture Road, Alexandra Hills. We are not an advocate for a particular party. Our duty is to assist in providing information for Redland City Council (RCC) and John Marsson & Associates Pty Ltd for their review of phy matter. No other party should rely on the information contained herein without the prior written consent from the Director of Treescience Pty Ltd and/or John Marsson & Associates Pty Ltd.

Jason-jay Fletcher Director/Principal Arboricultural Scientist 10th August

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@tree nsulting

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DOCUMENT REFERENCES

Associated Documents and Procedures reviewed

Document Number/date	Document Name
12-05-05	Site Plan/Site Section - John Marsson & Associates Pty 145
12-05-04	Existing Site Plan - John Marsson & Associates Ky No
12087-01	Plan of Contours and Details Survey – Ken McDonald Surveys

Relevant Policies and Procedures

Document Number	Name		
	Redland City Council Planning Sc	heme – July 2010.	

Definitions and Abbreviations

An organisation inviting and receiving tenders and letting contracts. For the purposes of this project, C-Change Investments Viz LN & John Marsson & Associates Pty Ltd.
An organisation that contracts with a client to carry out construction and related services. For the purposes of this project – These cience pty ltd.
Redland City Council
Queensland government department, authority, corporation or entity established by an Act of the Queensland Parliament
156 Finucane Rd, Alexandra Hills
Organisation that contracts with a principal contractor as the client to carry out construction and related services.

TPMP: Version One – 10th August 2012 ©treescience pty ltd – 156 Finucane Road, Alexandra Hills – *uncontrolled when printed 10th August 2012*



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Appendix ONE: Tree Protection Signage example

Appendix TWO: Tree Protection Poster

Appendix THREE: Tree Protection Handout

Appendix FOUR: Type & Effects of Tree Damage

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Librains with wall

KEYWORDS

Th

Project Arborist. Tree Protection Zone. and Structural Root Zone.

U L BACKGROUND & SUMMARY

Treescience Pty Ltd was engaged by C-Change Investments Pty Ltd to undertake an assessment of selected trees at 156 Finucane Road, Alexandra Hills.

This Tree Protection Management Plan/report has been prepared to accompany a Development Application over Lot 40 on RP 79330, located at 156 Finucane Road, Alexandra Hills. Treescience has assessed eight (8) prominent trees within the site potentially affected by the proposed development, which meets the criteria for protection under the Redland City Council Planning Scheme. A tree inventory and tree size plan is included in this report.

Specifically, the intent of the *TPMP* was to collect tree data and provide arbiticultural relevant information on nominated trees that would assist in their maintenance and in developing appropriate tree management strategies. The procedures and presentations within this report, therefore, adhere strictly to the good practice standards recognized within the Australian arboricultural industry, NS 1970-2009, 'Protection of Trees on Development Sites'.

AS 4970-2009, Protection of Trees on Development Sites provides suidance for:

- a balanced approach on deciding which trees are appropriate for retention
- effects of trees on design considerations
- means of protecting and monitoring retained trees during development.

It is proposed to remove four (4) prominent trees due to their location to the construction footprint of the proposed unit complex or the subject tree(s) is structurally compromised.

It is proposed to retain four (4) prominent ress within close proximity of the proposed unit complex; three (3) trees require engineering solution to witigate the driveway placement.

In order to construct the unit complex there are limited incursions proposed into the Tree Protection Zone (TPZ) of tree nominated for retention. All incursions within the TPZ are to be closely supervised by the Treescience team to ensure that any impacts conform to the constraints within AS4970-2009, 'Protection of Trees within Development Sites', and these specified in this management report and supporting drawings.

The vehicular access/alignment from St Anthony's has been altered to provide adequate protection to trees #1. #3, and #4 below ground growing environment. Tree canopy containment or other protection measures have been specified within this report. We believe that the proposed tree management strategies are of a dynamic nature and changeable character. We also want to unscored the flexibility of this working document. We see it as part of the continuing songultancy process that this document will be updated from time to time, and also will form the basis for a historical documentation of the tree management practices/processes.

The extent of proposed landscape works and details of stormwater and other services location were not finalised at the time of this assessment. Further impacts on retained trees are possible where these works occur within the designated TPX's.

complication of diligent arboricultural management as outlined in this report will avoid unnecessary tree to also redunage to the retained vegetation. This management report requires review according to any sequenchanges to proposed infrastructure or landscaping prior to Operational Works Approval. This report o be implemented under the direct supervision of the Treescience team.



Provide measures to ensure the protection and the long term survival of the nominated trees for and below the ground. The report shall include but not limited to the following items as requested by Marsson & Associates Ptv Ltd:

- Details of all proposed vegetation works (including proposed clearing or retention works) of ensure: î.
 - a) The survival, ongoing health and vigour of retained vegetation (given proxincity) puildings and areas where works are to be undertaken) including any necessary reductions to accommodate footing and foundations, and protective devices to minimise construction impacts;
- All tree management procedures within the report are to be in accordance with the Australian Standard ii. AS 4970-2009 Protection of trees on development sites.

02.1. The purpose of this *TPMP* is to:

- ademonstrate that any impacts to the subject trees have been a sessed and methods have been put in place evel (as to either remove, mitigate or reduce such impacts to a lower practical) for trees proposed to be retained:
- be implemented during construction works to identify additional feasible mitigation measures that ma b) retain and protect trees proposed to be removed;
- c) provide guidance on the protection of the retained tree the potection materials to be used and the method/s of installation;
- d)
- identify requirements for the short and longer-terminanagement requirements of retained trees; nominate a strategy for impact assessment for additional works not previously considered, that may be e) required as detailed design progresses; and
- f) define responsibilities.

A site and tree inspection was conducted in ugust 2012.

Tree assessment consisted of a comprehensive visual inspection of all parameters pertaining to the subject tree(s) present and future health, and the following of previous and future activities which may have impacted the subject tree(s) applying modern arbon ultural principles and practices. Soil characteristics and tree architecture were generally noted and/or analysed employing standard industry tools such as optical laser equipment, measuring tapes, microscopes and auger/coring devices etc. The assessment did not involve a detailed examination of the below scound characteristics or internal tree parts. The assessment was undertaken from the ground to determine the health, structure, form, and tree classification with measurements taken to establish trunk and canopy dimensions.

was clear and I had an unobstructed view of the subject tree(s). The weather

The TPMP with highinght the tree protection/management procedures and theories to support my constituted views

on my brief I believe I can say the aim of the C-Change Investments Pty Ltd. John Marsson & Associates Based Speescience Pty Ltd is to preserve these local significant trees.



The wider urban environment/study area has been relatively modified given the past vegetation clearing produce to facilitate the existing building footprints. The established insignificant trees within the study area are made up of a mixture of pre-existing mature natives, introduced exotics and some non-endemic native trees. Majority of the interior insignificant trees consists of maturing woody weeds such as Coco's Palma. African Tulip trees, Chinese elms and crepe myrtle specimens. The larger remanent/prominent trees are scattered along the west and eastern boundary.

@tree<

Finucane Road.

The site is class as medium value vegetation and the site is relatively level with a slight fall over d

0.5 INDIVIDUAL TREE OBSERVATIONS

Further to your request we have inspected the following trees and wish to provide the following summary:

05.1. In review of the proposed building footprint the following trees have been nominated for removal (highlighted orange) within the tree inventory table ONE.

Tree 37 – The subject tree is a significant specimen established along the chared neighbouring western boundary. Given the subject trees proximity to the proposed unit complex comprised, and construction footing requirements it is highly likely that the structural integrity of the subject tree would be compromised resulting in tree decline and/or total tree failure.

Tree 12 – The subject tree is a significant specimen established along the shared neighbouring western boundary. The subject tree has sustained some extensive lower rule davage as result of recent malice human practices which has removed a substantial volume of active sufwood within this general region as depicted in Plate 1.1. As result of the malice practices a large wound and active decay will occupy the wound region for many ten's of years. While the subject tree has the ability to compartmentalise the recent lower trunk wounding over many years, it is highly likely the decay will advance into the root plate region.

The subject tree has a large volume of structural woody surface roots occupying the area between both dwelling as illustrated in Plates 1.2.. and 1.3.Demotizion of the two existing dwelling will result is considerable root damage, further compromising the structural integrity of the subject tree.

Tree 19 – The subject is a semi-mature spectmen established along the western boundary. The subject tree has a substantial lean (35 degree) toward the vert and over the neighbouring property roof line as illustrated in Plate 1.4.

Tree 28 – The subject tree is established adjacent to Finucane Road. The subject tree is an aged specimen with majority of the upper canopy consisting of epicormic which is arising from an aged decaying stump as depicted in Plate 1.5.



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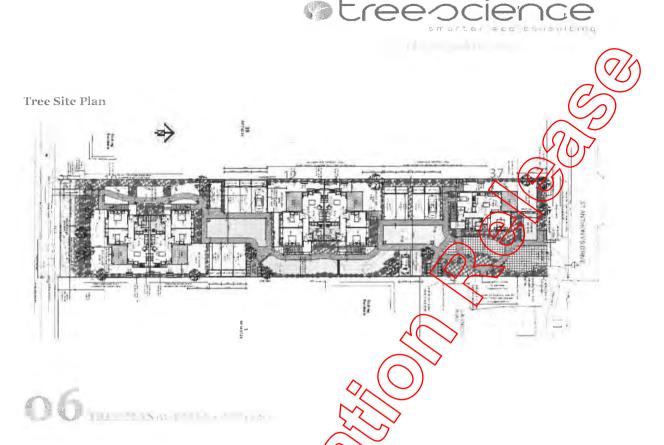


Tree 3 – Requires the western sub-dominant primary leader to be reduced by around 3 to 4 metres to help restore apical dominancy and aid in promoting tree structure

Tree ID number	Tree Species	Tree age	(Jun) (1990)	Tree Height (m)	Tree Health	Tree Structure	TPZ (m)	SRZ (m)	Action	Comments
1	Corymbia trachyphloia	Semi-mature	450	18	Good	Good	5.4	2.4	Retain	East boundary - Engineering solution required for drive way
3	Corymbia maculata	Semi-mature	600	19	Good	Good	7.2	2.7	Retain	East - Engineering solution required for drive way
4	Eucalyptus racemosa	Semi-mature	500	18	Good	Good	6	2.5	Retain	East - Engineering solution required for drive way
28	Bauhinia spp	Mature	300	6	Fair	Poor	3.6	2	Removal	East - canopy arising from an old lopped decaying stump
37	Eucalyptus racemose	Mature	800	25	Good	Good	9.6	3	Removal	West - Strip footing will possible effect the structural integrity
12	Eucalyptus microcorys	Mature	800	23	Good	Poor-fair	9.6	3	Removal	West - Strip footing will possible effect the structural integrity + substantial basal wound
19	Eucalypuns raceunosa	Semi-mature	600	17	Fair	Fair	7.2	2.7	Removal	West - substantial lean toward the west over the neighbouring property
25	Commbia trachyphloia	Semi-mature	400	15	Fair	Fair	48	2.3	Retain	West - semi-mature specimen with an footpath within the TPZ

Table ONE: Tree Inventory

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During the construction of any buildings or works, the following rec protection requirements must be carried out to the satisfaction of the responsible authority (Redland City Courcil).

06.1 Service trench installation

All sub surface utilities and utility connection points, aspection pits and associated infrastructure trenching and installation are to be designed so that they are located outside the TPZ's of retained trees, with a preference along the western boundary and to the satisfaction of the responsible authority. Utility conduits can be located beneath TPZ s but must be installed using trenchines excavation in consultation with the Project Arborist/Treescience team to determine the entry, exist and musing undepth below natural grade.

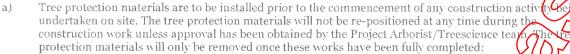
06.2 Tree Pruning or Removal

All the trees approved for penny al by RCC are to be removed to facilitate construction works

The tree canopies birds subject nominated for retention shall be pruned in accordance with Standards Australia AS 4373-2007. 'Pruning of Amenity Trees' to ensure the building works (demolition/construction) have adequate clearance with consideration of the current treescape/canopy formation. Selected branch removal, as reasonably directed within report shall be undertaken to promote tree health and structure.

06.3 Tree Protection Fencing

ice design must be suitably robust to deter the entry of persons, heavy machinery/equipment, and vehicles e designated *TPZ*. The tree protection fencing is to be erected in such a way as it follows the designated ind/or the construction area boundaries with consideration of the following requirements:



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- b) No construction activities should take place until the relevant requirements of this *TPMP* have implemented;
- c) No construction activities are to be undertaken within the fenced *TPZ* which may have any harmful effect on the protected tree;
- d) Keep machinery and other equipment away from the tree's. branches. trunk and roots
- e) Protect the trees, roots and natural condition of the soil;
- f) Prevent compaction occurring within the *TPZ*;
- g) Exclude harmful effects outside of the *TPZ*'s e.g. soil erosion, radiant heat rom machinery exhausts and polluting agents draining into the protected area:
- h) Nothing is to be stored within the fenced *TPZ*; and
- i) Signage should generally conform to AS 4970 2009.

The integrity of the *TPZ* fencing and signage must be maintained throughout the development. The *TPZ* fence can only be removed or shifted by the consent of the Project Arborist/Treescience team. Entry into the fenced *TPZ* areas by persons, vehicles or machinery is not permitted without consent of the Project Arborist/Treescience team.

Complete the *TPZ* fencing by securing the required warning signs to all sides lacing the area of construction activities with 15 metre spacing at a height of 1.5 metres above symplecel (see example in Figures 1 and 2 below). The warn sign shall be a minimum of 600 x 600 millimetres in dimensions, waterproof and be of a high visibility ink colour on a white background, with letters at least 80 mNimetres height. Refer to appendix 3.

Tree protection fencing is to be of an agreed design/construction style in accordance with AS 4970-2009, such as galvanised steel mesh panels* (e.g. Australian Temporary Feyer – ATF), inserted into the associated ground anchor blocks and clamped at the top of each pair of panels. The bolts holding the clamps are to be done up tightly with a wrench so that the fence cannot be easily moved.

*Alternative materials may be used in consultation and agreement from the Project Arborist/Treescience team.

NB: The recommended minimum *TPZ* is to be pronounced as a clearly defined bold black line on all relevant drawings. The lined areas is to be keyed as "*TTZ* – *keyp out*". The enclosed *TPZ* on the relevant drawings is to be thatched and lightly shaded to assist with defining the *TPZ*.

Figure 1. Tree Protection Fencing (Course)

Warningsten

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Mulch laver



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06.6 Irrigation

The project site is to provide a dedicated water access point for the purpose of supplemental irrigation. The volume and frequency will depend on the environmental conditions. If, as a result of water restrictions, reticulated water cannot be used, recycled water shall be utilised with the introduction of humic acid upder the direction of the Project Arborist. Brackish or river water shall not be utilised for the purposes of tree inigation.

06.7 Driveway design

The paved driveway within the TPZ of Trees #1, #3, and #4 needs to be constructed at the existing soil grade using porous materials that allows water to penetrate through the surface and into the foil profile. The driveway is to be graded towards the garden bed (east) so excess water runoff is directed toward the pot zone area of tree #1, #3, and #4. The driveway construction adjacent to trees #1, #3 and #4 are to be highlighted on the endorsed plans indicating that there is to be no altering of the existing ground level or the topography of the land within this region.

06.8 Boundary fencing design

The eastern fence is to 1800 millimetres paling fencing construction. The postholes are to be designed/alternated within the TPZ to consider the subject trees.

The western fencing design needs to consider tree #25 is to be constructed on tree sensitive footings, such as post footings or screw piles, with no grade change within the TP2

The decision to adopt or reject particular tree preservation measure/maintenance decisions will in some instances be driven by broader management based considerations that are beyond the scope of this assessment. Therefore the 'general tree management notes' provides further guidance in relation to broader construction constraints in the vicinity of trees identified for retention.

In order to sustain trees on a development site consideration must be given to the establishment of *TPZ*. The sitespecific factors effecting the development of individual trees on Council controlled land, particularly constraints to symmetrically radial canopy and root growth may allow for modification of individual tree protection zones. Guidance on the potential to modify protection zones/measures of individual trees should be sought from the Project Arborist/Treescience team.

07.1. Vehicles and machinery working under trees

reneral TREEMA

Some construction work is proposed to be undertaken near to or in some cases, within some of the *TPZ*'s. Using heavy encices/machinery under trees is a common cause of soil compaction, damage or loss of roots and damage to the trucks and branches (including sustaining burns from top mounted exhausts). Some limited work maybe possible under parts of the trees provided that the risk of compaction of the soil over the root zones and damage to the trucks and branches is managed by seeking advice from the Project Arborist/Treescience team and implementing any recommendations.

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Due to the variable physiology and growth characteristics of trees, any such work will have to be assessed on case by case basis. The use of any vehicles and heavy machinery either near or next to identified trees for retention will need to be effectively supervised (spotters) dedicated to that task, in the absence of a *TPZ* barrier and/or fencing.

The role of the spotter(s) will be to make sure that no damage is caused to the subject trees by any direct only (e.g. truck tipping bodies etc.) or indirect contact (e.g. burning from upward discharging exhausts of trues are excavators etc.).

The heat and fumes that are expelled from the exhausts of machinery and vehicles with upward facing exhausts can easily burn tree foliage and must therefore be excluded from working (including idling) under the trees. If this situation cannot be avoided, the exhaust(s) will need to be redirected by modifying there outers e.g. steel flexi-pipe secured to the exhaust outlet and directed downwards away from the trees.

Spill kits must be made available to deal with any fuel and oil leakage/spillage that condenter any of the TPZ's.

07.2. Work Method Statements

Work Method Statements are required for any work or operation of large machinesy that is proposed to be carried out beneath the canopy of any identified trees for retention or anywhere within a designated *TPZ*. The document must be supplied to the Project Manager and Project Arborist for their review, at least one to two weeks prior to the proposed works taking place.

The purpose of this procedure will be to pro-actively identify any impacts from the work that could potentially harm any identified trees for retention and to make sure that the version under taking the work understand their responsibilities, as defined in this *TPMP*.

07.3. Site inductions and awareness briefings

The following documentations are to be incorporated as part of site inductions and awareness training.

Tree Protection Fence Signage, refer to Appendix ONE Tree Protection Poster, refer to Appendix TWO. Tree Protection Handouts, refer to Appendix THRKE. Types and Effects of Tree Damage Appendix FOLD.

For the general project, site specific inductions will convey the importance of the project's requirements not to damage any trees that have been identified for rejention.

In addition, senior personnel are to undergo awareness briefing sessions that are to be delivered by the Project Arborist.

Toolbox talks are proposed for specific tree protection training for construction personnel involved in tree impact works.

07.4. Soil moisture and soil pH Management

Soil moisture during construction must maintain at no less than 50% of field capacity within the designated *TPZ* which is to be monitored by the project Arborist/Treescience team. All materials proposed to be used within the *TPZ*'s that can cause any significant changes to the pH of the soil are to be avoided.

07.5. Ground Root Protection

Where, due to characteristic constraints, pedestrian traffic or plant and vehicular routes are required through *TPZ's*, protection of soil and roots should be addressed through a combination of fencing, and buffering material layer over the ground. For light loads (Pedestrian traffic), the application of the following treatments may apply:

oom) deep layer of 10/14mm blue steel screening laid over a pegged geotextile material; oo to 125mm course un-composted hardwood mulch layer having 80% of the mulch particles being round 25 millimetres in diameter or more, laid over a pegged geotextile material; or single thickness of scaffolding boards on top of compressible 50 millimetre thick layer (moist sand) adover a pegged geotextile material.

Pageld

For heavy loads (plant, machinery and vehicular traffic), the ground protection should be engineered to accommodate the anticipated loading and may require a corduroy system of heavy 10 millimetres thick show metal laid over sand or other recognised systems.

07.6 Excavation around trees

Excavation for service trench installation is not permitted inside the *TPZ*, unless on approved place of supporting Work Method Statement (WMS) and in consultation with the Project Arborist (Treescience tra

Where excavation for new construction is required within the *TPZ* of trees, use alternative methods such handexcavate or use alternate means such as 'Air Spade' to expose roots and aid in excavation etc. Techniques and application formulas are to be approved by the Project Arborist/Treescience team.

07.7. Soil aeration

Where required soil within the *TPZ* is to be aerated using industry tools such as a "Grow Gun or Air Spade" technology or applying organic stimulates with selected soil foods. The soil aeration will reduce compaction and improve soil oxygen levels and soil moisture percolation. Techniques and application formulas are to be approved by the Project Arborist/Treescience team.

07.8. Root protection

If plant or machinery with a bucket or blade type equipment is required for excavation abutting or near the edge of the *TPZ*, the bucket/blade should be orientated to work raching from the trunk rather than across the subject tree's root plate region. This will help mitigate longitudinal root shuttering towards the trunk. Alternative methods such a water knife cutting is to be considered prior to standards work practices.

Pruning of tree roots greater than 25 millimetres in diameter and to be cleanly cut using a sharp saw or secateurs by the Project Arborist/Treescience team. Any machiners not specially designed to prune roots must not be used.

Exposed roots within the designated *TPZ* must not be allowed to desiccate. Exposed roots must be covered with a temporary earth covering, packed with pre-wet performs, composted mulch or 4 layers pre-moistened thick untreated hessian or jute matting material and primed in place. The covering must be kept moist under the guidance of the Project Arborist/Treescience team until such time as the tree roots are permanently covered.

07.9. Modification of soil levels

Scalping of soil must not remove matter other than loosen marginal organic material and/or turf. Turf should be carefully removed to create minimal sail disturbance.

Raising ground levels within a *THZ* nust use a suitable permeable soil such as a structure soil matrix and/or other materials that does not alter water infiltration and gaseous diffusion in consultation with the Project Arborist/Treescience team.

Inversion of soil layers must be worked where inversion can result in reduced water infiltration and gaseous diffusion.

07.10. Fertilisation and Root Stimulants

If nutrient deviciencies are or become evident and following confirmation by soil and foliage analysis, a fertilizer of balanced formula with an organic nitrogen source, phosphorus, potassium, and necessary trace elements will be applied by high pressure soil injection at a rate and composition specified by the Project Arborist/Treescience team

A barancest textilisation formula with a composition of 100% organic nitrogen source, phosphorus, potassium and various trace elements should be applied to the exposed soil area within the Structural Root Zone (SRZ) by the Treescience tram. The proposed fertilisation works and root stimulants will work to achieve soil cation balance, and improve soil microbiology.

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PECTION PRE AND DURING CONSTRUCTION

The retained trees and tree protection works shall be inspected, as a minimum, every month by the Pr Arborist/Treescience team for the duration of the project. Site summary reports shall be submitted Manager as a part of the conditional approval re the subject tree(s). All non-conformances shall be in rectification works recommended and inspected on completion.

The monitoring of the subject trees condition is recommend over a period of time incorporating two growing seasons (August through April), this will allow the identification of any cultural required such as irrigation or fertilisation, and/or remedial works such as tree pruning or soil reinvention works.

The Project Manager is to consult with the Project Arborist/Treescence tram when any of the following occurs:

- o If there needs to be any deviation from the approved finel plans regarding any of the construction
- activities that are to be undertaken near or in the ridiality of those protected trees that are to be retained; If access is required within the fenced tree and root protection areas;
- If the tree(s) foliage starts to wilt or changes colour,
- If any cracks or splits appear in the branches of trunks (especially if this accompanied by the exudation of sap, liquids or discolouration of the bark
- If any damage occurs to any part of the trees
- The appearance of any infestation by insects, fungi or any other unusual thing; or
- The need to move or dismantle the tree protection fencing and any other associated materials.

NB: A guide to understanding some commonly encountered tree impacts and their potential effects is provided in Appendixes and should form part of available site induction material.



Tree preservation within the unban forest footprint is of significant importance as population increases, exerts pressures on development and the need to encroach on green spaces above and below the ground increases. Just as vital as retaining green spaces in these emerging community areas, is ensuring that the trees elected for retention and their component parts are assessed and conducive to the proposed development constraints without tree death of decline being experienced.

I believe constitution of the 'unit complex' can be achieved without tree death or decline being experienced based on the proposed desires and tree preservation measures for the nominated tree for retention.

The by her must supply a concise methodology detailing processes to be used in the construction of driveway adjacent to *1, #3 and #4. rees



RECOMMENDED STEPS for IMPLEMENTATION of the TPMP

Pre-start:

- Site specific induction of the arboricultural requirements;
- Check that all documentation is in place recognised the subject tree(s), i.e. permits Statements (WMS): and
- Ensure the TPMP is a controlled document.

Tree Protection:

Installation of the tree & root protection steps in accordance with this r

During and Post Construction Stages:

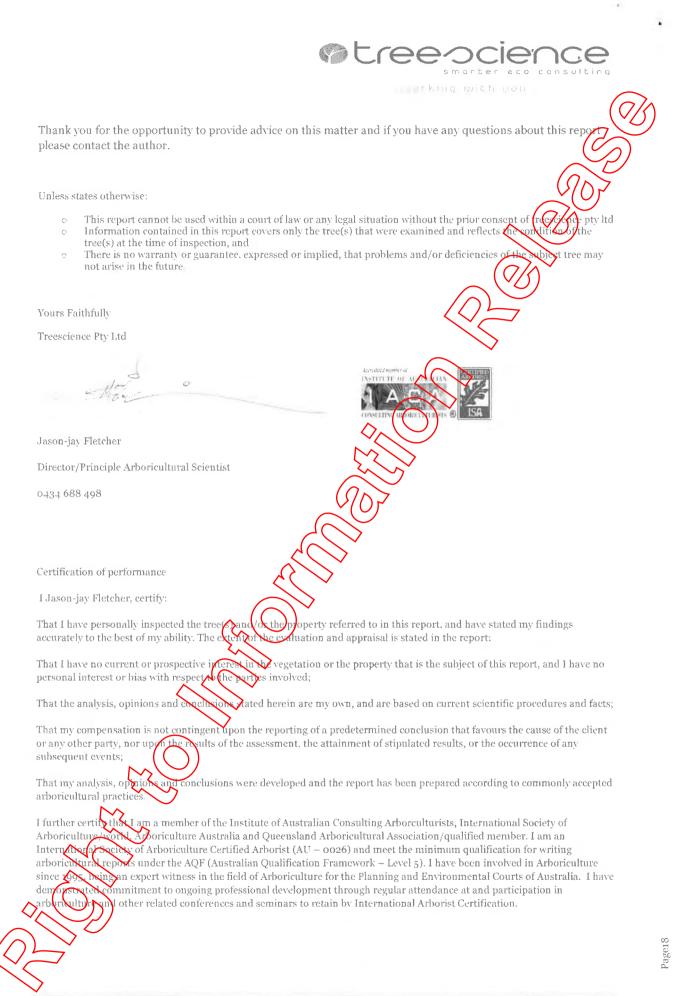
- The Project Arborist is required to monitor the health and condition of the retained trees and all tree protection components, fortnightly in accordance with this TPMP Northly monitoring reports are to be produced by the Project Arborist;
- The Project Arborist/Treescience team (in consultation with Project Manager) will initiate and manage any remedial works or action as required during and at the end of the construction stage; and Upon completion of all construction activities, the Project Arborist/Treescience are to produce a final certification report indicating that all of the provisions within this *TPMP* have been compliant as set out 0 within the TPMP.

Additional information:

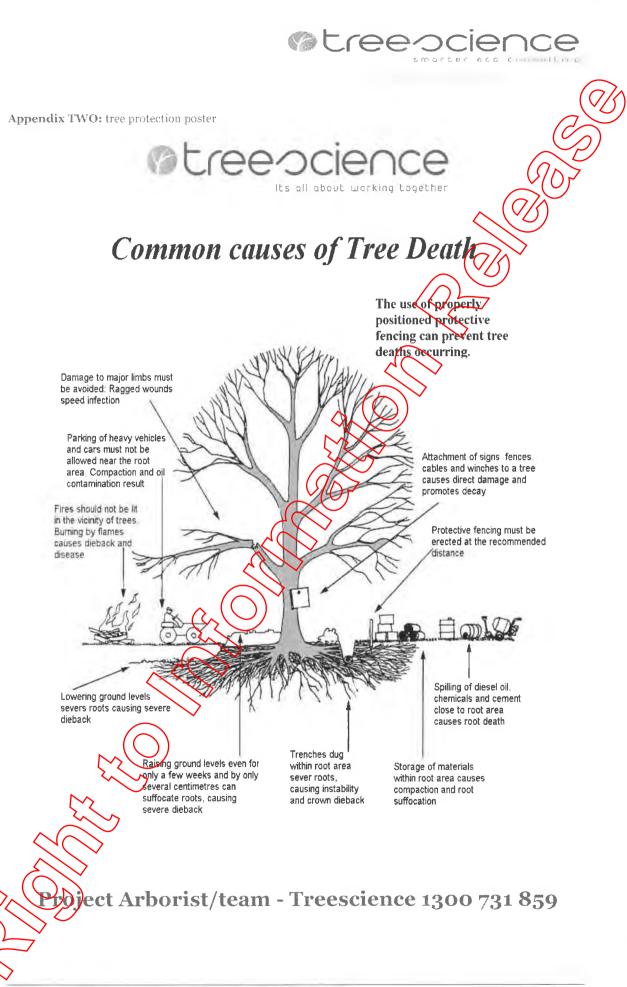
This report describes the role of the Project Apports / Treescience team in the protection of the subject trees at 156 Finucane Road, Alexandra Hills, methods and uniterials required as a minimum for the construction of the multiunit complex.

However the *TPMP* has clearly defined and quantifies the level of professional advice and tree protection that will be required. The purpose of this *TPMP* is to previde consistent and uniform standards and minimum guidelines for retention and protection of the trees whilst construction occurs.

Please read carefully and following guidelines as well-meaning individuals usually cause serious damage to trees during construction. This can concerne result in death, severe short and long-term decline or physical failure of the tree.







Appendix THREE: tree protection handout



The Tree Protection Information Handout will be available at formal site inductions.

Construction and Trees

Why do we need to erect fencing around trees?

The fencing is designed to protect the tree/s and their reason the harmful effects commonly associated with construction work, for example, any direct and indirect damage to the tree and its roots from, soil compaction, storage of materials radiant heat (e.g. from machinery exhausts) chemicals and any other polluting agents draining into the protected area e.g. contaminated water from cleaning.

The major cause of damage to trees on construction sites is due to compaction of the soil around their roots.

- Roots use the spaces between soil particles to obtain oxygen, water and nutrients. Heavy plant and machinery compresses (compacts) the soil, squashing out the air spaces, effectively suffocating the roots.
- Compacted soil stays compacted i.e. it does not recover on its own. The main symptom of the lass or damage of roots is often seen as die-back of the ends of the branches.
- Symptoms such as die back may take several years to appear.
- The fencing type and distances are specified by an Arborist by referring to the appropriate Australian standards.

The installation and maintenance of protective fencing is a condition of the permit approvals and substantial fines apply for the unauthorised interference of any tree protective fencing and materials.

Report any damage to tree protective fences, and/or any harmful effects entering the tree and reor protection areas to the site supervisor immediately

Arborist/team – Treescience 1300 731 859

Appendix FOUR: type and effects of tree damage

The table below has been provided in order to convey some of the most common causes of developmen damage to trees and their various parts.	h	10
damage to trees and their various parts.		1

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Examples of damage relating to construction work	Crown Die Back	Root Death	Tree Instability	Loss of Vigor	Susceptibility to pest and diseases	Reduction in the associated ability of water and metrients
Root damage / loss	Yes	Yes	Yes	Yes	Yes	8)
Soil Compaction	Yes	Yes	1	Yes	Yes	Yes
Excavation within root zone	Yes	Yes	Yes	Yes	Yes	Yes
Physical damage to trunk or branches	1	Ī	Ŷ	7		T
Changes to ground levels (filling or grading)	Yes	Yes	Yes	Yes)esv	Yes
Contamination of the ground with toxic materials	Yes	Yes	4	N25	Yes	1
Installation of impermeable surfaces	Yes	Yes		OF	Yes	1
Fluctuations or permanent changes to the water table	Yes	Yes	Yes	Yes	Yes	Yes
Fires and Heat	Yes	Yes		Yes	Yes	1

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Clients may choose to accept and/or disregard the recommendation formulated within this p

The devices and techniques used to develop this report have been selected to minimise the reporting costs, while ensuring that the reporting information and the subsequent recommendation outlines within the report and subgeb to the specific site.

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- Unless expressed: a) Information costained in the report will cover those items that were outlined in the brief or that were examined during the session and reflect the condition of those items at the time of the inspection; and b) The inspection is limited to use al examination of accessible components without dissection, excavation or probing unless otherwise stipulated within the report document.
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- To the authors knowledge all facts, matter and all assumptions upon which the report document proceeds have been stated within the budy of the report document and all opinion contained within the report document will be fully respectived and referenced and any such opinion not duly researched is based upon the authors experience and observations.

QUEENSLAND LAND REGIST,RY FIRST/NEW COMMUN Body Corporate and Community Management Act 1997	ITY MANAGEMENT STATEMENT CMS Version 3 Page 1 of ##
	(a)
THIS STATEMENT MUST BE LODGED TOGETHER WITH A FORM 14 GENERAL REQUEST AND IN THE CASE OF A NEW STATEMENT MUST BE	This statement incorporates and must include the following:
LODGED WITHIN THREE (3) MONTHS OF THE DATE OF CONSENT BY THE BODY CORPORATE	1.1 Schedule A - Schedule of Tot entitlements
Office use only 1. CMS LABEL NUMBER	Schedule B- Explanation of development of scheme land Schedule C - By-laws Schedule D - Any other details Schedule E- Allocation of exclusive use areas
1. Name of community titles scheme	2. Regulation module
156 Finucane Road Community Titles Scheme	Standard Module
3. Name of body corporate	
Body Corporate for 156 Finucane Road Community Title	es Scheme
4. Scheme land	
Lot on Plan Description County Common property of 156 Stanley	Parish Title Reference Capataba Yet to Issue
Finucane Road Community Scheme Lots 1 to 10 on SP 250371	
5. *Name and address of original owner	6. Beference to plan lodged with this
C-Change Investments Pty Ltd ACN 112 133 589	statement
c/- Nicholsons Solicitors, Level 12, 379 Queen Street, Brisbane QLD 4000	SP 250371
# first community management statement only	~
7. Local Government community management stat	tement notation
€z(O)	signed
	name and designation
	name of Local Government
8. Execution by original owner/Consent of body co	orporate
Execution Date	*Original owner to execute for a <u>first</u> community management statem *Body corporate to execute for a <u>new</u> community management statem
Privacy Statement Collection of this information is authorised by the <u>Body Corporate and Comm</u> searchable registers in the land registry. For more information about privacy	<u>unity Management Act 1997</u> and is used to maintain the publicly in NR&W see the Department's website.
	1

ENLARGED PANEL

FORM 20 Version 2 Page ## of ##

QUEENSLAND LAND REGISTRY Land Title Act 1994, Land Act 1994 and Water Act 2000

HEDULE A SCHEDULE OF LOT ENTITLEMENTS							
Lot No. on Plan	Contribution	Interest (
Lot 1 on SP	1	1					
Lot 2 on SP	1	1(2/1)					
Lot 3 on SP	1						
Lot 4 on SP	1	1					
Lot 5 on SP	1	(σ/δ)					
Lot 6 on SP	1						
Lot 7 on SP	1						
Lot 8 on SP	1						
Lot 9 on SP	1	1					
Lot 10 on SP	1						
TOTAL	10	10					

- 1. The Contribution Schedule Lot Entitlements ("CSLF") for each lot included in the
 - Scheme has been calculated in accordance with the equality principle and is equal.

EXPLANATION OF INTEREST SCHEDULE LOT ENTITLEMENTS

2. The Interest Schedule Lot Entitlements ("ISLE") for each lot included in the Scheme has been calculated in accordance with the Market Value Principle and reflects the market Value of each lot in the Scheme

SCHEDULE B EXPLANATION OF THE DEVELOPMENT OF SCHEME LAND

Section 66(1)(f) and (g) of the Body Corporate and Community Management Act are not applicable

SCHEDULE C BY-LAWS

1. NOISE

- 1.2 An Owner or occupier of a Lot, their servant or agents shall not make, or permit, any noise in the Lot or on Common Property which will be likely to interfere in any way with the peaceful enjoyment of other Owners or occupiers of Lots or those having business with them or of any person lawfully using the Common Property.
- 1.3 In the event of any unavoidable noise in a Lot at any time, the Owner or occupier thereof shall take all practical means to minimise annoyance to other Owners or occupiers of Lots by closing all doors windows and curtains of its Lot and also such further steps as may be within his power for the same purpose.
- 1.4 All musical instruments, radios, television receivers and sound equipment shall be controlled so that the sound is reasonable and does not cause an annoyance to any other Owner or occupier of a Lot. Such equipment and instruments shall not be operated between the hours of 9:00 pm and 8:00 am in such a mariner as to be audible at all to any other Owner or occupier of a Lot.

5 Quiet playing of musical instruments is permissible to a reasonable extent at any time during the hours of 8:00 am to 9:00 pm. Practising during the said hours is permissible but for not longer than one (1) hour at a time, or for a total of more than three (3) hours in any day.

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- 1.6 An Owner or occupier of a Lot shall not hold, or permit to be held, any social gathering in its Lot by which there shall be any noise which interferes with the quiet enjoyment of its Lot by any other Owner or occupier of a Lot at any time of day or night.
- 1.7 An Owner or occupier of a Lot shall request guests leaving after 11:00 pm to leave quietly and quietness shall be observed when an Owner or occupier of a Lot returns to the building after 10:00 pm and before 7:00 am.

2. DAMAGE TO COMMON PROPERTY

- 2.1 An Owner or occupier of a Lot shall not mark, paint, drive naits of screws or the like into, or otherwise damage or deface, any structure that forms part of the Common Property except with the consent in writing of the Body Corporate, but this By-law does not prevent an Owner or person authorised by it from installing:
 - (a) any locking or other safety device for protection of its Lot against intruders; or
 - (b) any screen or other device to prevent entry of animals or insects upon its Lot;

PROVIDED THAT the locking or other safety device prosteen or other device as the case may be, is constructed in a workman-like manner, is maintained in a state of good and serviceable repair by the Owner and does not detract from the good appearance of the building (as determined by the Committee of the Body Corporate).

3. DAMAGE TO LAWNS ETC ON COMMON PROPERTY AND BODY CORPORATE ASSETS

3.1 An Owner or occupier of a Lot shall not -

- (a) damage any lawn, garden, tree, shoup, plant or flower being part of or situated upon Common Property or any Body Corporate Asset; or
- (b) use for its own purposes as a garden any portion of the Common Property.

4. OBSTRUCTIONS

4.1 An Owner or occupier of a Lot shall not obstruct lawful use of Common Property by any person.

5. CORRESPONDENCE

5.1 All complaints or applications to the Body Corporate shall be addressed in writing to the Secretary of the Body Corporate or to the Body Corporate Manager.

6. RIGHT OF ENTRY

6.1 An Owner or oscupier of a Lot, upon receiving reasonable notice from the Body Corporate, shall allow the Body Corporate or any contractors, sub-contractors, workmen or other person authorised by it, the right of access to its Lot for the purpose of carrying out works or effecting repairs on mains, pipes, wires or connections of any water, sewerage, drainage, gas, electricity, telephone or other system or service, whether to its Lot or to an adjoining Lot or Common Property, or to ensure that the By laws are being observed also as to allow fulfilment of the conditions of any Building Management Statement affecting the Scheme.

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- 6.2 Such repair, maintenance or renewal shall be at the expense of the Owner of the relevant Lot in cases where the need for such repair, maintenance, repair or renewal is due to any act or default of the Owner or the occupier of its Lot.
- 6.3 If not so permitted the Body Corporate, its servants, agents, employees, contractors or the Body Corporate Manager, may affect entry and such entry shall not constitute trespass.
- 6.4 The Body Corporate or the Body Corporate Manager, in exercising this power, shall ensure that agents, servants, employees or contractors cause as little inconvenience to an owner or occupier of a Lot as is reasonable in the circumstances.

7. VEHICLES AND USE OF PRIVATE ROADS AND OTHER COMMON PROPERTY

- 7.1 The private roadway, pathways, driveways, carpark and other Common Property and any easement giving access to the Scheme shall not be obstructed by any Owner or the tenants, guests, servants, employees, servants, children, invitees, licensees of an Owner or any of them or used by them for any purpose other than the reasonable ingress and egress to and from their respective Lots or the parking areas provided.
- 7.2 The occupier of a Lot must not without the Body Corporate's written approval:-
 - (a) park a vehicle, or allow a vehicle to stand, on the common property; or
 - (b) permit an invitee to park a vehicle, or allow a vehicle to stand, on the common property, except for the designated visitor parking which must remain available at all times for the sole use of visitors' vehicles.
- 7.3 An approval under subsection (1) must state the period for which it is given, with the exception of designated visitor parking.
- 7.4 However, the body corporate may cancel the approval by giving 7 days written notice to the occupier, with the exception of designated visitor parking.
- 7.5 The Body Corporate must ensure that -

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- (a) one (1) visitor car parking space is available for use at all times by bonafide visitors, guests or invitees of the occupants of lots and further ensure that the visitor car parking space is not included within any exclusive use area or contained as part of any lot;
- (b) must install and maintain a height clearance sign at the entrance to any undercover parking and directional visitor parking signage at the vehicle entrance to the site adjacent to or clearly visible from the vehicle entrance to the site;
- (c) that no less than 6 residents/tenants parking spaces are available on site at all times;
- (d) visitor car parking bays are not fitted at any time with a roller door, gate or similar device preventing access to visitor parking bays;
- (e) no gates or similar devices are to be placed at the vehicle entry of the site preventing vehicle

(f) all landscaped areas are maintained (watering, weeding, mulching, plant replacement) as per the approve landscape plan and subject always to any water restrictions.

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- (g) ensure that all sealed traffic areas are cleaned as necessary to prevent emissions of particular matter and that the driveway and pedestrian walkway are constructed of materials and maintained as required by the local authority approval;
- (h) maintain the acoustic damping of any metal grills, metal plates or similar which are subject to vehicular traffic so as to prevent environmental nuisance.
- 7.6 The Body Corporate must ensure that the driveway associated landscaping and vehicle turning areas as shown on the approved plans of layout shall at all times form part of the common property and shall not be designated for the exclusive use of any lot.

8. SPEED LIMIT

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8.1 An Owner or occupier of a Lot shall not exceed the speed limit nominated by the Body Corporate in a Committee meeting from time to time (the "speed limit") while driving any motor propelled vehicle on the Common Property and shall use its best endeavours to ensure that its invitees do not exceed the speed limit in such circumstances. The speed limit for the time being shall be 10 kph.

9. REFUSE DISPOSAL, ETC, ON COMMON PROPERTY

- 9.1 An Owner or occupier of a Lot shall not throw or allow to fall or permit or suffer to be thrown or fall, any object or substance out of the window or doors or from any balcony of its Lot, or down any staircase, passage, or skylight, or from the root or passageway of the buildings. Any cost of remedying any damage, or of cleaning caused by a breach of this By-law, shall be borne by the Owner of the relevant Lot.
- 9.2 An Owner or occupier of a Lot shall comply with all directions of the Local Authority on disposal of refuse and further:
 - (a) will ensure that the refuse and recycle bins for each lot are stored within the dedicated bin storage and are put out for collection at the nominated refuse collection points prior to collection and returned to the bin storage area after collection;
 - (b) empty bottles, boxes, used containers, pellets and similar items shall be stored tidily and, as far as possible, out of sight;
 - (c) ensure that the health, hygiene and comfort of the Owner or occupier of any other Lot is not adversely affected by its disposal of garbage;
 - (d) keep car spaces tidy and free of litter; and
 - (e) ensure that any perishable items such as meat, fish, fruit etc. are not placed in receptacles for periods longer than 24 hours prior to Local Authority collection.

10. KEEPING OF ANIMALS

10.1 Subject to Section 181 of the Body Corporate and Community Management Act 1997 (as amended) an Owner of occupier of a Lot may only, with the approval in writing of the Committee of the Body Corporate, keep any animal upon its Lot or the Common Property, which approval may at any time be withdrawn. In any event, only one animal may be kept per Lot (with the exception of fish) and no animal shall be kept in excess of ten (10) kilograms in weight;

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- 10.2 On approval, the animal must be physically restrained or leashed and prevented from wandering onto Common Property or the property of other Lot Owners;
- 10.3 On approval, the Owner or occupier of the Lot shall ensure that noise from the animar shall be kept to a minimum so as not to interfere with the peaceful enjoyment of other Owners or oecupiers of Lots;
- 10.4 Notwithstanding the provisions of any other By-laws, an Owner or occupier of a Lot or an invitee of an Owner or occupier of a Lot shall not bring or keep any animal onto or upon the Common Property occupied by Change Room, Swimming Pool and BBQ areas.

11. WINDOWS

11.1 Windows shall be kept clean and if broken or cracked, be promptly replaced by the Body Corporate with fresh glass of the same kind, type, colour and weight and if the damage to the window is caused by or as a result of any action or inaction of the Owner or occupier of the Lot then the cost of replacement shall be a debt due and owing by the Owner to the Body Corporate.

12. EXTERNAL APPEARANCE OR STRUCTURE OF A LOT

- 12.1 Subject to these By-Laws:-
 - (a) An Owner or occupier of a Lot shall not, except with the consent in writing of the Body Corporate, hang towels, bedding, clothing or other articles, display any sign, advertisement, placard, banner, pamphlet or like matter on any part of its Lot in such a way as to be visible from outside the building;
 - (b) No external blinds or awnings shall be erected without the previous consent in writing of the Committee of the Body Corporate;
 - (c) An Owner or occupier of a bot shall not alter the external colour scheme of any improvement on its Lot without prior approval in writing from the Body Corporate pursuant to a resolution of the Body Corporate;
 - (d) Any alteration made to Common Property or fixture or fitting attached to Common Property by any Owner or occupier of a Lot, whether made or attached with or without the approval of the Body Corporate, shall be repaired and maintained by the Owner of the said Lot;
 - (e) Any consent or approval given by the Body Corporate pursuant to these By-laws shall, if practicable, be revocable upon notice to the Owner or occupier for the time being having the benefit of such consent or approval;
 - (f) An Owner or occupier of a Lot shall, as soon as practicable after becoming aware of any defect in the Common Property or in any personal property vested in the Body Corporate or of any ascident associated therewith, give notice to the Secretary or to the Body Corporate Manager;

An Owner or occupier of a Lot shall not erect an outside wireless, television antenna or satellite receiver without the prior written consent of the Committee of the Body Corporate;

An Owner or occupier of a Lot shall not make any structural alteration to its Lot, including any alterations to gas, water or electrical installation or any alterations to any other improvements

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constructed on the Lot, without the prior written consent of the Committee of the Body Corporate;

- An Owner or occupier of a Lot shall not install, remove or replace any curtain backing, blind or window tinting, unless the colour and design has prior written consent of the Committee of the Body Corporate. In giving such consent the Body Corporate should ensure that, as far as practicable, all Lots present a uniform appearance when viewed from the outside of the buildings;
- (j) An Owner or occupier of a Lot shall not install in any part of the Lot, particularly any balconies forming part of the Lot, any fixtures, fittings, furniture or other items which may be viewed from outside the Building which the Committee of the Body Corporate considers (in its absolute discretion) detrimentally effects the aesthetic and/or uniform appearance of the Building when viewed from the outside and will, if requested to do so, remove any offending addition or item when requested to do so by the Committee of the Body Corporate;
- (k) No alteration, installation or erection referred to in this clause 12, shall be carried out except as between the hours of 9.00 am and 5.00 pm; and
- (I) No alteration will be permitted if the proposed alteration will contravene the Town Plan or any other requirements of the Local Authority from time to time.

13. AIR CONDITIONING

- 13.1 No airconditioners shall be installed on any Lot or Common Property without prior written consent of the Committee of the Body Corporate such consent to be given on the submission of full design specifications of the proposed air conditioning to be installed to the Body Corporate. Consent may be given conditionally and particular regard shall be had to noise and or emissions of the proposed airconditioning system. Subject to the consent, an Owner or occupier of a Lot shall choose the location of any airconditioners with care so that same does not cause discomfort to neighbours. Evaporative airconditioners shall be low profile and be of neutral colour so as not to be visible from the street and no window air conditioners shall be allowed.
- 13.2 Each owner must ensure that screening for any externally mounted air conditioning or mechanical plan installations accord with the following requirements:-
 - (a) no unscreened installations on the site are to be visible from the surrounding site; and
 - (b) any installation which is required to be located on a roof, wall or garden area is to be appropriately screened or shaped according to the acoustic requirements of the approved local authority development package and so as to integrate in a complimentary manner with the overall design of the roof, wall or garden area in which the installation is to be located.

14. INFECTIOUS DISEASES

14.1 In the event of any infectious disease, which may require notification by virtue of any Statute, Regulation or Ordinance, happening in any Lot, the Owner or occupier of such Lot shall give written notice therebit and pay to the Committee the expenses incurred by the Committee of disinfecting the Lot and any part of the Common Property required to be disinfected and replacing any articles or things the destruction of which may be rendered necessary by such disease and shall at all times comply with any State or Local Authority Act or Regulation.

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15. STORAGE OF FLAMMABLE LIQUIDS, GAS OR OTHER MATERIALS

- 15.1 An Owner or occupier of a Lot shall not bring to, do, or keep anything in its Lot which may make void, or increase the rate of, fire insurance on any property shown in the Scheme or which may conflict with the Law or Regulations or Ordinances relating to fires or any insurance policy upon any property shown in the Scheme or the Regulations or Ordinances of any State or Local Authority for the time being in force.
- 15.2 An Owner or occupier of a Lot, shall not use any chemicals, burning fluids, acetylene gas or alcohol in lighting or heating the premises, nor in any other way cause or increase the risk of fire or explosion in its Lot.

16. USE OF LOTS

- 16.1 An Owner or occupier of a Lot shall not use that Lot or permit the same to be used otherwise than as a private residence nor for any purpose that may cause a nuisance or hazard or for any illegal or immoral purpose or for any other purpose that may endanger the safety or good reputation of persons residing within the development provided that the Lot may be used as a home office on a condition that such use does not in any way interfere with the peaceful enjoyment of other Lot Owners or occupiers and the Lot is not used as an office for a real estate agent or a letting agent.
- 16.2 An Owner or occupier of a Lot shall not operate or permit to be operated upon any Lot or Common Property any radio, short wave radio, transmitter, telecommunications device or electronic equipment so as to interfere with any domestic appliance or apparatus (including a radio or television receiver) lawfully in use upon the Common Property or in any other Lot;
- 16.3 An Owner or occupier of a Lot shall not use any water closets or other fixtures in the building for any purpose other than for which they were constructed and shall not deposit or throw any sweepings, rubbish or solid matter into the same or otherwise cause the obstruction of Common Property drainage services; and
- 16.4 An Owner or occupier of a Lot shall keep the same in a good state of preservation and cleanliness and shall take all reasonable steps to control and exterminate therein all vermin, insects or other pests.

17. BEHAVIOUR OF INVITEES

- 17.1 An Owner or occupier of a lot shall take all reasonable steps to ensure that its invitees comply with the provisions of these By laws when upon a Lot or Common Property and in the event of its inability for any reason to ensure such compliance by any invitee it shall thereupon:-
 - (a) withdaw the invitation of that person to be upon a Lot or Common Property; and
 - (b) ensure that such person immediately leaves the Scheme.
- 17.2 The Owner or occupier of a Lot shall be liable to compensate the Body Corporate in respect of all damage to the Common Property or personal property vested in it caused by such Owner or occupier or their invitees.

12.3 An Owner of a Lot which is the subject of a lease or licence agreement shall take all reasonable steps, including any action available to it under any such lease or licence agreement, to ensure that

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any lessee or licensee or other occupier of the Lot or their invitees comply with the provisions of the By-laws.

18. TRADESMEN

18.1 An Owner or occupier of a Lot shall not directly instruct any contractor or workmen and by the Body Corporate unless so authorised.

19. REMOVALS

19.1 An Owner or occupier of a Lot shall not move any furniture, piano or safe into or out of its Lot without having given prior notice to the Committee of the Body Corporate and the moving must be done in the manner, by the route and at the time directed by the Committee.

20. SECURITY OF THE BUILDING

- 20.1 The Body Corporate shall take all reasonable steps to ensure the security of the Building and Body Corporate personal property and the observance of these By-laws and without limiting the generality of the foregoing may:
 - (a) Close off any part of the Common Property not required for ingress or egress to a Lot or car parking space on either a temporary or permanent basis or otherwise restrict the access to, or use, by Owners or occupiers of any such part of the Common Property;
 - (b) Permit any designated part of the Common Property to be used by any security person, firm or company (to the exclusion of Owners or occupiers generally) as a means of monitoring the security and general safety of the Building; and
 - (c) obtain, install and maintain locks, alarms communications systems and other security devices.
- 20.2 If the Body Corporate, in the exercise of any of its powers under these By-laws, restricts the access of Owners or occupiers to any part of the Common Property by means of any lock or similar security device, it may make such runnber of keys or operating systems as it determines, available to Owners or occupiers of the tree of charge and thereafter may at its discretion, make additional numbers thereof available to Owners or occupiers or occupiers or occupiers are or occupiers upon payment of such reasonable charges as may be determined from time to time by the Body Corporate.
- 20.3 An Owner or occupier of a bot to whom any key or any operation system is given pursuant to these By-laws shall exercise a high degree of caution and responsibility in making the same available for use by any other person using or occupying a Lot and shall take reasonable precautions (which shall include an appropriate covenant in any lease or licence of a Lot to any such occupier) to ensure return thereor to the Owner, upon the user or occupier ceasing to be a user or occupier.
- 20.4 An Owner or occupier of a Lot into whose possession any key or operating system referred to in these By laws has come shall not without the prior approval in writing of the Committee duplicate the same or cause or permit the same to be duplicated and shall take all reasonable precautions to ensure that the same is not lost or handed to any person other than another Owner or occupier of a Lot and is pot disposed of otherwise than by returning it to the Committee.
- 20.5 An Owner or occupier of a Lot who is issued with a key or operating system referred to in these Bylaws shall immediately notify the Body Corporate if the same is lost or misplaced.

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20.6 An Owner or occupier of a Lot shall securely fasten all doors and windows to its Lot on all eccessions when the Lot is left unoccupied, and the Body Corporate, its servants, agents or the Body Corporate Manager, shall have the right, without committing trespass, to enter and fasten any doors or windows.

21. DISPLAY UNITS/SIGNAGE

- 21.1 While the original Owner remains an Owner of any Lot in the Building Format Plan, it and its officers, servants and/or agents, shall be entitled to use any Lot or part of a Lot of which it is the registered Owner or over which it is granted occupancy rights as a display unit or sales office and shall be entitled to allow prospective purchasers to inspect the improvements on the Lot.
- 21.2 While the original Owner remains an Owner of any Lot in the Building Format Plan, the original Owner may erect signs, advertising or display material in or about the improvement of a Lot owned by it (notwithstanding that same may infringe other provisions of these By-laws) or on Common Property.

22. NOTICE OF AUCTION

22.1 An Owner or occupier of a Lot shall not without the prior written notice of the Committee of the Body Corporate conduct an on-site auction of a Lot.

23. MISCELLANEOUS

23.1 If the Body Corporate incurs, or is required to pay, any costs or expenses (including legal costs calculated on a solicitor and own client basis) in respect of any action taken against any Lot Owner (which expression shall for the purposes of this By-law mean and include any former Owner of the relevant Lot) due to default by that Owner in the payment of any monies to the Body Corporate or to a breach of the By-laws or for any other reason, such Owner shall forthwith pay on demand to the Body Corporate such costs and expenses as a liquidated debt.

24. EXCLUSIVE USE COURTY ARDS

- 24.1 The Owner or Occupier of each of the Lots listed under the heading "Exclusive Use Areas" in Schedule E shall have the exclusive use of those parts of the Common Property as shown opposite the respective Lot numbers under the heading "Exclusive Use Court Yards" in Schedule E for their own personal use. The Owner or Occupier shall at all times keep the exclusive use area clean and clear of rubbish and will not store in or on the exclusive use area any unsightly items and will remove from those areas any items immediately upon being directed to do so by the Committee of the Body Corporate (but the Body Corporate shall retain all obligations under the Act in respect of Common Property).
- 24.2 The Owners or Occupiers of a lot to which this bylaw relates, will cause at their cost the exclusive use area to be maintained in a neat and tidy state at all times including without limitation causing any lawn in the courtyard area to be mowed on a regular basis and ensuring that any trees and other plants are regularly pruned and otherwise maintained in a neat, tidy and safe state.

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25. ADDITIONAL EXCLUSIVE USE AREAS

25.1 Subject to the provisions of the Act, the Body Corporate Committee and the Body Corporate (as necessary) will at the request of the Original Owner and upon the provision of the necessary exclusive use plans by the Original Owner approve and consent to the granting of exclusive use to any Lot Owner(s) of any part of Common Property and will authorise the signing of any New Community Management Statement necessary to give effect to the grant of exclusive use provided all reasonable costs are borne by the Original Owner.

26. NO SMOKING ON COMMON PROPERTY

- 26.1 An Owner, occupier or any guest or invitee shall not smoke on any part of Common Property.
- 26.2 The Body Corporate Committee may in its discretion authorise smoking on those areas of the Common Property which are outside the Building and any other structures on Common Property.

27. SECURITY CAMERAS

27.1 In the event that security cameras are installed in the Briding, the Body Corporate Committee may determine policy for the operation of those cameras and storage and destruction of any tapes.

28. BALCONIES AND TERRACES

- 28.1 An Owner or occupier of a Lot will not enclose any balcony or terrace with shutters, glazing, louvres or other similar permanent structures other than those clearly depicted on the local authority approved drawings for the Lot without first obtaining in writing the approval of:-
 - (a) the local authority; and
 - (b) (after the approval of the local authority has been given) the Committee of the Body Corporate.

29. BULK SUPPLY OF UTILITIES

- 29.1 The Body Corporate may at its election supply or engage another person to supply utilities in the Scheme and in such case the following will apply:-
 - (a) "Utility" means: electricity, gas, water, cable TV and the like;
 - (b) the Body Corporate has the power to enter into a contract for the purchase of reticulated Utility, on the most economical basis, for the Scheme from the relevant authority;
 - (c) the Body Corporate has the power to sell, or authorise a third party supplier to sell reticulated Utility to each Owner or occupier in the Scheme provided, however, that in respect of electricity supply, the Body Corporate's charge or the third party suppliers charge must not exceed the lowest available tariff to the relevant Owner or occupier for supply of the utility direct from the relevant utility Authority;

(a) each Owner or occupier must purchase and use all Utility consumed in the Owner's or occupier's Lot direct from the Body Corporate or the authorise third party supplier and must not purchase Utility from any other source;

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- (e) the Body Corporate or the third party supplier is not required to supply to any Owner or occupier Utility requirements beyond those requirements which the relevant authority could supply at any particular time;
- (f) the Body Corporate or the third party supplier may charge for the services (including for the installation of, and the costs associated with, utility infrastructure for the services) but only to the extent necessary for reimbursing the Body Corporate or the third party supplier for supplying the services;
- (g) the Body Corporate or the third party supplier may render accounts to each Owner or occupier and such accounts are payable to the issuer within fourteen (14) days of the delivery of such accounts;
- (h) in respect of an account which has been rendered pursuant to these By-laws, then an Owner or occupier is liable, jointly and severally with any person who was liable to pay that utility account when that Owner or occupier became the Owner or occupier of that Lot;
- (i) in the event that a proper account for the supply of reticulated Utility is not paid by its due date for payment, then a Body Corporate or the third party supplier is entitled to:-
 - (c) (i) recover the amount of the uppaid account or accounts (whether or not a formal demand has been made) as a liquidated debt due to it in any Court of competent jurisdiction; and/or
 - (d) (ii) disconnect the supply of reticulated Utility to the relevant Lot;
- (j) the Body Corporate is not, under any circumstances whatsoever, responsible or liable for any failure of the supply of Utility due to breakdowns, repairs, maintenance, strikes, accidents or causes of any class or description;
- (k) the Body Corporate or the third party supplier may, from time to time, determine a security deposit to be paid by each Owner or occupier who is connected to the supply of the reticulated Utility as a guarantee against non-payment of accounts for the supply of reticulated Utility.

SCHEDULE D OTHER DETAILS REQUIRED/PERMITTED TO BE INCLUDED

2. STATUTORY EASEMENTS

Each Lot and the Common Property within the Scheme is subject to each of the following statutory easements detailed in the Land Title Act 1994 (as amended):-

- (a) Easternents for support (section 115N);
- (b) Easements, in favour of lots for utility services and utility infrastructure (section 1150);
- (c) Easements for utility services and utility infrastructure (section 115P); and
- (d) Easements for shelter (section 115Q).

30. SERVICE LOCATION DIAGRAM

Attached to this Community Management Statement is a service location diagram indicating the location of services to the Scheme.

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SCHEDULE E DESCRIPTION OF LOTS ALLOCATED EXCLUSIVE USE AREAS OF COMMO PROPERTY Lot Exclusive Use Courtyards By Law 25		
Lot 2 on SP	S.2 and C.2 on Exclusive Use Plan 12087	
Lot 3 on SP S.3 and C.3 on Exclusive Use Plan 1208		
Lot 4 on SP	S.4 and C.4 on Exclusive Use Plan 12087	
Lot 5 on SP	S.5 and C.5 on Exclusive Use Plan 12087	
Lot 6 on SP	S.6 and C.6 on Exclusive Use Plan 12087	
Lot 7 on SP	S.7 and C.7 on Exclusive Use Plan 12087	
Lot 8 on SP S.8 and C.8 on Exclusive Use Plan 12087		
Lot 9 on SP S.9 and C.8 on Exclusive Use Plan 12087		
Lot 10 on SP	S.10 and C.10 on Exclusive Use Plan 12087	

Page ## of ## Land Title Act 1994, Land Act 1994 and Water Act 2000 **Title Reference EXCLUSIVE USE PLANS** C.T.S . LEVEL A **3** \$P250.359 20-117 1997:52-55 1A QUEENS 山宮伽道河口 1 COURT Denotes Common Property on SP250371 0014049 CH ROAD – Demotes Car Parks, – Demotes Storage Areas S.1 - C.1 S.2 - C.2 S.5 - C.5 S.3 - C.3 3A 125.736 3 39 10-19330 Spalling . 4A S.4 - C.4 S.6 - C.6 S.8 - C.8 _____S.10 C.10 C.9 C.7 _S.9 -S.7 7A 7 AREA TABLE EY USE TOTAL APEA 8 AAAAA-one net net 611003 52 m² 45 m² 47 m² AREA TABLE 84 10740 1924 84 m² 17 m² 13 m² Er : 150 ****** 1.4. Sau. 13704 FINUCANE ROAD 1000 Scale 1.400 - Langtha are in vietnas ELD Ken McDonald SKETCH PLAN FOR EXCLUSIVE USE PURPOSES SURVEYS Over part of Common Property on Level A of * C, T,S, 16 . 6.96 Ortoinal Portion,363

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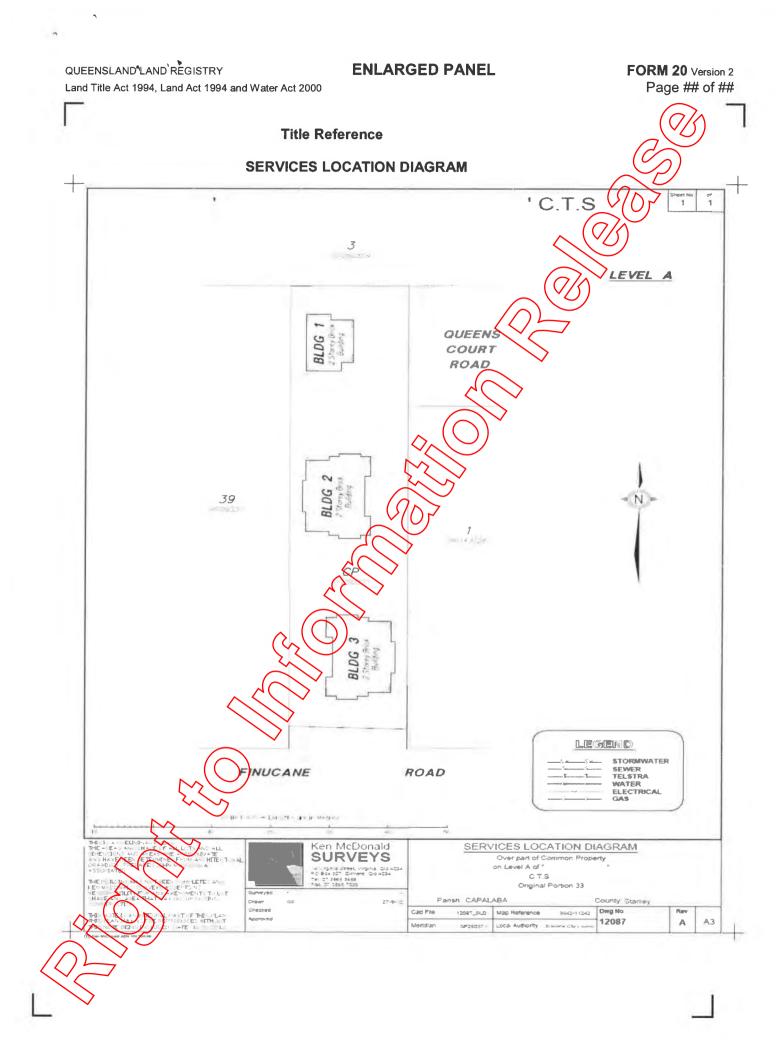
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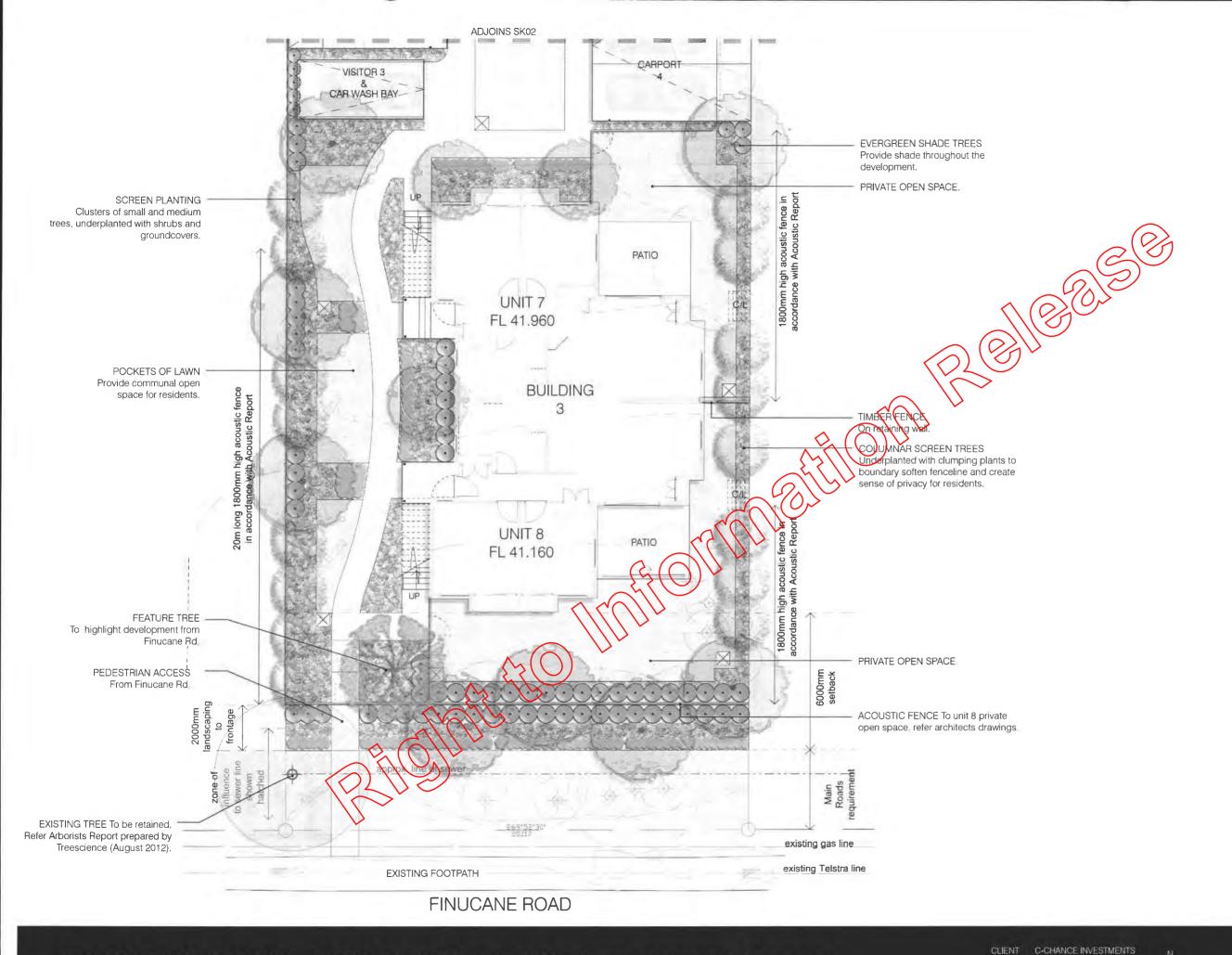
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156 FINUCANE RD, ALEXANDRA HILLS - Landscape Concept

SCALE 1:150 @ A3 DATE AUGUST 2012 DRAWING 2012-061 SK01

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EATURE TREE

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Refer architects drawings FENCE

Refer architects drawings







5 October 2012

John Marsson & Associates Pty Ltd PO Box 167 Cleveland QLD 4163

Attention: John Marsson

Dear Sir/Madam

REFERRAL AGENCY RESPONSE BEFORE APPLICATION IS MADE

Proposed Development:

Real Property Description: Street Address: Assessment Manager ref.: Local Government Area: Development Permit for a Material Change of Use (Multi-Unit Development - 10 units) Lot 40 on RP79330 156 Finucane Road, Alexandra Hills QLD 4161

Redland City Council

Reference is made to your correspondence dated 12 June 2012 requesting the Department of Transport and Main Roads (the department) to provide a referral agency response for the proposed development prior to making an application to the assessment manager.

The department would be triggered as a concurrence agency pursuant to Schedule 7, Table 3, Item 1 of the *Sustainable Planning Regulation 2009*, should a development application be made for this proposal.

An assessment of the proposal has been undertaken against the purposes of the *Transport Infrastructure Act* 1994 for state-controlled roads. Based on this jurisdiction, the department has agreed to provide this concurrence agency response under Section 271 of the *Sustainable Planning Act* 2009 (SPA).

It is advised that the development proposal is supported, subject to the conditions which are attached as the Department of Transport and Main Roads Concurrence Agency Conditions and Statement of Reasons. The department also offers advice about the application as set out in this attachment.

Department of Transport and Main Roads Program Delivery and Operations Metropolitan Region 183 Wharf Street Brisbane Queensland 4000 PO Box 70 Spring Hill Queensland 4004

Your ref Enquiries Telephone Facsimile Website Email

Our ref

TMR12-002950

Kelvin Teo +61 7 3137 8344 +61 7 3137 8363 www.tmr.qld.gov.au Kelvin.C.Teo@tmr.qld.gov.au

Page 1 of 2

Pursuant to Section 272(3) of the SPA, you will not be required to refer your application to the department under Section 272 of the SPA if you submit this response when making the application to the assessment manager **within 6 months** of the date of this referral agency response.

The department may change its concurrence agency response in accordance with Section 290(1)(b) of the *Sustainable Planning Act 2009*.

In accordance with Section 334 of the *Sustainable Planning Act 2009*, we request a copy of Council's decision notice, including conditions for this application.

When forwarding information to the Department of Transport and Main Roads (Metropolitan Office) the preferred method is by email to <u>developmentcontrol@tmr.glu.gov.au</u> or on CD-Rom. Please ensure our application number **TMR 12-002950** is referred to on all correspondence.

Should you have any queries in relation to this response, please do not hesitate to contact Kelvin Teo, Senior Town Planner (Land Use Management) on 07 3137 8344.

Yours sincerely

Helen Kerr Principal Advisor (Development Control)

Enc.3 (Department of Transport and Main Reads Concurrence Agency Conditions and Statement of Reasons, Site Plan and Site Section, 12-05-05F by John Marsson & Assoc Pty Ltd, Transport and Main Roads Land Requirements Plan 112-0031 (D) dated 06/2012)



C/c The Chief Executive Officer Redland City Council PO Box 21 Cleveland QLD 4163

Attention: Andrew Veres

Please find attached correspondence for your information and action as required. Should you wish to discuss this correspondence, please contact Kelvin Teo, Senior Town Planner (Land Use Management) on 07 3137 8344.

Yours sincerely

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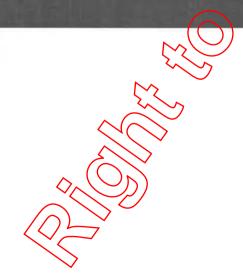
GA V.

Helen Kerr Principal Advisor (Development Control)

5 October 2012

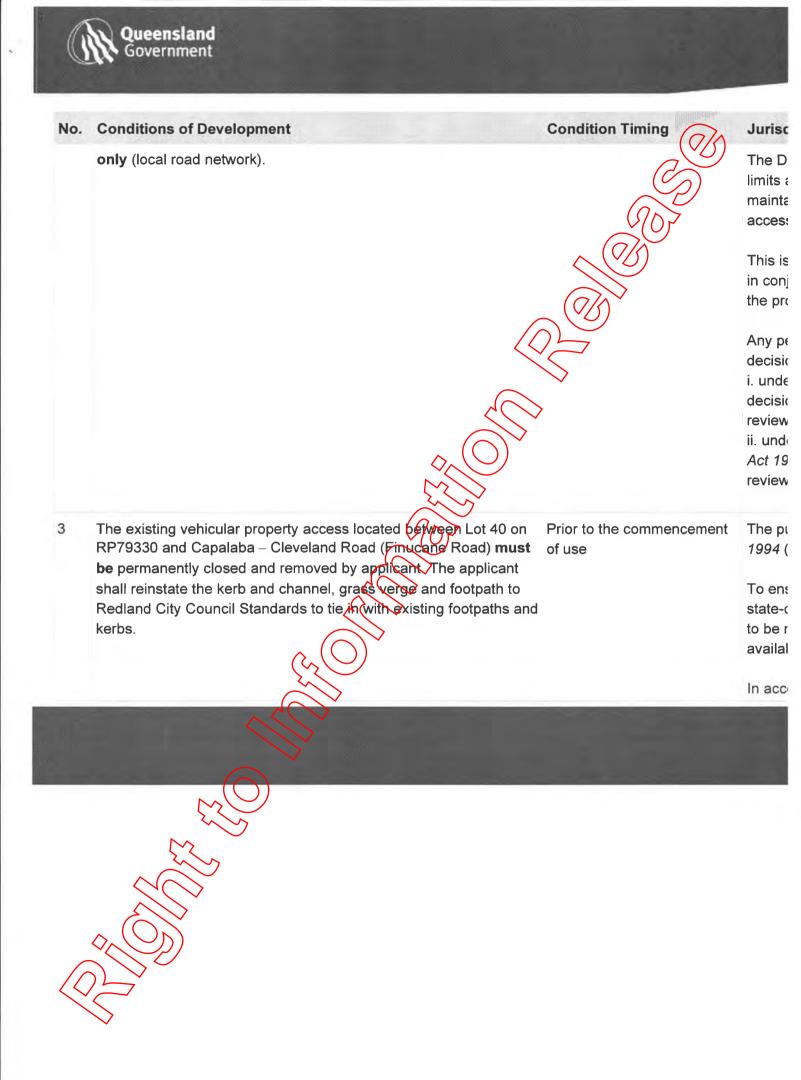
Enc.3 (Department of Transport and Main Roads Concurrence Agency Conditions and Statement of Reasons, Site Plan and Site Section, 12-85-95F by John Marsson & Assoc Pty Ltd, Transport and Main Roads Land Requirements Plan 112-0031 (D) dated 06/2012)

		-	Transport and Main Roads onditions and Statement of R	easons
	Proposed Development: Real Property Description: Street Address: Assessment Manager ref.: Local Government Area:	Development Permit for a Material C Lot 40 on RP79330 156 Finucane Road, Alexandra Hills Redland City Council	\overline{O}	elopment
No.	Conditions of Development		Condition Timing	Jurisd
Deve	elopment Permit for Material (Change of Use (Dwelling House)		
1	following reports and plan exc concurrence agency condition •Acoustic Report, R12095A/D2 & Assoc Pty Ltd, •Site Based Stormwater Mana September 2012 by Structerr	s: 2698/Rev.1/24.09.12 by David Moore gement Plan, 27641 120H dated 17	Prior to the commencement of use and to be maintained at all times.	The pu 1994. The De assess underta report/ develo
2	(Finucane Road) and the subj	en Capalaba – Cleveland Road ect site is not permitted . All t site must be via St. Anthony's Drive	At all times	The pı 1994 (



Queensland Government

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No.	Conditions of Development	Condition Timing	Jurisd
			must h works, state-c conditi will ne and M 8344 t section
4	The setback area, shown in plan Site Plan, 12-05-05F by John Marsson & Assoc Pty Ltd. and as depicted in Transport and Main Roads Land Requirement Plan,112-0031 (D) dated 06/2012 must be kept free of any permanent buildings, structures and improvements (including storm water infrastructure, swimming pools and advertising signs) above and below the ground at all times.	Prier to commencement of use and to be maintained at all times	The pu 1994. Setbac presen disrupt
5	 (a) The development must be in accordance with the Stormwater Management Plan prepared by Structerre Consulting Engineers and dated 17 September 2012. The stormwater management for the development must ensure no worsening or actionable nuisance to the state-controlled road network caused by peak discharges, flood levels, frequency/duration of flooding, flow velocities, water quality, sedimentation and scour effects. (b) Any excavation, filling, paving, landscaping, construction or any other works to the land must rot: 	(a) & (b) Prior to the commencement of use and to be maintained at all times	The pu 1994. The sa can be stormv Please Main F be acc

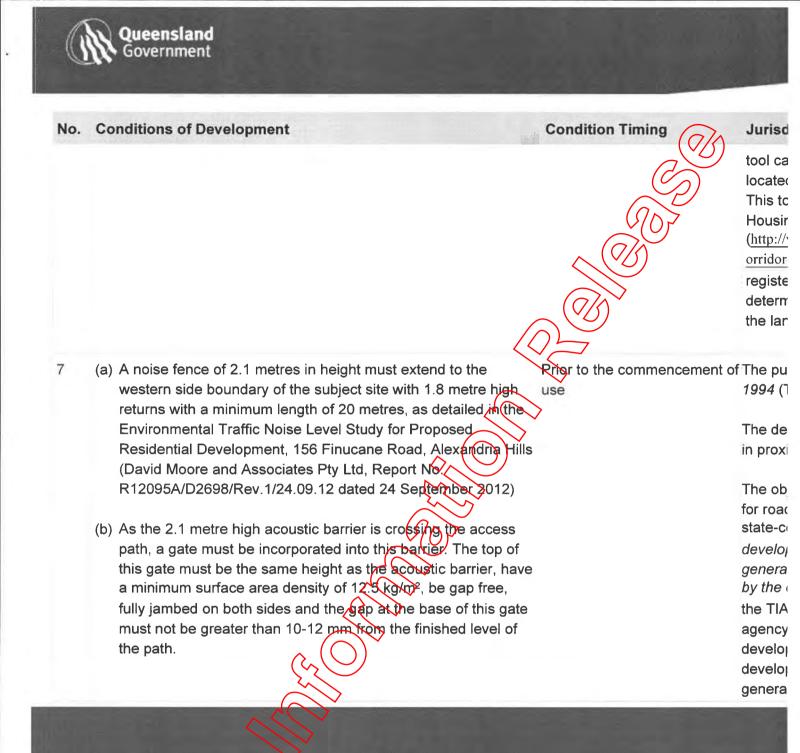
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No.	Conditions of Development	Condition Timing	Jurisc
	 i. create any new discharge points for stormwater runoff onto the state-controlled road; ii. interfere with and/or cause damage to the existing stormwater 		http://\ nical-s
	 interfere with and/or cause damage to the existing stormwater drainage on the state-controlled road; iii. surcharge any existing culvert or drain on the state-controlled road; iv. reduce the quality of stormwater discharge onto the state-controlled road. 	(c) Rrior to obtaining a final	Furthe manag Urban www.c Protec Protec
	(c) The applicant must provide RPEQ certification to the Department of Transport and Main Roads that the development has been designed and constructed in accordance with parts (a) and (b) of this condition.	Inspection certificate or certificate of classification, whichever is applicable, or prior to the commencement of use, whichever occurs first	availal
6	 (a) The development must incorporate noise attenuation treatments as shown in Figure 5, detailed in the Environmental Traffic Noise Level Study for Proposed Residential Development, 156 Finucane Road, Alexandria Hills (David Moore/and Associates Pty Ltd, Report No. R12095A/D2698/Rev.1/24.09.12 dated 24 September 2012) 	(a) Prior to the commencement of use and to be maintained at all times	The pt 1994 (The de use in
	(b) The applicant must provide RPEG certification to the Department of Transport and Main Roads that the development has been designed and constructed in accordance with part (a) of this condition.	(b) Prior to obtaining a final inspection certificate or certificate of classification, whichever is applicable, or prior to the commencement of use, whichever occurs first	The of TIA for state-c develc genera addre:





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No. Conditions of Development

Condition Timing

be maintained at all times

(b) & (c) Rior to obtaining a

final inspection certificate or

certificate of classification,

whichever is applicable, or

commencement of use and to 1994 (1

(a) Prior to the

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8 (a) Noise fence/s must be provided in accordance with the Department of Transport and Main Roads':

- (b) Road Traffic Noise Management: Code of Practice, Chapter 5;
 - Technical Standard MRTS15 and Specification MRS15 Noise Fences; and
 - Standard Drawings Road Manual Part 13, Noise Barriers
- (c) The applicant must provide RPEQ certification that the development has been designed and constructed in accordance with part (a) of this condition.

Note:

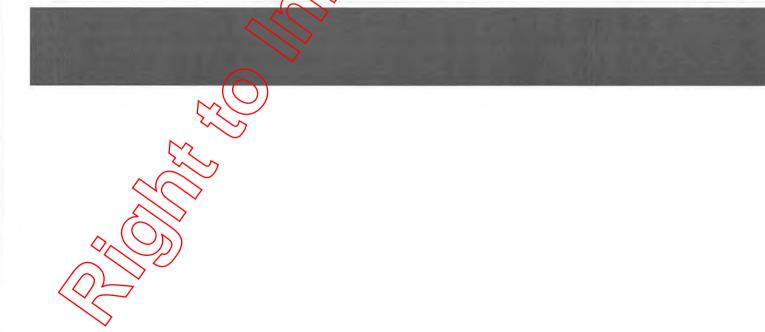
The assumed noise sensitive receiver heights are based on the receiver height levels provided in Appendix C and detailed throughout the approved Road Traffic Noise Management Report.
 The receiver heights shall not increase by more than 200 mm and/or the effective noise attenuating structure reight shall not be reduced by more than 200 mm compared to the assumptions made in the approved Road Traffic Noise Management Report.
 If designed or as-constructed receiver heights and/or effective noise attenuating structure heights do not meet this requirement, then a revised Road Traffic Noise Management report acceptable

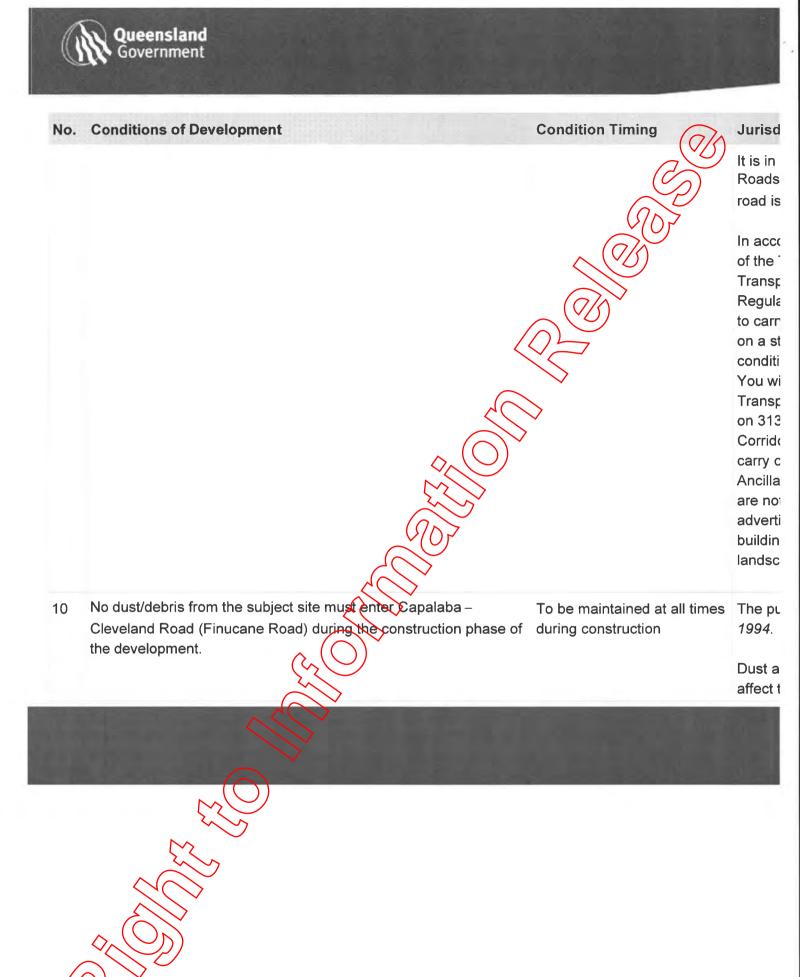
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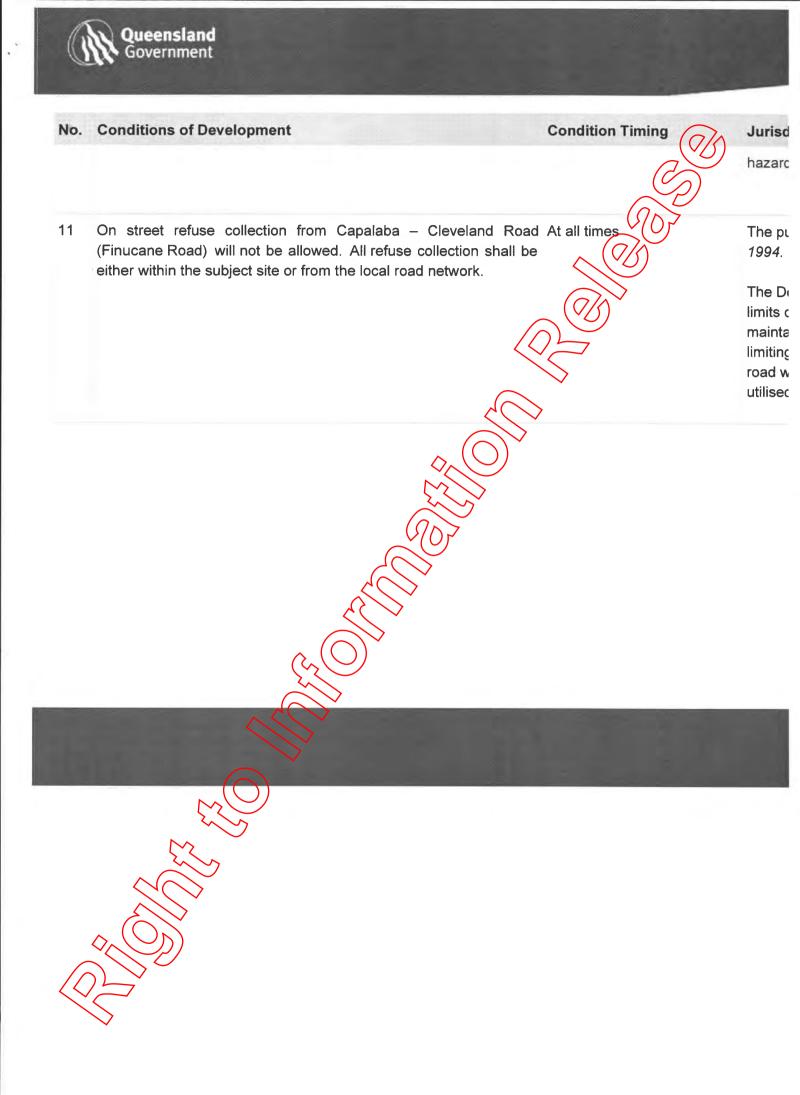
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9The applicant must reinstate any damaged concrete footpath within
the state-controlled road along the site's full frontage in
accordance with Redland City Council Standards.The pu
of use1994 (









Advice for state controlled roads

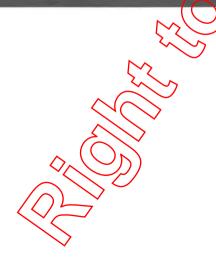
Under section 43 of the *Transport Infrastructure Act 1994*, a local government must obtain the Department approval if it intends to approve the erection, alteration or operation of an advertising sign or other advertis from a motorway; and beyond the boundaries of the motorway; and reasonably likely to create a traffic haz

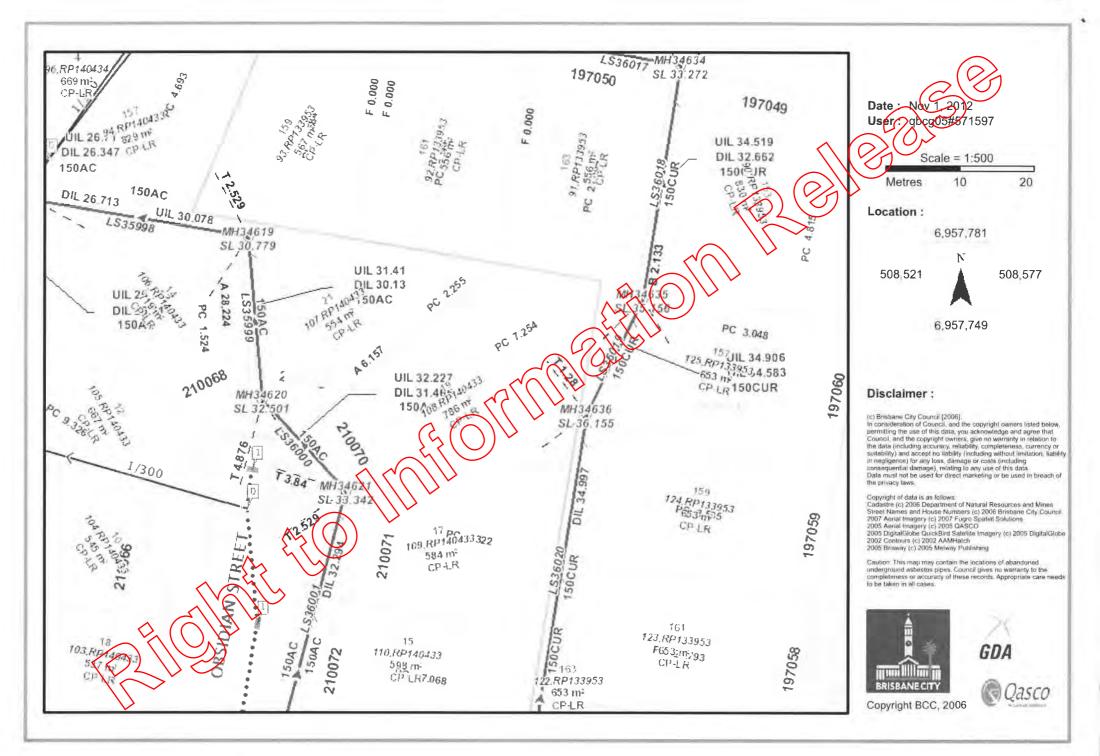
Under section 33 of the *Transport Infrastructure Act 1994*, written approval is required from the Departmen to carry out road works, including road access works, on a state-controlled road. Rease contact the Depa Roads, Metropolitan Office on 3137 8344 to make an application for road works approval. This approval m commencing any works on the state-controlled road reserve. The approval process may require the approvate proposed works, certified by a Registered Professional Engineer of Gueensland (RPEQ).

An application for a Road Corridor Permit is required for any ancillary works and encroachments on the sta section 50(2) and Schedule 6 of the *Transport Infrastructure Act* 1994 and Part 5 and Schedule 1 of the *Tra (State-Controlled Roads) Regulation 2006.* Please contact the Department of Transport and Main Roads, 8344 to make an application for a Road Corridor Permit. Arcillary works and encroachments include but a signs or other advertising devices, paths or bikeways, buildings/shelters, vegetation clearing, landscaping :

Pursuant to Section 580 of the *Sustainable Planning* Act 2009 it is a development offence to contravene a including any condition in the approval.

Pursuant to Section 80 of the Transport Infrastructure Act 1994, the construction, augmentation, alteration utility plant on a state-controlled road reserve, must be in accordance with the Department of Transport an





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Form 15—Compliance Certificate for building Design or Specification

NOTE	This is to be used for the purposes of section 10 of the <i>Building Act</i> 1975 and/or section 46 of the <i>Building Regulation</i> 2006. RESTRICTION: A building certifier (class B) can only give a compliance certificate about whether building work complies with the BCA or a provision of the QDC. A building certifier (Class B) can not give a certificate regarding QDC boundary clearance and site cover provisions.	
1. Property description	Street address (include no., street, suburb / locality & postcode)	
This section need only be completed if letails of street address and property lescription are applicable.	156 Finucane Road, Alexandra Hills Postogde 4161	
G. In the case of (standard/generic)	Lot & plan details (attach list if necessary)	
ool design/shell manufacture and/or atio and carport systems this section nay not be applicable.		
	In which local government area is the land situated?	
The description must identify all land the ubject of the application.	Redland City Council	
shown on title documents or a rates notice	\bigcirc	
If the plan is not registered by title, provide previous lot and plan details.		
 Description of component/s certified Clearly describe the extent of work covered by this certificate, e.g. all structural aspects of the steel roof beams. 	Structural design of Buildings and Carports. Specifically, slab-on-ground and footings; reinforced block retaining walls; steel beams; steel columns; timber floor framing; timber wall framing; roof framing (excluding pre-engineered timber roof trusses designed by others); wind bracing and tie-down.	
	V(0)	
B. Basis of certification		
Detail the basis for giving the certificate and the extent to which tests, specifications, rules, standards, codes of practice and other publications, were relied upon	Design criteria includes: The Building Code of Australia and all relevant Australian Standards including AS/NZS 1176 Parts 0, 1-2002, AS1684 (1) – 1999; AS1684 (2-4) – 2010; AS 4100 – 1998; AS 4600 – 2005, AS 3700 – 2011; AS2870 – 2011; AS3600 – 2009; AS4055-2006 as required	
4. Reference documentation Clearly identify any relevant documentation, e.g. numbered structural engineering plans	Number: 30421-13CS including any reports, drawings and associated Annexures prepared by structerre Consulting Engineers	
sign numbered structural engineering plane	Structerre Drawing Nos. S00-S25 Rev 0 inclusive, dated 03-07-2013.	
	Architect Drawing Nos: 12-05-08 Dated:17/06/13 Prepared by: John Marsson & Associates Pty	
La za	Ltd.	
	Geotechnical Report by Soil Surveys, No. 1-15345 LR VER 0, dated 14 June 2013.	
LOCAL GOVERNMENTUSE ONLY		
New York and	Reference Number 5	
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The <i>Building Act 1975</i> is a Department of Housing a	A VERSENT A LA CALLACETTA	

5. Building certifier reference number	Building certifier reference number
b. Competent person details competent person for building work, means a erson who is assessed by the building certifier or the work as competent to practise in an spect of the building and specification design, if the building work because of the individual's kill, experience and qualifications in the spect. The competent person must also be egistered or licensed under a law applying in ne State to practice the aspect. no relevant law requires the individual to be censed or registered to be able to give the elp, the certifier must assess the individual as aving appropriate experience, qualifications or	Name (in full) Greg Anderson Company name (if applicable) Structerre Consulting Engineers Phone no. business hours Mobile no. Fax to (07) 3307-8300 Email address Brisbane@structerre.com.au Postal address
kills to be able to give the help the chief executive issues any guidelines for ssessing a competent person, the building ertifier must use the guidelines when ssessing the person	PO Box 621 HAMILTON Postcode 4007 Licence or registration number (<i>if applicable</i>) FIEAust CPEng RPEQ 1359
. Signature of competent person his certificate must be signed by the individual ssessed by the building certifier as competent.	Signature Date 26 July 2013

Department of Housing and Public Works

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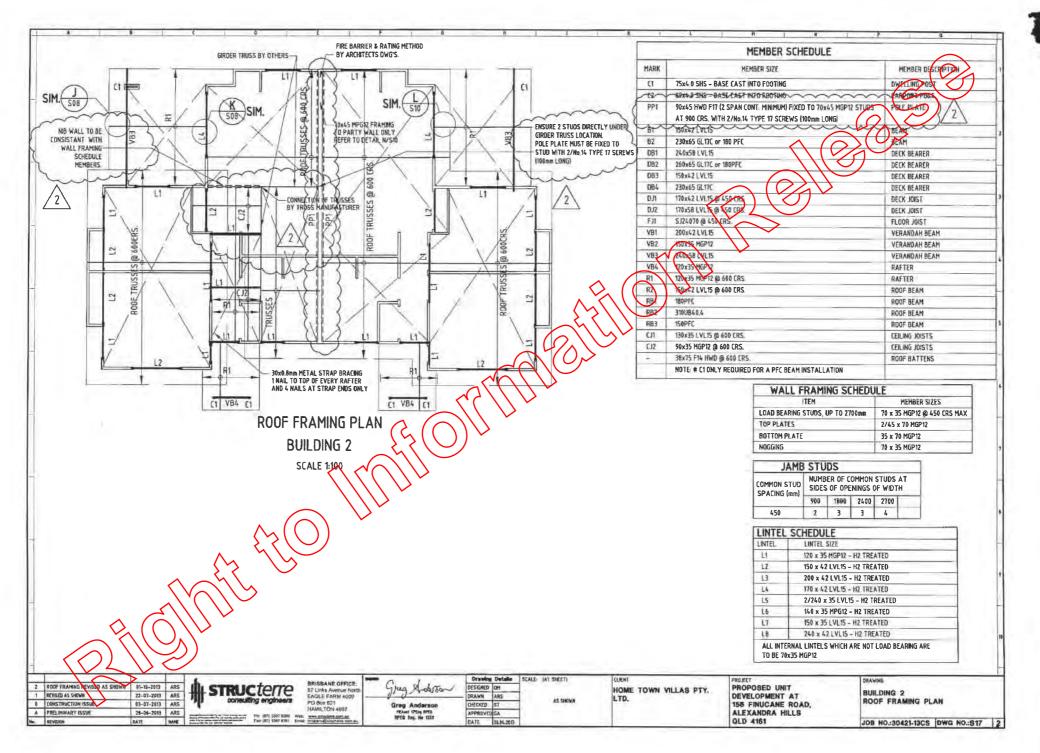
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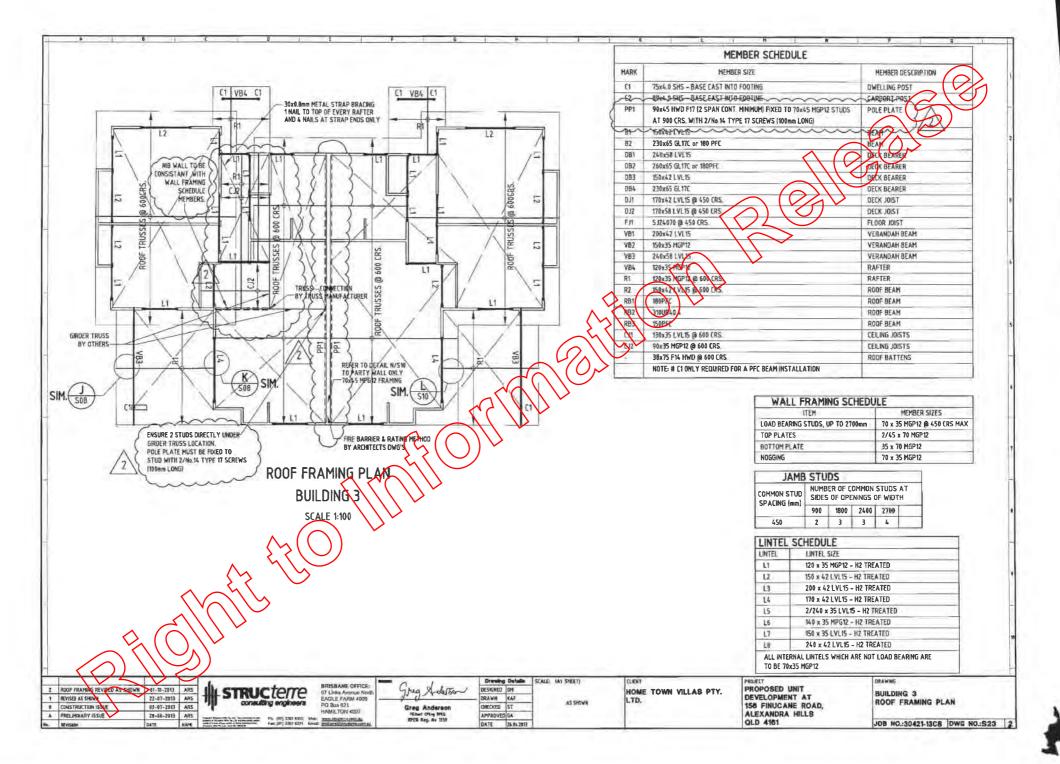
Version 3 - March 2013

Form 15—Compliance Certificate for building Design or Specification

NOTE	This is to be used for the purposes of section 10 of the <i>Building Act</i> 1975 and/or section 46 of <i>Building Regulation</i> 2006.		
	RESTRICTION: A building certifier (class B) can only give a compliance certificate about whether building work complies with the BCA or a provision of the QDC. A building certificate (class B) car not give a certificate regarding QDC boundary clearance and site cover provisions		
1. Property description	Street address (include no., street, suburb / locality & postcode)		
This section need only be completed if details of street address and property	156 Finucane Road, Alexandra Hills		
fescription are applicable.	Posicose 4161		
G. In the case of (standard/generic)	Lot & plan details (attach list if necessary)		
ool design/shell manufacture and/or atio and carport systems this section			
ay not be applicable.	In which local government area is the land situated?		
he description must identify all land the upplication.	Redland City Council		
he lot & plan details (eg. SP / RP) are nown on title documents or a rates notice.	\sim		
the plan is not registered by title, provide revious lot and plan details.			
. Description of component/s certified	Structural design of Buildings and Carports, Specifically, slab-on-ground and footings; reinforced		
Clearly describe the extent of work covered by his certificate, e.g. all structural aspects of the	block retaining walls; steel beams; steel columns; timber floor framing; timber wall framing; roof		
eel roof beams.	framing (excluding pre-engineered timber root trusses designed by others); wind bracing and tie-		
	down.		
	(1)		
Basis of certification			
etail the basis for giving the certificate and the tent to which tests, specifications, rules, andards, codes of practice and other blications, were relied upon.	Design criteria includes: The Building Code of Australia and all relevant Australian Standards including AS/NZS 1170 Parts 0, 1-2002, AS1684 (1) – 1999; AS1684 (2-4) – 2010; AS 4100 – 1998; AS 4600 – 2005; AS 3700 – 2011; AS2870 – 2011; AS3600 – 2009; AS4055-2006 as required.		
Reference documentation early identify any relevant documentation, 1. numbered structural engineering plans.	Job Number: 30421-13CS including any reports, drawings and associated Annexures prepared by Structerre Consulting Engineers		
	structerre Drawing Nos. S00-S25 inclusive, dated 01-10-2013.		
L'AND	Architect Drawing Nos: 12-05-08 Dated: 17/06/13 Prepared by: John Marsson & Associates Pty		
M	Ltd. Geotechnical Report by Soil Surveys, No. 1-15345 LR VER 0, dated 14 June 2013.		
	A A A A A A A A A A A A A A A A A A A		
DCAL GOVERNMENT USE ONLY			
Date scaller	Reference Number/s		
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The Building Act 1975 is at			
The <i>Building Act</i> 1975 is an Department of Housing an			

	Building certifier reference number
Competent person details competent person for building work, means a	Name (in full)
rson who is assessed by the building certifier	Greg Anderson
r the work as competent to practise in an spect of the building and specification design,	Company name (if applicable) Contact person
the building work because of the individual's till, experience and qualifications in the	Structerre Consulting Engineers Greg Anderson
pect. The competent person must also be	Phone no. <i>business hours</i> Mobile no. Fax no. (07) 3307-8300 (07) 3307-8301
gistered or licensed under a law applying In e State to practice the aspect.	
no relevant law requires the individual to be	Email address
ensed or registered to be able to give the elp, the certifier must assess the individual as	Brisbane@structerre.com.au
aving appropriate experience, qualifications or	Postal address PO Box 621
ills to be able to give the help.	
the chief executive issues any guidelines for ssessing a competent person, the building	
entifier must use the guidelines when sessing the person	Licence or registration number (if applicable)
and and barrents	FIEAust CPEng RPEQ 1359
	Signature Date
Signature of competent person	Signature Date 9 October 2013
ssessed by the building certifier as competent.	Greg Arderen





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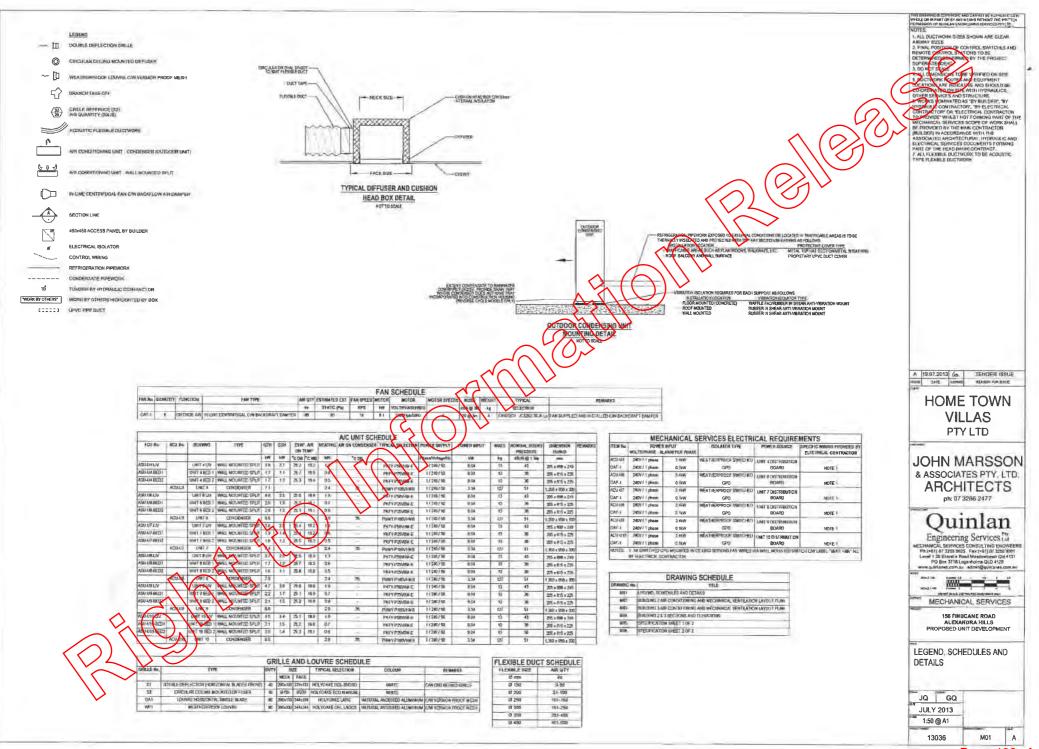
Compliance Certificate for building Design or Specification

	e Certificate for building Design or Specification
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1. Property description This section need only be completed if	Street address (include no., street, suburb / locality & postcode)
details of street address and property	156 Finucane Road Alexandra Hills
description are applicable. EG. In the case of (standard/generic)	Postcode 4161
pool design/shell manufacture and/or	Lot & plan details (attach list if necessary)
patio and carport systems this section may not be applicable.	
The description must identify all land the	In which local government area is the land situated? Redland City Council
subject of the application.	
The lot & plan details (eg. SP / RP) are shown on title documents or a rates notice.	
f the plan is not registered by title, provide previous lot and plan details.	$\Delta_{\Lambda}(\mathbf{O})$
 Description of component/s certified Clearly describe the extent of work covered by his certificate, e.g. all structural aspects of the steel roof beams. 	Air conditioning and mechanical ventilation outside air systems (only) as identified on referenced documentation listed in section 4 evented serving units 4, 6, 7, 8, 9 and 10. All other areas excluded from this certification including natural ventilation to rooms not served by outside air systems referenced herein.
. Basis of certification	$-\alpha(\Theta)$
letal the basis for giving the certificate and the xtent to which tests, specifications, rules, tandards, codes of practice and other ublications, were relied upon.	Services installed as part of base building works have been designed in accordance with relevant parts of the following documents: NQC 2612 Section C3 – Protection of openings Section F4.5 – Ventilation of rooms Section J5 – Air conditioning and ventilation systems Section J5 – Air conditioning and ventilation systems Section J8 - Access for maintenance AS1668.2(1991) – Mechanical ventilation for acceptable indoor air quality AS1668.2(2012) – Mechanical ventilation in buildings AS 3666 - Air-handling and water systems for buildings – Microbial control Environmental Traffic Noise Level Study prepared by David Moore & Associates R12095A/D2698/Rev.1/24.09.12
LOCAL GOVERNMENT USE ONLY	4

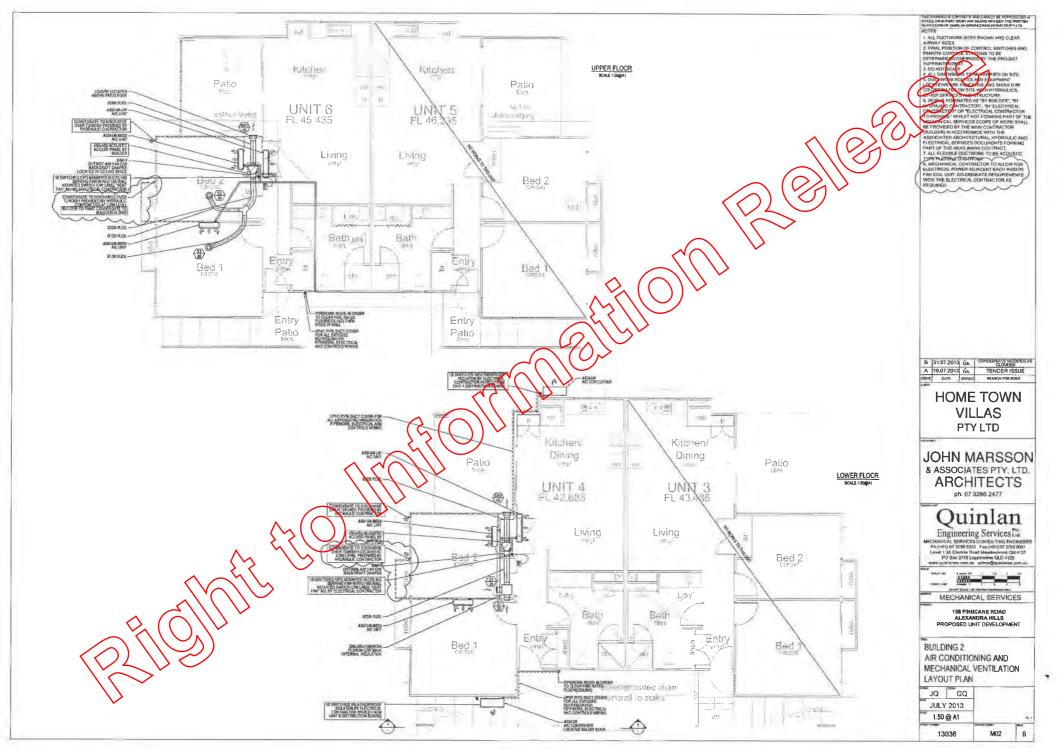
Form 15 continued		
4. Reference documentation Clearly identify any relevant documentation.	Quinlan Engineering Services drawings 13036 - M01, M02, M	103, M04, M05 & M06
e.g. numbered structural engineering plans.		
		β
5. Building certifier reference number	Building certifier reference number	
5. Competent person details A competent person for building work, means a person who is assessed by the building certifier	Name (<i>in full</i>) Giles Quinlan	
or the work as competent to practise in an ispect of the building and specification design,		ct person
of the building work because of the individual's kill, experience and qualifications in the	Phone no. business hours Mobile no.	s Quinlan Fax no.
spect. The competent person must also be egistered or licensed under a law applying in	07 3299 9025	
he State to practice the aspect.	Email address	
censed or registered to be able to give the elp, the certifier must assess the individual as	giles@quinlanes.com.au	
aving appropriate experience, qualifications or kills to be able to give the help.	Postal address PO Box 3718 Loganholme Qld	1
the chief executive issues any guidelines for seesing a competent person, the building	(In-7	Postcode 4129
setsifier must use the guidelines when sessing the person.	Licence or registration number (if applicable)	
asesang une person.	RPEQ 7354	
. Signature of competent person	Signature	Date
This certificate must be signed by the individual assessed by the building certifier as competent.	frite Quila.	02.08.2013
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The Building Act 1975 is administe	ered by the	

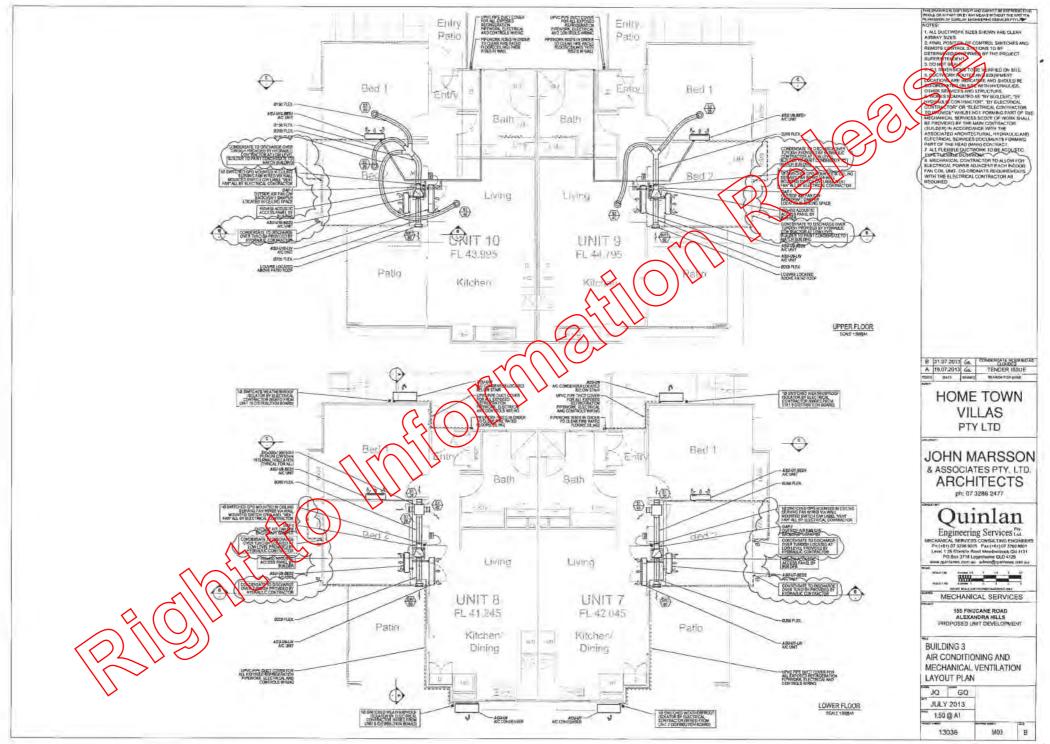
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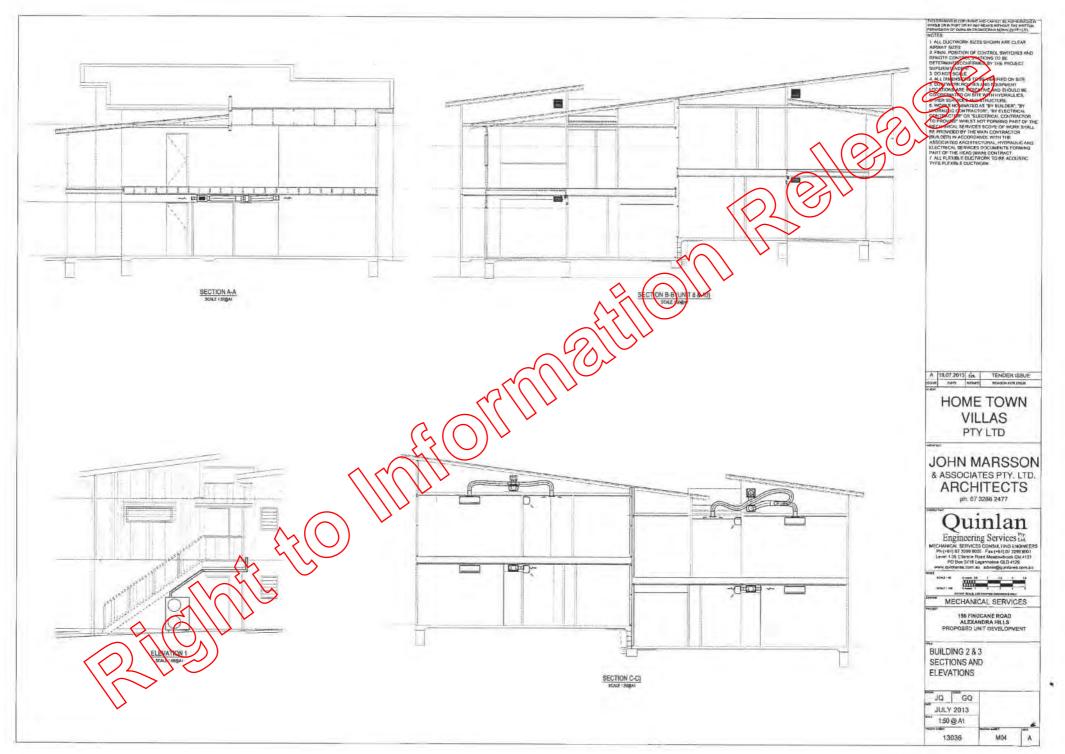


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LO NOOPE OF WORKS

THE CONTRACTOR SHALL FREMEWING AND THE MECHANICAL SERVICES IN ACCORDANCE WITH THESE DRAWINGS AND THE LINNOR THEORY ES AND CHITERA DESCRIPTION THEM.

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1.3 Associated works The associated works listed below whilet not forming part of the mechanical bervices scope of work shall be provided by the clubit

BUILDING WORDS

ACCENS PANELS AS NOMINA TED ON URANNING. ACCENT XANDER AT NOMMATCO ON UCANTINGS. INFORMING OF COLOMENT AND THOMAN AND VALIDATE (IF REQUIRED) ON ACCE AREAS AND PURIMARENT ACCESS TO SUCH FOR THE MANTENANCE OF EXCOUNTER. PRETENTIATION OF THE LOCKTORIE HORCARED ON THE MECHANICAL CONTINGTORES DRAININGS TO ACCOMMONATE THE WORKS.

COTTRACT, PATCHING, FRANKER OF, FILEHBALL, CISKONG, PACKARI, AND SALAHO PERMITTATION AND MARKED CODD SASCARITE WITH THE INLEMA CONTRICTION FOR THE PACKARIO OF MONTWORK, PHELE COLUMITA NO CALCULS, BITC TRAUMAN OF CICLINE OPERATING TO A LIMPLY AND OPPLIERE, EXAMINE AND RETURN AN ORELES AND TRANSLES. THE OWNER OF CICLINE OPERATING TO A LIMPLY AND OPPLIERE, EXAMINE AND RETURN AND GRILLES AND TRANSLES. THE OWNER OF CICLINE OPERATING TO A LIMPLY AND OPPLIERE, EXAMINE AND RETURN AND GRILLES AND TRANSLES. THE OWNER OF CICLINE OPERATING TO A LIMPLY AND OPPLIERE, EXAMINE AND RETURN AND GRILLES AND TRANSLES. THE OWNER OF CICLINE OPERATING TO A LIMPLY AND OPPLIERE EXAMINE AND RETURN AND GRILLES AND TRANSLES.

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SEIZIENCE OF INSTALLATION. - UNDERFLASHING AND TRIMMING TO EXTERMAL PENETRATIONS, OVER PLASHING SHALL BE FART OF THE NE CHANICAL WORKS

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SERVER PENETINATIONS AND CONTROL JOINTE AB 4254 DUCTWORK FOR AIK HANDLING SYNTEXS IN 6KH DINGS ELECTRICAL SAFETY ACT 2002

ELECTRICAL SAFETY REGULATION 202

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TO THE VALUE AND A DAMAGE SHOWING ALL ELECTRICAL CONTINUES, RELAYS, CUT-CUTS, TIMING DEVICES, HYPER-LOCKS, FUES, OVER-LOADE, CONTACTION, SCLINDIDS, STATEERS, FICE WITH ALL TREAD CLEAR TO CHILTRED AS TO TYPE AND PRINCIPAL AND AN INVIALUES ENTYDERISASE LANDIT DRAWNING WIDER CONTRIBUTING MICH AND INCOMPORATED.

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2.8 TECHNICAL RECLORENENTS

ALL EQUIPMENT OFFERED SHALL BE THE PROOF OF A COMMERCIALLY ESTABLISHED MANUACTURER OFFERATING WITH A HAVE ROUSETINFOR A REMARK OF 10 YEARS AND WITH A CALL DISTUREM AND DUSTDIES SHRIDE FACILITY. BOULD BE OVER 10 YE DE DUSTRY THE OF EQUIPMENT AND IN HIS REARCH SOURCES (1990) YE OFFERED IN C BE DELIVERED IN TIME TO WORK IN WITH THE CONSTRUCTION PROGRAM

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AU, UNITE SHALL HAVE THE FOLLOWING FEATURES: COOLDRY-FAN MODES, COOLINEATIAUTO AM CONDITIONING MODES АЛ, ИЛТ ВИАЦ, ИМЕ ТНЕ ВОЦОИНАЕТ НАИТИЧЕС СООЦВЕТ АИ МОСЕ, СООЧАЛИИТО АИТ СОПТОНИЯ МОСЕ, АЛТ ИЛТ ВИАЦ, ИМЕ ТНЕ ВОЦОИНАЕТ НАИТИЧЕС СООЦВЕТ АИ МОСЕ, СООЧАЛИИТО АИТ СОПТОНИЯ МОСЕ, ТЕЛЕ СООК, ТЕАУ ТНАЯ, НАИ, ИМО ЕТАКТ ИНАКОВ ЕТОРА РЕВ БАУ, СН ВЕДМИ ССИНТОНИИ ИЛТ НИЕТ, ЦЕ ТО ВИСИВЕ, АЛТОЧЕСТИИ ИЛТ ИНАИ, ИЛТ ИЛЕ СОПИСИСОВ СИ ИТЕРИСТИИ ВОДСТИИ ССИНТОНИИ ИЛЯ ПИЕТ, ЦЕ ТО ВИСИВЕ, АЛТОЧЕСТИИ ИЛТ И КОЛИ ИЛИ ДИ СОПИСИСОВ СИ ИТЕРИСТИИ ВОДСТИИ ССИНТОНИИ ИЛЯ ПИЕТ, ЦЕ ТО ВИСИВЕ, СООК ТЕАУ ТНАЯ ВОНОВ, ИХИ, МОСЕ СОПИСТВИИТСЯ СИ ИТЕРИСТИИ ВОДСТИИ ВОДСТИИ ССИНТОНИИ ИЛЯ ПОВЕТИИ О ВОДСТИИ СООК ДИИ ИЛИ ВИСИТИИ ВОДСТИИ С И ПОВЕТИИ С И ИЛИ ВОДСТИИ ВОДСТИИ СОИТОНИИ ИЛЯ ПИЕТ, ЦЕ ТО ВИСИВЕ. СОПИСТВИЕТИИ ВОДСТИИ В АВЕЙО, ИХИ, МОЛЕЕ СОПИСТВИИ ТНАЯ ВОДСТИИ ВОДСТИИ СОИТОНИИ ИЛЯ ВОДСТИИ СО ВИДИИ. ВОДСТВИ БАТИКИ И АВЕЙОВ, ИХИ, МОЛЕЕ СОПИСТВИИ СТИИТЕ СОИТОНСКИ ПОВИ, ИЛИ ВОДСТИИ ВОДСТИИ.

LIFARE

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HOME TOWN

VILLAS

PTY LTD

JOHN MARSSON & ASSOCIATES PTY, LTD. ARCHITECTS ph: 07 3286 2477

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Engineering Services La

MECHANOL SERVICES CONSULTING ENGINEER Pictofi) 07 3299 9005 Factofi) 700 200 2001 Laws 3 36 Disabili Road Massachush Dekh PO Rain 21% Consultance DLD 4125 aves gardiare and all altre @politices.com et

MECHANICAL SERVICES

154 FINUCANE ROAD

ALEXANDRA HILLS PROPOSED UNIT DEVELOPMENT

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SPECIFICATION

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2.5 REFRIGERATION FIPHUL INBULATION & ABSOCIATED FITTINGS

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THE PERIOD SYNTEM IN ALL OF COMPLETE WITH ALL VALVES, FITTINGS, STRANGTRS, OFFERS, ESPANSION FACILITIES, VIENALVES,

REPROZEMANT ANNAN DESIGN SHALL BE IN ACCONTANCE WITH INDURING MANIFACTURERS MEDIMINERTS AND SHALL MCONTRACT IS DECIN. ITTINGS AS REQUIRED BY THE MANIFACTURERS CARE SHALL BE FANGULIN OF THE SYSTEM AND ISSTALLITED OF THE REPROZENTIATION INFORM OF THE INSULTE THAT REPROSENT MANIFACTURERS AND SHALL BE FANGULING THE SYSTEM AND ISSTALLITED OF THE REPROZENTIATION INFORM OF THE INSULTE THAT REPROSENT MANIFACTURERS AND SHALL BE FANGULING THE SYSTEM AND ISSTALLITED OF THE REPROSENTIATION INFORM OF THE INSULTE THAT AND INFORMATION OF MANY AND INFORMATION OF A REPROSENT AND INFORMATION OF A REPROSENTIATION OF A REPROSENTIATIONA A REPROSENTIATIONAL A REPROSENTIATIONAL A REPROSENTIATIONALISTICATIONALISTICATIONALISTICATIONALISTICATIONALISTICATIONALISTICATIONALISTICATIONALISTICATIONALISTICATIONALISTICATIONALISTICATIONALISTICATIONALISTICATIONALISTICATIONALISTICATURATIONALISTICATIONALISTICATU

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SUCTION AND LIQUID LINES SHALL BE INDULATED WITH THRADMALEY OR BAILAR FLEXIBLE PIPE INSULATION. INSULATION SHALL HAVE THEORIAL CONDUCTIVITY OF DOX MUNICIAL SYST. PREVIOUS SUE SHALL HAVE WHIGHLIGHT HAVE ADDRESS IN ACCOMMUNE WITH THE NOT SECTION FROM DESIDENTS.

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THE WANALIN CAPACITIES OF THE COMPRESSOR SYSTEM SHALL BE TAKEN WID CONSIDERATER WHITH RENOT THE SUCT

LIQUID LINUE - TAKING INTO ACCOUNT THE DEGREE OF SUB-DOCUND, THE LIQUID LINES SHALL BE SIZED TO ENSURE THAT FLUCTING OF LIQUID REPROSEMENT DOES NOT OCCUP.

ISCLATURE, SUPPORTS AND MY OTHER ITEMS HELESLARY FOR THE SATISFACTORY OPERATION OF THE BY STE

PLENUM BOXES SHALL BE CONSTRUCTED FROM the VALUED SHEET STEEL AND SHALL BE INTERNALLY ADDUETIDALLY

SPECIFICATION CONTINUED.

2.6 CONDEXISATE PIPEWORK

24 CONDENSING PREVENUE. INCOMPACTUATION ROLL INVOLVES A STATEM OF CONTINUED RAVING TO SERVE ALL INCOMP FAN COL UNITS AND REVENUE CIVILI CONDUCTION OWNER THE STATEM SHALL INCLUDE ALL INCOMPACTUATIONS AND ADVINTED AND THE UNIT TO AN ADVISORY CONSIGNATE TRADES CONTENIATE PREVENTION ROLL OF CONTENT TO TUNDERS IN INSULATED PAC PREVENTION ADVISOR TO ADVISORY TO PREVENT ADVISORY TO ADVISOR TO ADVISOR OF CONDENSATE PROVIDE ON PAC PREVENTION ADVISOR ADVISOR ADVISOR THE ADVISOR TO ADVISOR TO ADVISOR OF CONDENSATE PROVIDE ON PAC PREVENTION ADVISOR ADVISOR ADVISOR ADVISOR ADVISOR ADVISOR TO ADVISOR ADVISOR ADVISOR PAC PREVENTION ADVISOR PAC PREVENTION ADVISOR PAC PREVENTION ADVISOR PAC PREVENTION ADVISOR ADVISO

2.7 REWRIT AND UNDATION

INVOLVE VIRIANCIA MOLATION AS REQUIRED TO THE ARCHANICAL BETWICES IN ORDER TO MINIME VERATOR/TRANSFERRED TO THE ROLLING STRUCTURE. THE INCOMPANY SYSTEM SHALL BE BELECHEN TO BUILT THE STATE WO DYNAMIC ROMESE GUINNO OFERATION AND STRUCTURE. THE INCOMPANY SYSTEM SHALL BE BELECHEN TO YESDOWN THE ROLLING WO DYNAMIC ROMESE GUINNO

STATICALLY AND DYNAMICALLY BALANCED INDIATING PLANT AND ECUIPMENT, PROVENING INCLUSION MOUNTS ON NAMEDING
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INTERVAL NO.3E LEVELS BRALL SERVICE WITHE SATISFACTORY NORE LEVELS STIPLAATED IN ASSNIP LAREN RECOMMENDED DESIGN SOUND LEVEL SOUND LEVELS GRALL BE MEASURED AND BE COMPLIANT IN ALL FOURMENT OPERATING MODES

ZØLANELLING

TA UABLELMIC. AND CONTROL EQUIPMENT AND RESTRICTIONENTS SHALL BE LABELED AND BE CLEARLY DURYTRIED AS TO FUNCTION. ALL LABELS SHALL RE ENGENANCE LAWRATED FLATING WITH BLACH LITTERS ON A MIRTS MACROPORUM. LETTERS SHALL BE WITTERS THAN TOWN FROM, BLEETRICH, CONVENIENT SHALL AND BE LABELED ALL MORE MANUFAUL MICH MACRO-BERMICS SHALL BE SUITARI V LABELED WITH CITERS(OF AT LAST STAME HIGH IN A DRUGHWID LAMMATH DI LATON DURANTI DE LAMOT DUR, TIMET MUT AUTO ALLE BERMING OF AT LAST STAME HIGH IN A DRUGHWID LAMMATH DI LATON DURANTI DURANT DUR (MICH AND TABLE) WITH FORCEDURS SHALL BE VARELED AND CONTOINNE DURANT DURANTI DURANT DUR (MICH AND TABLE) WITH CONTENSION AND LAND DURANT DURANT DURANTI DURANT DURANT DURANT DURANT DURANT DURANT DURANT DURANT STRUMMENT VICANT DUR (MICH AND TABLE) PROCEDURS SHALL BE VARELED AND CONTOINNE STRUMENT VICANT DURANT DURANT DURANT DURANT DURANT DURANT DURANT DURANTI DURANT DURANT DURANT DURANT DURANT DURANT DURANT DURANT DURANT DURANTI DURANT DUR

LE ELECTRICAL THE RESUMPCIAL CONTRACTOR BUILL PROVIDE ALL ELECTRICAL WORKS INCLUDING, BUT HOT LIKETED TO, ALL WIRRING HITHINGS AND OMFORCING RERVINO THE MICLIPHICAL BUPYCICS. INFERE ALSOCIATED WORKS ARE PROVIDED BY OTHERS THE MICLIPHICAL CONTRACTOR BUILL OCORDINATE PROVIDED BY DEVICE DECTRICAL SCOPE OF WORKS SHALL INCLUDE THE MICLIPHICAL CONTRACTOR BUILL INCLUDE THE

CONVECTION OF POWER BURPLY FROM INCLATORICHO (PROVIDED BY OTHERS) TO EQUIPMENT ALL CONTROL WITHIN

TYDE ALL NUTICES AND CERTIFICATES REQUIRED BY THE LOCAL SUPPLY AUDIORITY AND PAY ANY ASSOCIATED FEES AS RECEIPTION

KLECTRICAL RUPPLY THE AVAILABLE ELECTRICAL POWER SUPPLY SHALL BE STRUGG ASSOCIOUT SHOT. THE RELECTRICAL BUSICPOOLS FROM THE REFUTCTION, RUPPLY REFUTCTION, RUPPLY (EXCLUSING STATTING)

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RUARSTAN CHA THEREIGH

THE MECHANICAL CONTRACTOR SHALL PROVIDE ALL FTF FOR PURPOSE EQUIPMENT AND WATERALS RECIVERED TO COMPLETE THE ELECTRICAL INSTALLATION INCLUDING BUT NOT UNITED TO THE FOLLOWING HENS:

ALL LOADS SHALL BE BALANCED ACROSS THE PHASES OF THE POWER SUPPLY AND EARTHED TO THE SATSIFACTION OF THE SUPPLY AUTHORITY.

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HOME TOWN VILLAS PTY LTD

JOHN MARSSON & ASSOCIATES PTY, LTD. ARCHITECTS

ph: 07 3286 2477

Ouinlan Engineering Services

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MECHANICAL SERVICES

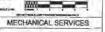
ALEXANDRA HILLS PROPOSED UNIT DEVELOPMENT

SPECIFICATION SHEET 2 OF 2

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156 FINUCANE ROAD

M06



SPECIFICATION FOR LANDSCAPE WORKS

AT 156 FINUCANE RD, ALEXANDRA HILLS

FOR C-CHANGE INVESTMENTS P/L

Issue A –Approval October 2013

GENERAL

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Supply materials and execute works described in this specification or as shown on

Landscape Drawing Nos.

Nos. 2012.061 LP1.01 Grading & Finishes Plan 2012.061 LP1.02 Grading & Finishes Plan 2012.061 LP3.01 Planting Plan 2012.061 LP3.02 Blanting Plan

Arborist's Report

Tree Protection Management Plan prepared by Treescience

EXTENT OF WORKS

The landscape works shall comprise:

Section 1 - General

- Section 2 Earthworks
- Section 3 Drainage
- Section 4 Edging
- Section 5 Topsoiling & Mulching
- Section 6 Planting Works
- Section 7 Grassing Section 8 - Establishm

Establishment & Maintenance

Construction Details

LD107 - Staking

LD408 - Advanced Tree Planting

LD554 – Concrete Edge

SECTION 1 - GENERAL

1.01 Standards

AS 1289 – Methods of Testing Soils for Engineering Purposes AS 4419 – Soils for Landscaping and Garden Use

1.02 Samples

SAMPLES - EXTERNAL WORKS

REQUIREMENT: Submit representative samples of the plants, fabricated items, and other materials and products specified.

SAMPLES: Submit each sample in the condition in which it is proposed to supply it to the site.

REJECTION: Replace, at no additional cost, samples rejected as unsuitable for use, including samples rendered unsuitable by the process of examination (e.g. plants examined for root condition). Samples not rejected may be included in material for use in the works.

1.03 Approved Suppliers

PLANT MATERIAL: Obtain plant material; including plants, seeds and mulch from approved suppliers. Furnish proof of ordering if requested. No extension of time will be granted if plant material is not available because of late ordering. Advise immediately if supply difficulties are encountered.

1.04 Inspections

NOTICE: Give not less than 48 hours notice so that the following may be inspected, as applicable:

- Plant materials available at source of supply
- Plant materials delivered to site
- Setting out completed
- Clearing completed
- Subsoil drainage installed
- Sub-grades cultivated and/or prior to placing topsoil, paving materials or roetings

Grassing bed prepared prior to turfing or seeding

Tree holes excavated and prepared for planting

Plant materials set out before planting

Planting, staking, tying, seeding and turfing completed

Paving, trim, fixtures and furniture completed

At the beginning of each month during the maintenance period and the defects liability period

Upon completion of establishment period

Upon completion of defects liability period

Guarantees/Warranties

Provide all guarantees and warranties as required by this specification.

SECTION 2 - EARTHWORKS

2.01 Site Clearing

TREES TO BE RETAINED are those shown on the drawings.

LIMITS OF CLEARING: Clear only those site areas shown on the drawings

REMOVE trees, logs, stumps, roots, shrubs, scrub and boulders. Do not remove grass and topsoil unless otherwise specified.

GRUB OUT roots and stumps over 75 mm diameter to a minimum depth of 500 mm below subgrade in paved areas or below finished surface in unpaved areas. Backfill grub holes with suitable spoil from excavations compacted in layers to the density of the surroundings undisturbed soll.

BREAK UP and remove slabs, foundations, payings and other debris found on the surface, or within 200 mm of the base or finished surface in areas to be landscaped.

2.02 Excavation and Filling

EXCAVATION: Excavate over the site as required to conform to the subgrade levels. Remove all rocks and boulders protruding above the finished subgrade surface.

MAKE GOOD excavations below tinished subgrade levels as specified below.

COMPACT loose surface material in excavated areas.

FILLING MATERIAL: Kill shall be approved excavated material from site free from perishable materials or any material that will not form stable fill.

FILLING PLACEMENT: Place and compact filling as required in uniform layers, each 150 mm maximum thickness. Compaction equipment shall be approved by the Superintendent. Fill material shall be compacted uniformly to 95% of maximum dry density as determined by test AS 1289 E.2.1.

2.03 Finishing

Trim profiles to achieve smooth flowing even grades.

2.04 Free Protection

GENERAL: Significant trees to be retained and protected occur across the site as identified on the plans. All trees to be retained within (and bordering) the extent of works of the project shall be protected from damage incurred during the works program.

The Contractor is to ensure that all employees, sub-contractors and any other persons on site are made aware of tree protection requirements at all times. Refer to Arborist's **Tree Protection Management Plan (156 Finucane Road, Alexandra Hills – Lot 40 on RP 40 on RP 79330.) prepared by Treescience** for specifications on the methods and procedures that are to be undertaken to protect existing trees on site during construction.

DAMAGE TO EXISTING TREES: Should any tree be damaged during the work under the Contract, and if the Superintendent permits repair work to be done, such repair work should be performed by an approved tree surgeon at no extra cost.

REMOVAL: If repair work is considered impracticable, or is attempted and fails, if so directed, remove the tree and root system, make good as necessary, and either replace the tree or pay damages, as determined by the Superintendent, if the tree to be removed has been identified as a Koala Habitat (Tree in the Arborist's report, replacement plantings are to be in accordance with Recland City Councils policy for Koala Habitat Tree removal; Generally, 1 new Koala tree per 1 lin. metre of the combined height of the removed tree/s.

REPLACEMENT: Provide, plant and establish as part of the works, at no extra cost to the Principal, a replacement tree of the same species and similar size or as approved by the Superintendent.

DAMAGE ASSESSMENT: If replacement as part of the works is not approved, pay for any tree removed pursuant to the above, damages assessed by the Superintendent as the cost of replacement by others or to a maximum cost of \$3,000 unless otherwise specified.

2.05 Erosion Control

Take all proper precautions to prevent erosion, including, but not limited to, the following:

- construction of temporary drains
- diversion of concentrated flows to points where they can pass through the site without damage.
- construction of spreader banks or other structures to re-spread run-off which has been concentrated.
- provision of "temporary grassing" or other treatments (e.g. contour ploughing) to disturbed areas.
- construction of temporary tencing.
- progressive restoration of disturbed areas during the Contract Period.

MINIMISE WATER velocities by following contours and by the use of trapezoidal cross sections. Where instructed, construct sandbag weirs or other structures in temporary grains to retard flows.

CLEAR OUT silt traps before they reach 50% of storage capacity.

2.06 Disposal of Spot

All debris resulting from site clearance, and excavated material, surplus to fill and topsoil requirements, is to be disposed of offsite.

2.07 Cultivation

PREPARE subgrade by cultivation to receive topsoil.

ONTAMINATED MATERIAL: If harmful materials, including diesel or engine oil, cement, or the like, has been spilt on the subgrade or topsoil, excavate and remove the contaminated material from the site and replace with topsoil at no extra cost.

CULTIVATE by ripping to the depths specified below, to loosen the compacted ground. Do not disturb services, tree roots.

REMOVE stones exceeding 50 mm diameter and any unwanted matter including roots, sticks and weeds brought to the surface during cultivation.

MIX in any materials, specified to be incorporated into the subgrade.

TRIM SURFACES to specified shape and levels after cultivation so that the minimum specified depth of topsoil remains on completion of preparation.

- PLANTING BEDS: Cultivate to a minimum depth of 200 mm
- TURFING: Cultivate to a minimum depth of 209 mg

SECTION 3 - DRAINAGE

3.01 Surface Drainage

When setting out lines and levels of garden, grassed and paved areas, ensure the accurate formation of grades and crossfalls leading to drains, enabling the areas to dry quickly and surplus water to reach the drainage system and in such a way that potential erosion channels are avoided

Minimum crossfalls, unless otherwise stated shall be as follows:

- Paving 1:75
- Grassed and mulched garden areas 1.50

3.02 Subsoil Drains

Lay subsoil drainage pipes in the positions shown on the drawings or as detailed. Unless otherwise specified all subsoil drain pipes shall be corrugated, slotted PVC contour pipe wrapped in filter cloth.

Filter cloth to be Bidum VIA Filter cloth or equivalent equal. Filter gravel to be 13mm dean washed aggregate, unless otherwise specified. Lay drain pipe in continuous lengths where possible and with minimum 1:100 falls. Discharge pipes into stormwater system.

Size of pipes shall be 90mm unless otherwise specified.

3.03 Drainage Sumps

Refer to Civil Engineers drawings.

SECTION 4 EDGING

4.01 Concrete Edges

the positions shown on the drawings construct concrete edges to DETAIL -

SECTION 5 - TOPSOILING & MULCHING

<u>Topsoil</u>

EXTENT AND TYPE:

PLANTING BEDS: Imported Topsoil GRASSED AREAS: Imported Topsoil

DELETERIOUS MATERIAL: Imported topsoil shall be free from noxious weeds rocks, roots, rubbish or any other deleterious material. All imported topsoil containing nut grass shall be rejected and the topsoil shall be removed from the site.

TOPSOIL TYPES:

IMPORTED TOPSOIL shall be a Topsoil Mix with a Sandy Lean base to AS 4419 which shall comply with the following or equal approved.

CRITERIA

75% by mass

< 10% by mass

< 15% by mass

> 2% by mass

< 2.5 dS/m

Sandy Loam Component

COMPOSITION Sand Silt Clay Organic matter Salt content pН

Topsoil Mix

COMPOSITION CRITERIA Sandy loam As per Sandy Loam - 45% by volume Composted aged cellulose or equal 35% by volume Composted organic matter 20% by volume Fertilizer elements Crop King 88 and Urea @ 1.5 kg/m³

A 1kg soil sample shat be provided of the Imported Topsoil Mix. The Landscape Contractor shall provide soil tests of each sample to show compliance with the composition and criteria set out in this specification or confirmation that the solutias been obtained from an approved supplier. Testing shall be carried out in an approved laboratory.

APPROVED SUPPLIER & TYPE: Centenary Landscapes "Trade Mix".

5.02 Topsoil Spreading

> PLACE topsoil in the locations indicated on the drawings and to the following depths

PLANTING BEDS GENERALLY: 250 mm TURFED AREAS: 100 mm

LIGHTLY COMPACT so that the finished surface is smooth, free from lumps of soil, ready for cultivation and planting at the required levels. Allow for the trickness of mulch where specified.

FEATHER topsoil edges into adjoining undisturbed ground. Finish flush with abutting kerbs, mower strips, and paved surfaces unless otherwise specified. Prevent excess compaction by construction plant of newly scarified or topsoiled areas.

COMPLETE the backfilling of service excavations, trenches, sand and the like

in existing or new topsoiled areas with an equal depth of topsoil.

5.03 Mulching

TYPE: Green Harvest Mulch

MULCH shall be free from soil, weed growth, and other green material of deleterious matter.

SAMPLES: Provide a sample of the mulches specified.

SPREADING: Spread mulches evenly to 100 mm depth and rake smooth to finish flush with surround levels. Do not place mulch in contact with stems of plants.

5.04 <u>Mulch Collars</u>

Street trees planted within the grassed verge are to be provided with a 1m dia mulch collar (125mm thick) around the base of the tree. Pull mulch away from stem of tree to prevent collar rot.

SECTION 6 - PLANTING WORKS

6.01 Plant Material

GENERALLY: Plants shall be vigorous, well established, hardened off, of good form consistent with species of variety, not soft or forced, free from disease and insect pests, with large healthy root systems and no evidence of having been restricted or damaged. Trees shall have a single leading shoot.

PLANT SIZES:

- Where a minimum plant height is specified in the "PLANT SCHEDULE" the height shall be the vertical distance between the top of the pot and the natural top of the plant whilst standing vertically in the pot.
- Where a minimum plant height is not specified in the "PLANT SCHEQULE" provide the plant of a height appropriate to the pot size.

SUBSTITUTIONS: Make no substitutions unless provided in writing. Substitutions will not be approved if plants have not been made available for inspection at the Nursery within 30 days of the Contract being awarded.

ABELLING: Label at least one plant of each species or variety in a planting area with a printed plastic tag.

REPLACEMENTS: Replace, with plants of the same specified type, quality and size, any plants which fail or are damaged during the work under the Contract.

WARRANTY: Furnish a warranty from the supplier attesting that the plants are true to the specified species and type, and free from diseases, pests, weeds and the like.

STORAGE: Wherever possible, plants shall be planted immediately after delivery to the site. If this is not possible, keep them in good condition by appropriate storage methods, or as may be directed. Prevent theft, drying out



or damage from any cause including frost, wind, sun, vermin, animals and the like. Provide an on-site nursery for holding plant stock on site for more than 48 hours, of sufficient size, with provision for watering.

POTTING ON: If directed, pot plants into larger soil-filled containers to prevent them becoming root bound if there is an unforeseen delay. The Contractor shall bear the cost of potting on. Do not carry out potting on unless authorised.

POT SIZES: Supply plants in weed-free containers of the sizes specified in the "PLANT SCHEDULE" shown on the drawings.

6.02 Plant Schedule

Refer to LP3.02 for Plant Schedule.

6.03 Planting

LOCATION: Do not vary plant locations from those shown on the drawings unless otherwise directed. It if appears necessary to vary the locations and spacing to avoid service lines, or to cover the area uniformly, or for similar reasons, apply for directions.

TIMING: Do not plant in unsuitable weather conditions, such as extreme heat, cold, wind or rain.

PLANTING HOLES, PLANTING BEDS, Excavate planting holes to a size that allows placement of the plant without damage to its root system.

INSTALL STAKES, if required, as specified to DETAIL - LD 107 Staking.

WATER the plants and planting areas thoroughly before planting begins. Keep the areas moist during planting.

REMOVE PLANTS from containers carefully to ensure minimum soil loss and root disturbance. Root prune any root bound plants. Top prune only as directed.

POSITION PLANTS in the centre of the holes and set plumb at such a level that after trimming and settlement, a normal and natural relationship of the plant with the ground surface will be established.

FERTILIZER shall be an approved prolonged release type having NPK ratio of 16:4.4.8.3. Place around plant approximately half depth of root ball, but not more than 250 mm and approximately 50 mm away from root tips. PLACE at time of planting at the rate recommended by the manufacturer. Furnish evidence of manufacturer's recommendations.

ADVANCED TREE PLANTING: Refer DETAIL - LD 108.

BACKFILL with topsoil, as specified, and firm to avoid air pockets. Where a Topsoil Mixture containing super-absorbent is used, ensure mixture is used dry prior to backfilling.

WATER the plants immediately after planting and thereafter, as required to maintain growth rates free of stress.

TRANSPLANT existing shrub to new position shown on the drawings.

Transplanting method to be approved by the Landscape Architect prior to work commencing.

6.04 Spraying

REPORTING: Report any evidence of insect attack or disease amongst play material immediately it is noted.

SPRAYING: If so directed, spray with an insecticide and/or fungicide approved prior to use, in accordance with manufacturer's recommendations, and to comply with statutory requirements.

SECTION 7 - GRASSING

7.01 Turfing

TURF SPECIES: "A" Grade Green Couch.

Turf to have a minimum 25 mm thickness of soil.

CULTIVATION: Cultivate surface soil for the whole area to a fine tilth for an even depth of 100 mm. Bring surface to smooth even grades, free from mounds and hollows such that the whole surface drains fully in accordance with the finished designed surface contours and levels. Ensure the specified depth of topsoil remains on the surface upon completion of surface preparation.

FERTILIZER: Apply an approved complete fertilizer having an NPK ratio of 14:15:10 at the rate of 100g/m² before turfing. Spread evenly over the ground and rake lightly into the surface.

STORAGE: Where turf is stored prior to laying, place in a cool shaded location or cover with hessian. Stock turf in rolls as delivered. Lay turf within 36 hours of being cut. Where unexpected delays occur, roll out turf on flat surface with grass up and water as necessary, to maintain good condition.

LAY THE TURE of species specified along the land contours with staggered, close butted joints, and so that the finished turf surface is as shown on the drawings. As seen as practicable after laying, roll the turf with a roller weighing not more than 90 kg per metre of width for sandy or light soils.

WATER as necessary to keep the soil moist to a depth of 100 mm.

POST GRASSING FERTILIZER: Three weeks after turfing, broadcast evenly a minimum 10g/m² of sulphate of ammonia fertilizer over the whole of the area of turfing.

PROTECT newly turfed areas against traffic until grass is established. Lift failed turf and relay with a new turf.

REMOVE WEEDS that emerge in the turfed areas.

TOP DRESSING: When turf is established, light top dress to a depth of 10 mm with topsoil as specified. Rub the dressing well into the joints and correct any unevenness in the turf surface.

SECTION 8 - ESTABLISHMENT & MAINTENANCE

8.01 General

Landscaped areas shall be maintained by the Contractor from the time of installation until the end of the Landscape Establishment Period. The Plant Establishment Period shall be twelve (12) weeks.

Maintenance shall include watering, fertilizing, mowing, weeding, pruning, pest and disease management, site drainage and general tidying of the treated areas.

8.02 Watering

Watering shall be carried out at sufficient frequency to ensure establishment of the plants and to achieve the specified acceptance criteria. Notwithstanding this requirement, watering shall be carried out at the minimum frequency stated in Table 1. The stated rate of watering shall include any rainfall. Watering shall be in accordance with current water restrictions.

IF TOWN WATER AND/OR RAINFALL IS INSUFFICIENT THE CONTRACTOR IS RESPONSIBLE FOR THE DELIVERY AND SUPPLY OF WATER.

One watering shall be defined as the application of

- (a) for hydraulic seeding and protoning and grass seeding, 5L/m2 of water in not less than one hour;
- (b) for turfing, 10L/m2 of water in not less than one hour;
- (c) for planting, in accordance with Table 2.

Watering of seeded and turfed areas shall be applied using a fine spray. Watering of such areas in weeks 8 and 12 shall occur immediately after fertilizing.

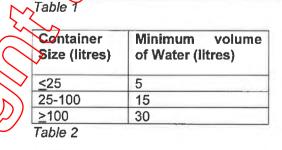
Watering of plants shall be directed at the base of the plant to thoroughly water the root ball.

Watering shall not cause erosion or displacement of treated areas.

No water shall be allowed to spray onto, flow across or pond on paved areas including roadways, bikeways and footpaths.

Minimum watering frequency

Week after Installation	Turfing	Planting
1	Once every day	Once every day
2,3,4 ()	Once every second day	Twice every Week
5 and 6	Twice every week	Twice every Week
7,8,9,40,11,12	Twice every week	Once every week





Weeds shall be removed from all areas of living landscape treatments on a regular basis during the Landscape Establishment Period.

Weeds shall not be allowed to grow for longer than 4 weeks. Where weeds an established for longer than this period, as determined by the Superintendent, weed removal may be carried out by others at the direction of the Superintendent and the costs so incurred recovered as a debt due from the Contractor to the Principal.

8.04 Pruning

Plants shall be pruned as necessary to promote vigorous new growth.

8.05 Pest and Disease Management

Plants shall be monitored for pest and disease incidence on a weekly basis. Acceptable plant protection techniques shall be employed to manage any infestations. The use of horticultural diagnostic services (Queensland Department of Primary Industries – Crop Health Services) shall be employed where the Superintendent so directs to ensure a positive diagnosis of a pest or disease outbreak. The costs incurred shall be recovered from the Contractor.

8.06 Site Drainage

All landscape areas shall be maintained with sound drainage principles and the avoidance of runoff from the Site shall be enforced. Each irrigation of the Site shall be over a period of time that allows water infiltration (percolation) via the soil and does not produce run-off water.

8.07 Tidying

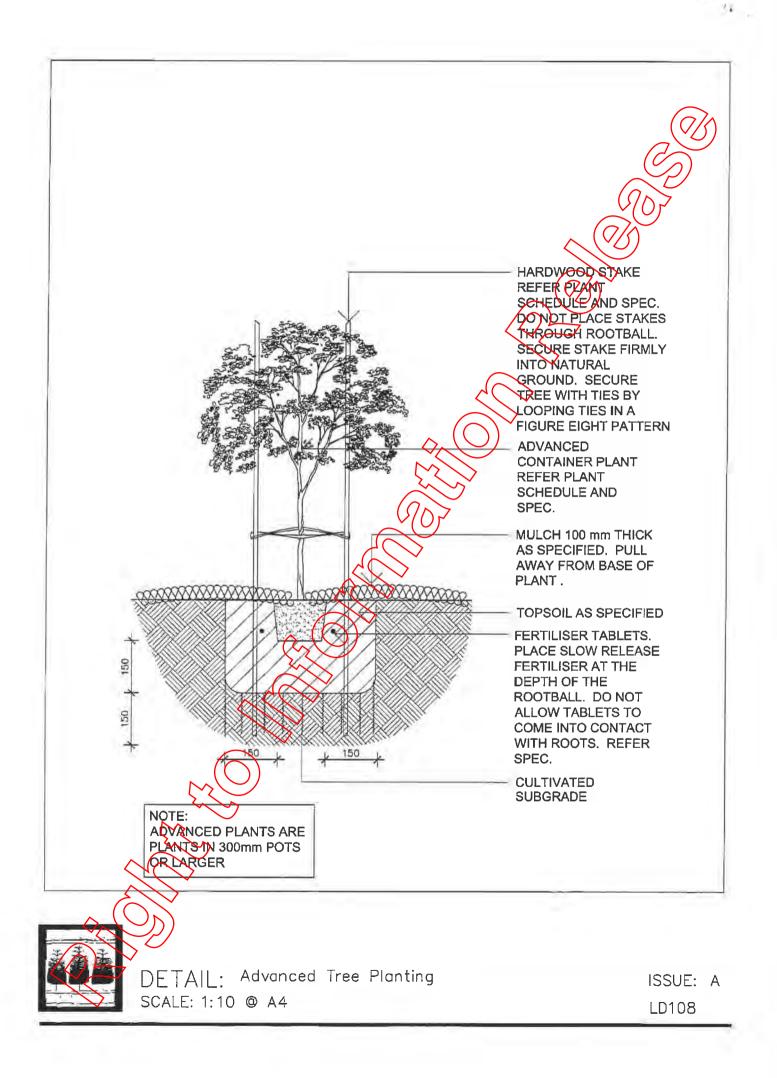
All landscaped areas shall be kept in a neat and tidy condition during the Landscape Establishment Period.

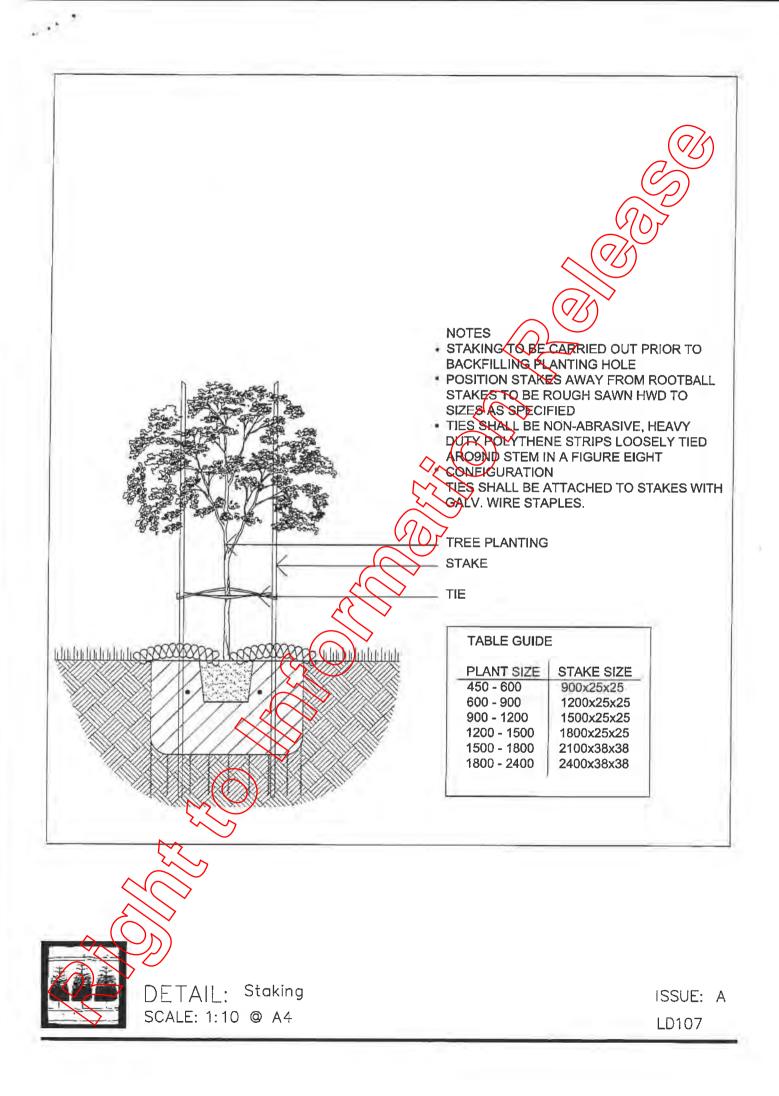
Tidying shall include but not be limited to -

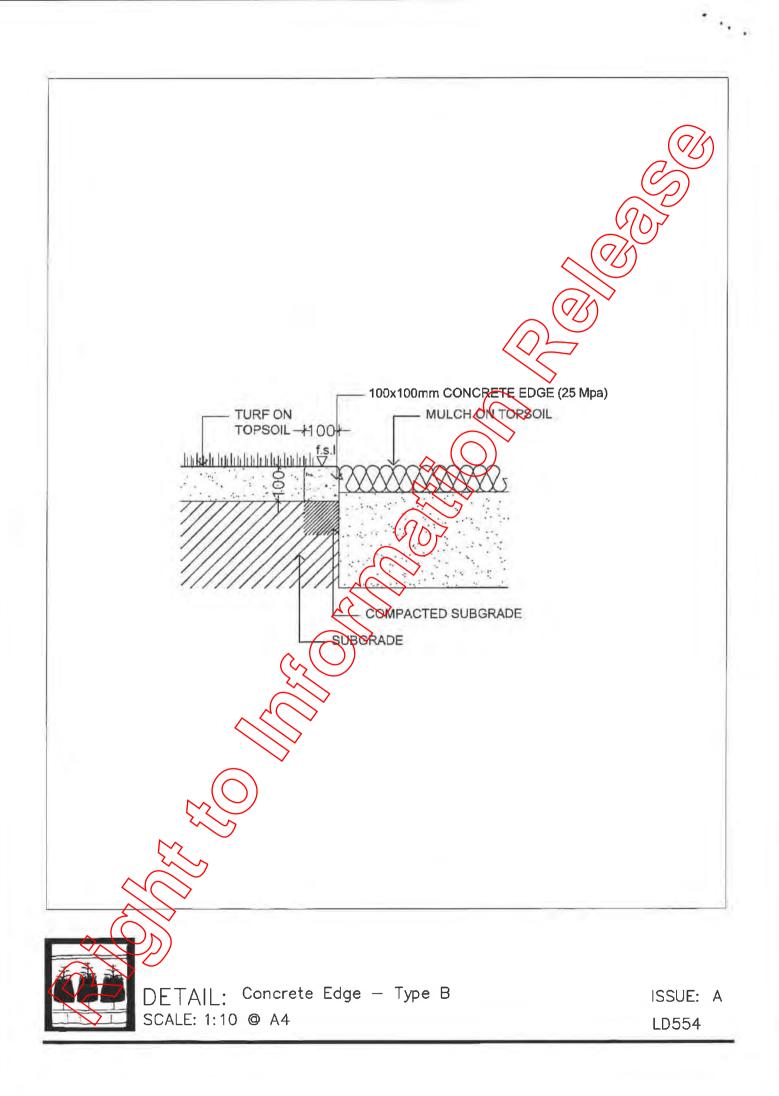
- (a) The collection and removal of litter, plant prunings and dead plants
- (b) Removal of mulch from roads and pathways
- (c) Checking and adjusting plant support stakes and ties and
- (d) Making good any disturbance to the surface of mulches.

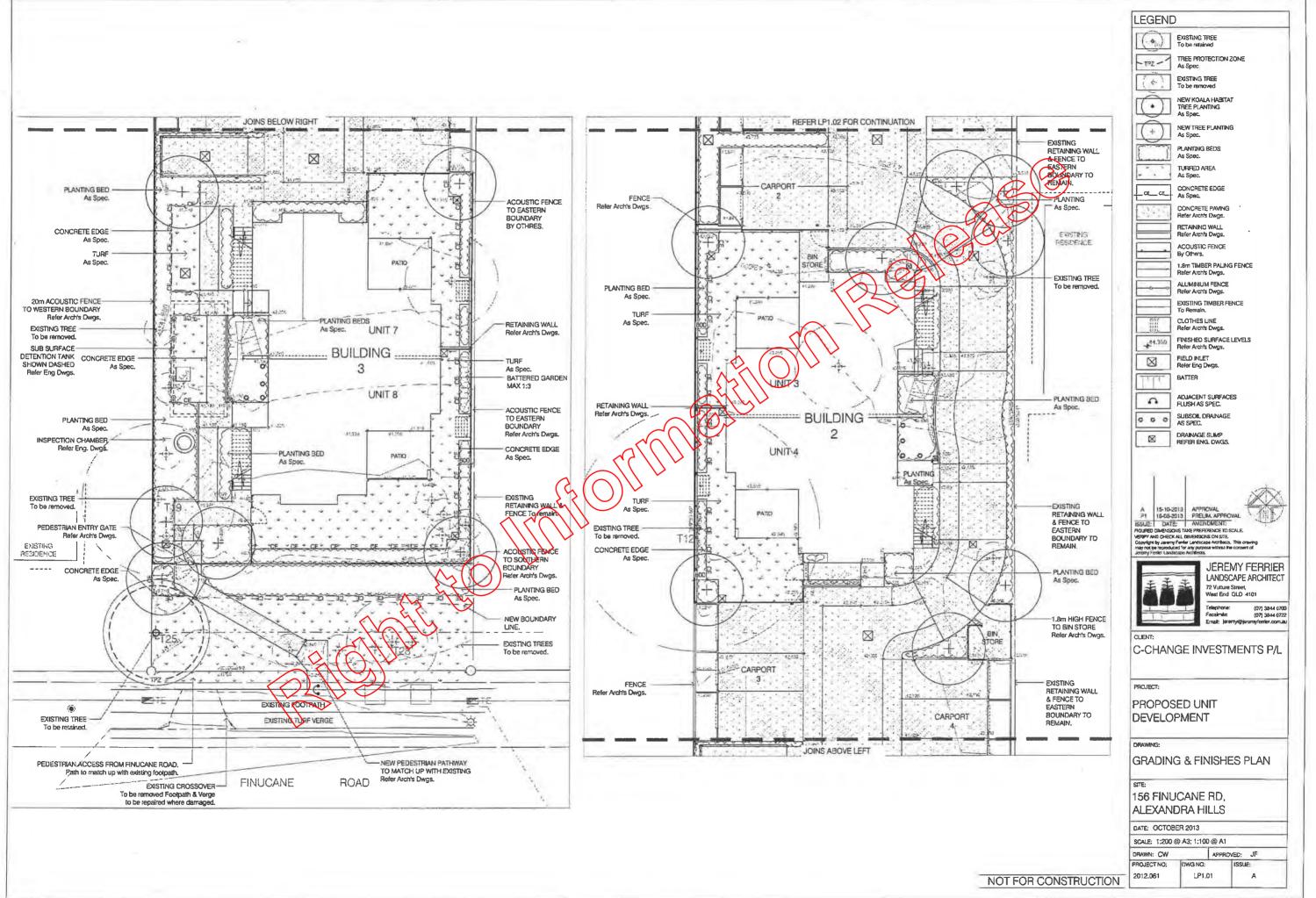
8.08 Plant Replacement

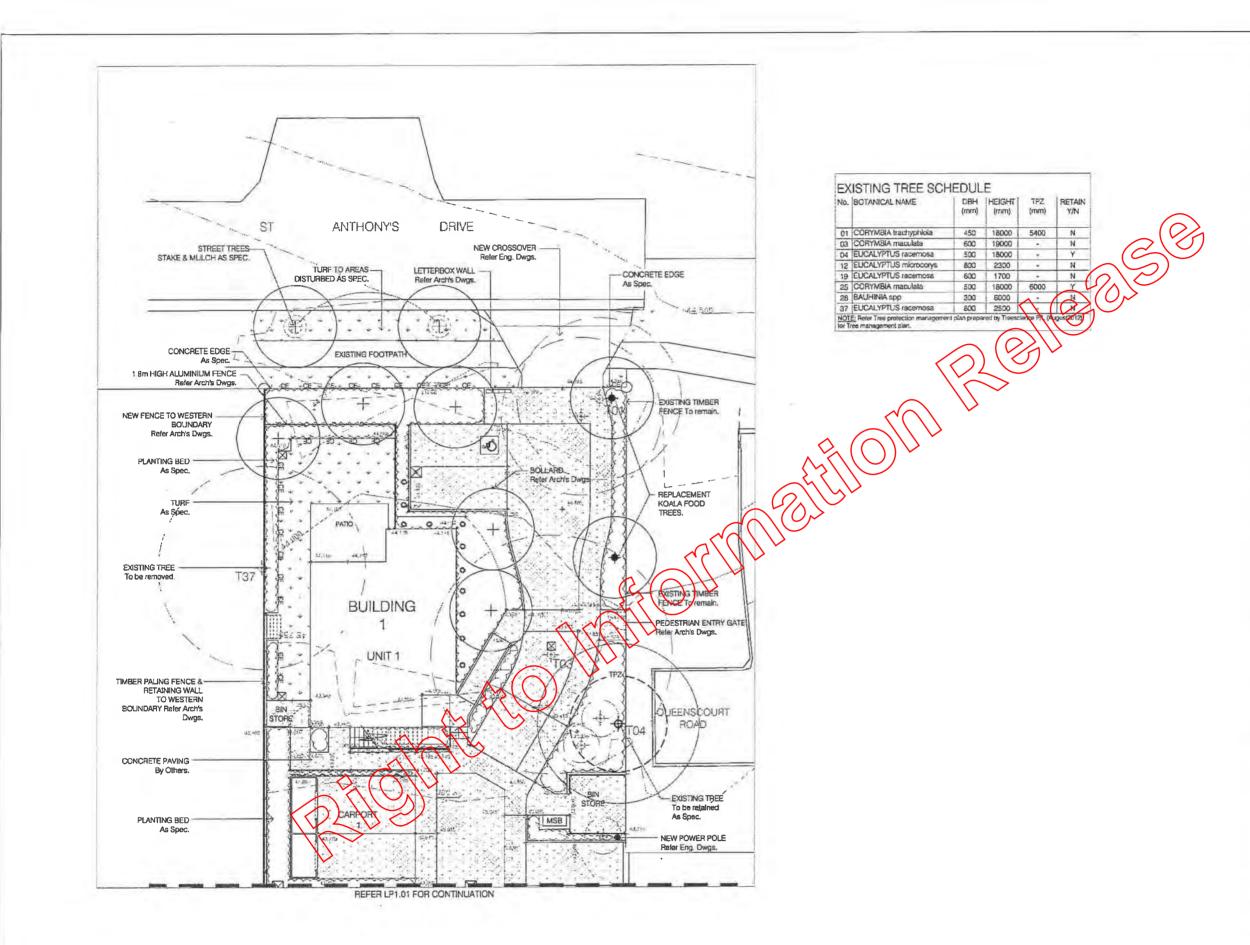
Replace at no extra cost, any plant which dies from the cause whatsoever during the Establishment period. Plant replacements shall be of the same size and species and equal to size and similar plants at the time of death.



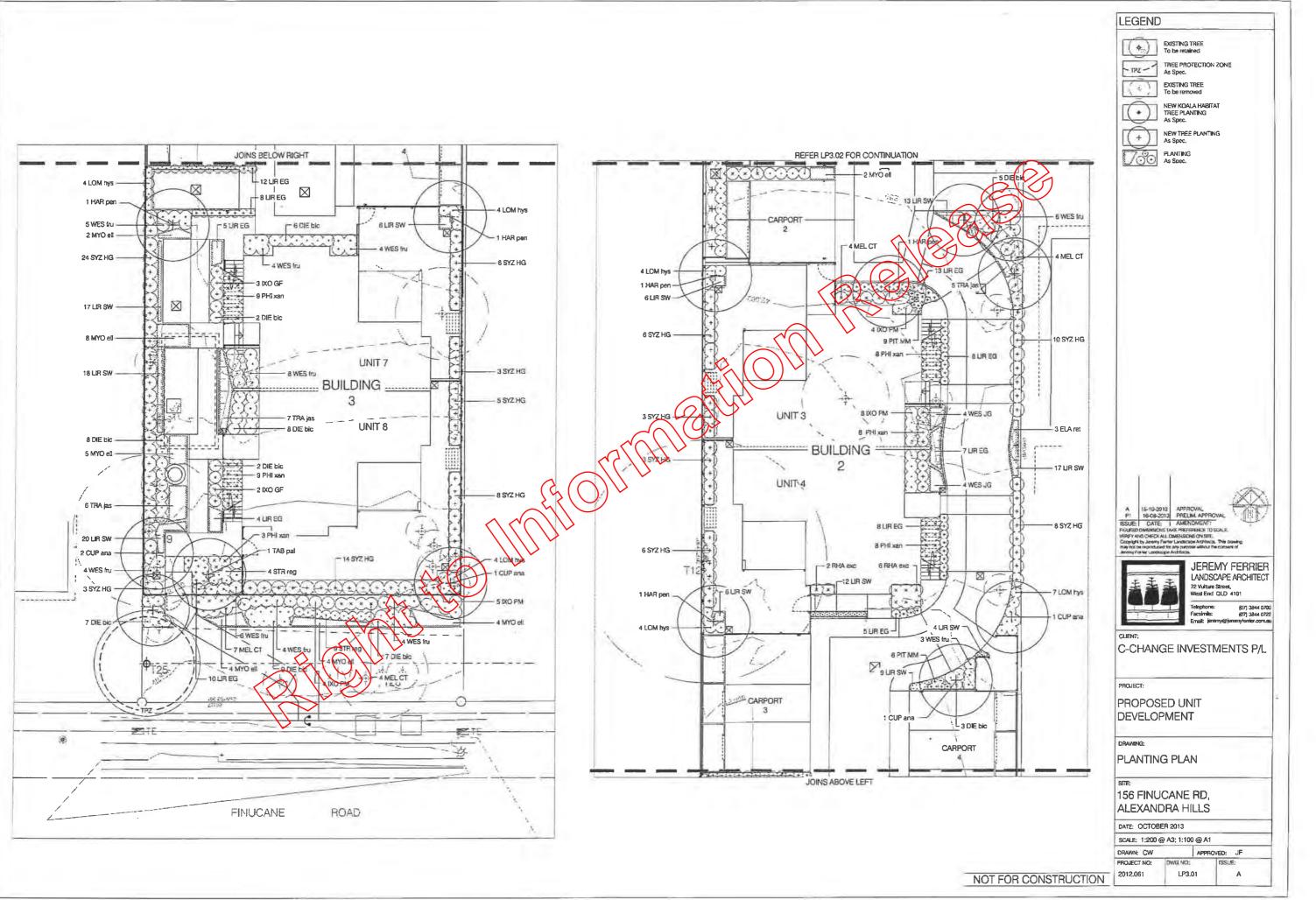


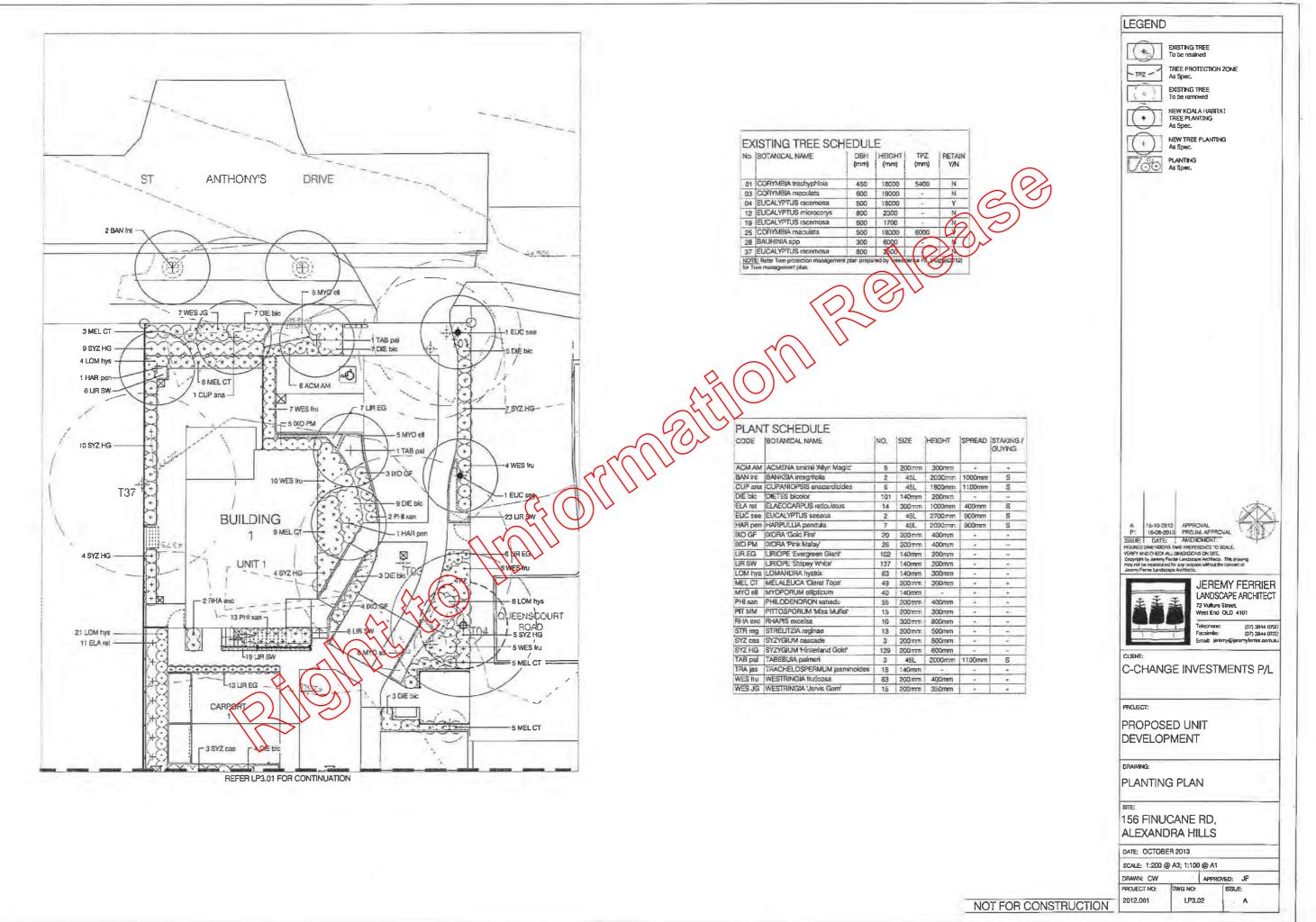






11431) EXISTING TREE
	To be retained
- 172 -	TREE PROTECTION ZONE As Spec.
(+)	EXISTING TREE To be removed
\bigcirc	NEW KOALA HABITAT TREE PLANTING As Spec.
(+)	NEW TREE PLANTING As Spec.
	PLANTING BEDS As Spec.
	TURFED AREA As Spec.
CE_CE	CONCRETE EDGE As Spec.
	CONCRETE PAVING Refer Arch's Dwgs.
	RETAINING WALL Refer Arch's Dwgs.
	ACOUSTIC FENCE By Others.
	1.8m TIMBER PALING FENCE Refer Arch's Dwgs.
	ALUMINIUM FENCE Refer Arch's Dwgs.
F	EXISTING TIMBER FENCE To Remain.
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CLIENT: C-CHAN PROJECT: PROPOS DEVELO	LANDSCAPE ARCHITECT 72 Wilure Street, West End OLD 4101 Telephone: (07) 3844 0702 Ensai: jareny@jerenyfenter.com.au
CLIENT: C-CHAN PROJECT: PROPOS DEVELO DRAWING: GRADINI SITE: 156 FINL	LANDSCAPE ARCHITECT 72 Wilture Street, West End OLD 4101 Telephone: (07) 3844 0702 Ensatis joremy@jeremy/enter.com au GE INVESTMENTS P/L SED UNIT PMENT
CLIENT: C-CHAN PROJECT: PROPOS DEVELO DRAWING: GRADINI SITE: 156 FINL	LANDSCAPE ARCHITECT 72 Wilsone Street, West End OLD 4101 Telephone: (07) 3844 0700 Ensisting: (07) 3844 0700 Ensistering@jerenty/fenter.com au OGE INVESTMENTS P/L SED UNIT PMENT G & FINISHES PLAN JCANE RD, DRA HILLS
CLENT: C-CHAN PROJECT: PROPOS DEVELO DRAWING: GRADIN STE: 156 FINL ALEXAN DATE: OCTOR	LANDSCAPE ARCHITECT 72 Wilsone Street, West End OLD 4101 Telephone: (07) 3844 0700 Ensisting: (07) 3844 0700 Ensistering@jerenty/fenter.com au OGE INVESTMENTS P/L SED UNIT PMENT G & FINISHES PLAN JCANE RD, DRA HILLS



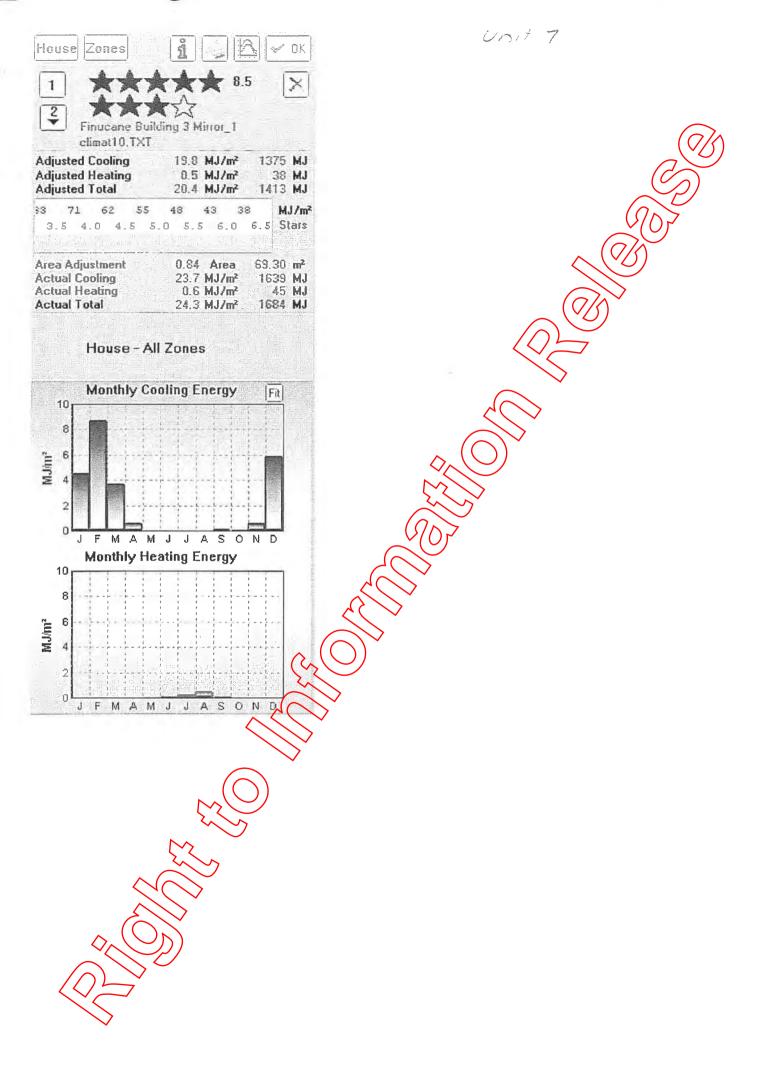


Form 15—Compliance Certificate for building Design or Specification

NOTE	This is to be used for the purposes of section 10 of the Building Act 1975 and/or section 46 of the Building Regulation 2006.
	RESTRICTION: A building certifier (class B) can only give a compliance certificate about whether building work complies with the BCA or a provision of the QDC. A building certifier (class B) can not give a certificate regarding QDC boundary clearance and site cover provisions.
1. Property description This section need only be completed if details of street address and property	Street address (include no., street, suburb / locality & postcode) 156 Finucane Road
description are applicable. EG. In the case of (standard/generic)	Alexandra Hills QLD 4161
pool design/shell manufacture and/or	Lot & plan details (attach list if necessary)
patio and carport systems this section may not be applicable.	Lot 40 on RP 79330
The description must identify all land the subject of the application.	In which local government area is the land situated? Redland City Council
The lot & plan details (eg. SP / RP) are shown on title documents or a rates notice. If the plan is not registered by title, provide previous lot and plan details.	
2. Description of component/s certified Clearly describe the extent of work covered by	Energy Efficiency assessment for 10 x Class 2 Units
this certificate, e.g. all structural aspects of the steel roof beams.	Inclusions to comply with the 5.0 star rating
	Unit 1- Bulk R1.5 insulation to External Walls, Doors & Windows as per plans
	Unit 2 - Bulk R1.5 insulation to External Walks & Roof, Ceiling Fan to Patio, Doors & Windows as per plans
	Unit 3 - Bulk R1.5 insulation to External Walk Doors & Windows as per plans
	Unit 4 - Bulk R1.5 insulation to External Walls, Doors & Windows as per plans
	Unit 5 - Bulk R1.5 insulation to External Walls & Roof, Ceiling Fan to Patio, Doors & Windows as per plans
	Unit 6- Bulk R1.5 insulation to External Walls & Roof, Ceiling Fan to Patio, Doors & Windows as per plans
	Unit 7 - Bulk R1.5 insulation to External Walls, Doors & Windows as per plans
	Unit 8 - Bulk R1 5 instaltion to External Walls, Doors & Windows as per plans
	Unit 9 - Eul R1 & insufation to External Walls & Roof, Ceiling Fan to Patio, Doors & Windows as per plans
	Unit 10-BuiwR1.3 insulation to External Walls & Roof, Ceiling Fan to Patio, Doors & Windows as per plans
3. Basis of certification	
Detail the basis for giving the certificate and the	BERG Pro Plus Version 4.2 Software
extent to which tests, specifications, rules, standards, codes of practice and other	
publications, were relied upon.	\mathcal{I}
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KYZ-	- ~\ \
The Building Act 1975 is a Department of Housing a	and Dublic Works
ocharaneur of nonsills c	Government

Version 3 - March 2013

4. Reference documentation Clearly identify any relevant documentation,	Plans supplied by John M	arsson & Associates Arc	hitects	
.g. numbered structural engineering plans.				$\overline{\Omega}$
				(\mathcal{O})
				(91)
			~ ~	(Q/s)
LOCAL GOVERNMENT			an and a set	
USE ONLY Data succound		Reference Hur	nbesis 0	\searrow
. Building certifier reference number	Building certifier reference	number		
	C1211330	numbor	-n	
	01211000			
. Competent person details	Name (in full)		\rightarrow	
competent person for building work, means a erson who is assessed by the building certifier	Janice Bradfield		\bigcirc	
or the work as competent to practise in an	Company name (if applicat	ble)	Contact person	
spect of the building and specification design, If the building work because of the individual's	The Certifier Pty Ltd	6	Janice Bradfield	
kill, experience and qualifications in the spect. The competent person must also be	Phone no. business hours	Mobile no.	Fax	10.
egistered or licensed under a law applying in	07 3821 8777			3276 5718
ne State to practice the aspect.	Email address	- 522		
no relevant law requires the individual to be censed or registered to be able to give the	janice@thecertifier.com			
elp, the certifier must assess the individual as	Postal address	(907		
ving appropriate experience, qualifications or ills to be able to give the help.	PO Box 368			
the chief executive issues any guidelines for	Cleveland Qld		Po	stcode 4163
ssessing a competent person, the building ertifier must use the guidelines when	Licence or registration	ber (if applicable)		
assessing the person.	QLD 345			
		\rightarrow		
. Signature of competent person	Signature		Date	
This certificate must be signed by the individual assessed by the building certifier as competent.	A Luc	1	04 July 2	2013
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The Building Act 1075 is	administered by the			M Que and and
The Building Act 1975 is Department of Housing				Queensland Government



Project Finucane Building 3 Mirror Run 1 ALEXANDRA HILLS PC 4161 Lat -27.50 Long 153.20 Climate File climat10.TXT Summary Conditioned Area 69.3 m² Unconditioned Area 10.1 m² Total Floor Area 79.4 m² Total Glazed Area 10.9 m² Total External Solid door Area 1.9 m² Glass to Floor Area 13.8 % Gross External Wall Area 113.4 m² Net External Wall Area 100.6 m² Window 10.9 m² GGG-05-001a Generics Uval 6.57 SHGC 0.74 Glass Single Glazed Clear Frame Aluminium External Wall 71.4 m² Fibro Cavity Panel 70mm gap Bulk Insulation R 1.5 29.2 m² Concrete Block to neighbour Bulk Insulation R 0.0 Internal Wall 52.6 m² Cavity Panel 70mm gap No Insulation External Floor 31.7 m² Concrete Slab on Ground Carpet 10mm No Insulation 47.7 m² Concrete Slab on Ground Ceramic Tiles 8mm No Insulation External Ceiling 79.4 m² Plasterboard No Insulation Apartment above Roof (Horizontal area) 79.4 m² Corrugated Iron Bulk, Reflective Side Down, And gare Up R 1.5 7° slope Skillion roof

Details			
Zone 1 Bed 1	Sleeping Area on Lev	vel 1	
Air Movement Screens	Seals Chimney G	as vent Wal	ll vents Downlights Ex Fans Ceilin fans
No	Yes No	No	
External Floor		Area	Covering Type
	-1	17.05	Carpet 10mm Concrete Slab on Ground No Insulation
Ceiling	Slope	Area	Type
	0	17.05	Above Ceiling Plasterboard No Insulation
	0	17.05	Another apartment
Roof	Slope Sha	ipe	Type Solar Abs
	2	-	Insulation
	7 Skilli	.on	Corrugated Iron 0.30
			Bulk, Reflective Side Down, Anti-glare Up R1.50
Partition Wall Length	Height Ad	ljZ Area	Туре
Wall P 4 4.90	2.70	2 13.23	Cavity Panel 70mm gap No Insulation
Wall P 5 2.70	2.70	4 5.41	Cavity Panel 70mm gap No Insulation
	•	ljZ Area	Type
Door I(5, 1) 0.92	2.04	4 1.88	Hollow core door
External Wall Length	Height Eaves Orie	ent Area	Type Abs Insulation
Wall E 1 1.80	2.70 0.00	0 3.41	Fibro Cavity Panel Romm gap 0.30
	2.10 0.00	0 0.41	Bulk Insulation R1.50
Window Width	Height Eaves Orie	ent Area	Name Glass Frame
			Opening Covering
			Shading (
Window(1, 1) 1.21	1.20 0.00	0 1.45	GGG-05-001a Single Glazed Clear Aluminium
			45% opening fliding, Two Lites Holland Blind
			No Shadang
Wall E 2 0.60	2.70 0.00 2	70 1.62	Fibro Cavity Panel 70mm gap 0.30
			Bulk Insulation R1.50
Wall E 3 1.90	2.70 0.00	0 5.13	Fibro Cavity Panel 70mm gap 0.30
		00 2 15	Bulk Insulation R1.50
Wall E 6 1.00	2.70 0.00 1	.80 2.15	Fibro Cavity Panel 70mm gap 0.30 Bulk Insulation R1.50
Window Width	Height Eaves Orie	nt Area	Name Glass Frame
			opening Covering
			Shading
Window(6, 1) 0.61	0.90 0.00 1	.80 0,55	GGG-05-001a Single Glazed Clear Aluminium
	\wedge	(())	45% Opening Sliding, Two Lites Holland Blind
	(\land)		No Shading
Wall E 7 4.30	2.70 0.00 2,2	70 11.61	Fibro Cavity Panel 70mm gap 0.30
	\bigcirc	\sim	Bulk Insulation R1.50
		2	
Zone 2 Bed 2	Sleeping Area on Lev Seals Chimney G		ll vents Downlights Ex Fans Ceilin fans
Air Movement Screens No	Seals Chimney G Yes No	No	0 0 0 No
External Floor	103	Area	Covering Type
	\bigcirc	14.63	Carpet 10mm Concrete Slab on Ground No Insulation
Ceiling	Slope	Area	Туре
-	M		Above Ceiling
	non	14.63	Plasterboard No Insulation
N	\sim		Another apartment
Roof	Slope Sha	pe	Type Solar Abs
	\sim		Insulation
\sim	7 Skilli	on	Corrugated Iron 0.30
	V		Bulk, Reflective Side Down, Anti-glare Up R1.50
Partition Wall Dength	-	jZ Area	Type
Wall P 5 (1.80) Wall P /8 (1.80)	2.70 2.70	4 4.86 4 2.16	Cavity Panel 70mm gap No Insulation Cavity Panel 70mm gap No Insulation
Wall P 7 1.79	2.70	4 2.16	Cavity Panel 70mm gap No Insulation
Door Int Width		jZ Area	Type
Dogr I() 7 1) 0.92	2.04	4 1.88	Hollow core door
Wall P 8 4.90	2.70	1 13.23	Cavity Panel 70mm gap No Insulation
External Wall Length	Height Eaves Orie	nt Area	Type Abs
\checkmark			

						Thereisen
Wall E 1	1.70	2.70	0.00	0	4 50	Insulation
Mali P i	1.70	2.70	0.00	0	4.59	Fibro Cavity Panel 70mm gap 0.30
						Bulk Insulation R1.50
Wall E 2	0.60	2.70	0.00	90	1.62	Fibro Cavity Panel 70mm gap 0.30
						Bulk Insulation R1.50
Wall E 3	1.80	2.70	0.00	0	3.41	Fibro Cavity Panel 70mm gap 0.30
						Bulk Insulation R1.50
Window	Width	Height	Eaves	Orient	Area	Name Glass Frame
						Opening Covering
						Shading
Window(3, 1)	1.21	1.20	0.00	0	1.45	GGG-05-001a Single Glazed Clear Aluminium
						45% Opening Sliding, Two Lites Holland Blind
						No Shading
Wall E 4	3.50	2.70	0.00	0.0	8.72	Fibro Cavity Panel 70mm gap 0.30
Mail E 4	3.30	2.70	0.00	90	0.72	
			_		_	Bulk Insulation R1.50
Window	Width	Height	Eaves	Orient	Area	Name Glass France
						Opening Covering
						Shading
Window(4, 1)	1.21	0.60	0.00	90	0.73	GGG-05-001a Single Ghazed Clear Aluminium
						45% Opening Sliding, Two Lices Holland Blind
						No Shading
Zone 3 We	et Area 1	We	t Area o	n Level 1		λ
Air Movement		Seals	Chimne			il vents Downlights Ex Fans Ceilin fans
Mar novement	No	Yes	N	-		
External Floor		169	74		Area	
Excernal Floor						Covering Type
					10.12	Ceramic Tiles 8mm Concrete Slab on Ground No Insulation
Ceiling		Slope			Area	Туре
						Above Ceiling
		0			10.12	Plasterboard No Insulation
						Another apartment
Roof		Slope		Shape		Type Solar Abs
						Insulation
		7	S	killion	(Corrugated Iron 0.30
		7	S	killion	2	Corrugated Iron 0.30
Partition Wall	Length		S		Area	Corrugated Iron 0.30 Bulk Reflective Side Down, Anti-glare Up R1.50
Partition Wall	_	Height	S	AdjZ	Area	Corrugated Iron 0.30 Bulk Reflective Side Down, Anti-glare Up R1.50 Nype
Wall P 1	1.60	Height 2.70	S	AdjZ 4	Araa 4.12	Corrugated Iron 0.30 Bulk Reflective Side Down, Anti-glare Up R1.50 Nope Savity Panel 70mm gap No Insulation
Wall P 1 Wall P 2	1.60 0.80	Height 2.70 2.70	S	AdjZ	Area 4:12 2:16	Corrugated Iron 0.30 Bulk Reflective Side Down, Anti-glare Up R1.50 Nope Cavity Panel 70mm gap No Insulation Cavity Panel 70mm gap No Insulation
Wall P 1 Wall P 2 Wall P 3	1.60 0.80 2.20	Height 2.70 2.70 2.70	S	AdjZ 4	4.06	Corrugated Iron 0.30 Bulk Reflective Side Down, Anti-glare Up R1.50 Nype Savity Panel 70mm gap No Insulation Cavity Panel 70mm gap No Insulation Cavity Panel 70mm gap No Insulation
Wall P 1 Wall P 2 Wall P 3 Door Int	1.60 0.80 2.20 Width	Height 2.70 2.70 2.70 Height	S	AdjZ 4	4.06 Area	Corrugated Iron 0.30 Bulk Reflective Side Down, Anti-glare Up R1.50 Nype Savity Panel 70mm gap No Insulation Cavity Panel 70mm gap No Insulation Cavity Panel 70mm gap No Insulation Type
Wall P 1 Wall P 2 Wall P 3 Door Int Door I (3, 1)	1.60 0.80 2.20 Width 0.92	Height 2.70 2.70 2.70 Height 2.04	S	AdjZ 4	1.06 Artea 1.68	Corrugated Iron 0.30 Bulk Reflective Side Down, Anti-glare Up R1.50 Nype Savity Panel 70mm gap No Insulation Cavity Panel 70mm gap No Insulation Cavity Panel 70mm gap No Insulation Type Hollow core door
Wall P 1 Wall P 2 Wall P 3 Door Int Door I(3, 1) Wall P 4	1.60 0.80 2.20 Width 0.92 3.00	Height 2.70 2.70 2.70 Height 2.04 2.70	S	AdjZ 4	4.06 Area	Corrugated Iron 0.30 Bulk Reflective Side Down, Anti-glare Up R1.50 Nype Savity Panel 70mm gap No Insulation Cavity Panel 70mm gap No Insulation Cavity Panel 70mm gap No Insulation Type
Wall P 1 Wall P 2 Wall P 3 Door Int Door I (3, 1)	1.60 0.80 2.20 Width 0.92 3.00	Height 2.70 2.70 2.70 Height 2.04 2.70	<i>S</i> Eaves	AdjZ 4	1.06 Artea 1.68	Corrugated Iron 0.30 Bulk Reflective Side Down, Anti-glare Up R1.50 Nype Savity Panel 70mm gap No Insulation Cavity Panel 70mm gap No Insulation Cavity Panel 70mm gap No Insulation Type Hollow core door
Wall P 1 Wall P 2 Wall P 3 Door Int Door I(3, 1) Wall P 4	1.60 0.80 2.20 Width 0.92 3.00	Height 2.70 2.70 2.70 Height 2.04 2.70		Adjz 4 4 4 Adjz	1.06 Area 1.68 8.10	Corrugated Iron 0.30 Bulk Reflective Side Down, Anti-glare Up R1.50 Nope Savity Panel 70mm gap No Insulation Cavity Panel 70mm gap No Insulation Cavity Panel 70mm gap No Insulation Type Hollow core door Cavity Panel 70mm gap No Insulation
Wall P 1 Wall P 2 Wall P 3 Door Int Door I(3, 1) Wall P 4	1.60 0.80 2.20 Width 0.92 3.00	Height 2.70 2.70 2.70 Height 2.04 2.70		Adjz 4 4 4 Adjz	1.06 Area 1.68 8.10	Corrugated Iron 0.30 Bulk Reflective Side Down, Anti-glare Up R1.50 Nove Savity Panel 70mm gap No Insulation Cavity Panel 70mm gap No Insulation Cavity Panel 70mm gap No Insulation Type Hollow core door Cavity Panel 70mm gap No Insulation Type Abs
Wall P 1 Wall P 2 Wall P 3 Door Int Door I(3, 1) Wall P 4 External Wall	1.60 0.80 2.20 Width 0.92 3.00 Length	Height 2.70 2.70 Height 2.04 2.70 Height	Eaves	Adjz 4 4 4 Adjz	1.06 Area 1.68 8.10 Area	Corrugated Iron 0.30 Bulk Reflective Side Down, Anti-glare Up R1.50 Kype Savity Panel 70mm gap No Insulation Cavity Panel 70mm gap No Insulation Cavity Panel 70mm gap No Insulation Type Hollow core door Cavity Panel 70mm gap No Insulation Type Abs Insulation
Wall P 1 Wall P 2 Wall P 3 Door Int Door I(3, 1) Wall P 4 External Wall	1.60 0.80 2.20 Width 0.92 3.00 Length	Height 2.70 2.70 Height 2.04 2.70 Height	Eaves	Adjz 4 4 4 Adjz	1.06 Area 1.68 8.10 Area	Corrugated Iron 0.30 Bulk Reflective Side Down, Anti-glare Up R1.50 Kype Savity Panel 70mm gap No Insulation Cavity Panel 70mm gap No Insulation Cavity Panel 70mm gap No Insulation Type Hollow core door Cavity Panel 70mm gap No Insulation Type Abs Insulation Concrete Block to neighbour 0.30
Wall P 1 Wall P 2 Wall P 3 Door Int Door I(3, 1) Wall P 4 External Wall Wall E 5	1.60 0.80 2.20 Width 0.92 3.00 Length 3.80	Height 2.70 2.70 Height 2.04 2.70 Height 2.70	Eaves	Adjz 4 4 Ajjz Prijz 8 0 Prient	4.06 Area 1.68 8.10 Area 10.26	Corrugated Iron 0.30 Bulk Reflective Side Down, Anti-glare Up R1.50 Nope Savity Panel 70mm gap No Insulation Cavity Panel 70mm gap No Insulation Cavity Panel 70mm gap No Insulation Type Hollow core door Cavity Panel 70mm gap No Insulation Type Abs Insulation Concrete Block to neighbour 0.30 Bulk Insulation R0.00 Fibro Cavity Panel 70mm gap 0.30
Wall P 1 Wall P 2 Wall P 3 Door Int Door I(3, 1) Wall P 4 External Wall Wall E 5 Wall E 6	1.60 0.80 2.20 Width 0.92 3.00 Length 3.80 2.20	Height 2.70 2.70 Height 2.04 2.70 Height 2.70 2.70	Eaves	Adjz 4 4 fijz 2 vijz 4 0 rient 80 270	4.06 Area 1.68 8.10 Area 10.26 5.31	Corrugated Iron 0.30 Bulk Reflective Side Down, Anti-glare Up R1.50 Kype Gavity Panel 70mm gap No Insulation Cavity Panel 70mm gap No Insulation Type Hollow core door Cavity Panel 70mm gap No Insulation Type Abs Insulation Concrete Block to neighbour 0.30 Bulk Insulation R0.00 Fibro Cavity Panel 70mm gap 0.30 Bulk Insulation R1.50
Wall P 1 Wall P 2 Wall P 3 Door Int Door I(3, 1) Wall P 4 External Wall Wall E 5	1.60 0.80 2.20 Width 0.92 3.00 Length 3.80 2.20	Height 2.70 2.70 Height 2.04 2.70 Height 2.70	Eaves	Adjz 4 4 Ajjz Prijz 8 0 Prient	4.06 Area 1.68 8.10 Area 10.26	Corrugated Iron 0.30 Bulk Reflective Side Down, Anti-glare Up R1.50 Kype Gavity Panel 70mm gap No Insulation Cavity Panel 70mm gap No Insulation Cavity Panel 70mm gap No Insulation Type Hollow core door Cavity Panel 70mm gap No Insulation Type Abs Insulation Concrete Block to neighbour 0.30 Bulk Insulation R0.00 Fibro Cavity Panel 70mm gap 0.30 Bulk Insulation R1.50 Name Glass Frame
Wall P 1 Wall P 2 Wall P 3 Door Int Door I(3, 1) Wall P 4 External Wall Wall E 5 Wall E 6	1.60 0.80 2.20 Width 0.92 3.00 Length 3.80 2.20	Height 2.70 2.70 Height 2.04 2.70 Height 2.70 2.70	Eaves	Adjz 4 4 fijz 2 vijz 4 0 rient 80 270	4.06 Area 1.68 8.10 Area 10.26 5.31	Corrugated Iron 0.30 Bulk Reflective Side Down, Anti-glare Up R1.50 Nope Gavity Panel 70mm gap No Insulation Cavity Panel 70mm gap No Insulation Cavity Panel 70mm gap No Insulation Type Hollow core door Cavity Panel 70mm gap No Insulation Type Abs Insulation Concrete Block to neighbour 0.30 Bulk Insulation R0.00 Fibro Cavity Panel 70mm gap 0.30 Bulk Insulation R1.50 Name Glass Frame Opening Covering
Wall P 1 Wall P 2 Wall P 3 Door Int Door I(3, 1) Wall P 4 External Wall Wall E 5 Wall E 6 Window	1.60 0.80 2.20 Width 0.92 3.00 Length 3.80 2.20 Width	Height 2.70 2.70 Height 2.04 2.70 Height 2.70 2.70	Eaves 0.00 Eaves	AdjZ 4 4 9 9 12 2 12 2 4 9 0 7 12 2 70 0 7 1 0 7 0 0 7 0	4.06 Area 1.88 8.10 Area 10.26 5.31 Area	Corrugated Iron 0.30 Bulk Reflective Side Down, Anti-glare Up R1.50 Nope Savity Panel 70mm gap No Insulation Cavity Panel 70mm gap No Insulation Cavity Panel 70mm gap No Insulation Type Hollow core door Cavity Panel 70mm gap No Insulation Type Abs Insulation Concrete Block to neighbour 0.30 Bulk Insulation R0.00 Fibro Cavity Panel 70mm gap 0.30 Bulk Insulation R1.50 Name Glass Frame Opening Covering Shading
Wall P 1 Wall P 2 Wall P 3 Door Int Door I(3, 1) Wall P 4 External Wall Wall E 5 Wall E 6	1.60 0.80 2.20 Width 0.92 3.00 Length 3.80 2.20	Height 2.70 2.70 Height 2.04 2.70 Height 2.70 2.70	Eaves	Adjz 4 4 fijz 2 vijz 4 0 rient 80 270	4.06 Area 1.68 8.10 Area 10.26 5.31	Corrugated Iron 0.30 Bulk Reflective Side Down, Anti-glare Up R1.50 Nope Savity Panel 70mm gap No Insulation Cavity Panel 70mm gap No Insulation Cavity Panel 70mm gap No Insulation Type Hollow core door Cavity Panel 70mm gap No Insulation Type Abs Insulation Concrete Block to neighbour 0.30 Bulk Insulation R0.00 Fibro Cavity Panel 70mm gap 0.30 Bulk Insulation R1.50 Name Glass Frame Opening Covering Shading GGG-05-001a Single Glazed Clear Aluminium
Wall P 1 Wall P 2 Wall P 3 Door Int Door I(3, 1) Wall P 4 External Wall Wall E 5 Wall E 6 Window	1.60 0.80 2.20 Width 0.92 3.00 Length 3.80 2.20 Width	Height 2.70 2.70 Height 2.04 2.70 Height 2.70 2.70	Eaves 0.00 Eaves	AdjZ 4 4 9 9 12 2 12 2 4 9 0 7 12 2 70 0 7 1 0 7 0 0 7 0	4.06 Area 1.88 8.10 Area 10.26 5.31 Area	Corrugated Iron 0.30 Bulk Reflective Side Down, Anti-glare Up R1.50 Nope Savity Panel 70mm gap No Insulation Cavity Panel 70mm gap No Insulation Cavity Panel 70mm gap No Insulation Type Hollow core door Cavity Panel 70mm gap No Insulation Type Abs Insulation Concrete Block to neighbour 0.30 Bulk Insulation R0.00 Fibro Cavity Panel 70mm gap 0.30 Bulk Insulation R1.50 Name Glass Frame Opening Covering Shading GGG-05-001a Single Glazed Clear Aluminium 45% Opening Sliding, Two Lites Holland Blind
Wall P 1 Wall P 2 Wall P 3 Door Int Door I(3, 1) Wall P 4 External Wall Wall E 5 Wall E 6 Window	1.60 0.80 2.20 Width 0.92 3.00 Length 3.80 2.20 Width	Height 2.70 2.70 Height 2.04 2.70 Height 2.70 2.70	Eaves 0.00 Eaves	AdjZ 4 4 9 9 12 2 12 2 4 9 0 7 12 2 70 0 7 1 0 7 0 0 7 0	4.06 Area 1.88 8.10 Area 10.26 5.31 Area	Corrugated Iron 0.30 Bulk Reflective Side Down, Anti-glare Up R1.50 Note: Savity Panel 70mm gap No Insulation Cavity Panel 70mm gap No Insulation Cavity Panel 70mm gap No Insulation Type Hollow core door Cavity Panel 70mm gap No Insulation Type Abs Insulation Concrete Block to neighbour 0.30 Bulk Insulation R0.00 Fibro Cavity Panel 70mm gap 0.30 Bulk Insulation R1.50 Name Glass Frame Opening Covering Shading GGG-05-001a Single Glazed Clear Aluminium
Wall P 1 Wall P 2 Wall P 3 Door Int Door I(3, 1) Wall P 4 External Wall Wall E 5 Wall E 6 Window	1.60 0.80 2.20 Width 0.92 3.00 Length 3.80 2.20 Width	Height 2.70 2.70 Height 2.04 2.70 Height 2.70 2.70	Eaves 0.00 Eaves	AdjZ 4 4 9 9 12 2 12 2 4 9 0 7 12 2 70 0 7 1 0 7 0 0 7 0	4.06 Area 1.88 8.10 Area 10.26 5.31 Area	Corrugated Iron 0.30 Bulk Reflective Side Down, Anti-glare Up R1.50 Nope Savity Panel 70mm gap No Insulation Cavity Panel 70mm gap No Insulation Cavity Panel 70mm gap No Insulation Type Hollow core door Cavity Panel 70mm gap No Insulation Type Abs Insulation Concrete Block to neighbour 0.30 Bulk Insulation R0.00 Fibro Cavity Panel 70mm gap 0.30 Bulk Insulation R1.50 Name Glass Frame Opening Covering Shading GGG-05-001a Single Glazed Clear Aluminium 45% Opening Sliding, Two Lites Holland Blind
Wall P 1 Wall P 2 Wall P 3 Door Int Door I(3,1) Wall P 4 External Wall Wall E 5 Wall E 6 Window Window(6,1)	1.60 0.80 2.20 Width 0.92 3.00 Length 3.80 2.20 Width	Height 2.70 2.70 Height 2.04 2.70 Height 2.70 2.70 Height	Eaves 0.00 Eaves	AdjZ 4 4 9 9 12 2 12 2 4 9 0 7 12 2 70 0 7 1 0 7 0 0 7 0	1.06 Area 1.88 8.10 Area 10.26 5.31 Area 0.63	Corrugated Iron 0.30 Bulk Reflective Side Down, Anti-glare Up R1.50 Expe Savity Panel 70mm gap No Insulation Cavity Panel 70mm gap No Insulation Cavity Panel 70mm gap No Insulation Type Hollow core door Cavity Panel 70mm gap No Insulation Type Abs Insulation Concrete Block to neighbour 0.30 Bulk Insulation R0.00 Fibro Cavity Panel 70mm gap 0.30 Bulk Insulation R1.50 Name Glass Frame Opening Covering Shading GGG-05-001a Single Glazed Clear Aluminium 45% Opening Sliding, Two Lites Holland Blind No Shading
Wall P 1 Wall P 2 Wall P 3 Door Int Door I(3, 1) Wall P 4 External Wall Wall E 5 Wall E 6 Window Window(6, 1) Zone 4 Li	1.60 0.80 2.20 Width 0.92 3.00 Length 3.80 2.20 Width 0.70	Height 2.70 2.70 Height 2.04 2.70 Height 2.70 2.70 Height	Eaves 0.00 Eaves	AdjZ 4 4 9 9 9 12 4 9 9 12 10 4 9 12 10 12 10 12 10 12 10 12 10 12 10 12 10 12 10 12 10 12 10 12 10 12 10 12 10 12 10 12 10 12 10 12 10 12 10 12 10 10 12 10 10 10 10 10 10 10 10 10 10 10 10 10	1.06 Arten 1.88 8.10 Area 10.26 5.31 Area 0.63 rea on L	Corrugated Iron 0.30 Bulk Reflective Side Down, Anti-glare Up R1.50 Expe Savity Panel 70mm gap No Insulation Cavity Panel 70mm gap No Insulation Cavity Panel 70mm gap No Insulation Type Hollow core door Cavity Panel 70mm gap No Insulation Type Abs Insulation Concrete Block to neighbour 0.30 Bulk Insulation R0.00 Fibro Cavity Panel 70mm gap 0.30 Bulk Insulation R1.50 Name Glass Frame Opening Covering Shading GGG-05-001a Single Glazed Clear Aluminium 45% Opening Sliding, Two Lites Holland Blind No Shading
Wall P 1 Wall P 2 Wall P 3 Door Int Door I(3, 1) Wall P 4 External Wall Wall E 5 Wall E 6 Window Window(6, 1) Zone 4 Li	1.60 0.80 2.20 Width 0.92 3.00 Length 3.80 2.20 Width 0.70	Height 2.70 2.70 Height 2.04 2.70 Height 2.70 2.70 Height	Eaves 0.00 Eaves 0.00	AdjZ 4 4 9 9 12 7 4 9 7 12 7 4 9 7 70 0 7 10 7 10 7 10 7 10 7 10 7 10	1.06 Arten 1.88 8.10 Area 10.26 5.31 Area 0.63 rea on L ent Wal	Corrugated Iron 0.30 Bulk Reflective Side Down, Anti-glare Up R1.50 Nope Savity Panel 70mm gap No Insulation Cavity Panel 70mm gap No Insulation Cavity Panel 70mm gap No Insulation Type Hollow core door Cavity Panel 70mm gap No Insulation Type Abs Insulation Concrete Block to neighbour 0.30 Bulk Insulation R0.00 Fibro Cavity Panel 70mm gap 0.30 Bulk Insulation R1.50 Name Glass Frame Opening Covering Shading GGG-05-001a Single Glazed Clear Aluminium 45% Opening Sliding, Two Lites Holland Blind No Shading
Wall P 1 Wall P 2 Wall P 3 Door Int Door I(3, 1) Wall P 4 External Wall Wall E 5 Wall E 6 Window Window(6, 1) Zone 4 Li	1.60 0.80 2.20 Width 0.92 3.00 Length 3.80 2.20 Width 0.70	Height 2.70 2.70 Height 2.70 Height 2.70 2.70 Height 0.90	Eaves 0.00 Eaves 0.00 Living/	AdjZ 4 4 9 9 12 7 4 9 7 12 7 4 9 7 70 0 7 10 7 10 7 10 7 10 7 10 7 10	1.06 Arten 1.88 8.10 Area 10.26 5.31 Area 0.63 rea on L ent Wal	Corrugated Iron 0.30 Bulk Reflective Side Down, Anti-glare Up R1.50 Nope Savity Panel 70mm gap No Insulation Cavity Panel 70mm gap No Insulation Type Hollow core door Cavity Panel 70mm gap No Insulation Type Abs Insulation Concrete Block to neighbour 0.30 Bulk Insulation R0.00 Fibro Cavity Panel 70mm gap 0.30 Bulk Insulation R1.50 Name Glass Frame Opening Covering Shading GGG-05-001a Single Glazed Clear Aluminium 45% Opening Sliding, Two Lites Holland Blind No Shading evel 1 I vents Downlights Ex Fans Ceilin fans
Wall P 1 Wall P 2 Wall P 3 Door Int Door I (3, 1) Wall P 4 External Wall Wall E 5 Wall E 6 Window Window (6, 1) Zone 4 Li Air Movement	1.60 0.80 2.20 Width 0.92 3.00 Length 3.80 2.20 Width 0.70	Height 2.70 2.70 Height 2.70 Height 2.70 2.70 Height 0.90	Eaves 0.00 Eaves 0.00 Living/	AdjZ 4 4 9 9 12 7 4 9 7 12 7 4 9 7 70 0 7 10 7 10 7 10 7 10 7 10 7 10	1.06 Artea 1.88 8.10 Area 10.26 5.31 Area 0.63 rea on L ent Wal	corrugated Iron 0.30 Bulk Reflective Side Down, Anti-glare Up R1.50 Type Savity Panel 70mm gap No Insulation Cavity Panel 70mm gap No Insulation Cavity Panel 70mm gap No Insulation Type Hollow core door Cavity Panel 70mm gap No Insulation Type Hollow core door Cavity Panel 70mm gap No Insulation Type Abs Insulation Concrete Block to neighbour 0.30 Bulk Insulation R0.00 Fibro Cavity Panel 70mm gap 0.30 Bulk Insulation R1.50 Name Glass Opening Covering Shading GGG-05-001a Single Glazed Clear Aluminium 45% Opening Sliding, Two Lites Holland Blind No Shading evel 1 I vents Downlights Ex Fans Ceilin fans 0 0 0 0 0 0 45% Opening Type
<pre>Wall P 1 Wall P 2 Wall P 3 Door Int Door I(3, 1) Wall P 4 External Wall Wall E 5 Wall E 6 Window Window(6, 1) Zone 4 Li Air Movement External Floor</pre>	1.60 0.80 2.20 Width 0.92 3.00 Length 3.80 2.20 Width 0.70	Height 2.70 2.70 Height 2.70 Height 2.70 2.70 Height 0.90 Theight Yes	Eaves 0.00 Eaves 0.00 Living/	AdjZ 4 4 9 9 12 7 4 9 7 12 7 4 9 7 70 0 7 10 7 10 7 10 7 10 7 10 7 10	1.06 Arten 1.88 8.10 Area 10.26 5.31 Area 0.63 rea on L ent Wal Area 37.62	corrugated Iron 0.30 Bulk Reflective Side Down, Anti-glare Up R1.50 Nope Savity Panel 70mm gap No Insulation Cavity Panel 70mm gap No Insulation Cavity Panel 70mm gap No Insulation Cavity Panel 70mm gap No Insulation Type Hollow core door Cavity Panel 70mm gap No Insulation Type Hollow core door Cavity Panel 70mm gap No Insulation Type Abs Insulation Concrete Block to neighbour 0.30 Bulk Insulation R0.00 Fibro Cavity Panel 70mm gap 0.30 Bulk Insulation R1.50 Name Glass Opening Covering Shading GGG-05-001a Single Glazed Clear Aluminium 45% Opening Sliding, Two Lites Holland Blind No Shading evel 1 I vents Downlights Ex Fans Ceilin fans 0 0 No Covering Type Ceramic Tiles 8mm Concrete Slab on Ground No Insulation
Wall P 1 Wall P 2 Wall P 3 Door Int Door I (3, 1) Wall P 4 External Wall Wall E 5 Wall E 6 Window Window (6, 1) Zone 4 Li Air Movement	1.60 0.80 2.20 Width 0.92 3.00 Length 3.80 2.20 Width 0.70	Height 2.70 2.70 Height 2.70 Height 2.70 2.70 Height 0.90	Eaves 0.00 Eaves 0.00 Living/	AdjZ 4 4 9 9 12 7 4 9 7 12 7 4 9 7 70 0 7 10 7 10 7 10 7 10 7 10 7 10	4.06 Artea 1.88 8.10 Area 10.26 5.31 Area 0.63 rea on L ent Wal Area	corrugated Iron 0.30 Bulk Reflective Side Down, Anti-glare Up R1.50 Nope Savity Panel 70mm gap No Insulation Cavity Panel 70mm gap No Insulation Cavity Panel 70mm gap No Insulation Cavity Panel 70mm gap No Insulation Type Hollow core door Cavity Panel 70mm gap No Insulation Type Hollow core door Cavity Panel 70mm gap No Insulation Type Abs Insulation Concrete Block to neighbour 0.30 Bulk Insulation R0.00 Fibro Cavity Panel 70mm gap 0.30 Bulk Insulation R1.50 Name Glass Opening Covering Shading GGG-05-001a Single Glazed Clear Aluminium 45% Opening Sliding, Two Lites Holland Blind No Shading evel 1 I vents Downlights Ex Fans Ceilin fans 0 0 No Covering Type Ceramic Tiles 8mm Concrete Slab on Ground No Insulation Type Slab on Ground No Insulation
<pre>Wall P 1 Wall P 2 Wall P 3 Door Int Door I(3, 1) Wall P 4 External Wall Wall E 5 Wall E 6 Window Window(6, 1) Zone 4 Li Air Movement External Floor</pre>	1.60 0.80 2.20 Width 0.92 3.00 Length 3.80 2.20 Width 0.70	Height 2.70 2.70 Height 2.04 2.70 Height 2.70 2.70 Height 0.90	Eaves 0.00 Eaves 0.00 Living/	AdjZ 4 4 9 9 12 4 4 9 12 4 4 9 12 4 4 9 12 12 4 4 9 12 12 4 4 9 12 12 12 12 12 12 12 12 12 12 12 12 12	4.06 Area 1.68 8.10 Area 10.26 5.31 Area 0.63 rea on L ent Wal Area 37.62 Area	corrugated Iron 0.30 Bulk Reflective Side Down, Anti-glare Up R1.50 Nype Savity Panel 70mm gap No Insulation Cavity Panel 70mm gap No Insulation Cavity Panel 70mm gap No Insulation Type Hollow core door Cavity Panel 70mm gap No Insulation Type Hollow core door Cavity Panel 70mm gap No Insulation Type Abs Insulation Concrete Block to neighbour 0.30 Bulk Insulation R0.00 Fibro Cavity Panel 70mm gap 0.30 Bulk Insulation R1.50 Name Glass Opening Covering Shading GGG-05-001a Single Glazed Clear Aluminium 45% Opening Sliding, Two Lites Holland Blind No Shading exvel 1 I vents Downlights Ex Fans Ceilin fans 0 0 0 0 0 0 45% Opening Type Ceramic Tiles 8mm Concrete Slab on Ground No Insulation Type Above Ceiling
<pre>Wall P 1 Wall P 2 Wall P 3 Door Int Door I(3, 1) Wall P 4 External Wall Wall E 5 Wall E 6 Window Window(6, 1) Zone 4 Li Air Movement External Floor</pre>	1.60 0.80 2.20 Width 0.92 3.00 Length 3.80 2.20 Width 0.70	Height 2.70 2.70 Height 2.70 Height 2.70 2.70 Height 0.90 Theight Yes	Eaves 0.00 Eaves 0.00 Living/	AdjZ 4 4 9 9 12 4 4 9 12 4 4 9 12 4 4 9 12 12 4 4 9 12 12 4 4 9 12 12 12 12 12 12 12 12 12 12 12 12 12	1.06 Arten 1.88 8.10 Area 10.26 5.31 Area 0.63 rea on L ent Wal Area 37.62	corrugited Iron 0.30 Bulk Reflective Side Down, Anti-glare Up R1.50 Nore Savity Panel 70mm gap No Insulation Cavity Panel 70mm gap No Insulation Cavity Panel 70mm gap No Insulation Cavity Panel 70mm gap No Insulation Type Hollow core door Cavity Panel 70mm gap No Insulation Type Hollow core door Cavity Panel 70mm gap No Insulation Type Abs Insulation Concrete Block to neighbour 0.30 Bulk Insulation R0.00 Fibro Cavity Panel 70mm gap 0.30 Bulk Insulation R1.50 Name Glass Opening Covering Shading GGG-05-001a Single Glazed Clear Aluminium 45% Opening Sliding, Two Lites Holland Blind No Shading evel 1 I vents Downlights Ex Fans Ceilin fans 0 0 0 0 0 0 Above Ceiling Plasterboard No Insulation
Wall P 1 Wall P 2 Wall P 3 Door Int Door I(3, 1) Wall P 4 External Wall Wall E 5 Wall E 6 Window Window(6, 1) Zone 4 Li Air Movement External Floor Ceiling	1.60 0.80 2.20 Width 0.92 3.00 Length 3.80 2.20 Width 0.70	Height 2.70 2.70 Height 2.04 2.70 Height 2.70 2.70 Height 0.90 Seals Yes Slope	Eaves 0.00 Eaves 0.00 Living/	Adjz 4 4 9 9 12 27 0 0 12 10 270 0 0 12 10 270 0 0 10 10 10 10 10 10 10 10 10 10 10 1	4.06 Area 1.68 8.10 Area 10.26 5.31 Area 0.63 rea on L ent Wal Area 37.62 Area	corrugited Iron 0.30 Bulk Reflective Side Down, Anti-glare Up R1.50 Nype Savity Panel 70mm gap No Insulation Cavity Panel 70mm gap No Insulation Cavity Panel 70mm gap No Insulation Cavity Panel 70mm gap No Insulation Type Hollow core door Cavity Panel 70mm gap No Insulation Type Hollow core door Cavity Panel 70mm gap No Insulation Type Hollow core door Cavity Panel 70mm gap No Insulation Type Hollow core door Cavity Panel 70mm gap No Insulation Type Hollow core door Cavity Panel 70mm gap 0.30 Bulk Insulation R1.50 Name Glass Opening Covering Shading GGG-05-001a Single Glazed Clear Aluminium 45% Opening Sliding, Two Lites Holland Blind No Shading evel 1 I vents Downlights Ex Fans Ceilin fans 0 0 0 0 0 0 1 Vents Downlights Ex Fans Ceilin fans
<pre>Wall P 1 Wall P 2 Wall P 3 Door Int Door I(3, 1) Wall P 4 External Wall Wall E 5 Wall E 6 Window Window(6, 1) Zone 4 Li Air Movement External Floor</pre>	1.60 0.80 2.20 Width 0.92 3.00 Length 3.80 2.20 Width 0.70	Height 2.70 2.70 Height 2.04 2.70 Height 2.70 2.70 Height 0.90	Eaves 0.00 Eaves 0.00 Living/	AdjZ 4 4 9 9 12 4 4 9 12 4 4 9 12 4 4 9 12 12 4 4 9 12 12 4 4 9 12 12 12 12 12 12 12 12 12 12 12 12 12	4.06 Area 1.68 8.10 Area 10.26 5.31 Area 0.63 rea on L ent Wal Area 37.62 Area	corrugited Iron 0.30 Bulk Reflective Side Down, Anti-glare Up R1.50 Nore Savity Panel 70mm gap No Insulation Cavity Panel 70mm gap No Insulation Cavity Panel 70mm gap No Insulation Cavity Panel 70mm gap No Insulation Type Hollow core door Cavity Panel 70mm gap No Insulation Type Hollow core door Cavity Panel 70mm gap No Insulation Type Abs Insulation Concrete Block to neighbour 0.30 Bulk Insulation R0.00 Fibro Cavity Panel 70mm gap 0.30 Bulk Insulation R1.50 Name Glass Opening Covering Shading GGG-05-001a Single Glazed Clear Aluminium 45% Opening Sliding, Two Lites Holland Blind No Shading evel 1 I vents Downlights Ex Fans Ceilin fans 0 0 0 0 0 0 Above Ceiling Plasterboard No Insulation

						Insulation
		7	5	killion		Corrugated Iron 0.30
						Bulk, Reflective Side Down, Anti-glare Up R1.50
Partition Wall	Length	Height		AdjZ	Area	Туре
Wall P 1	2.70	2.70		1	5.41	Cavity Panel 70mm gap No Insulation
Door Int	Width	Height		AdjZ	Area	Туре
Door I(1, 1)	0.92	2.04		1	1.88	Hollow core door
Wall P 2	1.70	2.70		2	2.71	Cavity Panel 70mm gap No Insulation
Door Int		Height		AdjZ	Area	Type
Door I(2, 1)	0.92	2.04		2	1.88	Hollow core door
Wall P 3 Wall P 4	0.80	2,70		2	2.16 4.86	Cavity Panel 70mm gap No Insulation Cavity Panel 70mm gap No Insulation
Wall P 4 Wall P 11	1.80 3.00	2.70 2.70		2 3	4.86	Cavity Panel 70mm gap No Insulation Cavity Panel 70mm gap No Insulation
Wall P 12	2.20	2.70		3	4.05	Cavity Panel 70mm gap No Insulation
Door Int		Height		AdjZ	Area	Type
Door I(12, 1)	0.92	2.04		3	1.88	Hollow core door
Wall P 13	0.80	2.70		3	2.16	Cavity Panel 70mm gap Ns Insulation
Wall P 14	1.60	2.70		3	4.32	Cavity Panel 70mm gap No Insulation
External Wall	Length	Height	Eaves	Orient	Area	Type Abs
						Insulation
Wall E 5	0.70	2.70	0.00	90	1.89	Fibro Cavity Panel 70mm Gay 0.30 Bulk Insulation R15 0
Wall E 6	4.00	2.70	0.00	0	5.76	Fibro Cavity Parel Somm gap 0.30
Window	Width	Height	Eaves	Orient	Area	Bulk Insulation R1 50 Name Class Frame
	1120011		20100	0220110		Opening Opvering
						Shadirg
Window(6, 1)	2.40	2.10	0.00	0	5.04	GGG-05-001a Single Glazed Clear Aluminium
						45% opening Sliding, Two Lites Holland Blind
Wall E 7	1.00	2.70	0.00	90	2.70	No Shading Fiorg Cavity Panel 70mm gap 0.30
	1.00	2.70	0.00	50	2	Bulk Insplation R1.50
Wall E 8	0.60	2.70	0.00	0	1.62	Fibro Cavity Panel 70mm gap 0.30
Wall E 9	3.40	2.70	0.00	90	8.09	Buck Insulation R1.50 Fibro Cavity Panel 70mm gap 0.30
MALL D J	9.40	2.70	0.00	20		Bark Insulation R1.50
Window	Width	Height	Eaves	Orient	Azea	Mame Glass Frame
					\sim	Opening Covering Shading
Window(9,1)	1.21	0.90	0.00	90	1.09	GGG-05-001a Single Glazed Clear Aluminium
WINCOW (9, 1)	للد دله و بلو	0.50	0.00	11		45% Opening Sliding, Two Lites Holland Blind
				$\int $		No Shading
Wall E 10	7.00	2.70	0.00	180	18.90	Concrete Block to neighbour 0.30
			2	\sim		Bulk Insulation R0.00
Wall E 15	2.10	2.70	10.00	270	3.79	Fibro Cavity Panel 70mm gap 0.30
				\sim		Bulk Insulation R1.50
Door Ext	Width	Height	Eaves	Orient	Area	Туре
Door E(15, 1)	0.92	2.04	0.00	270	1.88	Solid timber door
		()	\frown			
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		- 55	\sim			
		ľ,	ク			
		2				
	2,	\searrow				
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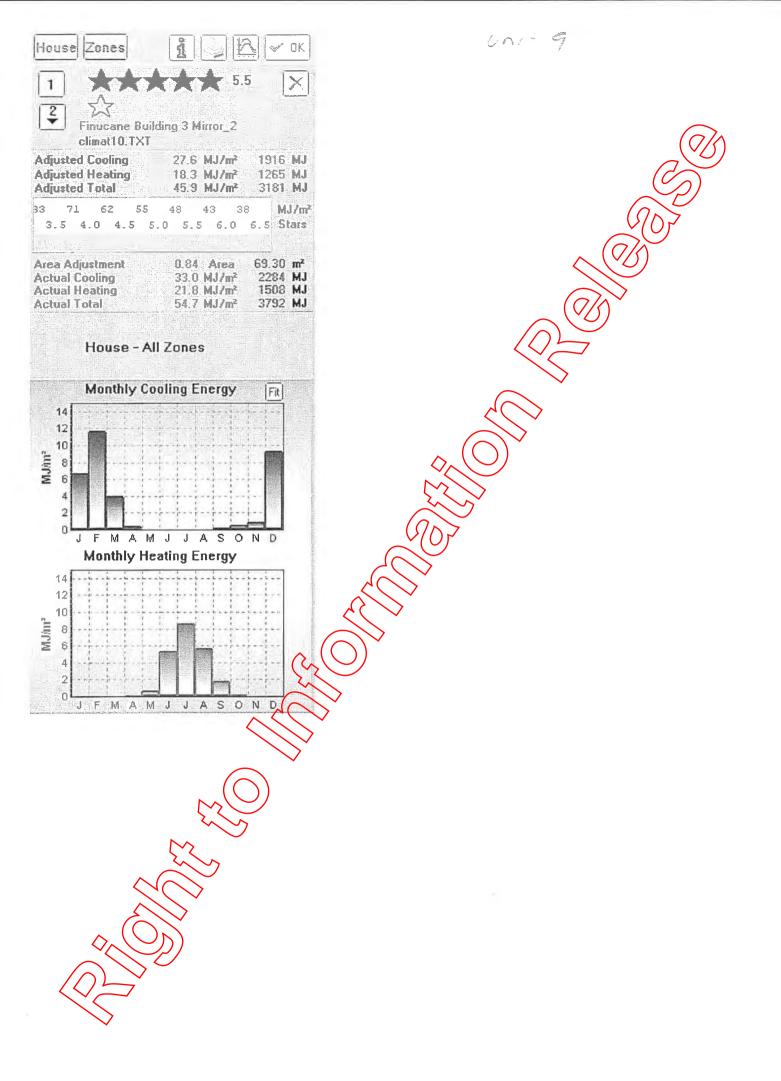


Project Finucane Building 3 Run 1 ALEXANDRA HILLS PC 4161 Lat -27.50 Long 153.20 Climate File climat10.TXT Summary Conditioned Area 69.3 m² Unconditioned Area 10.1 m² Total Floor Area 79.4 m² Total Glazed Area 10.9 m² Total External Solid door Area 1.9 m² 13.8 % Glass to Floor Area Gross External Wall Area 113.4 m² Net External Wall Area 100.6 m² Window 10.9 m² GGG-05-001a Generics Uval 6.57 SHGC 0.74 Glass Single Glazed Clear Frame Aluminium External Wall 71.4 m² Fibro Cavity Panel 70mm gap Bulk Insulation R 1.5 29.2 m² Concrete Block to neighbour Bulk Insulation R 0.0 Internal Wall 52.6 m² Cavity Panel 70mm gap No Insulation External Floor 31.7 m² Concrete Slab on Ground Carpet 10mm No Insulation 47.7 m² Concrete Slab on Ground Ceramic Tiles 8mm No Insulation External Ceiling 79.4 m² Plasterboard No Insulation Apartment above Roof (Horizontal area) 79.4 m² Corrugated Iron Bulk, Reflective Side Down, Anti-glare Up R 1.5 7° slope Skillion roof

Details			
Zone 1 Bed 1	Sleeping Area on I	Level 1	
Air Movement Screens	Seals Chimney	Gas vent Wa	ll vents Downlights Ex Fans Ceilin fans
No	Yes No	No	
External Floor		Area	Covering Type
Ceiling	Class	17.05	Carpet 10mm Concrete Slab on Ground No Insulation
Ceiling	Slope	Area	Type Above Ceiling
	0	17.05	Plasterboard No Insulation
			Another apartment
Roof	Slope S	Shape	Type Solar Abs
			Insulation
	7 Skil	llion	Corrugated Iron 0.30
Partition Wall Length	Height	Ndig Dres	Bulk, Reflective Side Down, Anti-glare Up R1.50
Wall P 3 2.70	2,70	AdjZ Area 4 5.41	Type Cavity Panel 70mm gap No Insulation
	Height	AdjZ Area	Type
Door I(3, 1) 0.92	2.04	4 1.88	Hollow core door
Wall P 4 4.90	2.70	2 13.23	Cavity Panel 70mm gap No Insulation
External Wall Length	Height Eaves Or	rient Area	Type Abs
M-11 E 1 ()A	A TA A A	0.00	Insulation
Wall E 1 4.30	2.70 0.00	270 11.61	Fibro Cavity Panel Zomm gap 0.30 Bulk Insulation R1 50
Wall E 2 1.00	2.70 0.00	0 2.15	Fibro Cavity Panel 70mm gap 0.30
			Bulk Insulation R1 50
Window Width	Height Eaves Or	rient Area	Name Glass Frame
			Opening Covering
			Shading
Window(2, 1) 0.61	0.90 0.00	0 0.55	GGG-052001a Single Glazed Clear Aluminium 45% Opening Sliding, Two Lites Holland Blind
			No Shadhng
Wall E 5 1.90	2.70 0.00	180 5.13	Fibro Cavity Panel 70mm gap 0.30
			Pulk Insulation R1.50
Wall E 6 0.60	2.70 0.00	270 1.62	Pibro Cavity Panel 70mm gap 0.30
		<u>کر</u>	Bulk Insulation R1.50
Wall E 7 1.80	2.70 0.00	180 3.41	Tibro Cavity Panel 70mm gap 0.30
Window Width	Height Eaves Or	rient Area	Balk Insulation R1.50 Name Glass Frame
WINDOW WICCH	nergit Baves of	itent at ca	Opening Covering
	/	$\gamma(())$	Shading
Window(7, 1) 1.21	1.20 0.00	180 1.45	GGG-05-001a Single Glazed Clear Aluminium
		\sim	45% Opening Sliding, Two Lites Holland Blind
		\sim	No Shading
Zone 2 Bed 2	Sleeping Area on I	aval 1	
Air Movement Screens	Seals Chimney		ll vents Downlights Ex Fans Ceilin fans
No	Yes No	No	0 0 0 No
External Floor		Area	Covering Type
	(\bigcirc)	14.63	Carpet 10mm Concrete Slab on Ground No Insulation
Ceiling	Slope	Area	Type
	20 m	14.63	Above Ceiling Plasterboard No Insulation
N	\sim	14.03	Another apartment
Roof	Slope S	hape	Type Solar Abs
	\sim		Insulation
\sim	7 Skil	lion	Corrugated Iron 0.30
			Bulk, Reflective Side Down, Anti-glare Up R1.50
Partition Wall Length	-	AdjZ Area	Type
Wall P 1 Wall P 2	2.70	1 13.23 4 2.71	Cavity Panel 70mm gap No Insulation Cavity Panel 70mm gap No Insulation
Door Int Wighth		4 2.71 AdjZ Area	Cavity Panel / John gap No insulation Type
Door $1(2, 1)$ 0.92	2.04	4 1.88	Hollow core door
Wall P 3 0.80	2.70	4 2.16	Cavity Panel 70mm gap No Insulation
Wall P 4 1.80	2.70	4 4.86	Cavity Panel 70mm gap No Insulation
External Wall Length	Height Eaves Or	ient Area	Type Abs

Moll E E	2 50	2.70	0.00	90	8.72	Insulation Fibro Cavity Panel 70mm gap 0.30
Wall E 5	3.50	2.70	0.00	90	0.72	Bulk Insulation R1.50
Window	Width	Woight	Eaves	Orient	Area	Name Glass Frame
WINDOW	WIGLU	Height	Baves	Orient	Area	
						Shading
Window(5, 1)	1.21	0.60	0.00	90	0.73	
						45% Opening Sliding, Two Lites Holland Blind
						No Shading
Wall E 6	1.80	2.70	0.00	180	3.41	Fibro Cavity Panel 70mm gap 0.30
						Bulk Insulation R1.50
Window	Width	Height	Eaves	Orient	Area	Name Glass Frame
						Opening Covering
						Shading
Window(6, 1)	1.21	1.20	0.00	180	1.45	
		2.00				45% Opening Sliding, Two Lines Holland Blind
						No Shading
Wall E 7	0.60	2.70	0.00	90	1.62	Fibro Cavity Panel 70mm gap 0.30
Wall E /	0.60	2.70	0.00	90	1.02	
						Bulk Insulation R1.60
Wall E 8	1.70	2.70	0.00	180	4.59	Fibro Cavity Panel 70mm gap 0.30
						Bulk Insulation R1.50
						\frown
Zone 3 We	t Area l	We	t Area on	Level 1	L	
Air Movement	Screens	Seals	Chimney	Gas	vent Wal	l vents Downlights Ex Fans Ceilin fans
	No	Yes	No	No.	>	0 0 No
External Floor					Area	Covering (Type
					10.12	Ceramic Tiles 8mm Concrete Slab on Ground No Insulation
Ceiling		Slope			Area	Туре
oczerny		01050				Above Ceiling
		0			10.12	Plasterboard No Insulation
		0			10.12	
				-		Another apartment
Roof		Slope		Shape		Type Solar Abs
					(Insulation
		7	Sk	illion	ہے	(Corrugated Iron 0.30
						Bulk, Reflective Side Down, Anti-glare Up R1.50
Partition Wall	Length	Height		AdjZ	Area	Туре
Partition Wall Wall P 3	Length 3.00	Height 2.70		AdjZ 4	Area B 10	
	-	_		-		Туре
Wall P 3	3.00	2.70		4	8.10	Type Davity Panel 70mm gap No Insulation
Wall P 3 Wall P 4 Door Int	3.00	2.70 2.70		4	8.10	Type Pavity Panel 70mm gap No Insulation Cavity Panel 70mm gap No Insulation
Wall P 3 Wall P 4 Door Int Door I(4,1)	3.00 2.20 Width 0.92	2.70 2.70 Height 2.04		4 Adjz	8.10 4.86 Area 1.88	Type Pavity Panel 70mm gap No Insulation Cavity Panel 70mm gap No Insulation Type Hollow core door
Wall P 3 Wall P 4 Door Int Door I(4, 1) Wall P 5	3.00 2.20 Width 0.92 0.80	2.70 2.70 Height 2.04 2.70		4	8.10 4.86 Area 1.88 2.16	Type Pavity Panel 70mm gap No Insulation Cavity Panel 70mm gap No Insulation Type Hollow core door Cavity Panel 70mm gap No Insulation
Wall P 3 Wall P 4 Door Int Door I(4,1) Wall P 5 Wall P 6	3.00 2.20 Width 0.92 0.80 1.60	2.70 2.70 Height 2.04 2.70 2.70	Forrage	4 AdjZ 4	8.10 4.86 Area 1.88 2.16 4.32	Type Oavity Panel 70mm gap No Insulation Cavity Panel 70mm gap No Insulation Type Hollow core door Cavity Panel 70mm gap No Insulation Cavity Panel 70mm gap No Insulation
Wall P 3 Wall P 4 Door Int Door I(4, 1) Wall P 5	3.00 2.20 Width 0.92 0.80 1.60	2.70 2.70 Height 2.04 2.70 2.70	Eaves	4 Adjz	8.10 4.86 Area 1.88 2.16	Type Oavity Panel 70mm gap No Insulation Cavity Panel 70mm gap No Insulation Type Hollow core door Cavity Panel 70mm gap No Insulation Cavity Panel 70mm gap No Insulation Type Abs
Wall P 3 Wall P 4 Door Int Door I(4, 1) Wall P 5 Wall P 6 External Wall	3.00 2.20 Width 0.92 0.80 1.60 Length	2.70 2.70 Height 2.04 2.70 2.70 Height) کم	4 AdjZ 4	8 10 4.86 Area 1.88 2 16 4.32 Area	Type Davity Panel 70mm gap No Insulation Cavity Panel 70mm gap No Insulation Type Hollow core door Cavity Panel 70mm gap No Insulation Cavity Panel 70mm gap No Insulation Type Abs Insulation
Wall P 3 Wall P 4 Door Int Door I(4,1) Wall P 5 Wall P 6	3.00 2.20 Width 0.92 0.80 1.60	2.70 2.70 Height 2.04 2.70 2.70	Eaves	4 AdjZ 4	8.10 4.86 Area 1.88 2.16 4.32	Type Davity Panel 70mm gap No Insulation Cavity Panel 70mm gap No Insulation Type Hollow core door Cavity Panel 70mm gap No Insulation Cavity Panel 70mm gap No Insulation Type Abs Insulation Fibro Cavity Panel 70mm gap 0.30
Wall P 3 Wall P 4 Door Int Door I(4, 1) Wall P 5 Wall P 6 External Wall Wall E 1	3.00 2.20 Width 0.92 0.80 1.60 Length 2.20	2.70 2.70 Height 2.04 2.70 2.70 Height 2.70	000	4 Adjz 4 Orient 270	8 10 4 86 Area 2 16 4 .32 Area 5 .31	Type Davity Panel 70mm gap No Insulation Cavity Panel 70mm gap No Insulation Type Hollow core door Cavity Panel 70mm gap No Insulation Cavity Panel 70mm gap No Insulation Type Abs Insulation Fibro Cavity Panel 70mm gap 0.30 Bulk Insulation R1.50
Wall P 3 Wall P 4 Door Int Door I(4, 1) Wall P 5 Wall P 6 External Wall	3.00 2.20 Width 0.92 0.80 1.60 Length 2.20	2.70 2.70 Height 2.04 2.70 2.70 Height	000	4 AdjZ 4	8 10 4.86 Area 1.88 2 16 4.32 Area	Type Davity Panel 70mm gap No Insulation Cavity Panel 70mm gap No Insulation Type Hollow core door Cavity Panel 70mm gap No Insulation Cavity Panel 70mm gap No Insulation Type Abs Insulation Fibro Cavity Panel 70mm gap 0.30
Wall P 3 Wall P 4 Door Int Door I(4, 1) Wall P 5 Wall P 6 External Wall Wall E 1	3.00 2.20 Width 0.92 0.80 1.60 Length 2.20	2.70 2.70 Height 2.04 2.70 2.70 Height 2.70	000	4 Adjz 4 Orient 270	8 10 4 86 Area 2 16 4 .32 Area 5 .31	Type Davity Panel 70mm gap No Insulation Cavity Panel 70mm gap No Insulation Type Hollow core door Cavity Panel 70mm gap No Insulation Cavity Panel 70mm gap No Insulation Type Abs Insulation Fibro Cavity Panel 70mm gap 0.30 Bulk Insulation R1.50
Wall P 3 Wall P 4 Door Int Door I(4, 1) Wall P 5 Wall P 6 External Wall Wall E 1	3.00 2.20 Width 0.92 0.80 1.60 Length 2.20	2.70 2.70 Height 2.04 2.70 2.70 Height 2.70	000	4 Adjz 4 Orient 270	8 10 4 86 Area 2 16 4 .32 Area 5 .31	Type Davity Panel 70mm gap No Insulation Cavity Panel 70mm gap No Insulation Type Hollow core door Cavity Panel 70mm gap No Insulation Cavity Panel 70mm gap No Insulation Type Abs Insulation Fibro Cavity Panel 70mm gap 0.30 Bulk Insulation R1.50 Name Glass Frame
Wall P 3 Wall P 4 Door Int Door I(4, 1) Wall P 5 Wall P 6 External Wall Wall E 1	3.00 2.20 Width 0.92 0.80 1.60 Length 2.20	2.70 2.70 Height 2.04 2.70 2.70 Height 2.70	000	4 Adjz 4 Orient 270	8 10 4 86 Area 2 16 4 .32 Area 5 .31	Type Davity Panel 70mm gap No Insulation Cavity Panel 70mm gap No Insulation Type Hollow core door Cavity Panel 70mm gap No Insulation Cavity Panel 70mm gap No Insulation Type Abs Insulation Fibro Cavity Panel 70mm gap 0.30 Bulk Insulation R1.50 Name Glass Frame Opening Covering Shading
Wall P 3 Wall P 4 Door Int Door I(4,1) Wall P 5 Wall P 6 External Wall Wall E 1 Window	3.00 2.20 Width 0.92 0.80 1.60 Length 2.20 Width	2.70 2.70 Height 2.04 2.70 2.70 Height 2.70 Height	Eaves	4 Adjz 4 Orient 270 Orient	8 10 4 86 Area 2 16 4 .32 Area 5 .31 Area	Type Davity Panel 70mm gap No Insulation Cavity Panel 70mm gap No Insulation Type Hollow core door Cavity Panel 70mm gap No Insulation Cavity Panel 70mm gap No Insulation Type Abs Insulation Fibro Cavity Panel 70mm gap 0.30 Bulk Insulation R1.50 Name Glass Frame Opening Covering Shading
Wall P 3 Wall P 4 Door Int Door I(4,1) Wall P 5 Wall P 6 External Wall Wall E 1 Window	3.00 2.20 Width 0.92 0.80 1.60 Length 2.20 Width	2.70 2.70 Height 2.04 2.70 2.70 Height 2.70 Height	Eaves	4 Adjz 4 Orient 270 Orient	8 10 4 86 Area 2 16 4 .32 Area 5 .31 Area	Type Davity Panel 70mm gap No Insulation Cavity Panel 70mm gap No Insulation Type Hollow core door Cavity Panel 70mm gap No Insulation Cavity Panel 70mm gap No Insulation Type Abs Insulation Fibro Cavity Panel 70mm gap 0.30 Bulk Insulation R1.50 Name Glass Frame Opening Covering Shading GGG-05-001a Single Glazed Clear Aluminium 45% Opening Sliding, Two Lites Holland Blind
Wall P 3 Wall P 4 Door Int Door I(4,1) Wall P 5 Wall P 6 External Wall Wall E 1 Window Window(1,1)	3.00 2.20 Width 0.92 0.80 1.60 Length 2.20 Width 0.70	2.70 2.70 Height 2.04 2.70 2.70 Height 2.70 Height	Eaves	4 Adjz 4 Orient 270 Orient	8 10 4.86 Area 2.16 4.32 Area 5.31 Area 0.63	Type Vavity Panel 70mm gap No Insulation Cavity Panel 70mm gap No Insulation Type Hollow core door Cavity Panel 70mm gap No Insulation Cavity Panel 70mm gap No Insulation Type Abs Insulation Fibro Cavity Panel 70mm gap 0.30 Bulk Insulation R1.50 Name Glass Frame Opening Covering Shading GGG-05-001a Single Glazed Clear Aluminium 45% Opening Sliding, Two Lites Holland Blind No Shading
Wall P 3 Wall P 4 Door Int Door I(4,1) Wall P 5 Wall P 6 External Wall Wall E 1 Window	3.00 2.20 Width 0.92 0.80 1.60 Length 2.20 Width	2.70 2.70 Height 2.04 2.70 2.70 Height 2.70 Height	Eaves	4 AdjZ 4 Orient 270 Orient	8 10 4 86 Area 2 16 4 .32 Area 5 .31 Area	Type Vavity Panel 70mm gap No Insulation Cavity Panel 70mm gap No Insulation Type Hollow core door Cavity Panel 70mm gap No Insulation Cavity Panel 70mm gap No Insulation Type Abs Insulation Fibro Cavity Panel 70mm gap 0.30 Bulk Insulation R1.50 Name Glass Frame Opening Covering Shading GGG-05-001a Single Glazed Clear Aluminium 45% Opening Sliding, Two Lites Holland Blind No Shading Concrete Block to neighbour 0.30
Wall P 3 Wall P 4 Door Int Door I(4,1) Wall P 5 Wall P 6 External Wall Wall E 1 Window Window(1,1)	3.00 2.20 Width 0.92 0.80 1.60 Length 2.20 Width 0.70	2.70 2.70 Height 2.04 2.70 2.70 Height 2.70 Height	Eaves	4 AdjZ 4 Orient 270 Orient	8 10 4.86 Area 2.16 4.32 Area 5.31 Area 0.63	Type Vavity Panel 70mm gap No Insulation Cavity Panel 70mm gap No Insulation Type Hollow core door Cavity Panel 70mm gap No Insulation Cavity Panel 70mm gap No Insulation Type Abs Insulation Fibro Cavity Panel 70mm gap 0.30 Bulk Insulation R1.50 Name Glass Frame Opening Covering Shading GGG-05-001a Single Glazed Clear Aluminium 45% Opening Sliding, Two Lites Holland Blind No Shading
Wall P 3 Wall P 4 Door Int Door I(4,1) Wall P 5 Wall P 6 External Wall Wall E 1 Window Window(1,1) Wall E 2	3.00 2.20 Width 0.92 0.80 1.60 Length 2.20 Width 0.70 3.80	2.70 2.70 Height 2.04 2.70 2.70 Height 2.70 Height 0.90	Eaves	4 AdjZ 4 Orient 270 Orient 270	8 10 4.86 Area 9.88 2.16 4.32 Area 5.31 Area 0.63 10.26	Type Pavity Panel 70mm gap No Insulation Cavity Panel 70mm gap No Insulation Type Hollow core door Cavity Panel 70mm gap No Insulation Cavity Panel 70mm gap No Insulation Type Abs Insulation Fibro Cavity Panel 70mm gap 0.30 Bulk Insulation R1.50 Name Glass Frame Opening Covering Shading GGG-05-001a Single Glazed Clear Aluminium 45% Opening Sliding, Two Lites Holland Blind No Shading Concrete Block to neighbour 0.30 Bulk Insulation R0.00
<pre>Wall P 3 Wall P 4 Door Int Door I(4, 1) Wall P 5 Wall P 6 External Wall Wall E 1 Window Window(1, 1) Wall E 2 Zone 4 Li</pre>	3.00 2.20 Width 0.92 0.80 1.60 Length 2.20 Width 0.70 3.80	2.70 2.70 Height 2.04 2.70 2.70 Height 2.70 Height 0.90 2.70	Eaves	4 AdjZ 4 Orient 270 0 Citchen 2	8 10 4 86 Area 9 88 2 16 4 32 Area 5 31 Area 0.63 10.26	Type Vavity Panel 70mm gap No Insulation Cavity Panel 70mm gap No Insulation Type Hollow core door Cavity Panel 70mm gap No Insulation Cavity Panel 70mm gap No Insulation Type Abs Insulation Fibro Cavity Panel 70mm gap 0.30 Bulk Insulation R1.50 Name Glass Frame Opening Covering Shading GGG-05-001a Single Glazed Clear Aluminium 45% Opening Sliding, Two Lites Holland Blind No Shading Concrete Block to neighbour 0.30 Bulk Insulation R0.00
Wall P 3 Wall P 4 Door Int Door I(4,1) Wall P 5 Wall P 6 External Wall Wall E 1 Window Window(1,1) Wall E 2	3.00 2.20 Width 0.92 0.80 1.60 Length 2.20 Width 0.70 3.80	2.70 2.70 Height 2.04 2.70 Height 2.70 Height 0.90 2.70	Eaves 0.00 Living/K Chimney	4 AdjZ 4 Orient 270 Orient 270 0 Citchen J Cas of the second se	8 10 4.86 Area 9.88 4.32 Area 5.31 Area 0.63 10.26 Area on I	Type Vavity Panel 70mm gap No Insulation Cavity Panel 70mm gap No Insulation Type Hollow core door Cavity Panel 70mm gap No Insulation Cavity Panel 70mm gap No Insulation Type Abs Insulation Fibro Cavity Panel 70mm gap 0.30 Bulk Insulation R1.50 Name Glass Frame Opening Covering Shading GGG-05-001a Single Glazed Clear Aluminium 45% Opening Sliding, Two Lites Holland Blind No Shading Concrete Block to neighbour 0.30 Bulk Insulation R0.00 evel 1 I vents Downlights Ex Fans Ceilin fans
<pre>Wall P 3 Wall P 4 Door Int Door I(4, 1) Wall P 5 Wall P 6 External Wall Wall E 1 Window Window(1, 1) Wall E 2 Zone 4 Li Air Movement</pre>	3.00 2.20 Width 0.92 0.80 1.60 Length 2.20 Width 0.70 3.80	2.70 2.70 Height 2.04 2.70 2.70 Height 2.70 Height 0.90 2.70	Eaves	4 AdjZ 4 Orient 270 Orient 270 0 Citchen J Cas of the second se	8 10 4 86 Area 9 88 4 32 Area 5 31 Area 0.63 10.26 Area on I yent Wal	Type Pavity Panel 70mm gap No Insulation Cavity Panel 70mm gap No Insulation Type Hollow core door Cavity Panel 70mm gap No Insulation Cavity Panel 70mm gap No Insulation Type Abs Insulation Fibro Cavity Panel 70mm gap 0.30 Bulk Insulation R1.50 Name Glass Frame Opening Covering Shading GGG-05-001a Single Glazed Clear Aluminium 45% Opening Sliding, Two Lites Holland Blind No Shading Concrete Block to neighbour 0.30 Bulk Insulation R0.00 Accel 1 I vents Downlights Ex Fans Ceilin fans 0 0 0 No
<pre>Wall P 3 Wall P 4 Door Int Door I(4, 1) Wall P 5 Wall P 6 External Wall Wall E 1 Window Window(1, 1) Wall E 2 Zone 4 Li</pre>	3.00 2.20 Width 0.92 0.80 1.60 Length 2.20 Width 0.70 3.80	2.70 2.70 Height 2.04 2.70 Height 2.70 Height 0.90 2.70	Eaves 0.00 Living/K Chimney	4 AdjZ 4 Orient 270 Orient 270 0 Citchen J Cas of the second se	8 10 4 86 Area 9 88 4 32 Area 5 31 Area 0.63 10.26 Area on I Vent Wal	Type Vavity Panel 70mm gap No Insulation Cavity Panel 70mm gap No Insulation Type Hollow core door Cavity Panel 70mm gap No Insulation Cavity Panel 70mm gap No Insulation Type Abs Insulation Fibro Cavity Panel 70mm gap 0.30 Bulk Insulation R1.50 Name Glass Frame Opening Covering Shading GGG-05-001a Single Glazed Clear Aluminium 45% Opening Sliding, Two Lites Holland Blind No Shading Concrete Block to neighbour 0.30 Bulk Insulation R0.00 evel 1 I vents Downlights Ex Fans Ceilin fans 0 0 0 No Covering Type
<pre>Wall P 3 Wall P 4 Door Int Door I(4, 1) Wall P 5 Wall P 6 External Wall Wall E 1 Window Window(1, 1) Wall E 2 Zone 4 Li Air Movement External Floor</pre>	3.00 2.20 Width 0.92 0.80 1.60 Length 2.20 Width 0.70 3.80	2.70 2.70 Height 2.04 2.70 2.70 Height 2.70 Height 0.90 2.70	Eaves 0.00 Living/K Chimney	4 AdjZ 4 Orient 270 Orient 270 0 Citchen J Cas of the second se	8 10 4 86 Area 9 88 4 32 Area 5 31 Area 0.63 10.26 Area on I yent Wal	Type Pavity Panel 70mm gap No Insulation Cavity Panel 70mm gap No Insulation Type Hollow core door Cavity Panel 70mm gap No Insulation Cavity Panel 70mm gap No Insulation Type Abs Insulation Fibro Cavity Panel 70mm gap 0.30 Bulk Insulation R1.50 Name Glass Frame Opening Covering Shading GGG-05-001a Single Glazed Clear Aluminium 45% Opening Sliding, Two Lites Holland Blind No Shading Concrete Block to neighbour 0.30 Bulk Insulation R0.00 Accel 1 I vents Downlights Ex Fans Ceilin fans 0 0 0 No
<pre>Wall P 3 Wall P 4 Door Int Door I(4, 1) Wall P 5 Wall P 6 External Wall Wall E 1 Window Window(1, 1) Wall E 2 Zone 4 Li Air Movement External Floor</pre>	3.00 2.20 Width 0.92 0.80 1.60 Length 2.20 Width 0.70 3.80	2.70 2.70 Height 2.04 2.70 Height 2.70 Height 0.90 2.70	Eaves 0.00 Living/K Chimney	4 AdjZ 4 Orient 270 Orient 270 0 Citchen J Cas of the second se	8 10 4 86 Area 9 88 4 32 Area 5 31 Area 0.63 10.26 Area on I Vent Wal	Type Vavity Panel 70mm gap No Insulation Cavity Panel 70mm gap No Insulation Type Hollow core door Cavity Panel 70mm gap No Insulation Cavity Panel 70mm gap No Insulation Type Abs Insulation Fibro Cavity Panel 70mm gap 0.30 Bulk Insulation R1.50 Name Glass Frame Opening Covering Shading GGG-05-001a Single Glazed Clear Aluminium 45% Opening Sliding, Two Lites Holland Blind No Shading Concrete Block to neighbour 0.30 Bulk Insulation R0.00 evel 1 I vents Downlights Ex Fans Ceilin fans 0 0 0 No Covering Type
<pre>Wall P 3 Wall P 4 Door Int Door I(4, 1) Wall P 5 Wall P 6 External Wall Wall E 1 Window Window(1, 1) Wall E 2 Zone 4 Li Air Movement</pre>	3.00 2.20 Width 0.92 0.80 1.60 Length 2.20 Width 0.70 3.80	2.70 2.70 Height 2.04 2.70 2.70 Height 2.70 Height 0.90 2.70	Eaves 0.00 Living/K Chimney	4 AdjZ 4 Orient 270 Orient 270 0 Citchen J Cas of the second se	8 10 4 86 Area 2 16 4 .32 Area 5 .31 Area 0 .63 10 .26 Area on I vent Wall Area 37.62	Type Vavity Panel 70mm gap No Insulation Cavity Panel 70mm gap No Insulation Type Hollow core door Cavity Panel 70mm gap No Insulation Cavity Panel 70mm gap No Insulation Type Abs Insulation Fibro Cavity Panel 70mm gap 0.30 Bulk Insulation R1.50 Name Glass Frame Opening Covering Shading GGG-05-001a Single Glazed Clear Aluminium 45% Opening Sliding, Two Lites Holland Blind No Shading Concrete Block to neighbour 0.30 Bulk Insulation R0.00 Acevel 1 I vents Downlights Ex Fans Ceilin fans 0 0 0 No Covering Type Ceramic Tiles 8mm Concrete Slab on Ground No Insulation
<pre>Wall P 3 Wall P 4 Door Int Door I(4, 1) Wall P 5 Wall P 6 External Wall Wall E 1 Window Window(1, 1) Wall E 2 Zone 4 Li Air Movement External Floor</pre>	3.00 2.20 Width 0.92 0.80 1.60 Length 2.20 Width 0.70 3.80	2.70 2.70 Height 2.04 2.70 2.70 Height 2.70 Height 0.90 2.70	Eaves 0.00 Living/K Chimney	4 AdjZ 4 Orient 270 Orient 270 0 Citchen J Cas of the second se	8 10 4 86 Area 2 16 4 .32 Area 5 .31 Area 0 .63 10 .26 Area on I vent Wall Area 37.62	Type Vavity Panel 70mm gap No Insulation Cavity Panel 70mm gap No Insulation Type Hollow core door Cavity Panel 70mm gap No Insulation Cavity Panel 70mm gap No Insulation Type Abs Insulation Fibro Cavity Panel 70mm gap 0.30 Bulk Insulation R1.50 Name Glass Frame Opening Covering Shading GGG-05-001a Single Glazed Clear Aluminium 45% Opening Sliding, Two Lites Holland Blind No Shading Concrete Block to neighbour 0.30 Bulk Insulation R0.00 Acvel 1 I vents Downlights Ex Fans Ceilin fans 0 0 0 No Covering Type Ceramic Tiles 8mm Concrete Slab on Ground No Insulation Type
<pre>Wall P 3 Wall P 4 Door Int Door I(4, 1) Wall P 5 Wall P 6 External Wall Wall E 1 Window Window(1, 1) Wall E 2 Zone 4 Li Air Movement External Floor</pre>	3.00 2.20 Width 0.92 0.80 1.60 Length 2.20 Width 0.70 3.80	2.70 2.70 Height 2.04 2.70 2.70 Height 2.70 Height 0.90 2.70 2.70	Eaves 0.00 Living/K Chimney	4 AdjZ 4 Orient 270 Orient 270 0 Citchen J Cas of the second se	8 10 4 86 Area 9 16 4 .32 Area 5 .31 Area 0 .63 10 .26 Area on I Vent Wall Area 37 .62 Area	Type avity Panel 70mm gap No Insulation Cavity Panel 70mm gap No Insulation Type Hollow core door Cavity Panel 70mm gap No Insulation Cavity Panel 70mm gap No Insulation Cavity Panel 70mm gap No Insulation Type Abs Insulation Fibro Cavity Panel 70mm gap 0.30 Bulk Insulation R1.50 Name Glass Frame Opening Covering Shading GGG-05-001a Single Glazed Clear Aluminium 45% Opening Sliding, Two Lites Holland Blind No Shading Concrete Block to neighbour 0.30 Bulk Insulation R0.00 evel 1 I vents Downlights Ex Fans Ceilin fans 0 0 0 No Covering Type Ceramic Tiles 8mm Concrete Slab on Ground No Insulation Type Above Ceiling
<pre>Wall P 3 Wall P 4 Door Int Door I(4, 1) Wall P 5 Wall P 6 External Wall Wall E 1 Window Window(1, 1) Wall E 2 Zone 4 Li Air Movement External Floor</pre>	3.00 2.20 Width 0.92 0.80 1.60 Length 2.20 Width 0.70 3.80	2.70 2.70 Height 2.04 2.70 2.70 Height 2.70 Height 0.90 2.70 2.70	Eaves 0.00 Living/K Chimney	4 4 Adjz 4 Orient 270 Orient 270 0 Citchen J Gas T	8 10 4 86 Area 9 16 4 .32 Area 5 .31 Area 0 .63 10 .26 Area on I Vent Wall Area 37 .62 Area	Type avity Panel 70mm gap No Insulation Cavity Panel 70mm gap No Insulation Type Hollow core door Cavity Panel 70mm gap No Insulation Cavity Panel 70mm gap No Insulation Cavity Panel 70mm gap No Insulation Type Abs Insulation Fibro Cavity Panel 70mm gap 0.30 Bulk Insulation R1.50 Name Glass Frame Opening Covering Shading GGG-05-001a Single Glazed Clear Aluminium 45% Opening Sliding, Two Lites Holland Blind No Shading Concrete Block to neighbour 0.30 Bulk Insulation R0.00 evel 1 I vents Downlights Ex Fans Ceilin fans 0 0 0 No Covering Type Ceramic Tiles Bmm Concrete Slab on Ground No Insulation Type Above Ceiling Plasterboard No Insulation
Wall P 3 Wall P 4 Door Int Door I(4, 1) Wall P 5 Wall P 6 External Wall Wall E 1 Window Window(1, 1) Wall E 2 Zone 4 Li Air Movement External Floor Ceiling	3.00 2.20 Width 0.92 0.80 1.60 Length 2.20 Width 0.70 3.80	2.70 2.70 Height 2.04 2.70 2.70 Height 2.70 Height 0.90 2.70 2.70 Height 2.70 Slope	Eaves 0.00 Living/K Chimney	4 AdjZ 4 Orient 270 Orient 270 0 Citchen J Cas of the second se	8 10 4 86 Area 9 16 4 .32 Area 5 .31 Area 0 .63 10 .26 Area on I Vent Wall Area 37 .62 Area	Type avity Panel 70mm gap No Insulation Cavity Panel 70mm gap No Insulation Type Hollow core door Cavity Panel 70mm gap No Insulation Cavity Panel 70mm gap No Insulation Type Abs Insulation Fibro Cavity Panel 70mm gap 0.30 Bulk Insulation R1.50 Name Glass Frame Opening Covering Shading GGG-05-001a Single Glazed Clear Aluminium 45% Opening Sliding, Two Lites Holland Blind No Shading Concrete Block to neighbour 0.30 Bulk Insulation R0.00 sevel 1 I vents Downlights Ex Fans Ceilin fans 0 0 0 No Covering Type Ceramic Tiles Bmm Concrete Slab on Ground No Insulation Type Above Ceiling Plasterboard No Insulation Another apartment

						Insulation
		7	5	Skillion		Corrugated Iron 0.30
						Bulk, Reflective Side Down, Anti-glare Up R1.50 👝
Partition Wall	Length	Height		AdjZ	Area	Туре
Wall P 2	1.60	2.70		3	4.32	Cavity Panel 70mm gap No Insulation
Wall P 3	0.80	2.70		3	2.16	Cavity Panel 70mm gap No Insulation
Wall P 4	2.20	2.70		3	4.06	Cavity Panel 70mm gap No Insulation
Door Int	Width	Height		AdjZ	Area	Туре
Door I(4, 1)	0.92	2.04		3	1.88	Hollow core door
Wall P 5	3.00	2.70		3	8.10	Cavity Panel 70mm gap No Insulation
Wall P 12	1.80	2.70		2	4.86	Cavity Panel 70mm gap No Insulation
Wall P 13	0.80	2.70		2	2.16	Cavity Panel 70mm gap No Insulation
Wall P 14	1.70	2.70		2	2.71	Cavity Panel 70mm gap No Insulation
Door Int		Height		AdjZ	Area	Type
Door I(14, 1) Wall P 15	0.92	2.04		2	1.88	Hollow core door
Door Int	2.70 Width			1	5.41	Cavity Panel 70mm gap No Insulation
Door I(15, 1)	0.92	Height 2.04		AdjZ 1	Area 1,88	Type Hollow core door
External Wall			Eaves	Orient	Area	Type Abs
DACCHINE MALL	Dengen	nergne	Daves	OFTERIC	A1 64	Insulation
Wall E 1	2.10	2.70	0.00	270	3.79	Fibro Cavity Panel 70mm gap 0.30
		5170	0.00	270	5.75	Bulk Insulation R1.50
Door Ext	Width	Height	Eaves	Orient	Area	Туре
Door E(1, 1)	0.92	2.04	0.00	270	1.88	Solid timber door
Wall E 6	7.00	2.70	0.00	0	18.90	Concrete Block to helphbour 0.30
						Bulk Insulation Rd. 0
Wall E 7	3.40	2.70	0.00	90	8.09	Fibro Cavity Ranel 70mm gap 0.30
						Bulk Insulation R1.50
Window	Width	Height	Eaves	Orient	Area	Name Glass Frame
						Opening Covering
						Shaning
Window(7, 1)	1.21	0.90	0.00	90	1.09	GGG 05-001a Single Glazed Clear Aluminium
						45% Spaning Sliding, Two Lites Holland Blind
					(No Shading
Wall E 8	0.60	2.70	0.00	180	1.62	Ribro Cavity Panel 70mm gap 0.30
					\wedge	Bulk Insulation R1.50
Wall E 9	1.00	2.70	0.00	90	210	Ribro Cavity Panel 70mm gap 0.30
					\sim	Bulk Insulation R1.50
Wall E 10	4.00	2.70	0.00	180	5.16	Fibro Cavity Panel 70mm gap 0.30
tation direct	1.1.2 Jack	The Same	Device	$\langle \hat{c} \rangle$	\bigcirc	Bulk Insulation R1.50
Window	width	Height	Eaves	orient	Area	Name Glass Frame
				\sim	>	Opening Covering Shading
Window(10, 1)	2.40	2.10	0.00	LEO A	5.04	GGG-05-001a Single Glazed Clear Aluminium
(111don (10), 1)	2.10	2.20	\sim		4.41	45% Opening Sliding, Two Lites Holland Blind
				\sim		No Shading
Wall E 11	0.70	2,70	0.00	90	1.89	Fibro Cavity Panel 70mm gap 0.30
			\frown	~		Bulk Insulation R1.50
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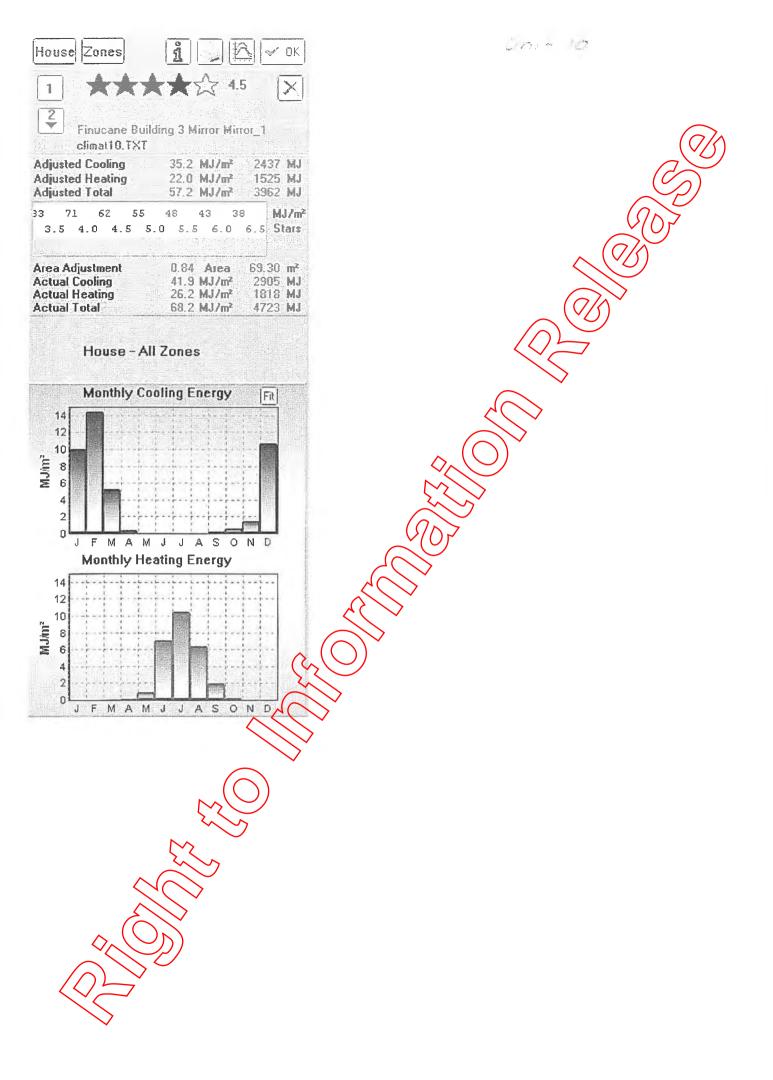


Project Finucane Building 3 Mirror Run 2 ALEXANDRA HILLS PC 4161 Lat -27.50 Long 153.20 Climate File climat10.TXT Summary Conditioned Area 69.3 m² Unconditioned Area 10.1 m² Total Floor Area 79.4 m² Total Glazed Area 10.1 m² Total External Solid door Area 1.9 m² 12.8 % Glass to Floor Area 113.4 m² Gross External Wall Area Net External Wall Area 101.4 m² Window 10.1 m² GGG-05-001a Generics Uval 6.57 SHGC 0.74 Glass Single Glazed Clear Frame Aluminium External Wall 72.2 m² Fibro Cavity Panel 70mm gap Bulk Insulation R 1.5 29.2 m² Concrete Block to neighbour Bulk Insulation R 0.0 Internal Wall 52.6 m² Cavity Panel 70mm gap No Insulation External Floor 31.7 m² Timber Floor, Unit Below Carpet 10mm No Insulation 47.7 m² Timber Floor, Unit Below Ceramic Tiles 8mm No Insulation External Ceiling 79.4 m² Plasterboard No Insulation No roofspace cavity Roof (Horizontal area) 79.4 m² Corrugated Iron Bulk, Reflective Side Down, And glade Up R 1.5 7° slope Skillion roof

D - (
Details	Cleaning Aver	T T	
Zone 1 Bed 1	Sleeping Area o		l waste Doumlights Ex Espa Coilin fans
Air Movement Screens No		-	ll vents Downlights Ex Fans Ceilin fans
	Yes 1		
External Floor		Area 17.05	Covering Type Carpet 10mm Timber Floor, Unit Below No Jospilation
Cailing	Clone	Area	
Ceiling	Slope	Area	Type Above Ceiling
	0	17 05	Above celling Plasterboard No Insulation
	0	17.05	
2		6]	No roofspace cavity
Roof	Slope	Shape	Type Solar Abs
			Insulation
	7 5	Skillion	Corrugated Iron 0.30
			Bulk, Reflective Side Down, Anti-glare Up R1.50
Partition Wall Length	-	AdjZ Area	Type Cavity Panel 70mm gap No Insulation
Wall P 4 4.90		2 13.23	
Wall P 5 2.70 Door Int Width		4 5.41 Adiz Area	Cavity Panel 70mm gap No Insulation
	Height 2.04	AdjZ Area 4 1.88	Type Hollow core door
Door I (5, 1) 0.92			
External Wall Length	Height Laves	Orient Area	Type Abs
		0 3.41	~
Wall E 1 1.80	2.70 0.70	0 3.41	Fibro Cavity Panel 78mm gap 0.30 Bulk Insulation 61.58
Minday, Middah	theight Deepe	Orient Area	Name Class Frame
Window Width	Height Eaves	Orient Area	
			Opening Covering
	1 00 0 70	0 1 45	Shading
Window(1, 1) 1.21	1.20 0.70	0 1.45	GGG-05-091a Single Glazed Clear Aluminium
			45% Opening Sliding, Two Lites Holland Blind
			No Shading
Wall E 2 0.60	2.70 2.50	270 1.62	Fibro Cavity Panel 70mm gap 0.30
			Bull Instlation R1.50
Wall E 3 1.90	2.70 0.10	0 5.13	Fibro Carity Panel 70mm gap 0.30
	0 70 4 50	180 2.15	Bulk Insulation R1.50 Fibro Cavity Panel 70mm gap 0.30
Wall E 6 1.00	2.70 4.50	180 2.15	Bulk Insulation R1.50
	The label manage		
Window Width	Height Eaves	Orient Area	
			Spening Covering
Window(6,1) 0.61	0.90 4.50	180 0 55	Shading GGG-05-001a Single Glazed Clear Aluminium
Window(6, 1) 0.61	0.90 4.50		45% Opening Sliding, Two Lites Holland Blind
		(\bigcirc)	No Shading
Wall E 7 4.30	2.70 0.70	270 11.50	Fibro Cavity Panel 70mm gap 0.30
Wall & / 4.50	2.70 0.70		Bulk Insulation R1.50
Window Width	Height Eaves	Orient Area	Name Glass Frame
William Wilden		office Afer	Opening Covering
		\sim	Shading
Window(7, 1) 0.18	0.60 0.70	270 0.11	GGG-05-001a Single Glazed Clear Aluminium
Willdow (7, 1) 0.10	0.00 0.70	V 2/0 0.11	45% Opening Sliding, Two Lites Holland Blind
			No Shading
	(())		NO BIRGING
Zone 2 Bed 2	Sleeping brea	Level 1	
Air Movement Screens	Seals Chimne		ll vents Downlights Ex Fans Ceilin fans
No		No No	
External Floor	<u>~</u>	Area	Covering Type
External Front	\sim	14.63	Carpet 10mm Timber Floor, Unit Below No Insulation
Ceiling	Slope	Area	Type
		AI GU	Above Ceiling
\sim	> 0	14.63	Plasterboard No Insulation
	, in the second s	14.05	No roofspace cavity
Roof N. (ON	Slope	Shape	Type Solar Abs
	arobe	anabe	Insulation
\sim	7 5	Skillion	Corrugated Iron 0.30
$\langle \cap \rangle_{-}$	/	SVILLION	Corrugated from 0.30 Bulk, Reflective Side Down, Anti-glare Up R1.50
Data in the second	Veight	Ndig Noor	
Partition Wall Length Wall P 5 1.80	-	AdjZ Area 4 4.86	Type Cavity Panel 70mm gap No Insulation
Wall P 5 1.80	2.10	4 4.00	cratel caner thun Aab the TIPETECTON
5. C			

Wall P 6	0.80	2.70		4	2.16	Cavity Panel 70mm gap No Insulation
Wall P 7	1.70	2.70		4	2.71	Cavity Panel 70mm gap No Insulation
Door Int	Width	Height		AdjZ	Area	Туре
Door I(7, 1)	0.92	2.04		4	1.88	Hollow core door
Wall P 8	4.90	2.70		1	13.23	Cavity Panel 70mm gap No Insulation
External Wall	Length	Height	Eaves	Orient	Area	Type Abs Insulation
Wall E 1	1.70	2.70	0.10	0	4.59	Fibro Cavity Panel 70mm gap 0.30 Bulk Insulation R1.50
Wall E 2	0.60	2.70	2.40	90	1.62	Fibro Cavity Panel 70mm gap 0.30 Bulk Insulation R1.50
Wall E 3	1.80	2.70	0.70	0	4.31	Fibro Cavity Panel 70mm gap 0.30 Bulk Insulation R1.50
Window	Width	Height	Eaves	Orient	Area	Name Glass Frame Opening Covering
						Shading
Window(3, 1)	0.61	0.90	0.70	0	0.55	GGG-05-001a Single Glazed Clear Aluminium 45% Opening Sliding, Two Lives Holland Blind No Shading
Wall E 4	3.50	2.70	4.90	90	8.72	Fibro Cavity Panel 70mm gap 0.30 Bulk Insulation R1.50
titi - A	122 364		D = =	Outent	2	
Window	WIGCH	Height	Laves	Orient	Area	Opening Covering
						Shading
Window(4, 1)	1.21	0.60	4.90	90	0.73	GGG-05-001a Single Glazed Clear Aluminium
						45% Opening Eliding Two Lites Holland Blind
						No Shading
						$\boxtimes \searrow$
	t Area l			n Level 1		
Air Movement S		Seals	Chimne	-		ll venes powelights Ex Fans Ceilin fans
	No	Yes	N	IO NO		
External Floor					Area	Cover ing Type
Ceiling					10.12	Ceramic Tiles 8mm Timber Floor, Unit Below No Insulation
					Suma /	
0010109		Slope			Area	Type
					2	Above Ceiling
		Slope 0			Area 10 A2	Above Ceiling Riasterboard No Insulation
		0		Shane	2	Above Ceiling Plasterboard No Insulation No roofspace cavity
Roof				Shape	2	Above Ceiling Resterboard No Insulation No roofspace cavity Type Solar Abs
		0 Slope		(2	Above Ceiling Riasterboard No Insulation No roofspace cavity Type Solar Abs Insulation
		0	s	Shape Kilfion	2	Above Ceiling Resterboard No Insulation No roofspace cavity Type Solar Abs Insulation Corrugated Iron 0.30
Roof	Length	0 Slope 7	s	kiltion		Above Ceiling Resterboard No Insulation No roofspace cavity Type Solar Abs Insulation Corrugated Iron 0.30 Bulk, Reflective Side Down, Anti-glare Up R1.50
Roof Partition Wall	-	0 Slope 7 Height	S	(10 12	Above Ceiling Resterboard No Insulation No roofspace cavity Type Solar Abs Insulation Corrugated Iron 0.30 Bulk, Reflective Side Down, Anti-glare Up R1.50 Type
Roof Partition Wall Wall P 1	1.60	0 Slope 7 Height 2.70	s	kiltion	10 12 Area 4.32	Above Ceiling Plasterboard No Insulation No roofspace cavity Type Solar Abs Insulation Corrugated Iron 0.30 Bulk, Reflective Side Down, Anti-glare Up R1.50 Type Cavity Panel 70mm gap No Insulation
Roof Partition Wall Wall P 1 Wall P 2	1.60 0.80	0 Slope 7 Height 2.70 2.70	s	kiltion	10 42 Area 4.32 2.16	Above Ceiling Plasterboard No Insulation No roofspace cavity Type Solar Abs Insulation Corrugated Iron 0.30 Bulk, Reflective Side Down, Anti-glare Up R1.50 Type Cavity Panel 70mm gap No Insulation Cavity Panel 70mm gap No Insulation
Roof Partition Wall Wall P 1 Wall P 2 Wall P 3	1.60 0.80 2.20	0 Slope 7 Height 2.70 2.70 2.70	s	kiltion	10 42 Area 4.32 2.16 4.06	Above Ceiling Plasterboard No Insulation No roofspace cavity Type Solar Abs Insulation Corrugated Iron 0.30 Bulk, Reflective Side Down, Anti-glare Up R1.50 Type Cavity Panel 70mm gap No Insulation Cavity Panel 70mm gap No Insulation Cavity Panel 70mm gap No Insulation
Roof Partition Wall Wall P 1 Wall P 2 Wall P 3 Door Int	1.60 0.80 2.20 Width	0 Slope 7 Height 2.70 2.70 2.70 Height	s	kiltion	10 42 Area 4.32 2.16 4.06 Area	Above Ceiling Plasterboard No Insulation No roofspace cavity Type Solar Abs Insulation Corrugated Iron 0.30 Bulk, Reflective Side Down, Anti-glare Up R1.50 Type Cavity Panel 70mm gap No Insulation Cavity Panel 70mm gap No Insulation Cavity Panel 70mm gap No Insulation Cavity Panel 70mm gap No Insulation Type
Roof Partition Wall Wall P 1 Wall P 2 Wall P 3 Door Int Door I(3, 1)	1.60 0.80 2.20	0 Slope 7 Height 2.70 2.70 2.70	s (kiltion Adjz	10 42 Area 4.32 2.16 4.06	Above Ceiling Plasterboard No Insulation No roofspace cavity Type Solar Abs Insulation Corrugated Iron 0.30 Bulk, Reflective Side Down, Anti-glare Up R1.50 Type Cavity Panel 70mm gap No Insulation Cavity Panel 70mm gap No Insulation Cavity Panel 70mm gap No Insulation
Roof Partition Wall Wall P 1 Wall P 2 Wall P 3 Door Int	1.60 0.80 2.20 Width 0.92 3.00	0 Slope 7 Height 2.70 2.70 2.70 Height 2.04	Eaver	kilaion Aciz 4 Aciz 4	10 42 Area 4.32 2.16 4.06 Area 1.88	Above Ceiling Plasterboard No Insulation No roofspace cavity Type Solar Abs Insulation Corrugated Iron 0.30 Bulk, Reflective Side Down, Anti-glare Up R1.50 Type Cavity Panel 70mm gap No Insulation Cavity Panel 70mm gap No Insulation Cavity Panel 70mm gap No Insulation Type Hollow core door
Roof Partition Wall Wall P 1 Wall P 2 Wall P 3 Door Int Door I(3, 1) Wall P 4	1.60 0.80 2.20 Width 0.92 3.00	0 Slope 7 Height 2.70 2.70 2.70 Height 2.04 2.70		kilaion Aciz 4 Aciz 4 4	10 42 Area 4.32 2.16 4.06 Area 1.88 8.10	Above Ceiling Plasterboard No Insulation No roofspace cavity Type Solar Abs Insulation Corrugated Iron 0.30 Bulk, Reflective Side Down, Anti-glare Up Rl.50 Type Cavity Panel 70mm gap No Insulation Cavity Panel 70mm gap No Insulation Cavity Panel 70mm gap No Insulation Type Hollow core door Cavity Panel 70mm gap No Insulation
Roof Partition Wall Wall P 1 Wall P 2 Wall P 3 Door Int Door I(3, 1) Wall P 4	1.60 0.80 2.20 Width 0.92 3.00	0 Slope 7 Height 2.70 2.70 2.70 Height 2.04 2.70		kilaion Aciz 4 Aciz 4 4	10 42 Area 4.32 2.16 4.06 Area 1.88 8.10	Above Ceiling Plasterboard No Insulation No roofspace cavity Type Solar Abs Insulation Corrugated Iron 0.30 Bulk, Reflective Side Down, Anti-glare Up R1.50 Type Cavity Panel 70mm gap No Insulation Cavity Panel 70mm gap No Insulation Cavity Panel 70mm gap No Insulation Type Hollow core door Cavity Panel 70mm gap No Insulation Type Abs Insulation Concrete Block to neighbour 0.30
Roof Partition Wall Wall P 1 Wall P 2 Wall P 3 Door Int Door I(3, 1) Wall P 4 External Wall	1.60 0.80 2.20 Width 0.92 3.00 Length	0 Slope 7 Height 2.70 2.70 2.70 Height 2.04 2.70 Height	Eaves	kilijon Adjz 4 Adjz 4 Orient	10 42 Area 4.32 2.16 4.06 Area 1.88 8.10 Area	Above Ceiling Plasterboard No Insulation No roofspace cavity Type Solar Abs Insulation Corrugated Iron 0.30 Bulk, Reflective Side Down, Anti-glare Up R1.50 Type Cavity Panel 70mm gap No Insulation Cavity Panel 70mm gap No Insulation Cavity Panel 70mm gap No Insulation Type Hollow core door Cavity Panel 70mm gap No Insulation Type Abs Insulation Concrete Block to neighbour 0.30 Bulk Insulation R0.00 Fibro Cavity Panel 70mm gap 0.30
Roof Partition Wall Wall P 1 Wall P 2 Wall P 3 Door Int Door I(3, 1) Wall P 4 External Wall Wall E 5 Wall E 6	1.60 0.80 2.20 Width 0.92 3.00 Length 3.80 2.20	0 Slope 7 Height 2.70 2.70 2.70 Height 2.04 2.70 Height 2.70	Earer 9.20 0.60	killion Adjz 4 Adjz 4 Orient 150 270	10 42 Area 4.32 2.16 4.06 Area 1.88 8.10 Area 10.26 5.31	Above Ceiling Plasterboard No Insulation No roofspace cavity Type Solar Abs Insulation Corrugated Iron 0.30 Bulk, Reflective Side Down, Anti-glare Up R1.50 Type Cavity Panel 70mm gap No Insulation Cavity Panel 70mm gap No Insulation Cavity Panel 70mm gap No Insulation Type Hollow core door Cavity Panel 70mm gap No Insulation Type Abs Insulation Concrete Block to neighbour 0.30 Bulk Insulation R0.00 Fibro Cavity Panel 70mm gap 0.30 Bulk Insulation R1.50
Roof Partition Wall Wall P 1 Wall P 2 Wall P 3 Door Int Door I(3, 1) Wall P 4 External Wall Wall E 5	1.60 0.80 2.20 Width 0.92 3.00 Length 3.80 2.20	0 Slope 7 Height 2.70 2.70 2.70 Height 2.04 2.70 Height	Earer 9.20 0.60	kilijon Adjz 4 Adjz 4 Orient 180	10 42 Area 4.32 2.16 4.06 Area 1.88 8.10 Area 10.26	Above Ceiling Plasterboard No Insulation No roofspace cavity Type Solar Abs Insulation Corrugated Iron 0.30 Bulk, Reflective Side Down, Anti-glare Up R1.50 Type Cavity Panel 70mm gap No Insulation Cavity Panel 70mm gap No Insulation Cavity Panel 70mm gap No Insulation Type Hollow core door Cavity Panel 70mm gap No Insulation Type Abs Insulation Concrete Block to neighbour 0.30 Bulk Insulation R0.00 Fibro Cavity Panel 70mm gap 0.30 Bulk Insulation R1.50 Name Glass Frame
Roof Partition Wall Wall P 1 Wall P 2 Wall P 3 Door Int Door I(3, 1) Wall P 4 External Wall Wall E 5 Wall E 6	1.60 0.80 2.20 Width 0.92 3.00 Length 3.80 2.20	0 Slope 7 Height 2.70 2.70 2.70 Height 2.04 2.70 Height 2.70	Earer 9.20 0.60	killion Adjz 4 Adjz 4 Orient 150 270	10 42 Area 4.32 2.16 4.06 Area 1.88 8.10 Area 10.26 5.31	Above Ceiling Plasterboard No Insulation No roofspace cavity Type Solar Abs Insulation Corrugated Iron 0.30 Bulk, Reflective Side Down, Anti-glare Up R1.50 Type Cavity Panel 70mm gap No Insulation Cavity Panel 70mm gap No Insulation Cavity Panel 70mm gap No Insulation Type Hollow core door Cavity Panel 70mm gap No Insulation Type Abs Insulation Concrete Block to neighbour 0.30 Bulk Insulation R0.00 Fibro Cavity Panel 70mm gap 0.30 Bulk Insulation R1.50 Name Glass Frame Opening Covering
Roof Partition Wall Wall P 1 Wall P 2 Wall P 3 Door Int Door I(3, 1) Wall P 4 External Wall Wall E 5 Wall E 6 Window	1.60 0.80 2.20 Width 0.92 3.00 Length 3.80 2.20 Width	0 Slope 7 Height 2.70 2.70 Height 2.04 2.70 Height 2.70 Height	Eaves 0.60 Eaves	kiliion Adjz 4 4 Adjz 4 0rient 180 270 Orient	10 42 Area 4.32 2.16 4.06 Area 1.88 8.10 Area 10.26 5.31 Area	Above Ceiling Plasterboard No Insulation No roofspace cavity Type Solar Abs Insulation Corrugated Iron 0.30 Bulk, Reflective Side Down, Anti-glare Up R1.50 Type Cavity Panel 70mm gap No Insulation Cavity Panel 70mm gap No Insulation Cavity Panel 70mm gap No Insulation Type Hollow core door Cavity Panel 70mm gap No Insulation Type Abs Insulation Concrete Block to neighbour 0.30 Bulk Insulation R0.00 Fibro Cavity Panel 70mm gap 0.30 Bulk Insulation R1.50 Name Glass Frame Opening Covering Shading
Roof Partition Wall Wall P 1 Wall P 2 Wall P 3 Door Int Door I(3, 1) Wall P 4 External Wall Wall E 5 Wall E 6	1.60 0.80 2.20 Width 0.92 3.00 Length 3.80 2.20	0 Slope 7 Height 2.70 2.70 2.70 Height 2.04 2.70 Height 2.70	Earer 9.20 0.60	killion Adjz 4 Adjz 4 Orient 150 270	10 42 Area 4.32 2.16 4.06 Area 1.88 8.10 Area 10.26 5.31	Above Ceiling Plasterboard No Insulation No roofspace cavity Type Solar Abs Insulation Corrugated Iron 0.30 Bulk, Reflective Side Down, Anti-glare Up R1.50 Type Cavity Panel 70mm gap No Insulation Cavity Panel 70mm gap No Insulation Cavity Panel 70mm gap No Insulation Type Hollow core door Cavity Panel 70mm gap No Insulation Type Abs Insulation Concrete Block to neighbour 0.30 Bulk Insulation R0.00 Fibro Cavity Panel 70mm gap 0.30 Bulk Insulation R1.50 Name Glass Frame Opening Covering
Roof Partition Wall Wall P 1 Wall P 2 Wall P 3 Door Int Door I(3, 1) Wall P 4 External Wall Wall E 5 Wall E 6 Window	1.60 0.80 2.20 Width 0.92 3.00 Length 3.80 2.20 Width	0 Slope 7 Height 2.70 2.70 Height 2.04 2.70 Height 2.70 Height	Eaves 0.60 Eaves	kiliion Adjz 4 4 Adjz 4 0rient 180 270 Orient	10 42 Area 4.32 2.16 4.06 Area 1.88 8.10 Area 10.26 5.31 Area	Above Ceiling Plasterboard No Insulation No roofspace cavity Type Solar Abs Insulation Corrugated Iron 0.30 Bulk, Reflective Side Down, Anti-glare Up R1.50 Type Cavity Panel 70mm gap No Insulation Cavity Panel 70mm gap No Insulation Cavity Panel 70mm gap No Insulation Type Hollow core door Cavity Panel 70mm gap No Insulation Type Abs Insulation Concrete Block to neighbour 0.30 Bulk Insulation R0.00 Fibro Cavity Panel 70mm gap 0.30 Bulk Insulation R1.50 Name Glass Frame Opening Covering Shading GGG-05-001a Single Glazed Clear Aluminium
Roof Partition Wall Wall P 1 Wall P 2 Wall P 3 Door Int Door I(3, 1) Wall P 4 External Wall Wall E 5 Wall E 6 Window Window(6, 1)	1.60 0.80 2.20 Width 0.92 3.00 Length 3.80 2.20 Width	0 Slope 7 Height 2.70 2.70 Height 2.04 2.70 Height 2.70 Height 2.70	Eaves 0.60 Eaves 0.60	kiliion Adjz 4 4 Adjz 4 0rient 180 270 Orient	10 42 Area 4.32 2.16 4.06 Area 1.88 8.10 Area 10.26 5.31 Area 0.63	Above Ceiling Nasterboard No Insulation No roofspace cavity Type Solar Abs Insulation Corrugated Iron 0.30 Bulk, Reflective Side Down, Anti-glare Up R1.50 Type Cavity Panel 70mm gap No Insulation Cavity Panel 70mm gap No Insulation Cavity Panel 70mm gap No Insulation Type Hollow core door Cavity Panel 70mm gap No Insulation Type Abs Insulation Concrete Block to neighbour 0.30 Bulk Insulation R0.00 Fibro Cavity Panel 70mm gap 0.30 Bulk Insulation R1.50 Name Glass Frame Opening Covering Shading GGG-05-001a Single Glazed Clear Aluminium 45% Opening Sliding, Two Lites Holland Blind No Shading
Roof Partition Wall Wall P 1 Wall P 2 Wall P 3 Door Int Door I(3, 1) Wall P 4 External Wall Wall E 5 Wall E 6 Window Window(6, 1)	1.60 0.80 2.20 Width 0.92 3.00 Length 3.80 2.20 Width	0 Slope 7 Height 2.70 2.70 Height 2.04 2.70 Height 2.70 Height 2.70	Eaves 0.60 Eaves 0.60	kiliion Add 4 4 4 4 4 0rient 180 270 0rient 270 Kitchen F	10 42 Area 4.32 2.16 4.06 Area 1.88 8.10 Area 10.26 5.31 Area 0.63	Above Ceiling Nasterboard No Insulation No roofspace cavity Type Solar Abs Insulation Corrugated Iron 0.30 Bulk, Reflective Side Down, Anti-glare Up R1.50 Type Cavity Panel 70mm gap No Insulation Cavity Panel 70mm gap No Insulation Cavity Panel 70mm gap No Insulation Type Hollow core door Cavity Panel 70mm gap No Insulation Type Abs Insulation Concrete Block to neighbour 0.30 Bulk Insulation R0.00 Fibro Cavity Panel 70mm gap 0.30 Bulk Insulation R1.50 Name Glass Frame Opening Covering Shading GGG-05-001a Single Glazed Clear Aluminium 45% Opening Sliding, Two Lites Holland Blind No Shading
Roof Partition Wall Wall P 1 Wall P 2 Wall P 3 Door Int Door I(3, 1) Wall P 4 External Wall Wall E 5 Wall E 6 Window Window(6, 1) Zone 4	1.60 0.80 2.20 Width 0.92 3.00 Length 3.80 2.20 Width	0 Slope 7 Height 2.70 2.70 2.70 Height 2.04 2.70 Height 2.70 Height 0.90	Eaves 0.60 Living/ Chimne	kiliion Add 4 4 4 4 4 0rient 180 270 0rient 270 Kitchen F	10 42 Area 4.32 2.16 4.06 Area 1.88 8.10 Area 10.26 5.31 Area 0.63	Above Ceiling Nasterboard No Insulation No roofspace cavity Type Solar Abs Insulation Corrugated Iron 0.30 Bulk, Reflective Side Down, Anti-glare Up R1.50 Type Cavity Panel 70mm gap No Insulation Cavity Panel 70mm gap No Insulation Cavity Panel 70mm gap No Insulation Type Hollow core door Cavity Panel 70mm gap No Insulation Type Abs Insulation Concrete Block to neighbour 0.30 Bulk Insulation R0.00 Fibro Cavity Panel 70mm gap 0.30 Bulk Insulation R1.50 Name Glass Frame Opening Covering Shading GGG-05-001a Single Glazed Clear Aluminium 45% Opening Sliding, Two Lites Holland Blind No Shading
Roof Partition Wall Wall P 1 Wall P 2 Wall P 3 Door Int Door I(3, 1) Wall P 4 External Wall Wall E 5 Wall E 6 Window Window(6, 1) Zone 4	1.60 0.80 2.20 Width 0.92 3.00 Length 3.80 2.20 Width 0.70 Vitche creens	0 Slope 7 Height 2.70 2.70 Height 2.04 2.70 Height 2.70 Height 2.70 Height	Eaves 0.60 Living/ Chimne	kiliion Addi 4 4 4 4 4 4 0rient 180 270 0rient 270 Kitchen A cy Gas v	10 42 Area 4.32 2.16 4.06 Area 1.88 8.10 Area 10.26 5.31 Area 0.63	Above Ceiling Nasterboard No Insulation No roofspace cavity Type Solar Abs Insulation Corrugated Iron 0.30 Bulk, Reflective Side Down, Anti-glare Up R1.50 Type Cavity Panel 70mm gap No Insulation Cavity Panel 70mm gap No Insulation Cavity Panel 70mm gap No Insulation Type Hollow core door Cavity Panel 70mm gap No Insulation Type Abs Insulation Concrete Block to neighbour 0.30 Bulk Insulation R0.00 Fibro Cavity Panel 70mm gap 0.30 Bulk Insulation R1.50 Name Glass Frame Opening Covering Shading GGC-05-001a Single Glazed Clear Aluminium 45% Opening Sliding, Two Lites Holland Blind No Shading Level 1 Il vents Downlights Ex Fans Ceilin fans
Roof Partition Wall Wall P 1 Wall P 2 Wall P 3 Door Int Door I(3, 1) Wall P 4 External Wall Wall E 5 Wall E 6 Window Window(6, 1) Zone 4 Air Movement	1.60 0.80 2.20 Width 0.92 3.00 Length 3.80 2.20 Width 0.70 Vitche creens	0 Slope 7 Height 2.70 2.70 Height 2.04 2.70 Height 2.70 Height 2.70 Height	Eaves 0.60 Living/ Chimne	kiliion Addi 4 4 4 4 4 4 0rient 180 270 0rient 270 Kitchen A cy Gas v	10 42 Area 4.32 2.16 4.06 Area 1.88 8.10 Area 10.26 5.31 Area 0.63	Above Ceiling Nasterboard No Insulation No roofspace cavity Type Solar Abs Insulation Corrugated Iron 0.30 Bulk, Reflective Side Down, Anti-glare Up R1.50 Type Cavity Panel 70mm gap No Insulation Cavity Panel 70mm gap No Insulation Cavity Panel 70mm gap No Insulation Type Hollow core door Cavity Panel 70mm gap No Insulation Type Abs Insulation Concrete Block to neighbour 0.30 Bulk Insulation R0.00 Fibro Cavity Panel 70mm gap 0.30 Bulk Insulation R1.50 Name Glass Frame Opening Covering Shading GGG-05-001a Single Glazed Clear Aluminium 45% Opening Sliding, Two Lites Holland Blind No Shading Level 1 11 vents Downlights Ex Fans Ceilin fans 0 0 0 No

Cailing	C]	37.62	Ceramic Tiles 8mm Timber Floor, Unit Below No Insulation
Ceiling	Slope	Area	Type Above Ceiling
	0	37.62	Plasterboard No Insulation
			No roofspace cavity
Roof	Slope Sha	lpe	Type Solar Abs
	7 Skilli	07	Insulation Corrugated Iron 0.30
	/ SKIIII	.011	Bulk, Reflective Side Down, Anti-glare Up RL.50
Partition Wall Length	Height Ad	ljZ Area	Type
Wall P 1 2.70	2.70	1 5.41	Cavity Panel 70mm gap No Insulation
		ljZ Area	Туре
Door I(1, 1) 0.92 Wall P 2 1.70		1 1.88 2 2.71	Hollow core door Cavity Fanel 70mm gap No Insulation
		jz Area	Cavity Fanel 70mm gap No Insulation Type
Door I(2, 1) 0.92	-	2 1.88	Hollow core door
Wall P 3 0.80	2.70	2 2.16	Cavity Panel 70mm gap No Insulation
Wall P 4 1.80		2 4.86	Cavity Panel 70mm gap No Insulation
Wall P 11 3.00		3 8.10	Cavity Panel 70mm gap No Insulation
Wall P 12 2.20 Door Int Width		3 4.06	Cavity Panel 70mm gap No Insulation
Door Int width Door I $(12, 1)$ 0.92	*	jZ Area 3 1.88	Type V Hollow core door
Wall P 13 0.80		3 2.16	Cavity Panel 70m gap No Insulation
Wall P 14 1.60		3 4.32	Cavity Panel 70mm gap No Insulation
External Wall Length	Height Eaves Orie	nt Area	Type
			Insulation
Wall E 5 0.70	2.70 4.90	90 1.89	Fibro Cavity Panel 70mm gap 0.30
Wall E 6 4.00	2.70 3.60	0 5.76	Bulk Insulation R1.50 Fibre Cavity Panel 70mm gap 0.30
WALLE 0 4.00	2.70 5.80	0 5.76	Bulk insulation R1.50
Window Width	Height Eaves Orie	nt Area	Name Glass Frame
			Opening Covering
			Shading
Window(6, 1) 2.40	2.10 3.60	0 5.04	GGG-05-001a Single Glazed Clear Aluminium
		72	454 Opening Sliding, Two Lites Holland Blind No Shading
Wall E 7 1.00	2.70 0.90	90 2.70	Fibro Cavity Panel 70mm gap 0.30
			Bulk Insulation R1.50
Wall E 8 0.60	2.70 4.60	9 1.02	Fibro Cavity Panel 70mm gap 0.30
	\wedge	(())	Bulk Insulation R1.50
Wall E 9 3.40	2.70 0.30	90 8 09	Fibro Cavity Panel 70mm gap 0.30
Window Width	Height Eaves Orie	in Area	Bulk Insulation R1.50 Name Glass Frame
11244010 112444	neight buves one	Al Cu	Opening Covering
	\land	\checkmark	Shading
Window(9, 1) 1.21	0.90 0.30	90 1.09	GGG-05-001a Single Glazed Clear Aluminium
	\sim		45% Opening Sliding, Two Lites Holland Blind
			No Shading
Wall E 10 7.00	2.70 0.20 1	80 18.90	Concrete Block to neighbour 0.30 Bulk Insulation R0.00
Wall E 15 2.10	2.00 2.60 2	70 3.79	Fibro Cavity Panel 70mm gap 0.30
	2 m		Bulk Insulation R1.50
Door Ext Width	Height Eaves Orie	nt Area	Туре
Door E(15, 1) 0.92	2.04 2.60 2	70 1.88	Solid timber door
	\sim		
$\langle \langle \rangle$	\sim		
	/		
D. UN)		
	/		
\land			
\sim			
\sim			



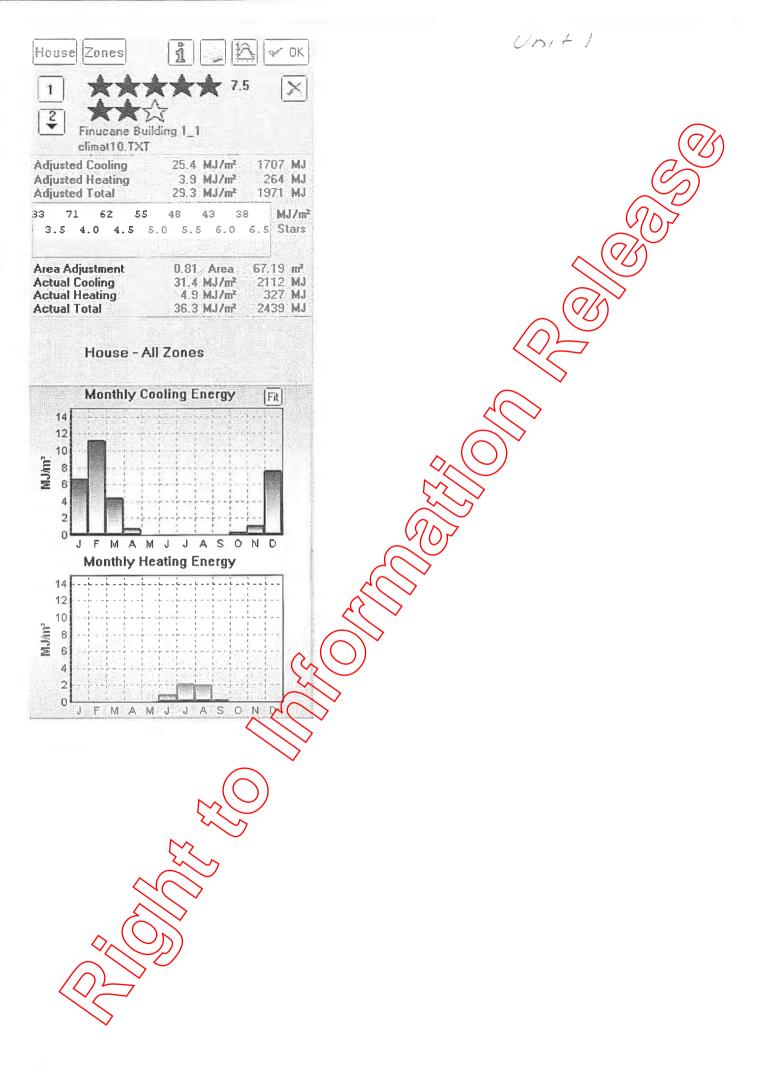
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Project Finucane Building 3 Mirror Mirror Run 1 ALEXANDRA HILLS PC 4161 Lat -27.50 Long 153.20 Climate File climat10.TXT Summary Conditioned Area 69.3 m² Unconditioned Area 10.1 m² Total Floor Area 79.4 m² Total Glazed Area 10.1 m² Total External Solid door Area 1.9 m² Glass to Floor Area 12.8 % Gross External Wall Area 113.4 m² Net External Wall Area 101.4 m² Window 10.1 m² GGG-05-001a Generics Uval 6.57 SHGC 0.74 Glass Single Glazed Clear Frame Aluminium External Wall 72.2 m² Fibro Cavity Panel 70mm gap Bulk Insulation R 1.5 29.2 m² Concrete Block to neighbour Bulk Insulation R 0.0 Internal Wall 52.6 m² Cavity Panel 70mm gap No Insulation External Floor 31.7 m² Timber Floor, Unit Below Carpet 10mm No Insulation 47.7 m² Timber Floor, Unit Below Ceramic Tiles 8mm No Insulation External Ceiling 79.4 m² Plasterboard No Insulation No roofspace cavity Roof (Horizontal area) Anti-glare Up R 1.5 7° slope Skillion roof 79.4 m² Corrugated Iron Bulk, Reflective Side Down

Details			
Zone 1 Bed 1	Sleeping Area	on Level 1	
Air Movement Screens	Seals Chimn	ey Gas vent Wa	ll vents Downlights Ex Fans Ceilin fans
No	Yes	No No	
External Floor		Area	Covering Type
		17.05	Carpet 10mm Timber Floor, Unit Below No Insulation
Ceiling	Slope	Area	Type
	0	10.00	Above Ceiling
	0	17.05	
Roof	Slope	Shape	No roofspace cavity Type Solar Abs
ROOT	probe	Shape	Insulation
	7	Skillion	Corrugated Iron 0.30
			Bulk, Reflective Side Down, Anti-glare Up R1.50
Partition Wall Length	Height	AdjZ Area	Туре
Wall P 3 2.70	2.70	4 5.41	Cavity Panel 70mm gap No Insuration
Door Int Width	Height	AdjZ Area	Туре
Door I(3, 1) 0.92	2.04	4 1.88	Hollow core door
Wall P 4 4.90	2.70	2 13.23	Cavity Panel 70mm gap No Insulation
External Wall Length	Height Eaves	Orient Area	Type Abs
			Insulation
Wall E 1 4.30	2.70 0.70	270 11.50	Fibro Cavity Panel 70mm gap 0.30
Window Width	Height Eaves	Orient Area	Bulk Insulation R1 50 Name Class Frame
WINDOW WIGCH	Reight Laves	Orient Area	Name Chass Frame Opening Sovering
			Shading (Covering
Window(1, 1) 0.18	0.60 0.70	270 0.11	GGG-05-001a Single Glazed Clear Aluminium
			45% Opening Sliding, Two Lites Holland Blind
			No Shading
Wall E 2 1.00	2.70 4.50	0 2,15	Fibro Cavity Panel 70mm gap 0.30
			Bulk Insulation R1.50
Window Width	Height Eaves	Orient Area	Name Glass Frame
			Opening Covering
		(Shading
Window(2, 1) 0.61	0.90 4.50	0 0.54	GGG-05-001a Single Glazed Clear Aluminium
			5% Opening Sliding, Two Lites Holland Blind
Wall E 5 1.90	2.70 0.10	180 5.13	No Shading Fibro Cavity Panel 70mm gap 0.30
	2.70 0.20		Bulk Insulation R1.50
Wall E 6 0.60	2.70 2.50	270 (1)62	Fibro Cavity Panel 70mm gap 0.30
		(\mathcal{S})	Bulk Insulation R1.50
Wall E 7 1.80	2.70 0.70	280 3.41	Fibro Cavity Panel 70mm gap 0.30
		\sim	Bulk Insulation R1.50
Window Width	Height Eaves	rient Area	Name Glass Frame
	$\langle \rangle$	\sim	Opening Covering
		\sim	Shading
Window(7,1) 1.21	1.20 0.70	180 1.45	GGG-05-001a Single Glazed Clear Aluminium
			45% Opening Sliding, Two Lites Holland Blind
	(())		No Shading
Zone 2 Bed 2	Sleeping Area	on Level 1	
Air Movement Screens	Seals himn		ll vents Downlights Ex Fans Ceilin fans
No	\sim	No No	
External Floor	\sim	Area	Covering Type
	\sim	14.63	Carpet 10mm Timber Floor, Unit Below No Insulation
Ceiling	Slope	Area	Туре
	\sim		Above Ceiling
\sum	> 0	14.63	Plasterboard No Insulation
(\bigcap)			No roofspace cavity
Roof	Slope	Shape	Type Solar Abs
	_		Insulation
$(\cap) = \bigvee$	7	Skillion	Corrugated Iron 0.30
	Upicht	14-17	Bulk, Reflective Side Down, Anti-glare Up R1.50
Partition Wall Length Wall P 1 4.90	2.70	AdjZ Area 1 13.23	Type Cavity Panel 70mm gap No Insulation
		T T3'53	carry rance comm gap no insuración

Wall P 2	1.70	2.70		4	2.71	Cavity Panel 70mm gap No Insulation
Door Int	Width	Height		AdjZ	Area	Туре
Door I(2, 1)		2.04		4	1.88	Hollow core door
Wall P 3	0.80	2.70		4	2.16	Cavity Panel 70mm gap No Insulation
Wall P 4	1.80	2.70		4	4.86	Cavity Panel 70mm gap No Insulation
External Wall	Length	Height	Eaves	Orient	Area	Type Abs Insulation
Wall E 5	3.50	2.70	4.90	90	8.72	Fibro Cavity Panel 70mm gap 0.30
						Bulk Insulation R1.50
Window	Width	Height	Eaves	Orient	Area	Name Glass Frame
						Opening Covering
						Shading
Mindau/ E 1)	1 0 1	0 60	4 00		0 77	-
Window(5, 1)	1.21	0.60	4.90	90	0.73	GGG-05-00la Single Glazed Clear Alurinium
						45% Opening Sliding, Two Lites Holland Blind
						No Shading
Wall E 6	1.80	2,70	0.70	180	4.31	Fibro Cavity Panel 70mm gap
						Bulk Insulation R1.50
***	111 244	** - 1 - 1- 1-		0		
Window	width	Height	Eaves	Orient	Area	Name Glass Frame
						Opening Covering
						Shading
Window(6, 1)	0.61	0.90	0,70	180	0.55	GGG-05-001a Single Glazed Clear Aluminium
						45% Opening Sliding, Two Lites Holland Blind
						No Shading
Wall E 7	0.60	2.70	2.40	90	1.62	Fibro Cavity Papel 70mm gap 0.30
						Bulk Insulation R1 50
Wall E 8	1.70	2.70	0.10	180	4.59	Fibro Cavity Panel 70mm gap 0.30
						Bulk Insulation RI.50
						BULK INVIOLATION NATION
Zone 3 We	et Area 1	. Wei	t Area o	n Level 1		$\nabla \langle \nabla \rangle$
Air Movement	Screens	Seals	Chimne	y Gas ve	ent Wal	ll vents Downlights Ex Fans Ceilin fans
	No	Yes	N	lo No		0 0 No
External Floor	r				Area	Covering, Type
					10.12	Ceramic Tiles 8mm Timber Floor, Unit Below No Insulation
Colling		Clone			1	
Ceiling		Slope			Area	Type
Ceiling		-			Area	Type Above Ceiling
Ceiling		Slope 0			1	Type
Ceiling		-			Area	Type Above Ceiling
Ceiling Roof		0		Shape	Area	Type Above Ceiling Plasterboard No Insulation No roofspace cavity
-		-		Shape	Area	Type Above Ceiling Plasterboard No Insulation No roofspace cavity Type Solar Abs
-		0 Slope	~	6	Area	Type Above Ceiling Plasterboard No Insulation No roofspace cavity Type Solar Abs Insulation
-		0	S	Shape -	Area	Type Above Ceiling Plasterboard No Insulation No roofspace cavity Type Solar Abs Insulation Corrugated Iron 0.30
-		0 Slope	s	killion	Area	Type Above Ceiling Plasterboard No Insulation No roofspace cavity Type Solar Abs Insulation
-	l Length	0 Slope 7	S	6	Area	Type Above Ceiling Plasterboard No Insulation No roofspace cavity Type Solar Abs Insulation Corrugated Iron 0.30
Roof	l Length 3.00	0 Slope 7	S	killion	Area	Type Above Ceiling Plasterboard No Insulation No roofspace cavity Type Solar Abs Insulation Corrugated Iron 0.30 Bulk, Reflective Side Down, Anti-glare Up R1.50
Roof Partition Wall Wall P 3	3.00	0 Slope 7 Height, 2.70	s	killion	Area 10(12) Area 8.10	Type Above Ceiling Plasterboard No Insulation No roofspace cavity Type Solar Abs Insulation Corrugated Iron 0.30 Bulk, Reflective Side Down, Anti-glare Up R1.50 Type Cavity Panel 70mm gap No Insulation
Roof Partition Wall Wall P 3 Wall P 4	3.00	0 Slope 7 Height, 2.70 2.70	s	killion Adjz	Area 10(12) Area 8.10 4.06	Type Above Ceiling Plasterboard No Insulation No roofspace cavity Type Solar Abs Insulation Corrugated Iron 0.30 Bulk, Reflective Side Down, Anti-glare Up R1.50 Type Cavity Panel 70mm gap No Insulation Cavity Panel 70mm gap No Insulation
Roof Partition Wall Wall P 3 Wall P 4 Door Int	3.00 2.20 Width	0 Slope 7 Height, 2.70 2.70 Height	s	killion	Area 10 (12) Area 8.10 4.06 Area	Type Above Ceiling Plasterboard No Insulation No roofspace cavity Type Solar Abs Insulation Corrugated Iron 0.30 Bulk, Reflective Side Down, Anti-glare Up R1.50 Type Cavity Panel 70mm gap No Insulation Cavity Panel 70mm gap No Insulation Type
Roof Partition Wall Wall P 3 Wall P 4 Door Int Door I(4, 1)	3.00 2.20 Width 0.92	0 Slope 7 Height, 2.70 2.70 Height 2.04	s	killion Adjz	Area 10112 Area 8.10 4.06 Area 1.88	Type Above Ceiling Plasterboard No Insulation No roofspace cavity Type Solar Abs Insulation Corrugated Iron 0.30 Bulk, Reflective Side Down, Anti-glare Up R1.50 Type Cavity Panel 70mm gap No Insulation Cavity Panel 70mm gap No Insulation Type Hollow core door
Roof Partition Wall Wall P 3 Wall P 4 Door Int	3.00 2.20 Width	0 Slope 7 Height, 2.70 2.70 Height	s	killion Adjz	Area 10 (12) Area 8.10 4.06 Area	Type Above Ceiling Plasterboard No Insulation No roofspace cavity Type Solar Abs Insulation Corrugated Iron 0.30 Bulk, Reflective Side Down, Anti-glare Up R1.50 Type Cavity Panel 70mm gap No Insulation Cavity Panel 70mm gap No Insulation Type Hollow core door Cavity Panel 70mm gap No Insulation
Roof Partition Wall Wall P 3 Wall P 4 Door Int Door I(4, 1)	3.00 2.20 Width 0.92	0 Slope 7 Height, 2.70 2.70 Height 2.04	s A	killion Adjz	Area 10112 Area 8.10 4.06 Area 1.88	Type Above Ceiling Plasterboard No Insulation No roofspace cavity Type Solar Abs Insulation Corrugated Iron 0.30 Bulk, Reflective Side Down, Anti-glare Up R1.50 Type Cavity Panel 70mm gap No Insulation Cavity Panel 70mm gap No Insulation Type Hollow core door
Roof Partition Wall Wall P 3 Wall P 4 Door Int Door I(4, 1) Wall P 5	3.00 2.20 Width 0.92 0.80 1.60	0 Slope 7 Height, 2.70 2.70 Height 2.04 2.70	Eaves	killion Adjz Adjz 4 Adjz 4	Area 10112 Area 8.10 4.06 Area 1.88 2.16	Type Above Ceiling Plasterboard No Insulation No roofspace cavity Type Solar Abs Insulation Corrugated Iron 0.30 Bulk, Reflective Side Down, Anti-glare Up R1.50 Type Cavity Panel 70mm gap No Insulation Cavity Panel 70mm gap No Insulation Type Hollow core door Cavity Panel 70mm gap No Insulation
Roof Partition Wall Wall P 3 Wall P 4 Door Int Door I(4, 1) Wall P 5 Wall P 6	3.00 2.20 Width 0.92 0.80 1.60	0 Slope 7 Height, 2.70 2.70 Height 2.04 2.70 2.70		killion Adjz Adjz 4 Adjz 4 4 4 4 4	Area 10112 Area 8.10 4.06 Area 1.88 2.16 4.32	Type Above Ceiling Plasterboard No Insulation No roofspace cavity Type Solar Abs Insulation Corrugated Iron 0.30 Bulk, Reflective Side Down, Anti-glare Up R1.50 Type Cavity Panel 70mm gap No Insulation Cavity Panel 70mm gap No Insulation Type Hollow core door Cavity Panel 70mm gap No Insulation Cavity Panel 70mm gap No Insulation Cavity Panel 70mm gap No Insulation Cavity Panel 70mm gap No Insulation Type Abs
Roof Partition Wall Wall P 3 Wall P 4 Door Int Door I(4, 1) Wall P 5 Wall P 6 External Wall	3.00 2.20 Width 0.92 0.80 1.60 Length	0 Slope 7 Height, 2.70 2.70 Height 2.04 2.70 2.70 Height	Eatres	killion Adjz Adjz 4 Adjz 4 4 4 4 0rient	Area 10112 Area 8.10 4.06 Area 1.88 2.16 4.32 Area	Type Above Ceiling Plasterboard No Insulation No roofspace cavity Type Solar Abs Insulation Corrugated Iron 0.30 Bulk, Reflective Side Down, Anti-glare Up R1.50 Type Cavity Panel 70mm gap No Insulation Cavity Panel 70mm gap No Insulation Type Hollow core door Cavity Panel 70mm gap No Insulation Cavity Panel 70mm gap No Insulation Cavity Panel 70mm gap No Insulation Cavity Panel 70mm gap No Insulation Type Abs Insulation
Roof Partition Wall Wall P 3 Wall P 4 Door Int Door I(4, 1) Wall P 5 Wall P 6	3.00 2.20 Width 0.92 0.80 1.60	0 Slope 7 Height, 2.70 2.70 Height 2.04 2.70 2.70		killion Adjz Adjz 4 Adjz 4 4 4 4 4	Area 10112 Area 8.10 4.06 Area 1.88 2.16 4.32	Type Above Ceiling Plasterboard No Insulation No roofspace cavity Type Solar Abs Insulation Corrugated Iron 0.30 Bulk, Reflective Side Down, Anti-glare Up R1.50 Type Cavity Panel 70mm gap No Insulation Cavity Panel 70mm gap No Insulation Type Hollow core door Cavity Panel 70mm gap No Insulation Cavity Panel 70mm gap No Insulation Cavity Panel 70mm gap No Insulation Type Abs Insulation Fibro Cavity Panel 70mm gap 0.30
Roof Partition Wall Wall P 3 Wall P 4 Door Int Door I(4, 1) Wall P 5 Wall P 6 External Wall Wall E 1	3.00 2.20 Width 0.92 0.80 1.60 Length 2.20	0 Slope 7 Height, 2.70 2.70 Height 2.04 2.70 2.70 Height	Eaves 0 60	killion Adjz Adjz 4 Adjz 4 4 0rient 270	Area 1012 Area 8.10 4.06 Area 1.88 2.16 4.32 Area 5.31	Type Above Ceiling Plasterboard No Insulation No roofspace cavity Type Solar Abs Insulation Corrugated Iron 0.30 Bulk, Reflective Side Down, Anti-glare Up R1.50 Type Cavity Panel 70mm gap No Insulation Cavity Panel 70mm gap No Insulation Type Hollow core door Cavity Panel 70mm gap No Insulation Cavity Panel 70mm gap No Insulation Cavity Panel 70mm gap No Insulation Type Abs Insulation Fibro Cavity Panel 70mm gap 0.30 Bulk Insulation R1.50
Roof Partition Wall Wall P 3 Wall P 4 Door Int Door I(4, 1) Wall P 5 Wall P 6 External Wall	3.00 2.20 Width 0.92 0.80 1.60 Length 2.20	0 Slope 7 Height, 2.70 2.70 Height 2.04 2.70 2.70 Height	Eatres	killion Adjz Adjz 4 Adjz 4 4 4 4 0rient	Area 10112 Area 8.10 4.06 Area 1.88 2.16 4.32 Area	Type Above Ceiling Plasterboard No Insulation No roofspace cavity Type Solar Abs Insulation Corrugated Iron 0.30 Bulk, Reflective Side Down, Anti-glare Up R1.50 Type Cavity Panel 70mm gap No Insulation Cavity Panel 70mm gap No Insulation Type Hollow core door Cavity Panel 70mm gap No Insulation Cavity Panel 70mm gap No Insulation Cavity Panel 70mm gap No Insulation Type Abs Insulation Fibro Cavity Panel 70mm gap 0.30
Roof Partition Wall Wall P 3 Wall P 4 Door Int Door I(4, 1) Wall P 5 Wall P 6 External Wall Wall E 1	3.00 2.20 Width 0.92 0.80 1.60 Length 2.20	0 Slope 7 Height, 2.70 2.70 Height 2.04 2.70 2.70 Height	Eaves 0 60	killion Adjz Adjz 4 Adjz 4 4 0rient 270	Area 1012 Area 8.10 4.06 Area 1.88 2.16 4.32 Area 5.31	Type Above Ceiling Plasterboard No Insulation No roofspace cavity Type Solar Abs Insulation Corrugated Iron 0.30 Bulk, Reflective Side Down, Anti-glare Up R1.50 Type Cavity Panel 70mm gap No Insulation Cavity Panel 70mm gap No Insulation Type Hollow core door Cavity Panel 70mm gap No Insulation Cavity Panel 70mm gap No Insulation Cavity Panel 70mm gap No Insulation Type Abs Insulation Fibro Cavity Panel 70mm gap 0.30 Bulk Insulation R1.50
Roof Partition Wall Wall P 3 Wall P 4 Door Int Door I(4, 1) Wall P 5 Wall P 6 External Wall Wall E 1	3.00 2.20 Width 0.92 0.80 1.60 Length 2.20	0 Slope 7 Height, 2.70 2.70 Height 2.04 2.70 2.70 Height	Eaves 0 60	killion Adjz Adjz 4 Adjz 4 4 0rient 270	Area 1012 Area 8.10 4.06 Area 1.88 2.16 4.32 Area 5.31	Type Above Ceiling Plasterboard No Insulation No roofspace cavity Type Solar Abs Insulation Corrugated Iron 0.30 Bulk, Reflective Side Down, Anti-glare Up R1.50 Type Cavity Panel 70mm gap No Insulation Cavity Panel 70mm gap No Insulation Type Hollow core door Cavity Panel 70mm gap No Insulation Cavity Panel 70mm gap No Insulation Cavity Panel 70mm gap No Insulation Cavity Panel 70mm gap No Insulation Type Abs Insulation Fibro Cavity Panel 70mm gap 0.30 Bulk Insulation R1.50 Name Glass Frame Opening Covering
Roof Partition Wall Wall P 3 Wall P 4 Door Int Door I(4, 1) Wall P 5 Wall P 6 External Wall Wall E 1 Window	3.00 2.20 Width 0.92 0.80 1.60 Length 2.20	0 Slope 7 Height. 2.70 2.70 Height 2.70 2.70 Height 12.50 Height	Eaves 0 60 Deaves	killion Adjz 4 Adjž 4 4 Orient 270 Orient	Area 10 12 Area 8.10 4.06 Area 1.88 2.16 4.32 Area 5.31 Area	Type Nove Ceiling Plasterboard No Insulation No roofspace cavity Type Solar Abs Insulation Corrugated Iron 0.30 Bulk, Reflective Side Down, Anti-glare Up R1.50 Type Cavity Panel 70mm gap No Insulation Cavity Panel 70mm gap No Insulation Type Hollow core door Cavity Panel 70mm gap No Insulation Cavity Panel 70mm gap No Insulation Cavity Panel 70mm gap No Insulation Type Abs Insulation Fibro Cavity Panel 70mm gap 0.30 Bulk Insulation R1.50 Name Glass Frame Opening Covering Shading
Roof Partition Wall Wall P 3 Wall P 4 Door Int Door I(4, 1) Wall P 5 Wall P 6 External Wall Wall E 1	3.00 2.20 Width 0.92 0.80 1.60 Length 2.20	0 Slope 7 Height, 2.70 2.70 Height 2.04 2.70 2.70 Height	Eaves 0 60	killion Adjz Adjz 4 Adjz 4 4 0rient 270	Area 1012 Area 8.10 4.06 Area 1.88 2.16 4.32 Area 5.31	Type Nove Ceiling Plasterboard No Insulation No roofspace cavity Type Solar Abs Insulation Corrugated Iron 0.30 Bulk, Reflective Side Down, Anti-glare Up R1.50 Type Cavity Panel 70mm gap No Insulation Cavity Panel 70mm gap No Insulation Type Hollow core door Cavity Panel 70mm gap No Insulation Cavity Panel 70mm gap No Insulation Cavity Panel 70mm gap No Insulation Type Abs Insulation Fibro Cavity Panel 70mm gap 0.30 Bulk Insulation R1.50 Name Glass Frame Opening Covering Shading GGG-05-001a Single Glazed Clear Aluminium
Roof Partition Wall Wall P 3 Wall P 4 Door Int Door I(4, 1) Wall P 5 Wall P 6 External Wall Wall E 1 Window	3.00 2.20 Width 0.92 0.80 1.60 Length 2.20	0 Slope 7 Height. 2.70 2.70 Height 2.70 2.70 Height 12.50 Height	Eaves 0 60 Deaves	killion Adjz 4 Adjž 4 4 Orient 270 Orient	Area 10 12 Area 8.10 4.06 Area 1.88 2.16 4.32 Area 5.31 Area	Type Above Ceiling Plasterboard No Insulation No roofspace cavity Type Solar Abs Insulation Corrugated Iron 0.30 Bulk, Reflective Side Down, Anti-glare Up R1.50 Type Cavity Panel 70mm gap No Insulation Cavity Panel 70mm gap No Insulation Type Hollow core door Cavity Panel 70mm gap No Insulation Cavity Panel 70mm gap No Insulation Cavity Panel 70mm gap No Insulation Type Abs Insulation Fibro Cavity Panel 70mm gap 0.30 Bulk Insulation R1.50 Name Glass Frame Opening Covering Shading GGG-05-001a Single Glazed Clear Aluminium 45% Opening Sliding, Two Lites Holland Blind
Roof Partition Wall Wall P 3 Wall P 4 Door Int Door I(4, 1) Wall P 5 Wall P 6 External Wall Wall E 1 Window	3.00 2.20 Width 0.92 0.80 1.60 Length 2.20	0 Slope 7 Height, 2.70 2.70 Height 2.70 2.70 Height 8.50 Height	Eaves 0 60 Deaves	killion Adjz 4 Adjž 4 4 Orient 270 Orient	Area 10 12 Area 8.10 4.06 Area 1.88 2.16 4.32 Area 5.31 Area	Type Nove Ceiling Plasterboard No Insulation No roofspace cavity Type Solar Abs Insulation Corrugated Iron 0.30 Bulk, Reflective Side Down, Anti-glare Up R1.50 Type Cavity Panel 70mm gap No Insulation Cavity Panel 70mm gap No Insulation Type Hollow core door Cavity Panel 70mm gap No Insulation Cavity Panel 70mm gap No Insulation Cavity Panel 70mm gap No Insulation Cavity Panel 70mm gap No Insulation Type Abs Insulation Fibro Cavity Panel 70mm gap 0.30 Bulk Insulation R1.50 Name Glass Frame Opening Covering Shading GGG-05-001a Single Glazed Clear Aluminium
Roof Partition Wall Wall P 3 Wall P 4 Door Int Door I(4, 1) Wall P 5 Wall P 6 External Wall Wall E 1 Window	3.00 2.20 Width 0.92 0.80 1.60 Length 2.20	0 Slope 7 Height. 2.70 2.70 Height 2.70 2.70 Height 12.50 Height	Eaves 0 60 Deaves	killion Adjz 4 Adjž 4 4 Orient 270 Orient	Area 10 12 Area 8.10 4.06 Area 1.88 2.16 4.32 Area 5.31 Area	Type Above Ceiling Plasterboard No Insulation No roofspace cavity Type Solar Abs Insulation Corrugated Iron 0.30 Bulk, Reflective Side Down, Anti-glare Up R1.50 Type Cavity Panel 70mm gap No Insulation Cavity Panel 70mm gap No Insulation Type Hollow core door Cavity Panel 70mm gap No Insulation Cavity Panel 70mm gap No Insulation Cavity Panel 70mm gap No Insulation Type Abs Insulation Fibro Cavity Panel 70mm gap 0.30 Bulk Insulation R1.50 Name Glass Frame Opening Covering Shading GGG-05-001a Single Glazed Clear Aluminium 45% Opening Sliding, Two Lites Holland Blind
Roof Partition Wall Wall P 3 Wall P 4 Door Int Door I(4, 1) Wall P 5 Wall P 6 External Wall Wall E 1 Window Window(1, 1)	3.00 2.20 Width 0.92 0.80 1.60 Length 2.20	0 Slope 7 Height, 2.70 2.70 Height 2.70 2.70 Height 8.50 Height	Eaves 0 60 DEaves 0.60	killion Adyz 4 Adyz 4 4 Adyz 4 4 4 Orient 270 Orient 270	Area 10112 Area 8.10 4.06 Area 1.88 2.16 4.32 Area 5.31 Area 0.63	Type Hove Ceiling Plasterboard No Insulation No roofspace cavity Type Solar Abs Insulation Corrugated Iron 0.30 Bulk, Reflective Side Down, Anti-glare Up R1.50 Type Cavity Panel 70mm gap No Insulation Cavity Panel 70mm gap No Insulation Cavity Panel 70mm gap No Insulation Type Hollow core door Cavity Panel 70mm gap No Insulation Cavity Panel 70mm gap No Insulation Cavity Panel 70mm gap No Insulation Type Abs Insulation Fibro Cavity Panel 70mm gap 0.30 Bulk Insulation R1.50 Name Glass Frame Opening Covering Shading GGG-05-001a Single Glazed Clear Aluminium 45% Opening Sliding, Two Lites Holland Blind No Shading Concrete Block to neighbour 0.30
Roof Partition Wall Wall P 3 Wall P 4 Door Int Door I(4, 1) Wall P 5 Wall P 6 External Wall Wall E 1 Window Window(1, 1)	3.00 2.20 Width 0.92 0.80 1.60 Length 2.20	0 Slope 7 Height, 2.70 2.70 Height 2.70 2.70 Height 8.50 Height	Eaves 0 60 DEaves 0.60	killion Adyz 4 Adyz 4 4 Adyz 4 4 4 Orient 270 Orient 270	Area 10112 Area 8.10 4.06 Area 1.88 2.16 4.32 Area 5.31 Area 0.63	Type Nove Ceiling Plasterboard No Insulation No roofspace cavity Type Solar Abs Insulation Corrugated Iron 0.30 Bulk, Reflective Side Down, Anti-glare Up R1.50 Type Cavity Panel 70mm gap No Insulation Cavity Panel 70mm gap No Insulation Type Hollow core door Cavity Panel 70mm gap No Insulation Cavity Panel 70mm gap No Insulation Cavity Panel 70mm gap No Insulation Type Abs Insulation Fibro Cavity Panel 70mm gap 0.30 Bulk Insulation R1.50 Name Glass Frame Opening Covering Shading GGG-05-001a Single Glazed Clear Aluminium 45% Opening Sliding, Two Lites Holland Blind No Shading
Roof Partition Wall Wall P 3 Wall P 4 Door Int Door I(4, 1) Wall P 5 Wall P 6 External Wall Wall E 1 Window Window(1, 1) Wall E 2	3.00 2.20 Width 0.92 0.80 1.60 Length 2.20 Width 3.80	0 Slope 7 Height, 2.70 2.70 Height 2.04 2.70 2.70 Height 8.30 Height 0.90 2.70	Eaves 0 60 DEaves 0.60 0.20	killion Adjz 4 Adjz 4 4 Adjz 4 4 4 0rient 270 Orient 270 0	Area 10 12 Area 8.10 4.06 Area 1.88 2.16 4.32 Area 5.31 Area 0.63 10.26	Type Above Ceiling Plesterboard No Insulation No roofspace cavity Type Solar Abs Insulation Corrugated Iron 0.30 Bulk, Reflective Side Down, Anti-glare Up R1.50 Type Cavity Panel 70mm gap No Insulation Cavity Panel 70mm gap No Insulation Type Abs Insulation Fibro Cavity Panel 70mm gap 0.30 Bulk Insulation R1.50 Name Glass Frame Opening Covering Shading GGG-05-001a Single Glazed Clear Aluminium 45% Opening Sliding, Two Lites Holland Blind No Shading Concrete Block to neighbour 0.30 Bulk Insulation R0.00
Roof Partition Wall Wall P 3 Wall P 4 Door Int Door I(4, 1) Wall P 5 Wall P 6 External Wall Wall E 1 Window Window(1, 1) Wall E 2 Zone Li	3.00 2.20 Width 0.92 0.80 1.60 Length 2.20 Width 3.80	0 Slope 7 Height, 2.70 2.70 Height 2.70 2.70 Height 8.50 Height 0.90 2.70	Eaves 0.60 0.20 Living/	killion Adjz 4 Adjz 4 4 Adjz 4 4 4 0rient 270 0rient 270 0 Kitchen An	Area 10 12 Area 8.10 4.06 Area 1.88 2.16 4.32 Area 5.31 Area 0.63 10.26 rea on L	Type Above Ceiling Plesterboard No Insulation To roofspace cavity Type Solar Abs Insulation Corrugated Iron 0.30 Bulk, Reflective Side Down, Anti-glare Up R1.50 Type Cavity Panel 70mm gap No Insulation Cavity Panel 70mm gap No Insulation Type Abs Insulation Fibro Cavity Panel 70mm gap 0.30 Bulk Insulation R1.50 Name Glass Frame Opening Covering Shading GGG-05-001a Single Glazed Clear Aluminium 45% Opening Sliding, Two Lites Holland Blind No Shading Concrete Block to neighbour 0.30 Bulk Insulation R0.00
Roof Partition Wall Wall P 3 Wall P 4 Door Int Door I(4, 1) Wall P 5 Wall P 6 External Wall Wall E 1 Window Window(1, 1) Wall E 2	3.00 2.20 Width 0.92 0.80 1.60 Length 2.20 Width 3.80	0 Slope 7 Height, 2.70 2.70 Height 2.04 2.70 2.70 Height 8.30 Height 0.90 2.70	Eaves 0 60 DEaves 0.60 0.20	killion Adjz 4 Adjz 4 4 Adjz 4 4 4 0rient 270 0rient 270 0 Kitchen An	Area 10 12 Area 8.10 4.06 Area 1.88 2.16 4.32 Area 5.31 Area 0.63 10.26 rea on L	Type Above Ceiling Plesterboard No Insulation No roofspace cavity Type Solar Abs Insulation Corrugated Iron 0.30 Bulk, Reflective Side Down, Anti-glare Up R1.50 Type Cavity Panel 70mm gap No Insulation Cavity Panel 70mm gap No Insulation Type Abs Insulation Fibro Cavity Panel 70mm gap 0.30 Bulk Insulation R1.50 Name Glass Frame Opening Covering Shading GGG-05-001a Single Glazed Clear Aluminium 45% Opening Sliding, Two Lites Holland Blind No Shading Concrete Block to neighbour 0.30 Bulk Insulation R0.00
Roof Partition Wall Wall P 3 Wall P 4 Door Int Door I(4, 1) Wall P 5 Wall P 6 External Wall Wall E 1 Window Window(1, 1) Wall E 2 Zone Li	3.00 2.20 Width 0.92 0.80 1.60 Length 2.20 Width 3.80	0 Slope 7 Height, 2.70 2.70 Height 2.04 2.70 2.70 Height 8.50 Height 0.90 2.70	Eaves 0.60 0.20 Living/ Chimne	killion Adjz 4 Adjz 4 4 Adjz 4 4 4 0rient 270 0rient 270 0 Kitchen An	Area 10 12 Area 8.10 4.06 Area 1.88 2.16 4.32 Area 5.31 Area 0.63 10.26 rea on L	Type Above Ceiling Plesterboard No Insulation To roofspace cavity Type Solar Abs Insulation Corrugated Iron 0.30 Bulk, Reflective Side Down, Anti-glare Up R1.50 Type Cavity Panel 70mm gap No Insulation Cavity Panel 70mm gap No Insulation Type Abs Insulation Fibro Cavity Panel 70mm gap 0.30 Bulk Insulation R1.50 Name Glass Frame Opening Covering Shading GGG-05-001a Single Glazed Clear Aluminium 45% Opening Sliding, Two Lites Holland Blind No Shading Concrete Block to neighbour 0.30 Bulk Insulation R0.00
Roof Partition Wall Wall P 3 Wall P 4 Door Int Door I(4, 1) Wall P 5 Wall P 6 External Wall Wall E 1 Window Window(1, 1) Wall E 2 Zone Li	3.00 2.20 Width 0.92 0.80 1.60 Length 2.20 Width 3.80 3.80 1.Kstene Screens No	0 Slope 7 Height. 2.70 2.70 Height 2.04 2.70 2.70 Height 8.50 Height 0.90 2.70	Eaves 0.60 0.20 Living/ Chimne	Adjz Adjz Adjz 4 Adjz 4 4 4 4 0rient 270 0rient 270 0 Kitchen Ar y Gas ve	Area 10 12 Area 8.10 4.06 Area 1.88 2.16 4.32 Area 5.31 Area 0.63 10.26 rea on L	Type Above Ceiling Plasterboard No Insulation No roofspace cavity Type Solar Abs Insulation Corrugated Iron 0.30 Bulk, Reflective Side Down, Anti-glare Up R1.50 Type Cavity Panel 70mm gap No Insulation Cavity Panel 70mm gap No Insulation Type Abs Insulation Fibro Cavity Panel 70mm gap 0.30 Bulk Insulation R1.50 Name Glass Frame Opening Covering Shading GGG-05-001a Single Glazed Clear Aluminium 45% Opening Sliding, Two Lites Holland Blind No Shading Concrete Block to neighbour 0.30 Bulk Insulation R0.00 evel 1 L vents Downlights Ex Fans Ceilin fans
Roof Partition Wall Wall P 3 Wall P 4 Door Int Door I(4, 1) Wall P 5 Wall P 6 External Wall Wall E 1 Window Window(1, 1) Wall E 2 Zone 4 Air Movement	3.00 2.20 Width 0.92 0.80 1.60 Length 2.20 Width 3.80 3.80 1.Kstene Screens No	0 Slope 7 Height. 2.70 2.70 Height 2.04 2.70 2.70 Height 8.50 Height 0.90 2.70	Eaves 0.60 0.20 Living/ Chimne	Adjz Adjz Adjz 4 Adjz 4 4 4 4 0rient 270 0rient 270 0 Kitchen Ar y Gas ve	Area 1012 Area 8.10 4.06 Area 1.88 2.16 4.32 Area 5.31 Area 0.63 10.26 rea on L ent Wal	Type Above Ceiling Plasterboard No Insulation No roofspace cavity Type Solar Abs Insulation Corrugated Iron 0.30 Bulk, Reflective Side Down, Anti-glare Up R1.50 Type Cavity Panel 70mm gap No Insulation Cavity Panel 70mm gap No Insulation Type Abs Insulation Fibro Cavity Panel 70mm gap 0.30 Bulk Insulation R1.50 Name Glass Frame Opening Covering Shading GGG-05-001a Single Glazed Clear Aluminium 45% Opening Sliding, Two Lites Holland Blind No Shading Concrete Block to neighbour 0.30 Bulk Insulation R0.00 evel 1 Li vents Downlights Ex Fans Ceilin fans 0 0 0 No
Roof Partition Wall Wall P 3 Wall P 4 Door Int Door I(4, 1) Wall P 5 Wall P 6 External Wall Wall E 1 Window Window(1, 1) Wall E 2 Zone 4 Air Movement	3.00 2.20 Width 0.92 0.80 1.60 Length 2.20 Width 3.80 3.80 1.Kstene Screens No	0 Slope 7 Height. 2.70 2.70 Height 2.04 2.70 2.70 Height 8.50 Height 0.90 2.70	Eaves 0.60 0.20 Living/ Chimne	Adjz Adjz Adjz 4 Adjz 4 4 4 4 0rient 270 0rient 270 0 Kitchen Ar y Gas ve	Area 1012 Area 8.10 4.06 Area 1.88 2.16 4.32 Area 5.31 Area 0.63 10.26 rea on L ent Wal	Type Above Ceiling Plasterboard No Insulation No roofspace cavity Type Solar Abs Insulation Corrugated Iron 0.30 Bulk, Reflective Side Down, Anti-glare Up R1.50 Type Cavity Panel 70mm gap No Insulation Cavity Panel 70mm gap No Insulation Type Abs Insulation Fibro Cavity Panel 70mm gap 0.30 Bulk Insulation R1.50 Name Glass Frame Opening Covering Shading GGG-05-001a Single Glazed Clear Aluminium 45% Opening Sliding, Two Lites Holland Blind No Shading Concrete Block to neighbour 0.30 Bulk Insulation R0.00 evel 1 Li vents Downlights Ex Fans Ceilin fans 0 0 0 No

Ceiling		Slope			37.62 Area	Ceramic Tiles 8mm Timber Floor, Unit Below No Insulation Type
		0			37,62	Above Ceiling Plasterboard No Insulation No roofspace cavity
Roof		Slope		Shape		Type Solar Abs Insulation
		7	5	Skillion		Corrugated Iron 0.30 Bulk, Reflective Side Down, Anti-glare Up R1.50
Partition Wall Wall P 2	Length 1.60	Height 2.70		AdjZ 3	Area 4.32	Type Cavity Panel 70mm gap No Insulation
Wall P 3	0.80	2.70		3	2.16	Cavity Panel 70mm gap No Insulation
Wall P 4	2.20	2.70		3	4.06	Cavity Panel 70mm gap No Insulation
Door Int		Height		AdjZ	Area	Туре
Door I(4, 1)	0.92	2.04		3	1.88	Hollow core door
Wall P 5	3.00	2.70		3	8.10	Cavity Panel 70mm gap No Insularion
Wall P 12	1.80	2.70		2	4.86	Cavity Panel 70mm gap No Insulation
Wall P 13	0.80	2.70		2	2.16	Cavity Fanel 70mm gap No Insulation
Wall P 14 Door Int	1.70 Width	2.70 Height		2 AdjZ	2.71 Area	Cavity Panel 70mm gap No insula tion Type
Door I(14, 1)	0.92	2.04		AU J 2	1.88	Hollow core door
Wall P 15	2.70	2.70		1	5.41	Cavity Panel 70mm gap No Insulation
Door Int		Height		AdjZ	Area	Type
Door I(15, 1)	0.92	2.04		1	1.88	Hollow core door
External Wall			Eaves	Orient	Area	Type
Wall E 1	2.10	2.70	2.60	270	3.79	Insulation Fibro Cavity Panel 70mm gap 0.30
						Bulk Insulation R1.50
Door Ext	Width	Height	Eaves	Orient	Area	Type
Door E(1, 1)	0.92	2.04	2.60	270	1.88	Solid simber door
Wall E 6	7.00	2.70	0.20	0	18.90	Concrete Block to neighbour 0.30 Bulk Insulation R0.00
Wall E 7	3.40	2.70	0.30	90	8.09	Fibro Cavity Panel 70mm gap 0.30 Bulk Insulation R1.50
Window	Width	Height	Eaves	Orient	Area	Name Glass Frame Opening Covering
					20	Skading
Window(7, 1)	1.21	0.90	0.30	90	1.09	GGG-05-001a Single Glazed Clear Aluminium
				(($ 1^{\prime}$	45% Opening Sliding, Two Lites Holland Blind
	0.00	2 70	4 60	Call	\mathcal{I}	No Shading
Wall E 8	0.60	2.70	4.60	(1/8/2)	1.02	Fibro Cavity Panel 70mm gap 0.30
Wall E 9	1.00	2.70	0.90		2.70	Bulk Insulation R1.50 Fibro Cavity Panel 70mm gap 0.30
			~ ($\langle \bigcirc \rangle$		Bulk Insulation R1.50
Wall E 10	4.00	2.70	\$.60		5.76	Fibro Cavity Panel 70mm gap 0.30 Bulk Insulation R1.50
Window	Width	Height	Eaves	Orient	Area	Name Glass Frame
			\frown			Opening Covering
		(\bigcirc			Shading
Window(10, 1)	2.40	2.10	3 60	180	5.04	GGG-05-001a Single Glazed Clear Aluminium
		-53	\smile			45% Opening Sliding, Two Lites Holland Blind
57-11 m 22	0.70	2.70	24.90	0.0	1 00	No Shading Fibro Cavity Panel 70mm gap 0.30
Wall E 11	0.14	$\checkmark^{2.70}$	4.90	90	1.89	Fibro Cavity Panel 70mm gap 0.30 Bulk Insulation R1.50
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Project Finucane Building 1 Run 1 ALEXANDRA HILLS PC 4161 Lat -27.50 Long 153.20 Climate File climat10.TXT Summary Conditioned Area 67.2 m² Unconditioned Area 10.2 m² Total Floor Area 77.4 m² Total Glazed Area 15.8 m² Total External Solid door Area 1.9 m² Glass to Floor Area 20.4 % Gross External Wall Area 102.6 m² Net External Wall Area 85.0 m² Window 15.8 m² GGG-05-001a Generics Uval 6.57 SHGC 0.74 Glass Single Glazed Clear Frame Aluminium External Wall 85.0 m² Fibro Cavity Panel 70mm gap Bulk Insulation R 1.5 Internal Wall 57.2 m² Cavity Panel 70mm gap No Insulation External Floor 29.3 m² Concrete Slab on Ground Carpet 10mm No Insulation 48.0 m² Concrete Slab on Ground Ceramic Tiles 8mm No Insulation External Ceiling 77.4 m² Plasterboard No Insulation Apartment above Roof (Horizontal area) 77.4 m² Corrugated Iron Bulk, Reflective Side Down, Articlare Up R 1.5 7° slope Skillion roof

Details				
Zone 1 Bed 2	Sleeping A	rea on Level 1		
Air Movement Screens				l vents Downlights Ex Fans Ceilin fans
All Movement Screens		NO NO		
External Floor	160	110 210	Area	Covering Type
EACCINER 11001			12.64	Carpet 10mm Concrete Slab on Ground No Insulation
Ceiling	Slope		Area	Type
Cetting	BIODE		ML CO	Above Ceiling
	0		12.64	Plasterboard No Insulation
	0		12.04	Another apartment
Roof	Clone	Shape		Type Solar Abs
ROOL	Slope	Suape		Insulation
	7	Skillion		Corrugated Iron 0.30
	'	SKIIIION		Bulk, Reflective Side Down, Anti glare Up R1.50
Partition Wall Length	Height	AdjZ	Area	Type
Wall P 2 4.20	2.70	4 AU	11.34	Cavity Panel 70mm gap No Insulation
Wall P 2 4.20 Wall P 3 1.60	2.70	4	2.44	Cavity Panel 70mm gap No Insulation
	Height	AdjZ	Area	Type
Door I(3, 1) 0.92	-	4 AC	1.88	Hollow core door
Wall P 4 0.50		4	1.35	Cavity Panel 70mm gap No Insulation
		4	4.32	Cavity Panel 70mm gap No Insulation
Wall P 5 1.60			4.52 Area	
External Wall Length	Height Es	aves Orient	Area	Type Abs Insulation
W-33 P 3 000	0.70	0.00 270	6.83	Fibro Cavity Panel 70mm gap 0.30
Wall E 1 3.20	2.70 (0.00 270	0.03	Bulk Insulation R1.50
Window Width	Height Ea	aves Orient	Area	
				Opening Covering
			1 03	Shading GGG-06,001a, Single Glazed Clear Aluminium
Window(1, 1) 1.51	1.20 0	0.00 270	1.81	
				45% Opening Sliding, Two Lites Holland Blind
				No shading
Wall E 6 3.70	2.70 (0.00 180	9.99	Fibro Pavity Panel 70mm gap 0.30
			لم ا	Bulk Insulation R1.50
			20	$\mathbf{X}^{\mathbf{v}}$
Zone 2 Bed 1		rea on Level l		, vents Downlights Ex Fans Ceilin fans
Air Movement Screens	Seals Cl	himney Gas v	rent Nai	N Vents Downlights Ex Fans Cellin Lans
			ACN	
No	Yes	No No	$\langle \langle \rangle$	🗸 0 0 мо
No External Floor		No No	ACN	0 0 No Covering Type
External Floor	Yes	No No	$\langle \langle \rangle$	0 0 No Covering Type Carpet 10mm Concrete Slab on Ground No Insulation
		No No	$\langle \langle \rangle$	0 0 No Covering Type Carpet 10mm Concrete Slab on Ground No Insulation Type
External Floor	Yes Slope	No NO	Axea 16.70 Arrea	0 0 No Covering Type Carpet 10mm Concrete Slab on Ground No Insulation Type Above Ceiling
External Floor	Yes	No No	$\langle \langle \rangle$	0 0 No Covering Type Carpet 10mm Concrete Slab on Ground No Insulation Type Above Ceiling Plasterboard No Insulation
External Floor Ceiling	Yes Slope O	Contraction of the second seco	Axea 16.70 Arrea	0 0 0 No Covering Type Carpet 10mm Concrete Slab on Ground No Insulation Type Above Ceiling Plasterboard No Insulation Another apartment
External Floor	Yes Slope	No No	Axea 16.70 Arrea	0 0 0 No Covering Type Carpet 10mm Concrete Slab on Ground No Insulation Type Above Ceiling Plasterboard No Insulation Another apartment Type Solar Abs
External Floor Ceiling	Yes Slope O Slope	Shage	Axea 16.70 Arrea	0 0 0 No Covering Type Carpet 10mm Concrete Slab on Ground No Insulation Type Above Ceiling Plasterboard No Insulation Another apartment Type Solar Abs Insulation
External Floor Ceiling	Yes Slope O	Contraction of the second seco	Axea 16.70 Arrea	0 0 0 No Covering Type Carpet 10mm Concrete Slab on Ground No Insulation Type Above Ceiling Plasterboard No Insulation Another apartment Type Solar Abs Insulation Corrugated Iron 0.30
External Floor Ceiling Roof	Yes Slope 0 Slope 7	Shage	Axea 16 70 Area 16.70	O O O NO Covering Type Carpet 10mm Concrete Slab on Ground No Insulation Type Above Ceiling Plasterboard No Insulation Another apartment Type Solar Abs Insulation Corrugated Iron 0.30 Bulk, Reflective Side Down, Anti-glare Up R1.50
External Floor Ceiling Roof Partition Wall Length	Yes Slope 0 Slope 7 Height	Shage Skillion AdjZ	Area 6 70 Area 16.70	O O O NO Covering Type Carpet 10mm Concrete Slab on Ground No Insulation Type Above Ceiling Plasterboard No Insulation Another apartment Type Solar Abs Insulation Corrugated Iron 0.30 Bulk, Reflective Side Down, Anti-glare Up R1.50 Type
External Floor Ceiling Roof Partition Wall Length Wall P 1 2.20	Yes Slope 0 Slope 7 Height 2.70	Shage Skillion Adjz 4	Area 16.70 16.70 Area 5.94	O O O NO Covering Type Carpet 10mm Concrete Slab on Ground No Insulation Type Above Ceiling Plasterboard No Insulation Another apartment Type Solar Abs Insulation Corrugated Iron 0.30 Bulk, Reflective Side Down, Anti-glare Up Rl.50 Type Cavity Panel 70mm gap No Insulation
External Floor Ceiling Roof Partition Wall Length Wall P 1 2.20 Wall P 5 1.20	Yes Slope 0 Slope 7 Height	Shage Skillion Adjz 4 3	Area 16.70 Area 16.70 Area 5.94 3.24	Covering Type Carpet 10mm Concrete Slab on Ground No Insulation Type Above Ceiling Plasterboard No Insulation Another apartment Type Solar Abs Insulation Corrugated Iron 0.30 Bulk, Reflective Side Down, Anti-glare Up Rl.50 Type Cavity Panel 70mm gap No Insulation Cavity Panel 70mm gap No Insulation
External Floor Ceiling Roof Partition Wall Length Wall P 1 2.20 Wall P 5 1.20 Wall P 6 1.30	Yes Slope 0 Slope 7 Height 2.70	Shape Shape Skillion Adjz 4 3 4	Area 16.70 Area 16.70 Area 5.94 3.24 3.51	Covering Type Carpet 10mm Concrete Slab on Ground No Insulation Type Above Ceiling Plasterboard No Insulation Another apartment Type Solar Abs Insulation Corrugated Iron 0.30 Bulk, Reflective Side Down, Anti-glare Up Rl.50 Type Cavity Panel 70mm gap No Insulation Cavity Panel 70mm gap No Insulation Cavity Panel 70mm gap No Insulation
External Floor Ceiling Roof Partition Wall Length Wall P 1 2.20 Wall P 5 1.20 Wall P 6 1.30 Wall P 7 0.60	Yes Slope 0 Slope 7 Height 2.70 2.70 2.70 2.70	Shape Skillion Adjz 4 3 4 4	Area 16.70 Area 16.70 Area 5.94 3.24 3.51 1.62	000NoCoveringTypeCarpet 10mmConcrete Slab on Ground No InsulationTypeAbove CeilingPlasterboardNo InsulationAnother apartmentTypeSolar AbsInsulationCorrugated Iron 0.30Bulk, Reflective Side Down, Anti-glare Up Rl.50TypeCavity Panel 70mm gapNo InsulationCavity Panel 70mm gapNo Insulation
External Floor Ceiling Roof Partition Wall Length Wall P 1 2.20 Wall P 5 1.20 Wall P 6 1.30 Wall P 7 0.60 Wall P 8 1.	Yes Slope 0 Slope 7 Height 2.70 2.70 2.70 2.70	Shape Skillion Adjz 4 3 4 4 4 4	Area 16.70 Area 16.70 Area 5.94 3.24 3.51 1.62 1.63	000NoCoveringTypeCarpet 10mmConcrete Slab on Ground No InsulationTypeAbove CeilingPlasterboardNo InsulationAnother apartmentTypeSolar AbsInsulationCorrugated Iron 0.30Bulk, Reflective Side Down, Anti-glare Up Rl.50TypeCavity Panel 70mm gapNo InsulationCavity Panel 70mm gapNo Insulation
External Floor Ceiling Roof Partition Wall Length Wall P 1 2.20 Wall P 5 1.20 Wall P 6 1.30 Wall P 7 0.60 Wall P 8 1.18 Door Int Widte	Yes Slope 0 Slope 7 Height 2.70 2.70 2.70 2.70 Height	Shape Skillion Adjz 4 3 4 4 4 4 4 4 4 2 2	Area 16.70 Area 16.70 Area 5.94 3.24 3.51 1.62 1.63 Area	000NoCoveringTypeCarpet 10mmConcrete Slab on Ground No InsulationTypeAbove CeilingPlasterboardNo InsulationAnother apartmentTypeSolar AbsInsulationCorrugated Iron 0.30Bulk, Reflective Side Down, Anti-glare Up Rl.50TypeCavity Panel 70mm gapNo InsulationCavity Panel 70mm gapNo Insulation
External Floor Ceiling Roof Partition Wall Length Wall P 1 2.20 Wall P 5 1.20 Wall P 6 1.30 Wall P 7 0.60 Wall P 8 1.10 Door Int Width Door I (8, 1)	Yes Slope 0 Slope 7 Height 2.70 2.70 2.70 Height 2.04	shape skillion Adjz 4 3 4 4 4 4 4 4 4 2 4 2 4	Area 16.70 Area 16.70 Area 5.94 3.24 3.51 1.62 1.63 Area 1.88	Covering Type Carpet 10mm Concrete Slab on Ground No Insulation Type Above Ceiling Plasterboard No Insulation Another apartment Type Solar Abs Insulation Corrugated Iron 0.30 Bulk, Reflective Side Down, Anti-glare Up Rl.50 Type Cavity Panel 70mm gap No Insulation Cavity Panel 70mm gap No Insulation
External Floor Ceiling Roof Partition Wall Length Wall P 1 2.20 Wall P 5 1.20 Wall P 6 1.30 Wall P 7 0.60 Wall P 8 1.18 Door Int Widte	Yes Slope 0 Slope 7 Height 2.70 2.70 2.70 Height 2.04	Shape Skillion Adjz 4 3 4 4 4 4 4 4 4 2 2	Area 16.70 Area 16.70 Area 5.94 3.24 3.51 1.62 1.63 Area	000NoCoveringTypeCarpet lommConcrete Slab on Ground No InsulationTypeAbove CeilingPlasterboardNo InsulationAnother apartmentTypeSolar AbsInsulationCorrugated Iron 0.30Bulk, Reflective Side Down, Anti-glare Up Rl.50TypeCavity Panel 70mm gap No InsulationCavity Panel 70mm gap No InsulationTypeHollow core doorTypeAbs
External Floor Ceiling Roof Partition Wall Length Wall P 1 2.20 Wall P 5 1.20 Wall P 6 1.30 Wall P 7 0.60 Wall P 8 1.10 Door Int Width Door I (8, 1) 0.92 External Wall Length	Yes Slope 0 Slope 7 Height 2.70 2.70 2.70 2.70 2.70 2.70 Height 2.04 Height Ea	Shape Skillion AdjZ 4 3 4 4 4 4 AdjZ 4 aves Orient	Area 16.70 Area 16.70 Area 5.94 3.24 3.51 1.62 1.63 Area 1.88 Area	000NoCoveringTypeCarpet lommConcreteSlab on Ground No InsulationTypeAbove CeilingPlasterboardNo InsulationAnother apartmentTypeSolar AbsInsulationCorrugated Iron 0.30Bulk, Reflective Side Down, Anti-glare Up Rl.50TypeCavity Panel 70mm gapNo InsulationCavity Panel 70mm gapNo InsulationTypeAbsInsulation
External Floor Ceiling Roof Partition Wall Length Wall P 1 2.20 Wall P 5 1.20 Wall P 6 1.30 Wall P 7 0.60 Wall P 8 1.10 Door Int Width Door I (8, 1)	Yes Slope 0 Slope 7 Height 2.70 2.70 2.70 2.70 2.70 2.70 Height 2.04 Height Ea	shape skillion Adjz 4 3 4 4 4 4 4 4 4 2 4 2 4	Area 16.70 Area 16.70 Area 5.94 3.24 3.51 1.62 1.63 Area 1.88	000NoCoveringTypeCarpet lommConcrete Slab on Ground No InsulationTypeAbove CeilingPlasterboardNo InsulationAnother apartmentTypeSolar AbsInsulationCorrugated Iron 0.30Bulk, Reflective Side Down, Anti-glare Up Rl.50TypeCavity Panel 70mm gap No InsulationCavity Panel 70mm gap No InsulationTypeHollow core doorTypeAbsInsulationFibro Cavity Panel 70mm gap 0.30
External Floor Ceiling Roof Partition Wall Length Wall P 1 2.20 Wall P 5 1.20 Wall P 6 1.30 Wall P 7 0.60 Wall P 8 1.10 Door Int Width Door I (8, 1) 0.92 External Wall Length Wall E 2 1.50	Yes Slope 0 Slope 7 Height 2.70 2.70 2.70 2.70 2.70 Height 2.70 Height E 2.70	Shape Skillion Adjz 4 3 4 4 4 4 Adjz 4 aves Orient 0.00 270	Area 16.70 Area 16.70 Area 5.94 3.24 3.51 1.62 1.63 Area 1.88 Area 3.77	000NoCoveringTypeCarpet 10mmConcrete Slab on Ground No InsulationTypeAbove CeilingPlasterboardNo InsulationAnother apartmentTypeSolar AbsInsulationCorrugated Iron 0.30Bulk, Reflective Side Down, Anti-glare Up Rl.50TypeCavity Panel 70mm gap No InsulationCavity Panel 70mm gap No InsulationTypeHollow core doorTypeAbsInsulationFibro Cavity Panel 70mm gap 0.30Bulk Insulation R1.50
External Floor Ceiling Roof Partition Wall Length Wall P 1 2.20 Wall P 5 1.20 Wall P 6 1.30 Wall P 7 0.60 Wall P 8 1.10 Door Int Width Door I (8, 1) 0.92 External Wall Length	Yes Slope 0 Slope 7 Height 2.70 2.70 2.70 2.70 Peight 2.70 Height E 2.70	Shape Skillion AdjZ 4 3 4 4 4 4 AdjZ 4 aves Orient	Area 16.70 Area 16.70 Area 5.94 3.24 3.51 1.62 1.63 Area 1.88 Area	000NoCoveringTypeCarpet 10mmConcrete Slab on Ground No InsulationTypeAbove CeilingPlasterboardNo InsulationAnother apartmentTypeSolar AbsInsulationCorrugated Iron 0.30Bulk, Reflective Side Down, Anti-glare Up Rl.50TypeCavity Panel 70mm gapNo InsulationCavity Panel 70mm gapNo InsulationFypeAbsInsulationFibro Cavity Panel 70mm gapFibro Cavity Panel 70mm gap0.30Bulk Insulation R1.50NameNameGlassFrame
External Floor Ceiling Roof Partition Wall Length Wall P 1 2.20 Wall P 5 1.20 Wall P 6 1.30 Wall P 7 0.60 Wall P 8 1.10 Door Int Width Door I (8, 1) 0.92 External Wall Length Wall E 2 1.50	Yes Slope 0 Slope 7 Height 2.70 2.70 2.70 2.70 2.70 Height 2.70 Height E 2.70	Shape Skillion Adjz 4 3 4 4 4 4 Adjz 4 aves Orient 0.00 270	Area 16.70 Area 16.70 Area 5.94 3.24 3.51 1.62 1.63 Area 1.88 Area 3.77	000NoCoveringTypeCarpet 10mmConcrete Slab on Ground No InsulationTypeAbove CeilingPlasterboardNo InsulationAnother apartmentTypeSolar AbsInsulationCorrugated Iron 0.30Bulk, Reflective Side Down, Anti-glare Up Rl.50TypeCavity Panel 70mm gapNo InsulationCavity Panel 70mm gapNo InsulationFibro Cavity Panel 70mm gap0.30Bulk InsulationN.30Bulk Insulation Rl.50NameNameGlassFrameOpeningCovering
External Floor Ceiling Roof Partition Wall Length Wall P 1 2.20 Wall P 5 1.20 Wall P 6 1.30 Wall P 7 0.60 Wall P 8 1.10 Door Int Width Door I (8, 1) 0.92 External Wall Length Wall E 2 1.89 Window Width	Yes Slope 0 Slope 7 Height 2.70 2.70 2.70 2.70 Height E. 2.70 Height E.	Shage Shage Shage A A A A A A A A A A A A A A A A A A A	Area 16.70 Area 16.70 Area 5.94 3.24 3.51 1.62 1.63 Area 1.88 Area 3.77 Area	000NoCoveringTypeCarpet 10mmConcrete Slab on Ground No InsulationTypeAbove CeilingPlasterboardNo InsulationAnother apartmentTypeSolar AbsInsulationCorrugated Iron 0.30Bulk, Reflective Side Down, Anti-glare Up Rl.50TypeCavity Panel 70mm gap No InsulationCavity Panel 70mm gap No InsulationFypeHollow core doorTypeAbsInsulationFibro Cavity Panel 70mm gap 0.30Bulk Insulation Rl.50NameGlassMameGlassFrameOpeningCoveringShading
External Floor Ceiling Roof Partition Wall Length Wall P 1 2.20 Wall P 5 1.20 Wall P 6 1.30 Wall P 7 0.60 Wall P 8 1.10 Door Int Width Door I (8, 1) 0.92 External Wall Length Wall E 2 1.50	Yes Slope 0 Slope 7 Height 2.70 2.70 2.70 2.70 Height E. 2.70 Height E.	Shape Skillion Adjz 4 3 4 4 4 4 Adjz 4 aves Orient 0.00 270	Area 16.70 Area 16.70 Area 5.94 3.24 3.51 1.62 1.63 Area 1.88 Area 3.77	000NoCoveringTypeCarpet 10mmConcrete Slab on Ground No InsulationTypeAbove CeilingPlasterboardNo InsulationAnother apartmentTypeSolar AbsInsulationCorrugated Iron 0.30Bulk, Reflective Side Down, Anti-glare Up Rl.50TypeCavity Panel 70mm gapNo InsulationCavity Panel 70mm gapNo InsulationTypeAbsInsulationFibro Cavity Panel 70mm gapFibro Cavity Panel 70mm gap0.30Bulk Insulation R1.50NameNameGlassFrameOpeningCoveringShadingGGG-05-001aGGG-05-001aSingle Glazed ClearAluminium
External Floor Ceiling Roof Partition Wall Length Wall P 1 2.20 Wall P 5 1.20 Wall P 6 1.30 Wall P 7 0.60 Wall P 8 1.10 Door Int Width Door I (8, 1) 0.92 External Wall Length Wall E 2 1.89 Window Width	Yes Slope 0 Slope 7 Height 2.70 2.70 2.70 2.70 Height E. 2.70 Height E.	Shage Shage Shage A A A A A A A A A A A A A A A A A A A	Area 16.70 Area 16.70 Area 5.94 3.24 3.51 1.62 1.63 Area 1.88 Area 3.77 Area	000NoCoveringTypeCarpet 10mmConcrete Slab on Ground No InsulationTypeAbove CeilingPlasterboardNo InsulationAnother apartmentTypeSolar AbsInsulationCorrugated Iron0.30Bulk, Reflective Side Down, Anti-glare Up Rl.50TypeCavity Panel 70mm gapNo InsulationCavity Panel 70mm gapNo InsulationTypeAbsInsulationFibro Cavity Panel 70mm gap0.30Bulk Insulation Rl.50NameGlassMameGlassOpeningCoveringShadingGGG-05-001aSingle Glazed ClearAluminium45% Opening Sliding, Two LitesHolland Blind
External Floor Ceiling Roof Partition Wall Length Wall P 1 2.20 Wall P 5 1.20 Wall P 6 1.30 Wall P 7 0.60 Wall P 8 1.10 Door Int Width Door I (8, 1) 0.92 External Wall Length Wall E 2 1.89 Window Width	Yes Slope 0 Slope 7 Height 2.70 2.70 2.70 2.70 Height E. 2.70 Height E.	Shage Shage Shage A A A A A A A A A A A A A A A A A A A	Area 16.70 Area 16.70 Area 5.94 3.24 3.51 1.62 1.63 Area 1.88 Area 3.77 Area	000NoCoveringTypeCarpet 10mmConcrete Slab on Ground No InsulationTypeAbove CeilingPlasterboardNo InsulationAnother apartmentTypeSolar AbsInsulationCorrugated Iron 0.30Bulk, Reflective Side Down, Anti-glare Up Rl.50TypeCavity Panel 70mm gapNo InsulationCavity Panel 70mm gapNo InsulationTypeAbsInsulationFibro Cavity Panel 70mm gapFibro Cavity Panel 70mm gap0.30Bulk Insulation R1.50NameNameGlassFrameOpeningCoveringShadingGGG-05-001aGGG-05-001aSingle Glazed ClearAluminium

Wall E 3 3.8	2.70 0.	00 0 8	.09 Fibro Cavity Panel 70mm gap 0.30
			Bulk Insulation R1.50
Window Widtl	n Height Eav	es Orient A	area Name Glass Frame
			Opening Covering
			Shading
Window(3,1) 1.8	L 1.20 0.	00 0 2	2.17 GGG-05-001a Single Glazed Clear Aluminium
			45% Opening Sliding, Two Lites Holland Blind
			No Shading
Wall E 4 4.6	2.70 0.	00 90 11	33 Fibro Cavity Panel 70mm gap 0.30
			Bulk Insulation R1.50
Window Widtl	n Height Eav	es Orient A	rea Name Glass Frame
11212001 11200	i norgine bet		
			Shading
Window(4, 1) 1.8	0.60 0.	00 90 1	09 GGG-05-001a Single Glazed Clear Aluxinium
			45% Opening Sliding, Two Lites Holland Blind
			No Shading
			$\langle \land \rangle$
Zone 3 Wet Area	1 Wet Are	a on Level 1	
Air Movement Screen:		mney Gas vent	Wall vents Downlights Ex Fans Ceilin fans
		-	
No	Yes	No No	· · · · · · · · · · · · · · · · · · ·
External Floor		A	rea Covering Type
		10	1.19 Ceramic Tiles 8mm Coxcrete Slab on Ground No Insulation
Ceiling	Slope	A	агеа Туре
			Above Ceiling
	0	10	1.19 Plasterboard No Insulation
			Another aparament
Roof	C]	Change	
ROOL	Slope	Shape	
			Insulation
	7	Skillion	Corrugated Iron 0.30
			Bulk, Reflective Side Down, Anti-glare Up R1.50
Partition Wall Length	Height	AdjZ A	rea Type
Wall P 1 3.50	2.70	4 7	2.27 Pavity Panel 70mm gap No Insulation
Door Int Width	Height	AdjZ A	rea Type
Door I(1, 1) 1.0'	-	-	1.18 HoNow core door
			.5 Cavicy Panel 70mm gap No Insulation
Wall P 3 1.20			24 Carity Panel 70mm gap No Insulation
Wall P 4 1.20	2.70		24 Cavity Panel 70mm gap No Insulation
Wall P 7 0.70	2.70	4	Cavity Panel 70mm gap No Insulation
External Wall Length	Height Eav	es Orient (A	nea Type Abs
		$\langle \lambda \rangle$	Insulation
Wall E 5 4.70	2.70 0.	00 90 11	60 Fibro Cavity Panel 70mm gap 0.30
			Bulk Insulation R1.50
Window Width	Height Eav	es Orient A	rea Name Glass Frame
willdow width	I nergiit Eav	es primit A	
	ζ	\langle / \rangle	Opening Covering
		$\langle \backslash \vee$	Shading
Window(5,1) 1.23	0.90 0.	00 90 1	.09 GGG-05-001a Single Glazed Clear Aluminium
	~	~	45% Opening Sliding, Two Lites Holland Blind
		\mathbf{N}	No Shading
Wall E 6 1.80	2,70 0.	00 180 4	.31 Fibro Cavity Panel 70mm gap 0.30
	\sim		Bulk Insulation R1.50
Window Width	Height Eav	es Orient A	rea Name Glass Frame
WILLOW WICCI	I HELYNC BAL	es vitenc A	
			Opening Covering
	いく しょうしん		Shading
Window(6, 1) 0.6	<u> </u>	00 180 0	.55 GGG-05-001a Single Glazed Clear Aluminium
	\sim		45% Opening Sliding, Two Lites Holland Blind
	\searrow		No Shading
\sim	\mathbf{X}^{*}		-
Zone 4 Liv/Kito	ien 1 Livi	ng/Kitchen Area	on Level 1
Air Movement Screen		-	. Wall vents Downlights Ex Fans Ceilin fans
	Yes	No No	0 0 0 No
External Floor	•	A	rea Covering Type
		37	.85 Ceramic Tiles 8mm Concrete Slab on Ground No Insulation
Ceiling	Slope	A	irea Туре
\sim			Above Ceiling
\sim	0	37	.85 Plasterboard No Insulation

			Another apartment
Roof	Slope Shape	2	Type Solar Abs Insulation
	7 Skillior	1	Corrugated Iron 0.30
			Bulk, Reflective Side Down, Anti-glare Up R1.50
Partition Wall Length	Height Adj2		Туре
Wall P 2 1.60		4.32	Cavity Panel 70mm gap No Insulation
Wall P 3 0.50			Cavity Panel 70mm gap No Insulation
Wall P 4 1.60 Door Int Width	2.70 J Height Adj2		Cavity Panel 70mm gap No Insulation
Door $I(4, 1) = 0.92$	5		Hollow core door
Wall P 5 4.20			Cavity Panel 70mm gap No Insulation
Wall P 8 2.20	2.70 2	5,94	Cavity Panel 70mm gap No Insulation
Wall P 9 1.30	2.70 2	1.63	Cavity Panel 70mm gap No Insulation
	Height Adj2	area	Type
Door I(9, 1) 0.92			Hollow core door
Wall P 10 0.60			Cavity Panel 70mm gap No Insulation
Wall P 11 1.30			Cavity Panel 70mm gap No Insulation Cavity Panel 70mm gap No Insulation
Wall P 12 1.20 Wall P 13 1.30			Cavity Panel 70mm gap No Insulation
Wall P 14 3.50	2.70 3		Cavity Panel 70mm gap No Insulation
	Height Adj2		Туре
Door I(14, 1) 1.07	2.04 3	2.18	Hollow core door
Wall P 15 0.70	2.70 3	1.89	Cavity Panel 70mm gap No Insulation
External Wall Length	Height Eaves Orient	: Area	Type
			Insulation
Wall E 1 2.50	2.70 0.00 180	6.75	Fibro Cavity Panel 70mm gap 0.30 Bulk Masulation R1.50
Wall E 6 6.00	2.70 0.00 270	13.84	Fibro Cavity Panel 70mm gap 0.30
Na11 2 0 0.00	2170 0.00 210		Bulk Insulation R1.50
Window Width	Height Eaves Orient	. Area	Name Glass Frame
			Opening Covering
			shading
Window(6, 1) 0.61	0.90 0.00 270	0.56	GGG 05-001a Single Glazed Clear Aluminium
			15 Opening Sliding, Two Lites Holland Blind No Shading
Window(6,2) 1.51	1.20 0.00 270	1 81	GGG-05-001a Single Glazed Clear Aluminium
HIIIdow(0, 2) 1.51	1.20 0.00 2.0		45% Opening Sliding, Two Lites Holland Blind
	(\sim	No Shading
Wall E 7 4.20	2.70 0.00	5.28	Fibro Cavity Panel 70mm gap 0.30
	(~Z.	\bigcirc	Bulk Insulation R1.50
Window Width	Height Eaves Orient	Area	Name Glass Frame
		\sim	Opening Covering
Window(7,1) 2.41	2.10 0.80	5.06	Shading GGG-05-001a Single Glazed Clear Aluminium
WINDOW / /, 1/ 2.41		9.00	45% Opening Sliding, Two Lites Holland Blind
	\sim		No Shading
Wall E 16 1.70	2.70 8.00 90	2.17	Fibro Cavity Panel 70mm gap 0.30
	(\bigcirc)		Bulk Insulation R1.50
Door Ext Width			Туре
Door E{16, 1} 0.92	2.64 0.00 90		Solid timber door
Window Width	Height Eaves Orient	: Area	Name Glass Frame Opening Covering
$\sum_{i=1}^{n}$	2		Shading
Window(16, 1) 0,45	120 0.00 90	0.54	GGG-05-001a Single Glazed Clear Aluminium
\sim			45% Opening Double Hung Sash Holland Blind
	\sim		No Shading
	7		
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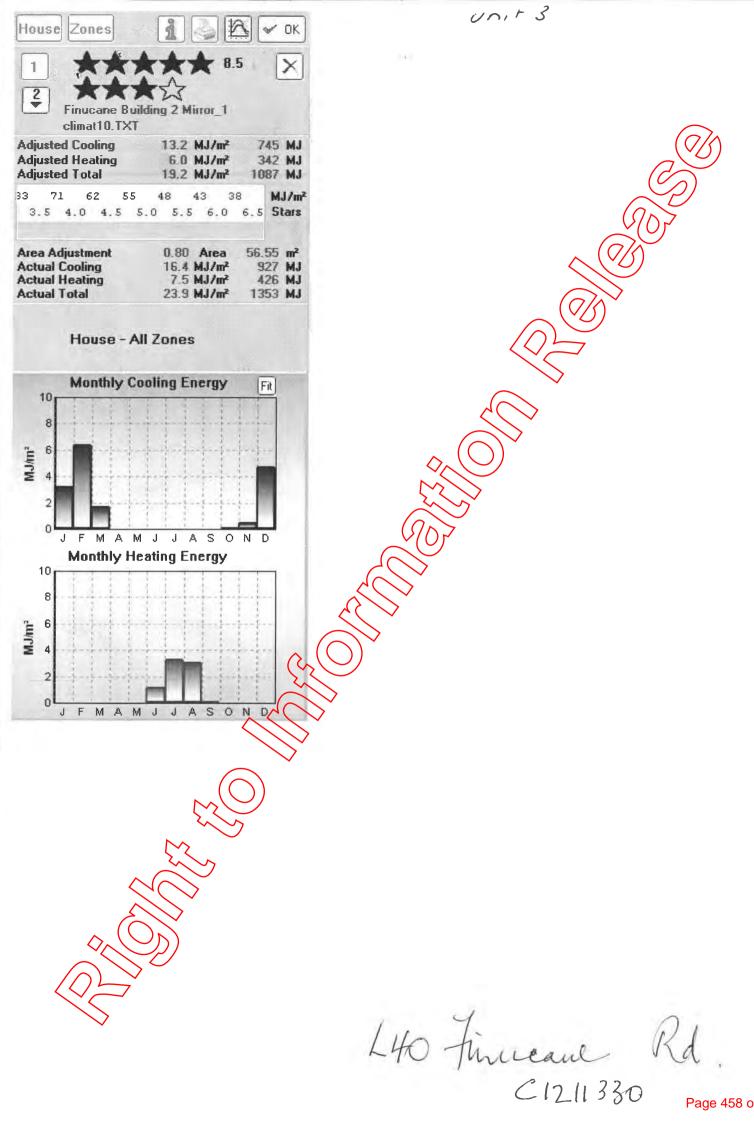


Project Finucane Building 1 Run 2 ALEXANDRA HILLS PC 4161 Lat -27.50 Long 153.20 Climate File climat10.TXT Summary Conditioned Area 67.2 m² Unconditioned Area 10.2 m² 77.4 m² Total Floor Area Total Glazed Area 16.1 m² Total External Solid door Area 1.9 m² Glass to Floor Area 20.8 % Gross External Wall Area 102.6 m² Net External Wall Area 84.6 m² Window 16.1 m² GGG-05-001a Generics Uval 6.57 SHGC 0.74 Glass Single Glazed Clear Frame Aluminium External Wall 84.6 m² Fibro Cavity Panel 70mm gap Bulk Insulation R 1.5 Internal Wall 57.0 m² Cavity Panel 70mm gap No Insulation External Floor 29.3 m² Timber Floor, Unit Below Carpet 10mm No Insulation / 48.1 m² Timber Floor, Unit Below Ceramic Tiles 8mm No Insulation External Ceiling 77.4 m² Plasterboard No Insulation No roofspace cavity υ Roof (Horizontal area) -glare Up R 1.5 7° slope 77.4 m² Corrugated Iron Bulk, Reflective Side Down, Anti Skillion roof

Details				
Zone 1 Bed 2	Sleeping Area	on Level 1	L	
Air Movement Screens				ll vents Downlights Ex Fans Ceilin fans
Nc		No No		
External Floor			Area	Covering Type
			12.60	Carpet 10mm Timber Floor, Unit Below No Insulation
Ceiling	Slope		Area	Туре
				Above Ceiling
	0		12.60	Plasterboard No Insulation
	·			No roofspace cavity
Roof	Slope	Shape		Type Solar Abs
1002	51050	onape		Insulation
	7	Skillion		Corrugated Iron 0.30
	,	SALILION		Bulk, Reflective Side Down, Artiglers Up R1.50
Partition Wall Length	Height	AdjZ	Area	Type
Wall P 2 4.20	_	4	11.34	Cavity Panel 70mm gap No Insulation
Wall P 3 1.10		4	1.09	Cavity Panel 70mm gap 10 Insulation
	Height	AdjZ	Area	Type
Door I(3, 1) 0.92	•	4 AU	1.88	Hollow core door
Wall P 4 0.40		4	1.08	Cavity Panel 70mm gap No Insulation
Wall P 5 2.10		4	5.67	Cavity Panel 70mm gap No Insulation
			Area	
External Wall Length	nergint tave	s Orient	ALEa	Type Abs Insulation
Wall E 1 3.20	2.70 0.7	0 220	0 64	Fibro Cavity Fanel Comm gap 0.30
WALLE 1 5.20	2.70 0.7	0 270	8.64	Bulk Insulation A1 50
	0.70 0.7	100	0.00	
Wall E 6 3.80	2.70 0.7	0 180	8.09	
the days the data	Noicht Door	- 0	7	Bulk Insulation R1.50 Name Glass Frame
Window Width	Height Eave	s Orient	Area	
				Opening Covering
				Shading
Window(6, 1) 1.81	1.20 0.7	0 180	2.17	GGG-05 (0)14 Single Glazed Clear Aluminium
				45% Opening Sliding, Two Lites Holland Blind
				No shading
			(
Reve O Ded 1			. A	
Zone 2 Bed 1	Sleeping Area			line Develiebte Eu Fong Cailin fong
Air Movement Screens	Seals Chim	ney Gas v	vent Wal	l vents Downlights Ex Fans Ceilin fans
Air Movement Screens No	Seals Chim		vent Wai	0 0 0 No
Air Movement Screens	Seals Chim	ney Gas v	vent Was	0 0 0 No Covering Type
Air Movement Screens No External Floor	Seals Chin Yes	ney Gas v	vent Wai	0 0 0 No Covering Type Carpet 10mm Timber Floor, Unit Below No Insulation
Air Movement Screens No	Seals Chim	ney Gas v	vent Was	0 0 0 No Covering Type Carpet 10mm Timber Floor, Unit Below No Insulation Type
Air Movement Screens No External Floor	Seals Chim Yes Slope	ney Gas v	Axes 18.10 Area	0 0 0 No Covering Type Carpet 10mm Timber Floor, Unit Below No Insulation Type Above Ceiling
Air Movement Screens No External Floor	Seals Chin Yes	ney Gas v	vent Was	0 0 0 No Covering Type Carpet 10mm Timber Floor, Unit Below No Insulation Type Above Ceiling Plasterboard No Insulation
Air Movement Screens No External Floor Ceiling	Seals Chim Yes Slope 0	ney Gas v No No	Axes 18.10 Area	0 0 0 No Covering Type Carpet 10mm Timber Floor, Unit Below No Insulation Type Above Ceiling Plasterboard No Insulation No roofspace cavity
Air Movement Screens No External Floor	Seals Chim Yes Slope	ney Gas v	Axes 18.10 Area	0 0 0 No Covering Type Carpet 10mm Timber Floor, Unit Below No Insulation Type Above Ceiling Plasterboard No Insulation No roofspace cavity Type Solar Abs
Air Movement Screens No External Floor Ceiling	Seals Chim Yes Slope 0 Slope	ney Gas v No No	Axes 18.10 Area	0 0 0 No Covering Type Carpet 10mm Timber Floor, Unit Below No Insulation Type Above Ceiling Plasterboard No Insulation No roofspace cavity Type Solar Abs Insulation
Air Movement Screens No External Floor Ceiling	Seals Chim Yes Slope 0	ney Gas v No No	Axes 18.10 Area	0 0 0 No Covering Type Carpet 10mm Timber Floor, Unit Below No Insulation Type Above Ceiling Plasterboard No Insulation No roofspace cavity Type Solar Abs Insulation Corrugated Iron 0.30
Air Movement Screens No External Floor Ceiling Roof	Seals Chim Yes Slope 0 Slope 7	ney Gas v No No chape skillion	Axea 16,10 Area 16.70	0 0 0 No Covering Type Carpet 10mm Timber Floor, Unit Below No Insulation Type Above Ceiling Plasterboard No Insulation No roofspace cavity Type Solar Abs Insulation Corrugated Iron 0.30 Bulk, Reflective Side Down, Anti-glare Up R1.50
Air Movement Screens No External Floor Ceiling Roof Partition Wall Length	Seals Chim Yes Slope 0 Slope 7 Height	ney Gas v No No Shape Skillion AdjZ	Area 16.70 Area Area	0 0 0 No Covering Type Carpet 10mm Timber Floor, Unit Below No Insulation Type Above Ceiling Plasterboard No Insulation No roofspace cavity Type Solar Abs Insulation Corrugated Iron 0.30 Bulk, Reflective Side Down, Anti-glare Up R1.50 Type
Air Movement Screens No External Floor Ceiling Roof Partition Wall Length Wall P 1 2.20	Seals Chim Yes Slope 0 Slope 7 Height 2.70	ney Gas v No No Shape Skillion AdjZ 4	Area 16.70 Area 16.70	0 0 0 No Covering Type Carpet 10mm Timber Floor, Unit Below No Insulation Type Above Ceiling Plasterboard No Insulation No roofspace cavity Type Solar Abs Insulation Corrugated Iron 0.30 Bulk, Reflective Side Down, Anti-glare Up R1.50 Type Cavity Panel 70mm gap No Insulation
Air Movement Screens No External Floor Ceiling Roof Partition Wall Length Wall P 1 2.20 Wall P 5 1.20	Seals Chim Yes Slope 0 Slope 7 Height 2.70	ney Gas v No No Skiblion AdjZ 4 3	Area 16.70 16.70 Area 5.94 3.24	0 0 0 No Covering Type Carpet 10mm Timber Floor, Unit Below No Insulation Type Above Ceiling Plasterboard No Insulation No roofspace cavity Type Solar Abs Insulation Corrugated Iron 0.30 Bulk, Reflective Side Down, Anti-glare Up R1.50 Type Cavity Panel 70mm gap No Insulation Cavity Panel 70mm gap No Insulation
Air Movement Screens No External Floor Ceiling Roof Partition Wall Length Wall P 1 2.20 Wall P 5 1.20 Wall P 6 1.30	Seals Chim Yes Slope 0 Slope 7 Height 2.70 2.70	ney Gas v No No Shape Skillion AdjZ 4 3 4	Area 16.70 Area 5.94 3.24 3.51	0 0 0 No Covering Type Carpet 10mm Timber Floor, Unit Below No Insulation Type Above Ceiling Plasterboard No Insulation No roofspace cavity Type Solar Abs Insulation Corrugated Iron 0.30 Bulk, Reflective Side Down, Anti-glare Up R1.50 Type Cavity Panel 70mm gap No Insulation Cavity Panel 70mm gap No Insulation Cavity Panel 70mm gap No Insulation
Air Movement Screens No External Floor Ceiling Roof Partition Wall Length Wall P 1 2.20 Wall P 5 1.20 Wall P 6 1.30 Wall P 7 0.60	Seals Chim Yes Slope 0 Slope 7 Height 2.70 2.70 2.70	ney Gas v No No Shape Skiblion AdjZ 4 3 4	Area 16.70 Area 5.94 3.24 3.51 1.62	0 0 0 No Covering Type Carpet 10mm Timber Floor, Unit Below No Insulation Type Above Ceiling Plasterboard No Insulation No roofspace cavity Type Solar Abs Insulation Corrugated Iron 0.30 Bulk, Reflective Side Down, Anti-glare Up R1.50 Type Cavity Panel 70mm gap No Insulation Cavity Panel 70mm gap No Insulation
Air Movement Screens No External Floor Ceiling Roof Partition Wall Length Wall P 1 2.20 Wall P 5 1.20 Wall P 6 1.30 Wall P 7 0.60 Wall P 8 1.30	Seals Chim Yes Slope 0 Slope 7 Height 2.70 2.70 2.70 2.70	ney Gas v No No Shape Skiblion AdjZ 4 3 4 4 4	Area 16.70 Area 5.94 3.24 3.51 1.62 1.63	0 0 0 No Covering Type Carpet 10mm Timber Floor, Unit Below No Insulation Type Above Ceiling Plasterboard No Insulation No roofspace cavity Type Solar Abs Insulation Corrugated Iron 0.30 Bulk, Reflective Side Down, Anti-glare Up R1.50 Type Cavity Panel 70mm gap No Insulation Cavity Panel 70mm gap No Insulation
Air Movement Screens No External Floor Ceiling Roof Partition Wall Length Wall P 1 2.20 Wall P 5 1.20 Wall P 6 1.30 Wall P 7 0.60 Wall P 8 1.30 Door Int Width	Seals Chim Yes Slope 0 Slope 7 Height 2.70 2.70 2.70 2.70 2.70 Height	ney Gas v No No Shape Skiblion AdjZ 4 3 4 4 4 4 4 4 4 4 5	Area 16.70 Area 16.70 Area 5.94 3.24 3.51 1.62 1.63 Area	0 0 0 No Covering Type Carpet 10mm Timber Floor, Unit Below No Insulation Type Above Ceiling Plasterboard No Insulation No roofspace cavity Type Solar Abs Insulation Corrugated Iron 0.30 Bulk, Reflective Side Down, Anti-glare Up R1.50 Type Cavity Panel 70mm gap No Insulation Cavity Panel 70mm gap No Insulation
Air Movement Screens No External Floor Ceiling Roof Partition Wall Length Wall P 1 2.20 Wall P 5 1.20 Wall P 5 1.30 Wall P 7 0.60 Wall P 8 1.30 Door Int Width Door I(8, 1) 0/92	Seals Chim Yes Slope 0 Slope 7 Height 2.70 2.70 2.70 2.70 2.70 Height 2.04	ney Gas v No No Shape Skiblion AdjZ 4 3 4 4 4 4 4 4 4 4 4 4 2 4	Area 16.70 Area 5.94 3.24 3.51 1.62 1.63 Area 1.88	0 0 0 No Covering Type Carpet 10mm Timber Floor, Unit Below No Insulation Type Above Ceiling Plasterboard No Insulation No roofspace cavity Type Solar Abs Insulation Corrugated Iron 0.30 Bulk, Reflective Side Down, Anti-glare Up R1.50 Type Cavity Panel 70mm gap No Insulation Cavity Panel 70mm gap No Insulation
Air Movement Screens No External Floor Ceiling Roof Partition Wall Length Wall P 1 2.20 Wall P 5 1.20 Wall P 6 1.30 Wall P 7 0.60 Wall P 8 1.30 Door Int Width	Seals Chim Yes Slope 0 Slope 7 Height 2.70 2.70 2.70 2.70 2.70 Height 2.04	ney Gas v No No Shape Skiblion AdjZ 4 4 4 4 4 4 4 4 4 4 4 4	Area 16.70 Area 16.70 Area 5.94 3.24 3.51 1.62 1.63 Area	000NoCoveringTypeCarpet 10mm Timber Floor, Unit Below No InsulationTypeAbove CeilingPlasterboard No InsulationNo roofspace cavityTypeSolar AbsInsulationCorrugated Iron 0.30Bulk, Reflective Side Down, Anti-glare Up R1.50TypeCavity Panel 70mm gap No InsulationCavity Panel 70mm gap No InsulationTypeHollow core doorTypeAbs
Air Movement Screens No External Floor Ceiling Roof Partition Wall Length Wall P 1 2.20 Wall P 5 1.20 Wall P 5 1.20 Wall P 6 1.30 Wall P 7 0.60 Wall P 8 1.30 Door Int Width Door I(8, 1) 0.92 External Wall Length	Seals Chim Yes Slope 0 Slope 7 Height 2.70 2.70 2.70 2.70 2.70 Height 2.04 Height Eave	ney Gas v No No Shape Skiblion AdjZ 4 4 4 4 4 4 4 3 3 4 4 4 3 5 5 0rient	Area 16.70 Area 16.70 Area 5.94 3.24 3.51 1.62 1.63 Area 1.88 Area	000NoCoveringTypeCarpet 10mmTimber Floor, Unit BelowNo InsulationTypeAbove CeilingPlasterboardNo InsulationNo roofspace cavityTypeSolar AbsInsulationCorrugated Iron0.30Bulk, Reflective Side Down, Anti-glare Up R1.50TypeCavity Panel 70mm gapNo InsulationCavity Panel 70mm gapNo InsulationTypeAbsInsulationTypeAbsInsulation
Air Movement Screens No External Floor Ceiling Roof Partition Wall Length Wall P 1 2.20 Wall P 5 1.20 Wall P 5 1.30 Wall P 7 0.60 Wall P 8 1.30 Door Int Width Door I(8, 1) 0/92	Seals Chim Yes Slope 0 Slope 7 Height 2.70 2.70 2.70 2.70 2.70 Height 2.04	ney Gas v No No Shape Skiblion AdjZ 4 4 4 4 4 4 4 3 3 4 4 4 3 5 5 0rient	Area 16.70 Area 5.94 3.24 3.51 1.62 1.63 Area 1.88	000NoCoveringTypeCarpet 10mmTimber Floor, Unit BelowNo InsulationTypeAbove CeilingPlasterboardNo InsulationNo roofspace cavityTypeSolar AbsInsulationCorrugated Iron0.30Bulk, Reflective Side Down, Anti-glare Up R1.50TypeCavity Panel 70mm gapNo InsulationCavity Panel 70mm gapNo InsulationTypeAbsInsulationHollow core doorTypeAbsInsulationSinsulationFibro Cavity Panel 70mm gap0.30
Air Movement Screens No External Floor Ceiling Roof Partition Wall Length Wall P 1 2.20 Wall P 5 1.20 Wall P 5 1.20 Wall P 6 1.30 Wall P 7 0.60 Wall P 8 1.30 Door Int Width Door I(8, 1) 0.92 External Wall Length Wall E 2 1.80	Seals Chim Yes Slope 0 Slope 7 Height 2.70 2.70 2.70 2.70 2.70 Height 2.04 Height Eave 2.70 4.9	ney Gas v No No Shape Skillion AdjZ 4 4 4 AdjZ 4 s Orient 20 270	Area 10, 10 Area 16.70 Area 5.94 3.24 3.51 1.62 1.63 Area 1.88 Area 3.77	000NoCoveringTypeCarpet 10mm Timber Floor, Unit Below No InsulationTypeAbove CeilingPlasterboard No InsulationNo roofspace cavityTypeSolar AbsInsulationCorrugated Iron 0.30Bulk, Reflective Side Down, Anti-glare Up R1.50TypeCavity Panel 70mm gap No InsulationCavity Panel 70mm gap No InsulationTypeHollow core doorTypeAbsInsulationFibro Cavity Panel 70mm gap 0.30Bulk Insulation R1.50
Air Movement Screens No External Floor Ceiling Roof Partition Wall Length Wall P 1 2.20 Wall P 5 1.20 Wall P 5 1.20 Wall P 6 1.30 Wall P 7 0.60 Wall P 8 1.30 Door Int Width Door I(8, 1) 0.92 External Wall Length	Seals Chim Yes Slope 0 Slope 7 Height 2.70 2.70 2.70 2.70 2.70 Height 2.04 Height Eave	ney Gas v No No Shape Skillion AdjZ 4 4 AdjZ 4 s Orient 20 270	Area 16.70 Area 16.70 Area 5.94 3.24 3.51 1.62 1.63 Area 1.88 Area	000NoCoveringTypeCarpet 10mmTimber Floor, Unit BelowNo InsulationTypeAbove CeilingPlasterboardNo InsulationNo roofspace cavityTypeSolar AbsInsulationCorrugated Iron0.30Bulk, Reflective Side Down, Anti-glare Up R1.50TypeCavity Panel 70mm gapNo InsulationCavity Panel 70mm gapNo InsulationFypeAbsInsulationTypeHollow core doorTypeFibro Cavity Panel 70mm gap0.30Bulk Insulation R1.50NameNameGlassFrame
Air Movement Screens No External Floor Ceiling Roof Partition Wall Length Wall P 1 2.20 Wall P 5 1.20 Wall P 5 1.20 Wall P 6 1.30 Wall P 7 0.60 Wall P 8 1.30 Door Int Width Door I(8, 1) 0.92 External Wall Length Wall E 2 1.80	Seals Chim Yes Slope 0 Slope 7 Height 2.70 2.70 2.70 2.70 2.70 Height 2.04 Height Eave 2.70 4.9	ney Gas v No No Shape Skillion AdjZ 4 4 4 AdjZ 4 s Orient 20 270	Area 10, 10 Area 16.70 Area 5.94 3.24 3.51 1.62 1.63 Area 1.88 Area 3.77	000NoCoveringTypeCarpet 10mmTimber Floor, Unit BelowNo InsulationTypeAbove CeilingPlasterboardNo InsulationNo roofspace cavityTypeSolar AbsInsulationCorrugated Iron0.30Bulk, Reflective Side Down, Anti-glare Up R1.50TypeCavity Panel 70mm gapNo InsulationCavity Panel 70mm gapNo InsulationFibro Cavity Panel 70mm gap0.30Bulk InsulationSFibro Cavity Panel 70mm gap0.30Bulk InsulationR1.50NameGlassFrameOpeningCovering
Air Movement Screens No External Floor Ceiling Roof Partition Wall Length Wall P 1 2.20 Wall P 5 1.20 Wall P 5 1.20 Wall P 6 1.30 Wall P 7 0.60 Wall P 8 1.30 Door Int Width Door I(8, 1) 0.92 External Wall Length Wall E 2 1.80 Window Width	Seals Chim Yes Slope 0 Slope 7 Height 2.70 2.70 2.70 2.70 2.70 2.70 4.9 Height Eave 2.70 4.9 Height Eave	ney Gas v No No shape skillon AdjZ 4 3 4 4 4 4 4 2 5 Orient 20 270 es Orient	Area 16.70 Area 16.70 Area 5.94 3.24 3.51 1.62 1.63 Area 1.88 Area 3.77 Area	000NoCoveringTypeCarpet 10mmTimber Floor, Unit BelowNo InsulationTypeAbove CeilingPlasterboardNo InsulationNo roofspace cavityTypeSolar AbsInsulationCorrugated Iron0.30Bulk, Reflective Side Down, Anti-glare Up R1.50TypeCavity Panel 70mm gapNo InsulationCavity Panel 70mm gapNo InsulationFibro Cavity Panel 70mm gap0.30Bulk InsulationR1.50NameGlassFrameOpeningCoveringShadingSading
Air Movement Screens No External Floor Ceiling Roof Partition Wall Length Wall P 1 2.20 Wall P 5 1.20 Wall P 5 1.20 Wall P 6 1.30 Wall P 7 0.60 Wall P 8 1.30 Door Int Width Door I(8, 1) 0.92 External Wall Length Wall E 2 1.80	Seals Chim Yes Slope 0 Slope 7 Height 2.70 2.70 2.70 2.70 2.70 4.9 Height Eave 2.70 4.9 Height Eave	ney Gas v No No shape skillon AdjZ 4 3 4 4 4 4 4 2 5 Orient 20 270 es Orient	Area 10, 10 Area 16.70 Area 5.94 3.24 3.51 1.62 1.63 Area 1.88 Area 3.77	0 0 0 No Covering Type Carpet 10mm Timber Floor, Unit Below No Insulation Type Above Ceiling Plasterboard No Insulation No roofspace cavity Type Solar Abs Insulation Corrugated Iron 0.30 Bulk, Reflective Side Down, Anti-glare Up R1.50 Type Cavity Panel 70mm gap No Insulation Cavity Panel 70mm gap No Insulation Type Hollow core door Type Abs Insulation Fibro Cavity Panel 70mm gap 0.30 Bulk Insulation R1.50 Name Glass Frame Opening Covering Shading GGG-05-001a Single Glazed Clear Aluminium
Air Movement Screens No External Floor Ceiling Roof Partition Wall Length Wall P 1 2.20 Wall P 5 1.20 Wall P 5 1.20 Wall P 6 1.30 Wall P 7 0.60 Wall P 8 1.30 Door Int Width Door I(8, 1) 0.92 External Wall Length Wall E 2 1.80 Window Width	Seals Chim Yes Slope 0 Slope 7 Height 2.70 2.70 2.70 2.70 2.70 2.70 4.9 Height Eave 2.70 4.9 Height Eave	ney Gas v No No shape skillon AdjZ 4 3 4 4 4 4 4 2 5 Orient 20 270 es Orient	Area 16.70 Area 16.70 Area 5.94 3.24 3.51 1.62 1.63 Area 1.88 Area 3.77 Area	0 0 0 No Covering Type Carpet 10mm Timber Floor, Unit Below No Insulation Type Above Ceiling Plasterboard No Insulation No roofspace cavity Type Solar Abs Insulation Corrugated Iron 0.30 Bulk, Reflective Side Down, Anti-glare Up R1.50 Type Cavity Panel 70mm gap No Insulation Cavity Panel 70mm gap No Insulation Type Hollow core door Type Abs Insulation Fibro Cavity Panel 70mm gap 0.30 Bulk Insulation R1.50 Name Glass Frame Opening Covering Shading GGG-05-001a Single Glazed Clear Aluminium 45% Opening Sliding, Two Lites Holland Blind
Air Movement Screens No External Floor Ceiling Roof Partition Wall Length Wall P 1 2.20 Wall P 5 1.20 Wall P 5 1.20 Wall P 6 1.30 Wall P 7 0.60 Wall P 8 1.30 Door Int Width Door I(8, 1) 0.92 External Wall Length Wall E 2 1.80 Window Width	Seals Chim Yes Slope 0 Slope 7 Height 2.70 2.70 2.70 2.70 2.70 2.70 4.9 Height Eave 2.70 4.9 Height Eave	ney Gas v No No shape skillon AdjZ 4 3 4 4 4 4 4 2 5 Orient 20 270 es Orient	Area 16.70 Area 16.70 Area 5.94 3.24 3.51 1.62 1.63 Area 1.88 Area 3.77 Area	0 0 0 No Covering Type Carpet 10mm Timber Floor, Unit Below No Insulation Type Above Ceiling Plasterboard No Insulation No roofspace cavity Type Solar Abs Insulation Corrugated Iron 0.30 Bulk, Reflective Side Down, Anti-glare Up R1.50 Type Cavity Panel 70mm gap No Insulation Cavity Panel 70mm gap No Insulation Type Hollow core door Type Abs Insulation Fibro Cavity Panel 70mm gap 0.30 Bulk Insulation R1.50 Name Glass Frame Opening Covering Shading GGG-05-001a Single Glazed Clear Aluminium

Wall E 3 3.8	0 2.70 (0.60 0	8.09	Fibro Cavity Panel 70mm gap 0.30
				Bulk Insulation R1.50
Window Widtl	h Height Ea	aves Orient	Area	Name Glass Frame
				Opening Covering
				Shading
Window(3, 1) 1.8	1 1.20	0.60 0	2.17	GGG-05-001a Single Glazed Clear Aluminium
WINGOW(5, 1) 1.6.	1.20	5.60 0	4.11	45% Opening Sliding, Two Lites Holland Blind
				No Shading
			11 00	
Wall E 4 4.6	2.70 (0.70 90	11.33	Fibro Cavity Panel 70mm gap 0.30
				Bulk Insulation R1.50
Window Widt	n Height Ea	aves Orient	Area	Name Glass Frame
				Opening Covering
				Shading
Window(4,1) 1.83	1 0.60 0	0.70 90	1.09	GGG-05-001a Single Glazed Clear Aluminium
				45% Opening Sliding, Two Lices Halland Blind
				No Shading
Zone 3 Wet Area	1 Wet Ar	rea on Level :	1	
Air Movement Screens	s Seals Ch	nimney Gas	vent Wal	ll vents Downlights Ex Fars Ceilin fans
Ne	o Yes	NO NO	C	0 0 0 No
External Floor			Area	Covering Type
			10.19	Ceramic Tiles 8mm Timber Floor, Unit Below No Insulation
Ceiling	Slope		Area	Туре 🗸 🗸
				Above Ceiling
	0		10.19	Plasterboard No Insulation
				No roofspade cavity
Roof	Slope	Shape		Type Solar Abs
				Insulation
	7	Skillion		Corrugated Aron 0.30
				Bulk, Reflective Side Down, Anti-glare Up R1.50
Partition Wall Length	n Height	AdjZ	Area	THENT
Wall P 1 3.50	2.70	4	7.27	Cavity Panel 70mm gap No Insulation
Door Int Width	n Height	AdjZ	Area	Type
Door I(1, 1) 1.07	-	4	2.18	Wollow core door
Wall P 2 1.30	2.70	4	3 /51	Savity Panel 70mm gap No Insulation
Wall P 3 1.20	2.70	4	3 24	Cavity Panel 70mm gap No Insulation
Wall P 4 1.20	2.70	2	3 24	Cavity Panel 70mm gap No Insulation
Wall P 7 0.70	2,70	4	1.89	Cavity Panel 70mm gap No Insulation
External Wall Length	. Height Ea	aves Orient	Anea	Type Abs
	-		())	Insulation
Wall E 5 4.70	2.70 (2.70	12.60	Fibro Cavity Panel 70mm gap 0.30
		\sim		Bulk Insulation R1.50
Window Width	. Height Ea	ves Orient	Area	Name Glass Frame
	5	$\langle \rangle \rangle$		Opening Covering
	ζ	///		Shading
Window(5,1) 1.21	0.90 0	90	1.09	GGG-05-001a Single Glazed Clear Aluminium
				45% Opening Sliding, Two Lites Holland Blind
	\sim			No Shading
Wall E 6 1.80	2.70	. 50 180	4.31	Fibro Cavity Panel 70mm gap 0.30
)]		Bulk Insulation R1.50
Window Width	Height Ea	ves Orient	Area	Name Glass Frame
Allon Aldor				Opening Covering
٨	\sim			Shading
Window(6, 1) 0.62	0.90 3	3.60 180	0.55	5
	\sim		0.02	45% Opening Sliding, Two Lites Holland Blind
\sim	\sim			No Shading
	\sim			
Zone 4 Liv/Kitch		ving/Kitchen A	area on T	evel 1
Air Movement Screens	•	-		ll vents Downlights Ex Fans Ceilin fans
ATT PROVEMENT DULGEN	Yes	No No		0 0 0 No
External Floor	105	NO NO) Area	
EACCINEL FROOF				Covering Type Ceramic Tiles 8mm Timber Floor, Unit Below No Insulation
	03		37.89	
Ceiling	Slope		Area	Type Down Coiling
	^		27.00	Above Ceiling
	0		37.89	Plasterboard No Insulation

Roof	Slope	Shape		No roofspace cavity Type Solar Abs Insulation
	7	Skillion		Corrugated Iron 0.30 Bulk, Reflective Side Down, Anti-glare Up R1.59
Partition Wall Length	Height	AdjZ	Area	Туре
Wall P 2 2.10	2.70	l	5.67	Cavity Panel 70mm gap No Insulation
Wall P 3 0.40	2.70	l	1.08	Cavity Panel 70mm gap No Insulation
Wall P 4 1.10	2.70	l	1.09	Cavity Panel 70mm gap No Insulation
Door Int Width	Height	AdjZ	Area	Туре
Door I(4, 1) 0.92	-	1	1.88	Hollow core door
Wall P 5 4.20		1	11.34	Cavity Panel 70mm gap No Insulation
Wall P 8 2.20		2	5.94	Cavity Panel 70mm gap No Insulation
Wall P 9 1.30		2	1.63	Cavity Panel 70mm gap No Insulation
	Height	AdjZ	Area	Type
Door I (9, 1) 0.92		2	1.88	Hollow core door
Wall P 10 0.60		2	1.62	Cavity Panel 70mm gap No Insulation
Wall P 10 0.80 Wall P 11 1.30		2	3.51	Cavity Panel 70mm gap No Insulation
		3		Cavity Panel 70mm gap No Insulation
Wall P 12 1.20			3.24	
Wall P 13 1.30		3	3.51	Cavity Panel 70mm gap No Insulation
Wall P-14 3.50		3	7.27	Cavity Panel 70mm gap No Insulation
	Height	AdjZ	Area	Туре
Door I(14, 1) 1.07	2.04	3	2.18	Hollow core door
Wall P 15 0.70	2.70	3	1.89	Cavity Panel 70mm gap No Insulation
External Wall Length	Height Eave	es Orient	Area	Type (Abs
				Insulation
Wall E 1 2.40	2.70 1.9	0 180	5.93	Fibro Cavity Panel 70mm gap 0.30
				Bulk Insulation R1.50
Window Width	Height Eave	es Orient	Area	Name Glass Frame
				Opering Covering
				Shadiyyg 7
Window(1, 1) 0.61	0.90 1.9	0 180	0.55	GG-01-001a Single Glazed Clear Aluminium
	0100 200			45% Opening Sliding, Two Lites Holland Blind
			(No Shading
Wall E 6 6.00	2.70 0.7	70 270	13.84	Fibro Cavity Panel 70mm gap 0.30
Wall E 6 6.00	2.70 0.1	/0 2/0	13.00	Bulk Insulation R1.50
			20	\checkmark
Window Width	Height Eave	es Orient	Area	Name Glass Frame
		(\sim	Opening Covering
		\sim	()	Shading
Window(6, 1) 0.61	0.90 0.7	70 (220)	9.55	GGG-05-001a Single Glazed Clear Aluminium
		2	$\widetilde{}$	45% Opening Sliding, Two Lites Holland Blind
		\sim	>	No Shading
Window(6, 2) 1.51	1.20 0.1	70 270	1.81	GGG-05-001a Single Glazed Clear Aluminium
	\wedge	$\langle \langle \rangle \rangle$		45% Opening Sliding, Two Lites Holland Blind
		\sim		No Shading
Wall E 7 4.20	2.70 4.0	0 0	6.28	Fibro Cavity Panel 70mm gap 0.30
		\sim		Bulk Insulation R1.50
Window Width	Height Eave	s Orient	Area	Name Glass Frame
				Opening Covering
				Shading
Window(7,1) 2.41	2.10 4.0	0 00	5.06	GGG-05-001a Single Glazed Clear Aluminium
				45% Opening Sliding, Two Lites Holland Blind
	\sim			No Shading
Wall E 16 1.70	L200 1.1	30 90	2.71	Fibro Cavity Panel 70mm gap 0.30
Wall 1 10 1.70			4., / ±	Bulk Insulation R1.50
Door Ext Width	Votaht Daw	orient	2200	
	v -		Area	Type
Door E(16, 1) 0.92	2.04 1.8	30 90	1.88	Solid timber door
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Project, Finucane Building 2 Mirror Run 1 ALEXANDRA HILLS PC 4161 Lat -27.50 Long 153.20 Climate File climat10.TXT

Summary

Conditioned Area56.6 m²Unconditioned Area16.8 m²Total Floor Area73.4 m²Total Glazed Area10.9 m²Total External Solid door Area1.9 m²Glass to Floor Area14.9 %Gross External Wall Area108.0 m²Net External Wall Area95.2 m²

Window

10.9 m² GGG-05-001a Generics Uval 6.57 SHGC 0.74 Glass Single Glazed Clear Frame Aluminium

External Wall 77.1 m² Fibro Cavity Panel 70mm gap Bulk Insulation R 1.5 18.1 m² Concrete Block to neighbour No Insulation

Internal Wall 52.1 m² Cavity Panel 70mm gap No Insulation

External Floor 44.2 m² Concrete Slab on Ground Ceramic Tiles 8mm No Insulation 29.1 m² Concrete Slab on Ground Carpet 10mm No Insulation

External Ceiling 73.4 m² Plasterboard No Insulation Apartment above

Roof (Horizontal area) 73.3 m² Corrugated Iron Bulk, Reflective Side Down Arti glare Up R 1.5 7° slope Skillion roof

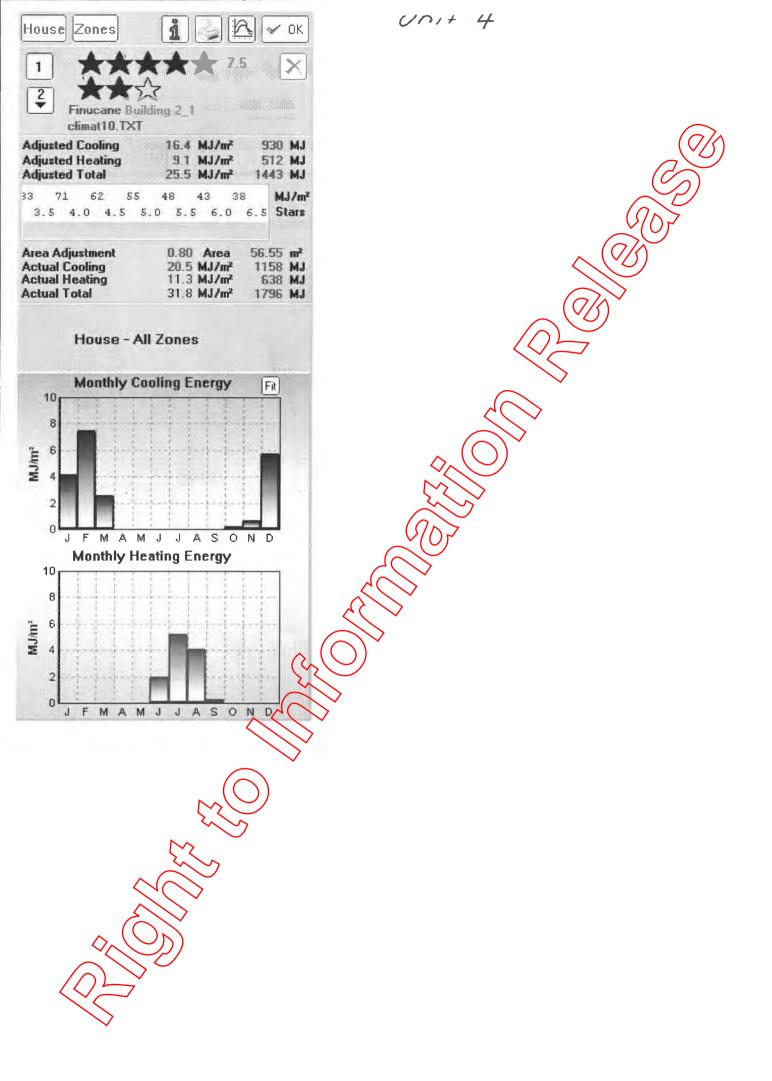
4						
Details						
Zone 1 Liv	/Kitche	en 1	Living/	'Kitchen A	rea on 1	Level 1
Air Movement S	creens	Seals	Chimne	ey Gas v	ent Wa	ll vents Downlights Ex Fans Ceilin fans
	No	Yes	ľ	lo No		0 0 0 No
External Floor					Area	Covering Type
					27.44	Ceramic Tiles 8mm Concrete Slab on Ground No Insulation
Ceiling		Slope			Area	Туре
						Above Ceiling
		0			27.44	Plasterboard No Insulation
		_		_		Another apartment
Roof		Slope		Shape		Type Solar Abs
		_				Insulation
		7	5	Skillion		Corrugated Iron 0.30
Deutitien Mall	*	TT - J - l- t-				Bulk, Reflective Side Down, Anti-glare Up R1.50
Partition Wall . Wall P 2	-	-		AdjZ	Area	Type
Wall P 2 Wall P 3	2.10 1.20	2.70 2.70		4	5.67 -0.00	Cavity Panel 70mm gap No Insulation Cavity Panel 70mm gap No Insulation
Door Int				2	-0.00 Area	
Door I(3, 1)	1.20	Height 2.70		AdjZ 2	3.24	Type Opening in wall
Wall P 4	3.00	2.70		2	8.10	Cavity Panel 70mm gap No Insulation
External Wall			Eaves	-	Area	Type Abs
BACCINAL MAIL	Deligen	nergiic	Laves	OTTENC	ALCA	Insulation
Wall E 1	3.90	2.70	3.60	0	5.49	Fibro Cavity Pahel 70mm gap 0.30
	5.50	2.,0	5.00	U	5.15	Bulk Insulation R. 50
Window	Width	Height	Eaves	Orient	Area	Name Class Frame
		···· J-··				Opening Covering
						Shading
Window(1, 1)	2.40	2.10	3.60	0	5.04	GGG-05-001a Single Glazed Clear Aluminium
						45% Spening Sliding, Two Lites Holland Blind
						No shadhug
Wall E 5	6.70	2.70	9.38	180	18.09	Concrete Block to neighbour 0.30 No Insulation
Wall E 6	3.20	2.70	0.10	270	7.55	Fibro Davity Panel 70mm gap 0.30
					1	Bulk Insulation R1.50
Window	Width	Height	Eaves	Orient	Area	Name Glass Frame
					7	Opening Covering
					\wedge	Shading
Window(6, 1)	1.21	0.90	0.10	270	(109	GGG-05-001a Single Glazed Clear Aluminium
					\sim	45% Opening Sliding, Two Lites Holland Blind
				(c		Vertical Louvres, Horizontal Blades
Wall E 7	0.70	2.70	4.60	()	89. ل	Fibro Cavity Panel 70mm gap 0.30
				52		Bulk Insulation R1.50
Wall E 8	1.00	2.70	0.80	270	2.70	Fibro Cavity Panel 70mm gap 0.30
			,	$\langle \frown \rangle$		Bulk Insulation R1.50
			\sim			
	ridor 1			Area on Le		
Air Movement So		Seals	Chimne	\sim /	ent Wal	l vents Downlights Ex Fans Ceilin fans
	No	Yes		o No		0 0 0 No
External Floor		(()		Area	Covering Type
Ceiling		slove	\bigcirc		6.24	Ceramic Tiles 8mm Concrete Slab on Ground No Insulation
Cerring		STORE	\sim		Area	Type Above Ceiling
			ン		6.24	Plasterboard No Insulation
	1	\sim	-		0.24	Another apartment
Roof	7	VCI NA		Shape		Type Solar Abs
1001	~ (-			bilape		Insulation
	$\langle \vee ($	\searrow 7	S	killion		Corrugated Iron 0.30
	\sim		5			Bulk, Reflective Side Down, Anti-glare Up R1.50
Partition Wall	ength	Height		AdjZ	Area	Type
Wall P 1	Jib	2.70		4	1.09	Cavity Panel 70mm gap No Insulation
Door Int	. //	Height		AdjZ	Area	Type
Door $I(1, 1)$	0.92	2.04		4	1.88	Hollow core door
Wall P 2	2.90	2.70		5	5.95	Cavity Panel 70mm gap No Insulation
Door Int	Width	Height		AdjZ	Area	Туре
Door I(2, 1)	0.92	2.04		5	1.88	Hollow core door
Wall P 4	1.60	2.70		3	4.32	Cavity Panel 70mm gap No Insulation

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Wall P 5 0.90	2.70	3	2.43	Cavity Panel 70mm gap No Insulation
Wall P 6 2.40		3	4.60	Cavity Panel 70mm gap No Insulation
	Height		Area	
	-	AdjZ		Туре
Door I(6, 1) 0.92		3	1.88	Hollow core door
Wall P 7 1.20	2.70	1	-0.00	Cavity Panel 70mm gap No Insulation
Door Int Width	Height	AdjZ	Area	Туре
Door I(7, 1) 1.20	2.70	1	3.24	Opening in wall
External Wall Length	Height	Eaves Orient	Area	Type Abs
5	5			Insulation
Wall E 3 2.10	2.70	1.50 90	3.79	Fibro Cavity Panel 70mm gap 0.30
Wall E 5 2.10	2.70	1.50 90	5.75	
				Bulk Insulation R1.50
Door Ext Width	Height	Eaves Orient	Area	Туре
Door E(3, 1) 0.92	2.04	1.50 90	1.88	Solid timber door
Zone 3 Bath	Wet Area	on Level 1		
Air Movement Screens	Seals	Chimney Gas	vent Wa	ll vents Downlights Ex Fans cyilin fans
No		NO NO		
	165	NO NO		\sim
External Floor			Area	Covering Type
			10.56	Ceramic Tiles 8mm Concrete Stab on Ground No Insulation
Ceiling	Slope		Area	Туре
				Above Ceiling
	0		10.56	Plasterboard No Insulation
				Another apartmehr
Roof	Clone	Chana		
ROOL	Slope	Shape		
				Insulation
	7	Skillion		Corrugated Iron 0.30
				Bulk, Reflective Side Down, Anti-glare Up R1.50
Partition Wall Length	Height	AdjZ	Area	Туре
Wall P 1 2.40	2.70	2	4.60	Cavity Ranel Omm gap No Insulation
	Height	AdjZ	Area	Тура
	-	-		
Door I(1, 1) 0.92		2	1.88	Hollow Core door
Wall P 2 0.90		2	2.43	Cavity Panel 70mm gap No Insulation
Wall P 3 1.60	2.70	2	4.32	Cavity Panel 70mm gap No Insulation
Wall P 6 3.00	2.70	1	8.10	Cawity Panel 70mm gap No Insulation
External Wall Length	Height	Eaves Orient	Area	Type Abs
-				Insulation
Wall E 4 2.10	2.70	0.40 90	5.04	Fibro Cavity Panel 70mm gap 0.30
Wall E 4 2.10	2.70	0.40 90	3.04	
			\sim	Bulk Insulation R1.50
Window Width	Height	Eaves Orient	Area	Name Glass Frame
		\wedge	\bigcirc	Opening Covering
		$(\sqrt{2})$		Shading
Window(4, 1) 0.70	0.90	0.40 90	0.63	GGG-05-001a Single Glazed Clear Aluminium
		()	7	90% Opening Louvres Holland Blind
				No Shading
	2.70		10 00	5
Wall E 5 4.00	2.70	9 32 1 80	10.80	Fibro Cavity Panel 70mm gap 0.30
				Bulk Insulation R1.50
Zone 4 Bed 2	Sleepin	Area on Level 1	L	
Air Movement Screens	Seals	Chimney Gas v	vent Wal	ll vents Downlights Ex Fans Ceilin fans
No	Yes	NO NO	C	0 0 No
External Floor	5.5		Area	Covering Type
Excernar 11001	\sim	\sum		
	\sim	\sim	13.12	Carpet 10mm Concrete Slab on Ground No Insulation
Ceiling	glope		Area	Туре
	\sim			Above Ceiling
\wedge	0		13.12	Plasterboard No Insulation
				Another apartment
Roof	Slope	Shape		Type Solar Abs
		Durahe		Insulation
	<u> </u>	a 1-42224		
)) 7	Skillion		Corrugated Iron 0.30
	/			Bulk, Reflective Side Down, Anti-glare Up R1.50
Partition Wall Length	Height	AdjZ	Area	Туре
		5	11.07	Cavity Panel 70mm gap No Insulation
Wall P 2 4.10	2.70	-		
Wall P 2 4.10 Wall P 3 1.10	2.70	2	1.09	Cavity Panel 70mm gap No Insulation
Wall P 3 1.10	2.70	2		
Wall P 3 1.10 Door Int Width	2.70 Height	2 AdjZ	Area	Туре
Wall P 3 1.10	2.70	2		

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Wall P.4	2.10	2.70		1	5.67	Cavity Panel 70mm gap No Insulation
External Wall			Eaves	Orient	Area	Type Abs
Intocritical ficality	Dengen	nerdic	Laveb	01 20110	112.004	Insulation
Wall E 1	3.20	2.70	0.30	0	7.19	Fibro Cavity Panel 70mm gap 0.30
						Bulk Insulation R1.50
Window	Width	Height	Eaves	Orient	Area	Name Glass Frame
						Opening Covering
						Shading (C)
Window(1, 1)	1.21	1.20	0.30	0	1.45	GGG-05-001a Single Glazed Clear Aluminium
						45% Opening Sliding, Two Lites Holland Blind Vertical Louvres, Horizontal Blades
Wall E 5	4.10	2.70	4.70	270	10.34	Fibro Cavity Panel 70mm gap 0.20
Maii D J	1,10	2.70	4.70	270	10.04	Bulk Insulation R1.50
Window	Width	Height	Eaves	Orient	Area	Name Glass Trame
		<u>-</u>				Opening Covering
						Shading
Window(5,1)	1.21	0.60	4.70	270	0.73	GGG-05-001a Single Glazed Clear Aluminium
						45% Opening Sliding, Two Lites Holland Blind
						No Shading
	_					
	d 1	-	-	n Level :		
Air Movement	Screens	Seals Yes	Chimne	y Gasy O No		l vents Downlights Ex Fans Ceilin fans
External Floor		165	14	0 10	Area	Covering Type
					15.99	Carpet 10mm Concrete Slab on Ground No Insulation
Ceiling		Slope			Area	Туре
						Above Ceiling
		0			15.99	Plasterboard No Insulation
						Another apartment
Roof		Slope		Shape		Type Solar Abs
		_	-			Institution
		7	S	killion		Corrugated Iron 0.30
Partition Wall	Length	Height		AdjZ	Area	Bulk, Reflective Side Down, Anti-glare Up R1.50
Wall P 4	2.90	2.70		2	5.86	Cavity Panel 70mm gap No Insulation
Door Int	Width	Height		AdjZ	Axea	Type
Door I(4, 1)	0.92	2.04		2	1.88	Aollow core door
Wall P 5	4.10	2.70		4	11.07	Cavity Panel 70mm gap No Insulation
External Wall	Length	Height	Eaves	Orient	Area	Type Abs
				$\langle \lambda \rangle$	\bigcirc	Insulation
Wall E 1	3.90	2.70	0.30	20	9.08	Fibro Cavity Panel 70mm gap 0.30 Bulk Insulation R1.50
Window	Width	Height	Eaves	Orient	Area	Name Glass Frame
WILLOW	WIGCH	nergiic	Laves		ALCA	Opening Covering
			\sim			Shading
Window(1, 1)	1.21	1.20	0.30	0	1.45	GGG-05-001a Single Glazed Clear Aluminium
			_	\checkmark		45% Opening Sliding, Two Lites Holland Blind
		/	\frown			Vertical Louvres, Horizontal Blades
Wall E 2	4.10	2.70	0.50	90	11.07	Fibro Cavity Panel 70mm gap 0.30
		$\int \chi$				Bulk Insulation R1.50
Wall E 3	1.00	2.70	1.70	180	2.15	Fibro Cavity Panel 70mm gap 0.30
Window	Width	Height	Eaves	Orient	Area	Bulk Insulation R1.50 Name Glass Frame
WINGOW	MIGCH		Daves.	orient	Arca	Opening Covering
		\sim				Shading
Window(3,1)	0.61	90	1.70	180	0.55	GGG-05-001a Single Glazed Clear Aluminium
	Δ	>				45% Opening Sliding, Two Lites Holland Blind
	(\bigcirc)	$\tilde{\mathbf{x}}$				No Shading
\Diamond_{\wedge}	(\cup))				
	$\swarrow \mathcal{C}$	/				
	\geq					
	1					
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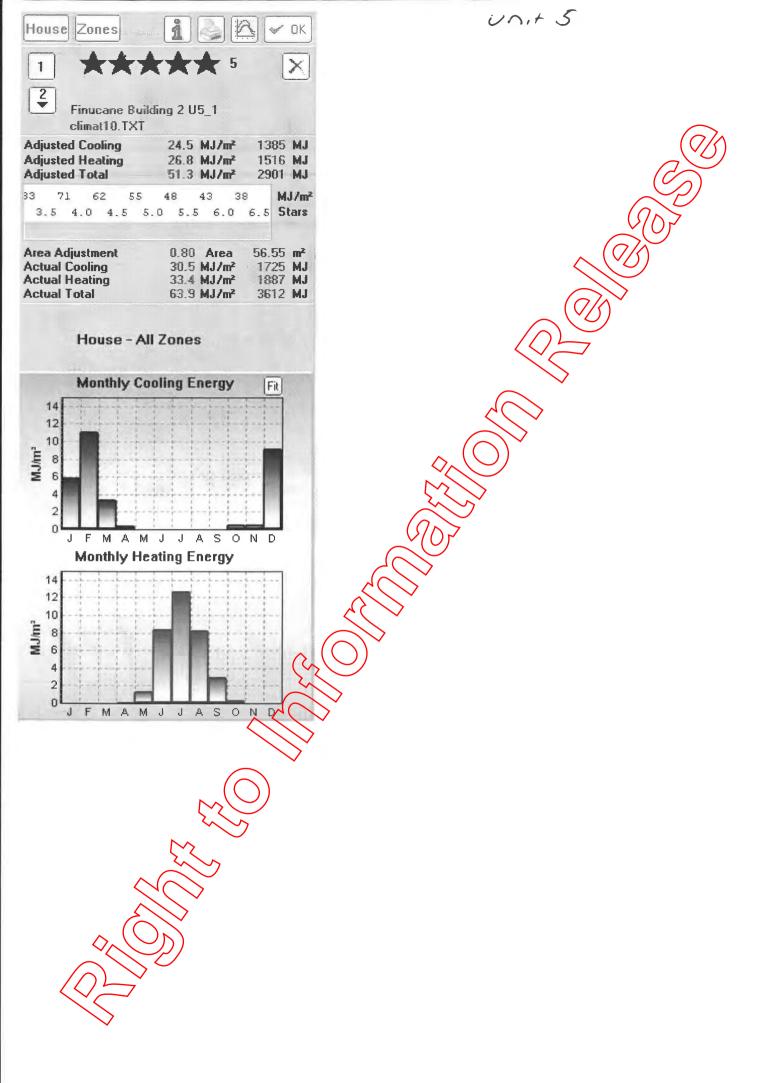


ŧ Project, Finucane Building 2 Run 1 ALEXANDRA HILLS PC 4161 Lat -27.50 Long 153.20 Climate File climat10.TXT Summary Conditioned Area 56.6 m² Unconditioned Area 16.8 m² Total Floor Area 73.4 m² Total Glazed Area 10.9 m² Total External Solid door Area 1.9 m² Glass to Floor Area 14.9 % Gross External Wall Area 108.0 m² Net External Wall Area 95.2 m² Window 10.9 m² GGG-05-001a Generics Uval 6.57 SHGC 0.74 Glass Single Glazed Clear Frame Aluminium External Wall 77.1 m² Fibro Cavity Panel 70mm gap Bulk Insulation R 1.5 18.1 m² Concrete Block to neighbour No Insulation Internal Wall 52.1 m² Cavity Panel 70mm gap No Insulation External Floor 44.2 m² Concrete Slab on Ground Ceramic Tiles 8mm No Insulation 29.1 m² Concrete Slab on Ground Carpet 10mm No Insulation External Ceiling 73.4 m² Plasterboard No Insulation Apartment above Roof (Horizontal area) 73.3 m² Corrugated Iron Bulk, Reflective Side Down, Anti-glare Up R 1.5 7° slope Skillion roof

Details				
Zone 1 Liv/Kitcher	nl Livi	.ng/Kitchen A	Area on 1	Level 1
Air Movement Screens	Seals Chi	mney Gas	vent Wa	ll vents Downlights Ex Fans Ceilin fans
No	Yes	No No	0	0 0 0 No
External Floor			Area	Covering Type
Coiling	Clana		27.44	Ceramic Tiles 8mm Concrete Slab on Ground No Insulation
Ceiling	Slope		Area	Type Above Ceiling
	0		27,44	Plasterboard No Insulation
	Ū		27.22	Another apartment
Roof	Slope	Shape		Type Solar Abs
		-		Insulation
	7	Skillion		Corrugated Iron 0.30
				Bulk, Reflective Side Down, Anti-glare Up R1.50
Partition Wall Length	-	AdjZ	Area	Туре
Wall P 5 3.00	2.70	3	8.10	Cavity Panel 70mm gap No Instlation
Wall P 6 1.20 Door Int Width	2.70 Height	2 AdjZ	-0.00 Area	Cavity Panel 70mm gap No Insulation
Door I(6, 1) 1.20	2.70	A012	3.24	Type Opening in wall
Wall P 7 2.10	2.70	4	5.67	Cavity Panel 70mm gap No Insulation
External Wall Length		es Orient	Area	Type Abs
				Insulation
Wall E 1 1.00	2.70 0.	80 270	2.70	Fibro Cavity Panel 70mm gap 0.30
				Bulk Insulation RL 50
Wall E 2 0.70	2.70 4.	60 180	1.89	Fibro Cavity Panel 70mm gap 0.30
				Bulk Insulation R1.50
Wall E 3 3.20	2.70 0.	10 270	7.55	Fibro Cavity Panel 70mm gap 0.30 Bulk Insulation R1.50
Window Width	Height Eav	es Orient	Area	Name Glass Frame
Mindow Middli	nergne Dav	es oritene	AI CU	Opeping Covering
				Shealing
Window(3,1) 1.21	0.90 0.	10 270	1.09	GGG-01-001a Single Glazed Clear Aluminium
				45% Opening Sliding, Two Lites Holland Blind
			G	Vertical Louvres, Horizontal Blades
Wall E 4 6.70		38 0	18.09	Concrete Block to neighbour 0.30 No Insulation
Wall E 8 3.90	2.70 3.	60 180	5,49	Fibro Cavity Panel 70mm gap 0.30
Window Width	Height Eav	es Orient	Area	Vulk Insulation R1.50 Name Glass Frame
Willow Width	nergne Lav	es orrent		Opening Covering
		\sim ((())	Shading
Window(8, 1) 2.40	2.10 3.	60 180	5.04	GGG-05-001a Single Glazed Clear Aluminium
		\sim	S	45% Opening Sliding, Two Lites Holland Blind
			~	No Shading
	.[$\langle \langle \backslash \vee \rangle$		
Zone 2 Corridor 1		or Area on I		
Air Movement Screens No	Seals Chi Yes	MINEY Gas V No No		ll vents Downlights Ex Fans Ceilin fans 0 0 0 No
External Floor	Tes	NO NO	Area	Covering Type
	$(\bigcirc$		6.24	Ceramic Tiles 8mm Concrete Slab on Ground No Insulation
Ceiling	S10pe	9	Area	Туре
	2m			Above Ceiling
N	0		6.24	Plasterboard No Insulation
	~2			Another apartment
Roof	~ST 949	Shape		Type Solar Abs
\sim	\sum_{n}	C 1 (1 1 1)		Insulation
		Skillion		Corrugated Iron 0.30
Partition Wall Length	Height	AdjZ	Area	Bulk, Reflective Side Down, Anti-glare Up R1.50 Type
Wall P 1	2.70	1	-0.00	Cavity Panel 70mm gap No Insulation
	Height	- AdjZ	Area	Туре
Door I(1,1) 2.20	2.70	1	3.24	Opening in wall
Wall 2 2.40	2.70	3	4.60	Cavity Panel 70mm gap No Insulation
	Height	AdjZ	Area	Туре
Door I(2 , 1) 0.92	2.04	3	1.88	Hollow core door
Wall P 3 0.90	2.70	3	2.43	Cavity Panel 70mm gap No Insulation

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Wall P • 4 1.60		3	4.32	Cavity Panel 70mm gap No Insulation
Wall P 6 2.90		5	5.95	Cavity Panel 70mm gap No Insulation
Door Int Width Door I(6, 1) 0.92	Height 2.04	5	Area 1.88	Type Hollow core door
Wall P 7 1.10			1.09	Cavity Panel 70mm gap No Insulation
	Height		Area	Type
Door I(7, 1) 0.92	2.04	5	1.88	Hollow core door
External Wall Length	Height	Eaves Orient	Area	Type Abs
Wall E 5 2.10	2.70	1.50 90	3.79	Insulation Fibro Cavity Panel 70mm gap 0.30 Bulk Insulation R1.50
Door Ext Width	Height	Eaves Orient	Area	Туре
Door E(5, 1) 0.92	2.04		1.88	Solid timber door
	Mate Deca	[]]		
Zone 3 Bath Air Movement Screens	wet Area Seals	on Level 1 Chimney Gas ven	nt wal	l vents Downlights Ex Fans
AII MOVEMENT Screens No		No No	IL Wal	l vents Downlights Ex Fans
External Floor	100		Area	Covering Type
			.0.56	Ceramic Tiles 8mm Concrete Stab on Ground No Insulation
Ceiling	Slope		Area	Туре
				Above Ceiling
	0	1	.0.56	Plasterboard No Insulation Another apartment
Roof	Slope	Shape		Type Solax Abs
	_			Insulation
	7	Skillion		Corrugated Iron 0.30 Bulk, Reflective Side Down, Anti-glare Up R1.50
Partition Wall Length	Height	AdjZ	Area	Туре
Wall P 1 3.00	2.70	1	8.10	Cavity Ranes / Omm gap No Insulation
Wall P 4 1.60	2.70	2	4.32	Cavity Mane? 70mm gap No Insulation
Wall P 5 0.90	2.70	2	2.43	Cavity Panel 70mm gap No Insulation
Wall P 6 2.40	2.70	2	4.60	Cavit Panel 70mm gap No Insulation
	Height		Area	Type
Door I(6, 1) 0.92	2.04		1.88	Hollow core door
External Wall Length	Height	Eaves Orient	Area	Type Abs Insulation
Wall E 2 4.00	2.70	9.32 0 🔏	0 80	Fibro Cavity Panel 70mm gap 0.30
1100	2.70			Bulk Insulation R1.50
Wall E 3 2.10	2.70	0.40 90	5.04	Fibro Cavity Panel 70mm gap 0.30
			\mathcal{I}	Bulk Insulation R1.50
Window Width	Height	Eaves Oxient	Irea	Name Glass Frame
				Opening Covering Shading
Window(3,1) 0.70	0.90	0,40 90	0.63	GGG-05-001a Single Glazed Clear Aluminium
		$\langle \rangle \rangle$		90% Opening Louvres Holland Blind
				No Shading
		\sim		
Zone 4 Bed 2		Area on Level 1		
Air Movement Screens	Seals	$\mathbf{O}^{\mathbf{I}}$	t Wal	l vents Downlights Ex Fans Ceilin fans
No	Yea	No No	_	0 0 0 No
External Floor		~/	Area	Covering Type
Coiling			3.12	Carpet 10mm Concrete Slab on Ground No Insulation
Ceiling	glope		Area	Type Above Ceiling
~ (-		1	3.12	Plasterboard No Insulation
$\langle \neg \langle$		-	5.22	Another apartment
Roof	Slope	Shape		Type Solar Abs
()	✓ [−]	*		Insulation
	7	Skillion		Corrugated Iron 0.30
	/		_	Bulk, Reflective Side Down, Anti-glare Up R1.50
Partition Wall Length	Height	5	Area	Type
Wall P 2 2.10 Wall P 3 1.10	2.70		5.67	Cavity Panel 70mm gap No Insulation
	2.70 Height		1.09 Area	Cavity Panel 70mm gap No Insulation Type
Door $I(3, 1)$ 0.92	2.04	-	1.88	Hollow core door
		2		

Wall P 4 4.10				
	2.70	5	11.07	Cavity Panel 70mm gap No Insulation
External Wall Length	Height	Eaves Orient	Area	Type Abs
				Insulation
Wall E 1 4.10	2.70	4.70 270	10.34	Fibro Cavity Panel 70mm gap 0.30
				Bulk Insulation R1.50
Window Width	Height	Eaves Orient	Area	Name Glass Frame
Milliow Million	nergne	Laves offene	AI CU	
				Shading
Window(1, 1) 1.21	0.60	4.70 270	0.73	GGG-05-001a Single Glazed Clear Aluminium
				45% Opening Sliding, Two Lites Hollard Blind
				No Shading $\bigvee(())$
Wall E 5 3.20	2.70	0.30 180	7.19	Fibro Cavity Panel 70mm gap 0.30
				Bulk Insulation R1.50
Window Width	Height	Eaves Orient	Area	Name Glass Frame
	1102 9110	20100 021010		Opening Covering
				Shading
Window(5, 1) 1.21	1.20	0.30 180	1.45	GGG-05-001a Single Glazed Clear Aluminium
				45% Opening Sliding, Two Lites Holland Blind
				Vertical Louvres, Horizontal Blades
Zone 5 Bed 1	Sleeping	g Area on Level :	1	\sim
Air Movement Screens	Seals	Chimney Gas	vent Wal	ll vents Downlights Ex Fans Ceilin fans
No		No No		0 0 0 No
External Floor	100	110 110	Area	
Excernal F1001				
- 121	+7		15.99	Carpet 10mm Concrete Slab on Ground No Insulation
Ceiling	Slope		Area	Type
				Above Ceiling
	0		15.99	Plasterboard No Insulation
				Another apartment
Roof	Slope	Shape		Type Solar Abs
				Insynation
	7	Skillion		Corrugated Iron 0.30
				Bulk, Deflective Side Down, Anti-glare Up R1.50
Dartition Wall Longth	Ucidht	7.0-17	Arca	
Partition Wall Length	+	AdjZ	Area	Type
Wall P 1 4.10	2.70	4	11.00	Cavity Panel 70mm gap No Insulation
Wall P 2 2.90	2.70	2	5,95	Cavity Panel 70mm gap No Insulation
Door Int Width	Height	AdjZ	Area	Ype
Door I(2, 1) 0.92	2.04	2	1.88	Hollow core door
External Wall Length		2		
	Height	Eaves Orient	Area	Type Abs
	Height		\frown	Type Abs
-	5	Eaves Orient	Area	Type Abs Insulation
Wall E 3 1.00	Height 2.70		\frown	Type Abs Insulation Fibro Cavity Panel 70mm gap 0.30
Wall E 3 1.00	2.70	Eaves Orient	Area 2.15	Type Abs Insulation Fibro Cavity Panel 70mm gap 0.30 Bulk Insulation R1.50
Wall E 3 1.00	5	Eaves Orient	Area	Type Abs Insulation Fibro Cavity Panel 70mm gap 0.30 Bulk Insulation R1.50 Name Glass Frame
Wall E 3 1.00	2.70	Eaves Orient	Area 2.15	Type Abs Insulation Fibro Cavity Panel 70mm gap 0.30 Bulk Insulation R1.50 Name Glass Frame Opening Covering
Wall E 3 1.00 Window Width	2.70 Height	Eaves Orient	Area	Type Abs Insulation Fibro Cavity Panel 70mm gap 0.30 Bulk Insulation R1.50 Name Glass Frame Opening Covering Shading
Wall E 3 1.00	2.70	Eaves Orient	Area 2.15	Type Abs Insulation Fibro Cavity Panel 70mm gap 0.30 Bulk Insulation R1.50 Name Glass Frame Opening Covering Shading GGG-05-001a Single Glazed Clear Aluminium
Wall E 3 1.00 Window Width	2.70 Height	Eaves Orient	Area	Type Abs Insulation Fibro Cavity Panel 70mm gap 0.30 Bulk Insulation R1.50 Name Glass Frame Opening Covering Shading
Wall E 3 1.00 Window Width	2.70 Height	Eaves Orient	Area	Type Abs Insulation Fibro Cavity Panel 70mm gap 0.30 Bulk Insulation R1.50 Name Glass Frame Opening Covering Shading GGG-05-001a Single Glazed Clear Aluminium
Wall E 3 1.00 Window Width	2.70 Height	Eaves Orient	Area	Type Abs Insulation Fibro Cavity Panel 70mm gap 0.30 Bulk Insulation R1.50 Name Glass Frame Opening Covering Shading GGG-05-001a Single Glazed Clear Aluminium 45% Opening Sliding, Two Lites Holland Blind
Wall E 3 1.00 Window Width Window(3,1) 0.61	2.70 Height 0.90	Eaves Orient 1.70 0 Eaves Orient 1.70 0	Area .15 Area 0.55	Type Abs Insulation Fibro Cavity Panel 70mm gap 0.30 Bulk Insulation R1.50 Name Glass Frame Opening Covering Shading GGG-05-001a Single Glazed Clear Aluminium 45% Opening Sliding, Two Lites Holland Blind No Shading Fibro Cavity Panel 70mm gap 0.30
Wall E 3 1.00 Window Width Window(3,1) 0.61 Wall E 4 4.10	2.70 Height 0.90	Eaves Orient 1.70 0 Eaves Orient 1.70 0 0.50 90	Area .15 Area 0.55 11.07	Type Abs Insulation Fibro Cavity Panel 70mm gap 0.30 Bulk Insulation R1.50 Name Glass Frame Opening Covering Shading GGG-05-001a Single Glazed Clear Aluminium 45% Opening Sliding, Two Lites Holland Blind No Shading Fibro Cavity Panel 70mm gap 0.30 Bulk Insulation R1.50
Wall E 3 1.00 Window Width Window(3,1) 0.61	2.70 Height 0.90	Eaves Orient 1.70 0 Eaves Orient 1.70 0	Area .15 Area 0.55	TypeAbsInsulationFibro Cavity Panel 70mm gap 0.30Bulk Insulation R1.50NameGlassOpeningCoveringShadingGGG-05-001a Single Glazed Clear Aluminium45% Opening Sliding, Two Lites Holland BlindNo ShadingFibro Cavity Panel 70mm gap 0.30Bulk Insulation R1.50Fibro Cavity Panel 70mm gap 0.30
Wall E 3 1.00 Window Width Window(3, 1) 0.61 Wall E 4 4.10 Wall E 5 3.90	2.70 Height 0.90 2.70 2.70	Eaves Orient 1.70 0 Eaves Orient 1.70 0 0.50 90 0.30 180	Area 0.55 11.07 9.08	TypeAbsInsulationFibro Cavity Panel 70mm gap0.30Bulk Insulation R1.50NameGlassOpeningCoveringShadingGGG-05-001a Single Glazed ClearAluminium45% Opening Sliding, Two LitesHolland BlindNo ShadingFibro Cavity Panel 70mm gap0.30Bulk Insulation R1.50Fibro Cavity Panel 70mm gap0.30
Wall E 3 1.00 Window Width Window(3,1) 0.61 Wall E 4 4.10	2.70 Height 0.90 2.70 2.70	Eaves Orient 1.70 0 Eaves Orient 1.70 0 0.50 90	Area .15 Area 0.55 11.07	TypeAbsInsulationFibro Cavity Panel 70mm gap 0.30Bulk Insulation R1.50NameGlassOpeningCoveringShadingGGG-05-001a Single Glazed Clear Aluminium45% Opening Sliding, Two Lites Holland BlindNo ShadingFibro Cavity Panel 70mm gap 0.30Bulk Insulation R1.50Fibro Cavity Panel 70mm gap 0.30Bulk Insulation R1.50NameGlassFrame
Wall E 3 1.00 Window Width Window(3, 1) 0.61 Wall E 4 4.10 Wall E 5 3.90	2.70 Height 0.90 2.70 2.70	Eaves Orient 1.70 0 Eaves Orient 1.70 0 0.50 90 0.30 180	Area 0.55 11.07 9.08	TypeAbsInsulationFibro Cavity Panel 70mm gap0.30Bulk Insulation R1.50NameGlassOpeningCoveringShadingGGG-05-001a Single Glazed ClearAluminium45% Opening Sliding, Two LitesHolland BlindNo ShadingFibro Cavity Panel 70mm gap0.30Bulk Insulation R1.50Fibro Cavity Panel 70mm gap0.30
Wall E 3 1.00 Window Width Window(3, 1) 0.61 Wall E 4 4.10 Wall E 5 3.90	2.70 Height 0.90 2.70 2.70	Eaves Orient 1.70 0 Eaves Orient 1.70 0 0.50 90 0.30 180	Area 0.55 11.07 9.08	TypeAbsInsulationFibro Cavity Panel 70mm gap 0.30Bulk Insulation R1.50NameGlassOpeningCoveringShadingGGG-05-001a Single Glazed Clear Aluminium45% Opening Sliding, Two Lites Holland BlindNo ShadingFibro Cavity Panel 70mm gap 0.30Bulk Insulation R1.50Fibro Cavity Panel 70mm gap 0.30Bulk Insulation R1.50NameGlassFrame
Wall E 3 1.00 Window Width Window(3, 1) 0.61 Wall E 4 4.10 Wall E 5 3.90	2.70 Height 0.90 2.70 2.70	Eaves Orient 1.70 0 Eaves Orient 1.70 0 0.50 90 0.30 180	Area 0.55 11.07 9.08	TypeAbsInsulationFibro Cavity Panel 70mm gap0.30Bulk InsulationR1.50NameGlassFrameOpeningCoveringShadingShadingGGG-05-001a Single Glazed Clear Aluminium45% Opening Sliding, Two Lites Holland BlindNo ShadingFibro Cavity Panel 70mm gap0.30Bulk Insulation R1.50Fibro Cavity R1.50NameGlassPrameOpeningCovering
Wall E 3 1.00 Window Width Window (3, 1) 0.61 Wall E 4 4.10 Wall E 5 3.90 Window Width	2.70 Height 0.90 2.70 Agight	Eaves Orient 1.70 0 Eaves Orient 1.70 0 0.5 90 0.30 180 Eaves Orient	Area .15 Area 0.55 11.07 9.08 Area	TypeAbsInsulationFibro Cavity Panel 70mm gap0.30Bulk Insulation R1.50NameGlassOpeningCoveringShadingGGG-05-001aSingle Glazed ClearGGG-05-001aSingle Glazed ClearAluminium45% OpeningJiding, Two LitesHolland BlindNoShadingFibro Cavity Panel 70mm gap0.30Bulk Insulation R1.50Fibro Cavity Panel 70mm gap0.30Bulk Insulation R1.50NameGlassOpeningCoveringShadingGGG-05-001aSingle Glazed ClearGGG-05-001aSingle Glazed Clear
Wall E 3 1.00 Window Width Window (3, 1) 0.61 Wall E 4 4.10 Wall E 5 3.90 Window Width	2.70 Height 0.90 2.70 Agight	Eaves Orient 1.70 0 Eaves Orient 1.70 0 0.5 90 0.30 180 Eaves Orient	Area .15 Area 0.55 11.07 9.08 Area	TypeAbsInsulationFibro Cavity Panel 70mm gap 0.30Bulk Insulation R1.50NameGlassOpeningCoveringShadingGGG-05-001a Single Glazed Clear Aluminium45% Opening Sliding, Two Lites Holland BlindNo ShadingFibro Cavity Panel 70mm gap 0.30Bulk Insulation R1.50Fibro Cavity Panel 70mm gap 0.30Bulk Insulation R1.50SnameGlassOpeningCoveringShadingGGG-05-001a Single Glazed Clear Aluminium60 Single Single Single ShadingGGG-05-001a Single Glazed Clear Aluminium45% Opening Single Sin
Wall E 3 1.00 Window Width Window (3, 1) 0.61 Wall E 4 4.10 Wall E 5 3.90 Window Width	2.70 Height 0.90 2.70 Agight	Eaves Orient 1.70 0 Eaves Orient 1.70 0 0.5 90 0.30 180 Eaves Orient	Area .15 Area 0.55 11.07 9.08 Area	TypeAbsInsulationFibro Cavity Panel 70mm gap0.30Bulk Insulation R1.50NameGlassOpeningCoveringShadingGGG-05-001aSingle Glazed ClearGGG-05-001aSingle Glazed ClearAluminium45% OpeningJiding, Two LitesHolland BlindNoShadingFibro Cavity Panel 70mm gap0.30Bulk Insulation R1.50Fibro Cavity Panel 70mm gap0.30Bulk Insulation R1.50NameGlassOpeningCoveringShadingGGG-05-001aSingle Glazed ClearGGG-05-001aSingle Glazed Clear
Wall E 3 1.00 Window Width Window (3, 1) 0.61 Wall E 4 4.10 Wall E 5 3.90 Window Width	2.70 Height 0.90 2.70 Agight	Eaves Orient 1.70 0 Eaves Orient 1.70 0 0.5 90 0.30 180 Eaves Orient	Area .15 Area 0.55 11.07 9.08 Area	TypeAbsInsulationFibro Cavity Panel 70mm gap 0.30Bulk Insulation R1.50NameGlassOpeningCoveringShadingGGG-05-001a Single Glazed Clear Aluminium45% Opening Sliding, Two Lites Holland BlindNo ShadingFibro Cavity Panel 70mm gap 0.30Bulk Insulation R1.50Fibro Cavity Panel 70mm gap 0.30Bulk Insulation R1.50SnameGlassOpeningCoveringShadingGGG-05-001a Single Glazed Clear Aluminium60 Single Single Single ShadingGGG-05-001a Single Glazed Clear Aluminium45% Opening Single Sin
Wall E 3 1.00 Window Width Window (3, 1) 0.61 Wall E 4 4.10 Wall E 5 3.90 Window Width	2.70 Height 0.90 2.70 Agight	Eaves Orient 1.70 0 Eaves Orient 1.70 0 0.5 90 0.30 180 Eaves Orient	Area .15 Area 0.55 11.07 9.08 Area	TypeAbsInsulationFibro Cavity Panel 70mm gap 0.30Bulk Insulation R1.50NameGlassOpeningCoveringShadingGGG-05-001a Single Glazed Clear Aluminium45% Opening Sliding, Two Lites Holland BlindNo ShadingFibro Cavity Panel 70mm gap 0.30Bulk Insulation R1.50Fibro Cavity Panel 70mm gap 0.30Bulk Insulation R1.50SnameGlassOpeningCoveringShadingGGG-05-001a Single Glazed Clear Aluminium60 Single Single Single ShadingGGG-05-001a Single Glazed Clear Aluminium45% Opening Single Sin
Wall E 3 1.00 Window Width Window (3, 1) 0.61 Wall E 4 4.10 Wall E 5 3.90 Window Width	2.70 Height 0.90 2.70 Agight	Eaves Orient 1.70 0 Eaves Orient 1.70 0 0.5 90 0.30 180 Eaves Orient	Area .15 Area 0.55 11.07 9.08 Area	TypeAbsInsulationFibro Cavity Panel 70mm gap 0.30Bulk Insulation R1.50NameGlassOpeningCoveringShadingGGG-05-001a Single Glazed Clear Aluminium45% Opening Sliding, Two Lites Holland BlindNo ShadingFibro Cavity Panel 70mm gap 0.30Bulk Insulation R1.50Fibro Cavity Panel 70mm gap 0.30Bulk Insulation R1.50SnameGlassOpeningCoveringShadingGGG-05-001a Single Glazed Clear Aluminium60 Single Single Single ShadingGGG-05-001a Single Glazed Clear Aluminium45% Opening Single Sin
Wall E 3 1.00 Window Width Window(3,1) 0.61 Wall E 4 4.10 Wall E 5 3.90 Window Width	2.70 Height 0.90 2.70 Agight	Eaves Orient 1.70 0 Eaves Orient 1.70 0 0.5 90 0.30 180 Eaves Orient	Area .15 Area 0.55 11.07 9.08 Area	TypeAbsInsulationFibro Cavity Panel 70mm gap 0.30Bulk Insulation R1.50NameGlassOpeningCoveringShadingGGG-05-001a Single Glazed Clear Aluminium45% Opening Sliding, Two Lites Holland BlindNo ShadingFibro Cavity Panel 70mm gap 0.30Bulk Insulation R1.50Fibro Cavity Panel 70mm gap 0.30Bulk Insulation R1.50SnameGlassOpeningCoveringShadingGGG-05-001a Single Glazed Clear Aluminium60 Single Single Single ShadingGGG-05-001a Single Glazed Clear Aluminium45% Opening Single Sin
Wall E 3 1.00 Window Width Window(3,1) 0.61 Wall E 4 4.10 Wall E 5 3.90 Window Width	2.70 Height 0.90 2.70 Agight	Eaves Orient 1.70 0 Eaves Orient 1.70 0 0.5 90 0.30 180 Eaves Orient	Area .15 Area 0.55 11.07 9.08 Area	TypeAbsInsulationFibro Cavity Panel 70mm gap 0.30Bulk Insulation R1.50NameGlassOpeningCoveringShadingGGG-05-001a Single Glazed Clear Aluminium45% Opening Sliding, Two Lites Holland BlindNo ShadingFibro Cavity Panel 70mm gap 0.30Bulk Insulation R1.50Fibro Cavity Panel 70mm gap 0.30Bulk Insulation R1.50SnameGlassOpeningCoveringShadingGGG-05-001a Single Glazed Clear Aluminium45% Opening Sliding, Two Lites Holland Blind
Wall E 3 1.00 Window Width Window(3,1) 0.61 Wall E 4 4.10 Wall E 5 3.90 Window Width	2.70 Height 0.90 2.70 Agight	Eaves Orient 1.70 0 Eaves Orient 1.70 0 0.5 90 0.30 180 Eaves Orient	Area .15 Area 0.55 11.07 9.08 Area	TypeAbsInsulationFibro Cavity Panel 70mm gap 0.30Bulk Insulation R1.50NameGlassOpeningCoveringShadingGGG-05-001a Single Glazed Clear Aluminium45% Opening Sliding, Two Lites Holland BlindNo ShadingFibro Cavity Panel 70mm gap 0.30Bulk Insulation R1.50Fibro Cavity Panel 70mm gap 0.30Bulk Insulation R1.50SnameGlassOpeningCoveringShadingGGG-05-001a Single Glazed Clear Aluminium45% Opening Sliding, Two Lites Holland Blind



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Project, Finucane Building 2 U5 Run 1 ALEXANDRA HILLS PC 4161 Lat -27.50 Long 153.20 Climate File climat10.TXT

Summary

Conditioned Area56.6 m²Unconditioned Area16.8 m²Total Floor Area73.4 m²Total Glazed Area12.0 m²Total External Solid door Area1.9 m²Glass to Floor Area16.4 %Gross External Wall Area108.0 m²Net External Wall Area94.1 m²

Window

12.0 m² GGG-05-001a Generics Uval 6.57 SHGC 0.74 Glass Single Glazed Clear Frame Aluminium

External Wall 76.0 m² Fibro Cavity Panel 70mm gap Bulk Insulation R 1.5 18.1 m² Concrete Block to neighbour No Insulation

Internal Wall 52.1 m² Cavity Panel 70mm gap No Insulation

External Floor 44.2 m² Timber Floor, Unit Below Ceramic Tiles 8mm No Insulation 29.1 m² Timber Floor, Unit Below Carpet 10mm No Insulation

External Ceiling 73.4 m² Plasterboard No Insulation Unventilated roofspage

Roof (Horizontal area) 73.3 m² Corrugated Iron Bulk, Reflective Side Down Anti-glare Up R 1.5 7° slope Skillion roof

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Details						
	v/Kitche		_	Kitchen A:		
Air Movement		Seals	Chimne	-		ll vents Downlights Ex Fans Ceilin fans
External Floor	No	Yes	r	No No		
External Floor					Area 27.44	Covering Type Ceramic Tiles 8mm Timber Floor, Unit Below No Insulation
Ceiling		Slope			Area	Type
cerring		probe			Area	Above Ceiling
		0			27.44	Plasterboard No Insulation
		0			27.11	Unventilated roofspace cavity
Roof		Slope		Shape		Type Solar Abs
		-				Insulation
		7	S	Skillion		Corrugated Iron 0.30
						Bulk, Reflective Side Down, Anti-glare Up R1.50
Partition Wall	Length	Height		AdjZ	Area	Туре
Wall P 2	2.10	2.70		4	5.67	Cavity Panel 70mm gap No Insulation
Wall P 3	1.20	2.70		2	-0.00	Cavity Panel 70mm gap No Insulation
Door Int	Width	Height		AdjZ	Area	Туре
Door I(3, 1)	1.20	2.70		2	3.24	Opening in wall
Wall P 4	3.00	2.70		3	8.10	Cavity Panel 70mm gap No Insulation
External Wall	Length	Height	Eaves	Orient	Area	Type Abs
						Insulation
Wall E 1	3.90	2.70	3.60	0	5.49	Fibro Cavity Papel 70mm gap 0.30
			_		_	Bulk Insulation R. 50
Window	Width	Height	Eaves	Orient	Area	Name Class Frame
						Opening Covering
Window (1 1)	2 40	2 10	2 60	0	F 04	Shadita
Window(1, 1)	2.40	2.10	3.60	0	5.04	GGG-05-001a Single Glazed Clear Aluminium
						45% opening fliding, Two Lites Holland Blind No shading
Wall E 5	6.70	2.70	9.38	180	18.09	Concrete Block to neighbour 0.30 No Insulation
Wall E 6	3.20	2.70	0.10	270	7.55	Fibro davity Panel 70mm gap 0.30
						Bulk Insulation R1.50
Window	Width	Height	Eaves	Orient	Area	Name Glass Frame
					7	Opening Covering
					Δ	Shading
Window(6, 1)	1.21	0.90	0.10	270	1 (09	GGG-05-001a Single Glazed Clear Aluminium
					\rightarrow	45% Opening Sliding, Two Lites Holland Blind
27				. (C		Vertical Louvres, Horizontal Blades
Wall E 7	0.70	2.70	4.60	12	J.89	Fibro Cavity Panel 70mm gap 0.30
	1 0 0	o = 0		~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~		Bulk Insulation R1.50
Wall E 8	1.00	2.70	0.80	270	2.70	Fibro Cavity Panel 70mm gap 0.30
			/	$1 \bigcirc 1$		Bulk Insulation R1.50
Zone 2 Cor	ridor 1	Co	rridoor	Area on Le	avel 1	
Air Movement		Seals	Chimne	\sim		l vents Downlights Ex Fans Ceilin fans
	No	Yes	N	\mathbf{N}		0 0 0 No
External Floor		100	\bigcirc	0 110	Area	Covering Type
		(\bigcirc		6.24	Ceramic Tiles 8mm Timber Floor, Unit Below No Insulation
Ceiling		slove	\sum		Area	Туре
2		2	~			Above Ceiling
		0	\mathcal{I}		6.24	Plasterboard No Insulation
	Ę	\sim				Unventilated roofspace cavity
Roof		Slope		Shape		Type Solar Abs
	$\wedge (\cap$	\sim				Insulation
	\sum	7	S	killion		Corrugated Iron 0.30
	\leq	>				Bulk, Reflective Side Down, Anti-glare Up R1.50
	Length			AdjZ	Area	Туре
Wall P 1	- 1D	2.70		4	1.09	Cavity Panel 70mm gap No Insulation
Door Int	$\sim \circ$	Height		AdjZ	Area	Туре
Door I (1, 1)	0.92	2.04		4	1.88	Hollow core door
Wall P 2	7 2.90	2.70		5	5.95	Cavity Panel 70mm gap No Insulation
Door Int	Width	Height		AdjZ	Area	Type
Door I(2, 1) Wall P 4	0.92	2.04		5	1.88	Hollow core door
Wall P 4	1.60	2.70		3	4.32	Cavity Panel 70mm gap No Insulation

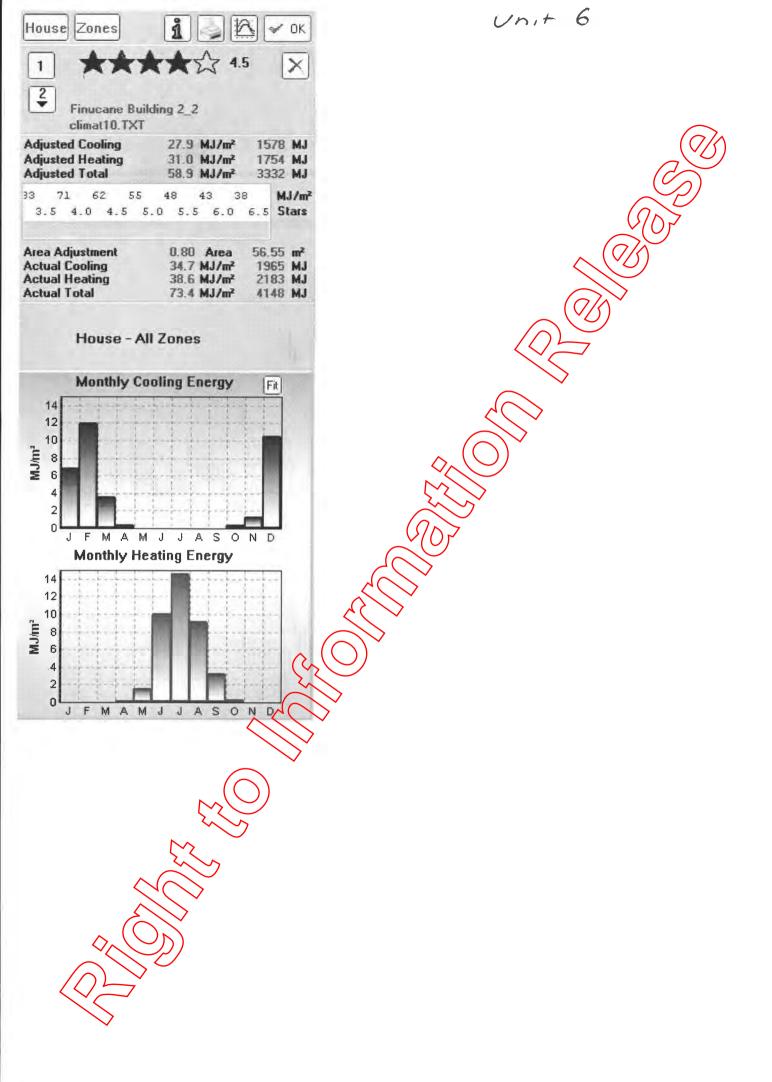
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Wall P. 5 0.9	2.70	3	2.43	Cavity Panel 70mm gap No Insulation
Wall P 6 2.4	2.70	3	4.60	Cavity Panel 70mm gap No Insulation
Door Int Widtl	n Height	AdjZ	Area	Туре
Door I(6, 1) 0.92	9	3	1.88	Hollow core door
		1	-0.00	Cavity Panel 70mm gap No Insulation
	n Height	AdjZ	Area	Туре
Door $I(7, 1)$ 1.20	2.70	1	3.24	Opening in wall
External Wall Lengtl	n Height	Eaves Orient	Area	Type Abs
				Insulation
Wall E 3 2.10	2.70	1.50 90	3.79	Fibro Cavity Panel 70mm gap 0.30
		2.50 90	3.75	Bulk Insulation R1.50
Deen Data Midda	TT a d ada t	Developed and		\sim
	n Height	Eaves Orient	Area	Туре
Door $E(3, 1) 0.92$	2.04	1.50 90	1.88	Solid timber door
Zone 3 Bath	Wet Area	on Level 1		
Air Movement Screens	Seals	Chimney Gas	vent Wa	ll vents Downlights Ex Fans Ceiltin fans
No) Yes	No N		
External Floor	100	110 11	Area	
Excernal F1001				
	_		10.56	Ceramic Tiles 8mm Timber Floor, Unit Below No Insulation
Ceiling	Slope		Area	Туре
				Above Ceiling 💦 🔪
	0		10.56	Plasterboard No Insulation
				Unventilated roofspace cavity
Roof	Slope	Shape		Type Solar Abs
ROOL	DIOPC	Shape		
	_			Insulation
	7	Skillion		Corrugated (ron) 0.30
				Bulk, Reflective Side Down, Anti-glare Up R1.50
Partition Wall Length	Height	AdjZ	Area	Туре
Wall P 1 2.40	2.70	2	4.60	Cavity Ranel 70mm gap No Insulation
Door Int Width	Height	AdjZ	Area	Туре
Door I(1, 1) 0.92	•	2	1.88	Holdow core door
		2	2.43	Cavity Fanel 70mm gap No Insulation
Wall P 3 1.60		2	4.32	Carity Panel 70mm gap No Insulation
Wall P 6 3.00	2.70	1	8.10	Cavity Panel 70mm gap No Insulation
External Wall Length	Height	Eaves Orient	Area	Type Abs
			\wedge	Insulation
Wall E 4 2.10	2.70	0.40 90	5 04	Fibro Cavity Panel 70mm gap 0.30
				Bulk Insulation R1.50
Window Width	Height	Eaves Orient		
WIIIdow WIIICI	Height	Eaves Orient	Area	Name Glass Frame
		772)	\bigcirc	Opening Covering
		\sim	\bigcirc	Shading
Window(4, 1) 0.70	0.90	0.40	0.63	GGG-05-001a Single Glazed Clear Aluminium
		$\langle \rangle$		90% Opening Louvres Holland Blind
				No Shading
Wall E 5 4.00	2.70	32 80	10.80	Fibro Cavity Panel 70mm gap 0.30
	2.70		10.00	
		\sim		Bulk Insulation R1.50
		\sim ·		
Zone 4 Bed 2	/	g Area on Level :	L	
Air Movement Screens	Seals	Chimney Gas	vent Wal	ll vents Downlights Ex Fans Ceilin fans
Nc	yes?	NO NO	C	0 0 0 No
	\rightarrow	~	Area	Covering Type
External Floor		- /		5 11-
External Floor	\sim		13 12	Carpet 10mm Timber Floor Unit Below No Insulation
			13.12	Carpet 10mm Timber Floor, Unit Below No Insulation
External Floor Ceiling	flope		13.12 Area	Туре
	lope		Area	Type Above Ceiling
	Elope 0			Туре
	Celope 0		Area	Type Above Ceiling
	Slope	Shape	Area	Type Above Ceiling Plasterboard No Insulation
Ceiling		Shape	Area	Type Above Ceiling Plasterboard No Insulation Unventilated roofspace cavity
Ceiling	0 Slope	-	Area	Type Above Ceiling Plasterboard No Insulation Unventilated roofspace cavity Type Solar Abs Insulation
Ceiling		Shape Skillion	Area	Type Above Ceiling Plasterboard No Insulation Unventilated roofspace cavity Type Solar Abs Insulation Corrugated Iron 0.30
Ceiling Roof	0 Slope 7	Skillion	Area	Type Above Ceiling Plasterboard No Insulation Unventilated roofspace cavity Type Solar Abs Insulation Corrugated Iron 0.30 Bulk, Reflective Side Down, Anti-glare Up R1.50
Ceiling Roof Partition Wall Length	0 Slope 7 Height	Skillion AdjZ	Area 13.12 Area	Type Above Ceiling Plasterboard No Insulation Unventilated roofspace cavity Type Solar Abs Insulation Corrugated Iron 0.30 Bulk, Reflective Side Down, Anti-glare Up R1.50 Type
Ceiling Roof Partition Wall Length Wall P 2 4.10	0 Slope 7 Height 2.70	Skillion AdjZ 5	Area	Type Above Ceiling Plasterboard No Insulation Unventilated roofspace cavity Type Solar Abs Insulation Corrugated Iron 0.30 Bulk, Reflective Side Down, Anti-glare Up R1.50
Ceiling Roof Partition Wall Length	0 Slope 7 Height 2.70	Skillion AdjZ	Area 13.12 Area	Type Above Ceiling Plasterboard No Insulation Unventilated roofspace cavity Type Solar Abs Insulation Corrugated Iron 0.30 Bulk, Reflective Side Down, Anti-glare Up R1.50 Type
Ceiling Roof Partition Wall Length Wall P 2 4.10	0 Slope 7 Height 2.70 2.70	Skillion AdjZ 5	Area 13.12 Area 11.07	Type Above Ceiling Plasterboard No Insulation Unventilated roofspace cavity Type Solar Abs Insulation Corrugated Iron 0.30 Bulk, Reflective Side Down, Anti-glare Up R1.50 Type Cavity Panel 70mm gap No Insulation
Ceiling Roof Partition Wall Length Wall P 2 4.10 Wall P 3 1.10	0 Slope 7 Height 2.70 2.70 Height	Skillion AdjZ 5 2	Area 13.12 Area 11.07 1.09	Type Above Ceiling Plasterboard No Insulation Unventilated roofspace cavity Type Solar Abs Insulation Corrugated Iron 0.30 Bulk, Reflective Side Down, Anti-glare Up R1.50 Type Cavity Panel 70mm gap No Insulation Cavity Panel 70mm gap No Insulation
Ceiling Roof Partition Wall Length Wall P 2 4.10 Wall P 3 1.10 Door Int Width	0 Slope 7 Height 2.70 2.70 Height	Skillion AdjZ 5 2 AdjZ	Area 13.12 Area 11.07 1.09 Area	Type Above Ceiling Plasterboard No Insulation Unventilated roofspace cavity Type Solar Abs Insulation Corrugated Iron 0.30 Bulk, Reflective Side Down, Anti-glare Up R1.50 Type Cavity Panel 70mm gap No Insulation Cavity Panel 70mm gap No Insulation Type

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Wall P. 4 2.10	2.70	1 5	.67 Cavity Panel 70mm gap No Insulation	
External Wall Length	Height Eaves	Orient A	rea Type Abs	
-	-		Insulation	
Wall E 1 3.20	2.70 0.30	0 7	.19 Fibro Cavity Panel 70mm gap 0.30	
Mari 1 1 5.20	2.70 0.50	0 /	Bulk Insulation R1.50	$\overline{}$
			10	7//
Window Width	Height Eaves	Orient A	cea Name Glass Frame	O
			Opening Covering	\mathcal{I}
			Shading)
Window(1, 1) 1.21	1.20 0.30	0 1	.45 GGG-05-001a Single Glazed Clear Aluminium	/
			45% Opening Sliding, Two Lites Hollard Blind	
			Vertical Louvres, Horizontal Blades	
Wall E 5 4.10	2.70 4.70	270 10	34 Fibro Cavity Panel 70mm gap 0.30	
			Bulk Insulation R1.50	
Window Width	Height Eaves	Orient A	cea Name Glass Frame	
			Opening Covering	
			Shading	
Window(5, 1) 1.21	0.60 4.70	270 0	73 GGG-05-001a Single Glazed Clear Aluminium	
WINdow(5, 1) 1.21	0.00 4.70	270 0	$ \sim$ \sim	
			45% Opening Sliding, Two Lites Holland Blind	
			No Shading	
			\sim	
Zone 5 Bed 1	Sleeping Area o	on Level 1	\sim	
Air Movement Screens	Seals Chimne	ev Gas vent	Wall vents Downlights Ex Fans Ceilin fans	
No		lo No	0 0 0 No	
External Floor	163 1			
External Floor			rea Covering Type	
		15	99 Carpet 10mm Timber Floor, Unit Below No Insu	lation
Ceiling	Slope	A	ea Type (()	
			Above Ceiling	
	0	15	99 Plasterboard No Insulation	
			Unvestigated roofspace cavity	
Deef	01			
Roof	Slope	Shape	Type Sølar Abs	
			Insulation	
	7 5	Skillion	Corrugated Iron 0.30	
			Bulk, Reflective Side Down, Anti-glare Up R1.5	C
Partition Wall Length	Height	AdjZ A	Type	
Wall P 4 2.90	2.70	-	A Cavity Panel 70mm gap No Insulation	
	Height	-	es Type	
Door I(4, 1) 0.92	2.04	2 🖊	88 Mollow core door	
Wall P 5 4.10	2.70	4 11	0 Cavity Panel 70mm gap No Insulation	
External Wall Length	Height Eaves	Orient A	ea Type Abs	
		$\land (())$	Insulation	
Wall E 1 3.90	2.70 0.30		08 Fibro Cavity Panel 70mm gap 0.30	
	21.00 0100	$\sum_{i=1}^{n}$	Bulk Insulation R1.50	
Maria and the second	The first the second second	\sim		
Window Width	Height Eaves	Orient A	ea Name Glass Frame	
	\sim	$(\)$	Opening Covering	
		\sim	Shading	
Window(1, 1) 1.21	1.20 0.30	0 1	45 GGG-05-001a Single Glazed Clear Aluminium	
		\checkmark	45% Opening Sliding, Two Lites Holland Blind	
	\frown		Vertical Louvres, Horizontal Blades	
Wall E 2 4.10	2.70 0.50	90 9		
Wall E 2 4.10	2.70 0.50	90 9	98 Fibro Cavity Panel 70mm gap 0.30	
	M		Bulk Insulation R1.50	
Window Width	Height Eaves	Orient A	ea Name Glass Frame	
	\sim		Opening Covering	
[\searrow		Shading	
Window(2, 1) 1.81	0.50 0.50	90 1	_	
WINdOW(2,1) 1.81	0.50	90 I	5	
\sim			45% Opening Sliding, Two Lites Holland Blind	
	\sim		Vertical Louvres, Horizontal Blades	
Wall E 3	2.70 1.70	180 2	15 Fibro Cavity Panel 70mm gap 0.30	
	× ·		Bulk Insulation R1.50	
Window Nigth	Height Eaves	Orient A:	ea Name Glass Frame	
		n		
\sim			Opening Covering	
			Shading	
Window (3 4) 0.61	0.90 1.70	180 0	55 GGG-05-001a Single Glazed Clear Aluminium	
\sim			45% Opening Sliding, Two Lites Holland Blind	
			Vertical Louvres, Horizontal Blades	
\sim				

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Project. Finucane Building 2 Run 2 ALEXANDRA HILLS PC 4161 Lat -27.50 Long 153.20 Climate File climat10.TXT

Summary

Conditioned Area56.6 m²Unconditioned Area16.8 m²Total Floor Area73.4 m²Total Glazed Area12.0 m²Total External Solid door Area1.9 m²Glass to Floor Area16.4 %Gross External Wall Area108.0 m²Net External Wall Area94.1 m²

Window

12.0 m² GGG-05-001a Generics Uval 6.57 SHGC 0.74 Glass Single Glazed Clear Frame Aluminium

External Wall 76.0 m² Fibro Cavity Panel 70mm gap Bulk Insulation R 1.5 18.1 m² Concrete Block to neighbour No Insulation

Internal Wall 52.1 m² Cavity Panel 70mm gap No Insulation

External Floor 44.2 m² Timber Floor, Unit Below Ceramic Tiles 8mm No Insulation 29.1 m² Timber Floor, Unit Below Carpet 10mm No Insulation

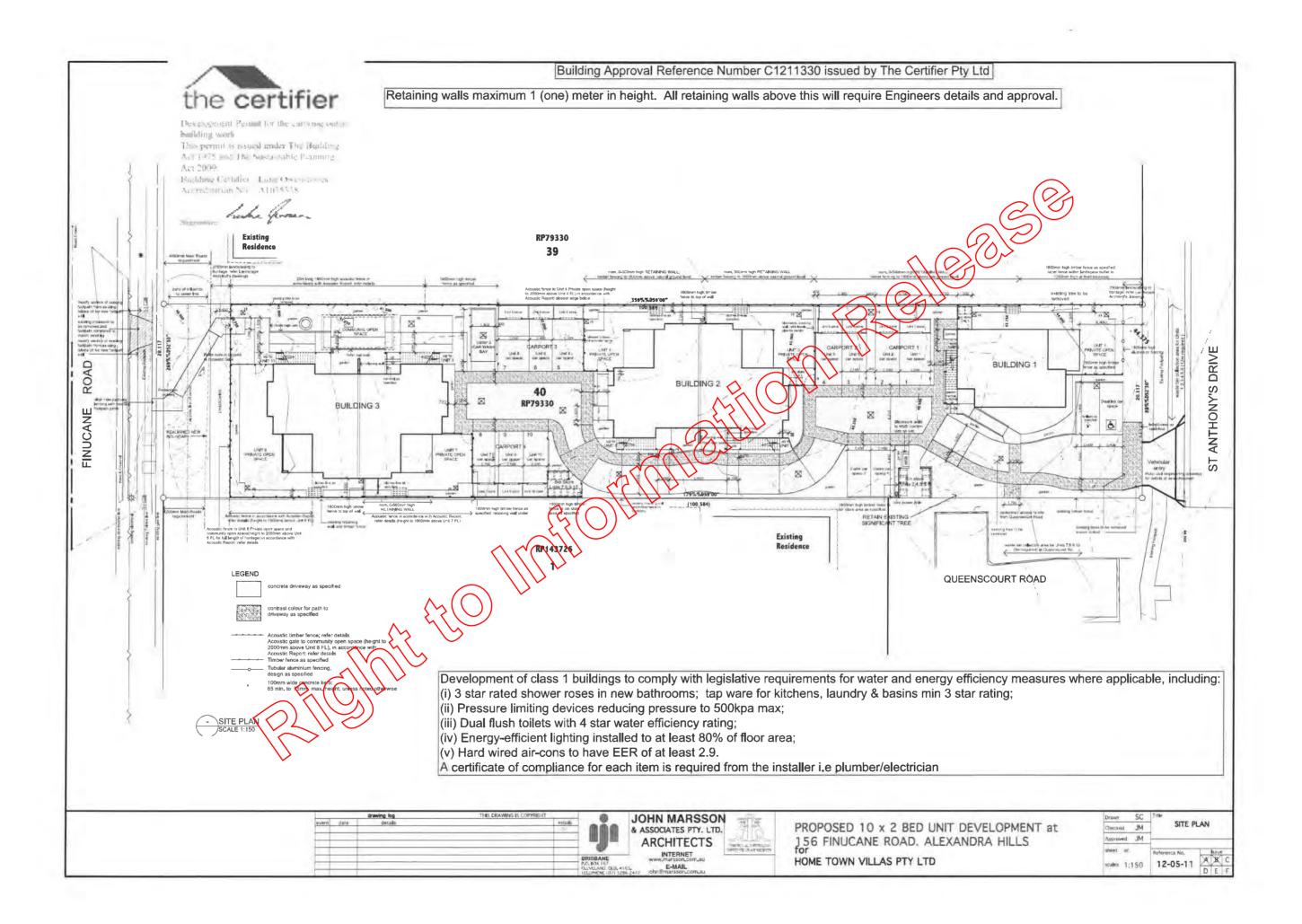
External Ceiling 73.4 m² Plasterboard No Insulation Unventilated roofspag

Roof (Horizontal area) 73.3 m² Corrugated Iron Bulk, Reflective Side Down, Anti-glare Up R 1.5 7° slope Skillion roof

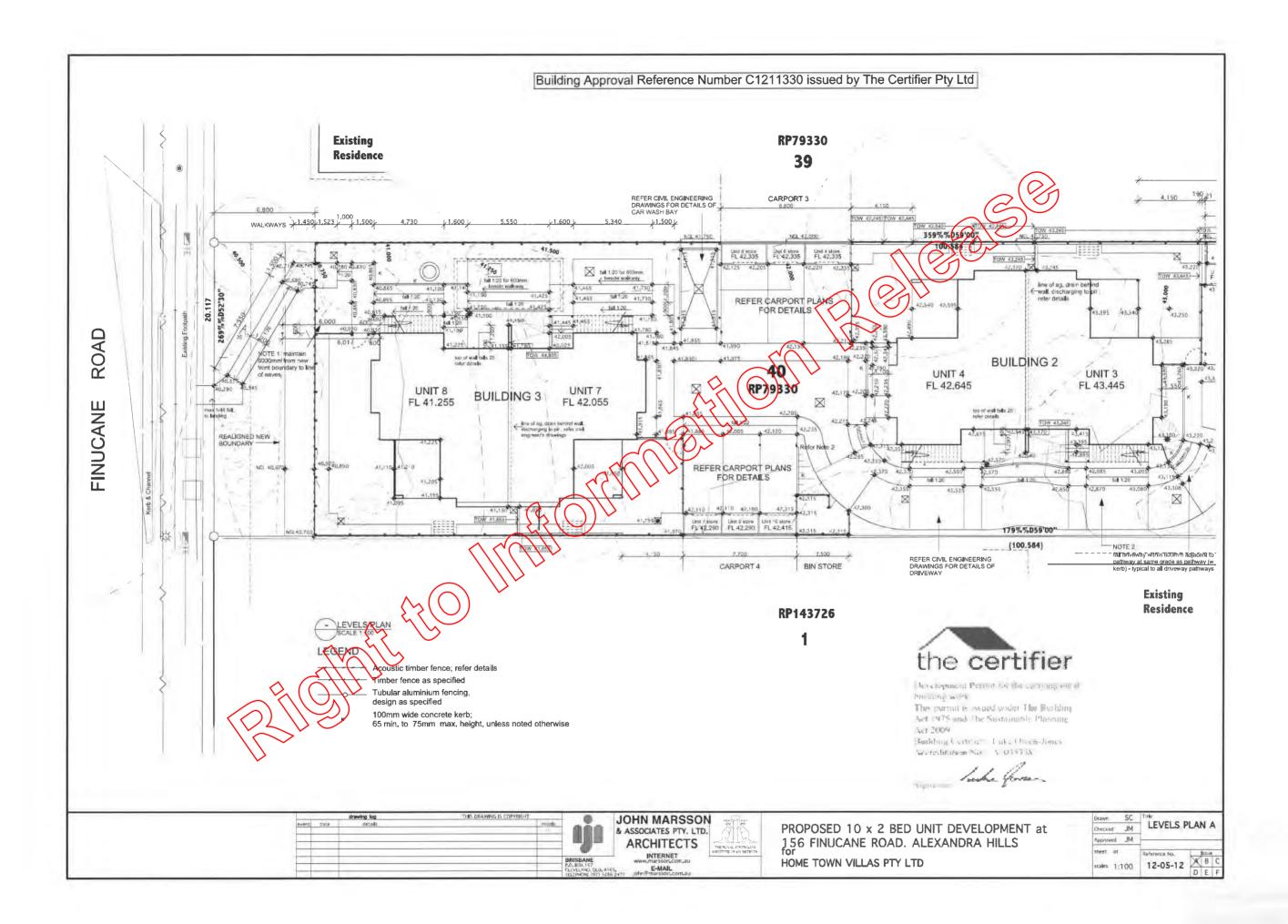
x ²		
Details		
Zone 1 Liv/Kitchen 1	Living/Kitchen Area on	Level 1
Air Movement Screens Seals		ll vents Downlights Ex Fans Ceilin fans
No Yes External Floor	No No Area	0 0 0 No Covering Type
Ceiling Slope	27.44 Area	Ceramic Tiles 8mm Timber Floor, Unit Below No Insulation Type
0	27.44	Above Ceiling Plasterboard No Insulation
Roof Slope	Shape	Unventilated roofspace cavity Type Solar Abs
7	Skillion	Insulation Corrugated Iron 0.30
Partition Wall Length Height	AdjZ Area	Bulk, Reflective Side Down, Anti-glare Up R1.50 Type
Wall P 5 3.00 2.70	3 8.10	Cavity Panel 70mm gap No Insplation
Wall P 6 1.20 2.70	2 -0.00	Cavity Panel 70mm gap No Insulation
	AdjZ Area	Type
Door I(6, 1) 1.20 2.70	2 3.24	Opening in wall
Wall P 7 2.10 2.70	4 5.67	Cavity Panel 70mm gap to Insulation
External Wall Length Height	Eaves Orient Area	Type Abs
Wall E 1 1.00 2.70	0.80 270 2.70	Insulation Fibro Cavity Panel 70mm gap 0.30 Bulk Insulation R1.50
Wall E 2 0.70 2.70	4.60 180 1.89	Fibro Cavity Panel Jomm gap 0.30 Bulk Insulation B1.50
Wall E 3 3.20 2.70	0.10 270 7.55	Fibro Cavity Panel 70mm gap 0.30 Bulk Insulation R1.50
Window Width Height	Eaves Orient Area	Name Glass Frame Opening Covering
	0.10 070 1.00	Siracing
Window(3,1) 1.21 0.90	0.10 270 1.09	GGE 05-001a Single Glazed Clear Aluminium 45% Opening Sliding, Two Lites Holland Blind Vertical Louvres, Horizontal Blades
Wall E 4 6.70 2.70	9.38 0 18.09	
Wall E 8 3.90 2.70	3.60 180 5 49	Concrete Block to neighbour 0.30 No Insulation Fibro Cavity Panel 70mm gap 0.30 Bulk Insulation R1.50
Window Width Height	Eaves Orient Area	Name Glass Frame
	$(\bigcirc)^{\sim}$	Opening Covering Shading
Window(8, 1) 2.40 2.10	3.60 120 5.04	GGG-05-001a Single Glazed Clear Aluminium 45% Opening Sliding, Two Lites Holland Blind
	$\sim < \bigcirc \sim$	No Shading
Zone 2 Corridor 1 Co	rridoor Area on Level 1	
Air Movement Screens Seals No Yes	Chimney Gas vent Wa No No	ll vents Downlights Ex Fans Ceilin fans 0 0 0 No
External Floor	Area 6.24	Covering Type Ceramic Tiles 8mm Timber Floor, Unit Below No Insulation
Ceiling Slope	Area	Туре
	6.24	Above Ceiling Plasterboard No Insulation
M	0121	Unventilated roofspace cavity
Roof	Shape	Type Solar Abs Insulation
	Skillion	Corrugated Iron 0.30
Partition Wall Length Height	AdjZ Area	Bulk, Reflective Side Down, Anti-glare Up R1.50 Type
Wall P 1 2.70	1 -0.00	Cavity Panel 70mm gap No Insulation
Door Int Width Height	AdjZ Area	Type
Door I $(1, 1)$ 1.20 2.70	-	
	1 3.24	Opening in wall
Wall \$ 2 2.40 2.70	3 4.60	Cavity Panel 70mm gap No Insulation
Door Int Width Height	AdjZ Area	Туре
Door I (2, 1) 0.92 2.04	3 1.88	Hollow core door
Wall P 3 0.90 2.70	3 2.43	Cavity Panel 70mm gap No Insulation

Wall P 4 1.60	2.70	3 4.3	2 Cavity Panel 70mm gap No Insulation
Wall P 6 2.90	2.70	5 5.9	5 Cavity Panel 70mm gap No Insulation
Door Int Width	Height	AdjZ Are	а Туре
Door I(6, 1) 0.92	2.04	5 1.8	8 Hollow core door
Wall P 7 1.10	2.70	4 1.0	9 Cavity Panel 70mm gap No Insulation
Door Int Width	Height	AdjZ Are	a Type
Door I(7, 1) 0.92	2.04	4 1.8	8 Hollow core door
External Wall Length	Height	Eaves Orient Are	a Type Abs
			Insulation
Wall E 5 2.10	2.70	1.50 90 3.5	9 Fibro Cavity Panel 70mm gap 0.30
			Bulk Insulation R1.50
Door Ext Width	Height	Eaves Orient Are	a Type
Door E(5, 1) 0.92	2.04	1.50 90 1.8	
Zone 3 Bath	Wet Area	on Level 1	
Air Movement Screens	Seals	Chimney Gas vent	Wall vents Downlights Ex Fans Ceilan fans
No	Yes	NO NO	
External Floor	100	Are	
siteriar riter		10.5	
Ceiling	Slope	Are	
cerring	prope	ALC	Above Ceiling
	0	10.5	•
	0	10.5	
Roof	Slope	Chang	Unventilated reprspace cavity
ROOI	Slope	Shape	Type Solar Abs
	7	Skillion	Insulation
	/	SKIIIION	Corrugated Iron 0.30
Deschieler Mall Issueth	77 - 1 - 1 - t		Bulk, Reflective Side Down, Anti-glare Up R1.50
Partition Wall Length Wall P 1 3.00	8	AdjZ Are	
	2.70	1 8.1	
Wall P 4 1.60	2.70	2 4.3	
Wall P 5 0.90	2.70	2 2.4	
Wall P 6 2.40	2.70	2 4.6	
	Height	AdjZ Are	
Door I(6, 1) 0.92	2.04	2 1.8	
External Wall Length	Height	Eaves Orient Are	
	2 70		Insulation
Wall E 2 4.00	2.70	9.32 0 10.8	
	2.70		Bulk Insulation R1.50
Wall E 3 2.10	2.70	0.40 90 5.0	Fibro Cavity Panel 70mm gap 0.30
Window Width	Height		Bulk Insulation R1.50
Window Width	Height	Eaves Ohient Are	
			Opening Covering
	0 00		Shading
Window(3,1) 0.70	0.90	0.40 90 0.6	
			90% Opening Louvres Holland Blind
		\sim	No Shading
	-		
Zone 4 Bed 2		g Area on Level 1	
Air Movement Screens	Seals		Wall vents Downlights Ex Fans Ceilin fans
No	yes	NO NO	0 0 0 No
External Floor	\sim	Are	
	\sim	13.1	•
Ceiling	glope	Are	
. (\sim		Above Ceiling
\sim	○	13.1	
			Unventilated roofspace cavity
Roof	Slope	Shape	Type Solar Abs
			Insulation
)) 7	Skillion	Corrugated Iron 0.30
\sim			Bulk, Reflective Side Down, Anti-glare Up R1.50
Partition Wall Length	•	AdjZ Are	
Wall P 2 2.10	2.70	1 5.6	
Wall P 3 1.10	2.70	2 1.0	
\mathbf{v}	Height	AdjZ Are	
Door I(3, 1) 0.92	2.04	2 1,8	8 Hollow core door

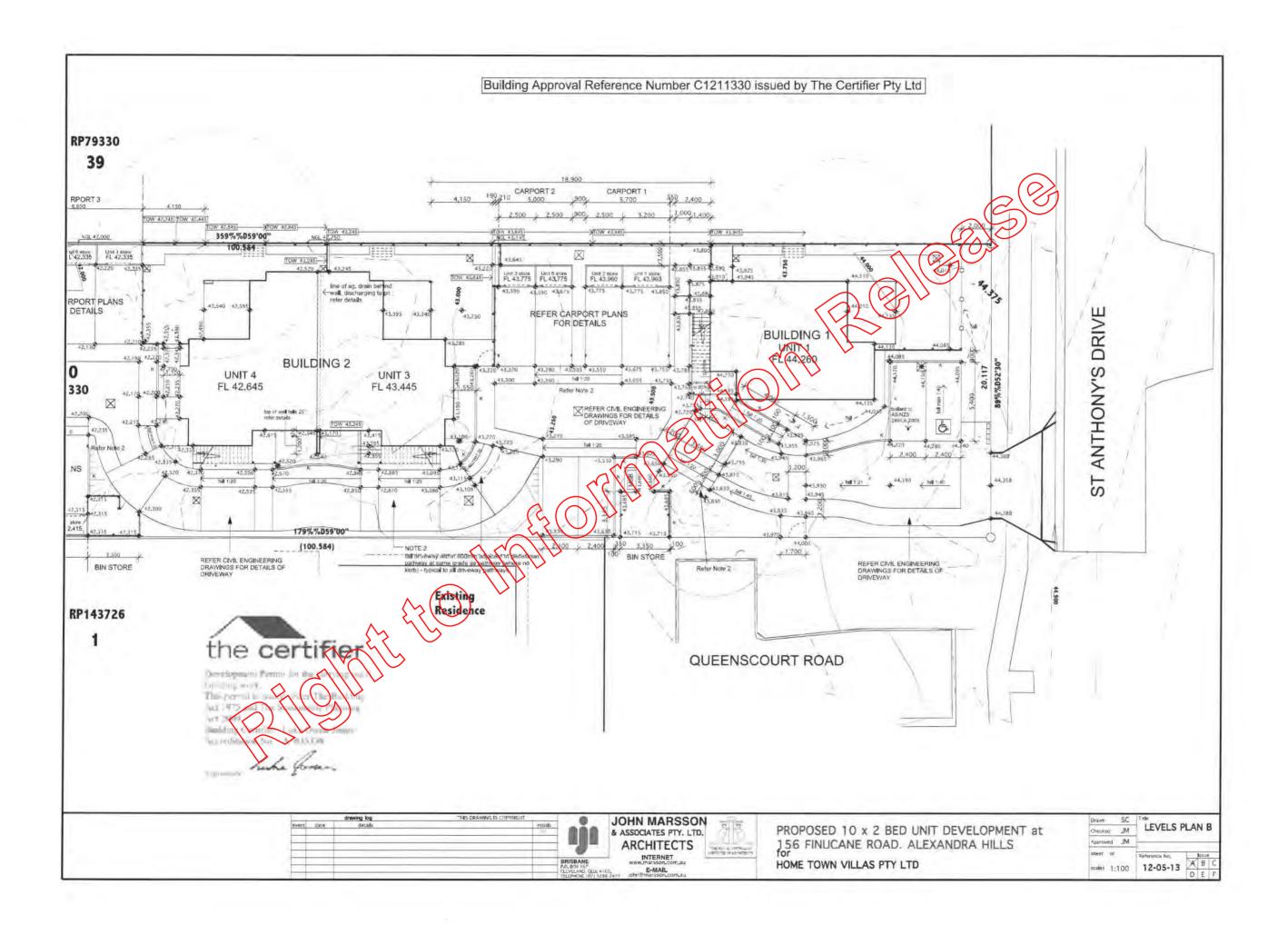
Wall P 4	4.10	2.70		5	11.07	Cavity Panel 70mm gap No Insulation
External Wall	Length	Height	Eaves	Orient	Area	Type Abs
	5	5				Insulation
Wall E 1	4.10	2.70	4.70	270	10.34	Fibro Cavity Panel 70mm gap 0.30
Harr D T	1.10	2.70	1,70	270	10.54	Bulk Insulation R1.50
Window	772 341	TT = i = h +		0	2	
Window	width	Height	Eaves	Orient	Area	Name Glass Frame
						Opening Covering
						Shading
Window(1, 1)	1.21	0.60	4.70	270	0.73	GGG-05-001a Single Glazed Clear Aluminium
						45% Opening Sliding, Two Lites Holland Blind
						No Shading $\bigvee(())$
Wall E 5	3.20	2.70	0.30	180	7.19	Fibro Cavity Panel 70mm gap 0.20
						Bulk Insulation R1.50
Window	Width	Height	Eaves	Orient	Area	Name Glass Krame
	Widen	nergne	Daves	OTTONC	ALCU	
						Opening Covering
						Shading (7/1)
Window(5, 1)	1.21	1.20	0.30	180	1.45	GGG-05-001a Single Glazed Clear Aluminium
						45% Opening Sliding, Two Lites Holland Blind
						Vertical Louvres, forizontal Blades
						$\langle \langle \rangle$
Zone 5 Be	d 1	Sleeping	g Area o	n Level 1		\sim
Air Movement	Screens	Seals	Chimne	v Gas v	vent Wal	l vents Downlights Ex Fans Ceilin fans
	No	Yes	N			
External Floor		1200			Area	Covering Type
20002002 11002					15.99	Carpet 10mm Timber Floor, Unit Below No Insulation
Coiling		G1				$1 \frown 1$
Ceiling		Slope			Area	
						Above Ceiling
		0			15.99	Plasterboard No Insulation
						Unventilated roofspace cavity
Roof		Slope		Shape		Type Solar Abs
						Insplation
		7	S	killion		Corrugated Iron 0.30
			-			Bulk, Reflective Side Down, Anti-glare Up R1.50
Partition Wall	Length	Height		AdjZ	Area	Type
Wall P 1	4.10	2.70		-		
				4	11.07	Cavity Panel 70mm gap No Insulation
Wall P 2	0 00					
	2.90	2.70		2	57.95	Cavity Panel 70mm gap No Insulation
Door Int	Width	Height		2 AdjZ	Area	Туре
Door Int Door I(2, 1)				2	Area 1.88	
	Width 0.92	Height 2.04	Eaves	2 AdjZ	Area	Туре
Door I(2, 1)	Width 0.92	Height 2.04	Eaves	2 Adjz 2	Area 1.88	Type Hollow core door
Door I(2, 1)	Width 0.92	Height 2.04	Eaves	2 Adjz 2	Area 1.88	Type Hollow core door Type Abs
Door I(2, 1) External Wall	Width 0.92 Length	Height 2.04 Height		2 Adjz 2	Area 1.88 Area	Type Hollow core door Type Abs Insulation
Door I(2, 1) External Wall	Width 0.92 Length 1.00	Height 2.04 Height 2.70	1.70	2 AdjZ 2 Orient	Area 1.88 Area 2.15	Type Hollow core door Type Abs Insulation Fibro Cavity Panel 70mm gap 0.30 Bulk Insulation R1.50
Door I(2, 1) External Wall Wall E 3	Width 0.92 Length 1.00	Height 2.04 Height		2 Adjz 2	Area 1.88 Area	Type Hollow core door Type Abs Insulation Fibro Cavity Panel 70mm gap 0.30 Bulk Insulation R1.50 Name Glass Frame
Door I(2, 1) External Wall Wall E 3	Width 0.92 Length 1.00	Height 2.04 Height 2.70	1.70	2 AdjZ 2 Orient	Area 1.88 Area 2.15	Type Hollow core door Type Abs Insulation Fibro Cavity Panel 70mm gap 0.30 Bulk Insulation R1.50 Name Glass Frame Opening Covering
Door I(2, 1) External Wall Wall E 3 Window	Width 0.92 Length 1.00 Width	Height 2.04 Height 2.70 Height	1.70 Eaves	2 AdjZ 2 Orient	Anea 1.88 Area .15 Area	Type Hollow core door Type Abs Insulation Fibro Cavity Panel 70mm gap 0.30 Bulk Insulation R1.50 Name Glass Frame Opening Covering Shading
Door I(2, 1) External Wall Wall E 3	Width 0.92 Length 1.00	Height 2.04 Height 2.70	1.70	2 AdjZ 2 Orient	Area 1.88 Area 2.15	Type Hollow core door Type Abs Insulation Fibro Cavity Panel 70mm gap 0.30 Bulk Insulation R1.50 Name Glass Frame Opening Covering Shading GGG-05-001a Single Glazed Clear Aluminium
Door I(2, 1) External Wall Wall E 3 Window	Width 0.92 Length 1.00 Width	Height 2.04 Height 2.70 Height	1.70 Eaves	2 AdjZ 2 Orient	Anea 1.88 Area .15 Area	TypeHollow core doorTypeAbsInsulationFibro Cavity Panel 70mm gap0.30Bulk Insulation R1.50NameGlassGpeningCoveringShadingGGG-05-001aSingle Glazed Clear45% Opening Sliding, Two LitesHolland Blind
Door I(2, 1) External Wall Wall E 3 Window Window(3, 1)	Width 0.92 Length 1.00 Width 0.61	Height 2.04 Height 2.70 Height 0.90	1.70 Eaves	2 AdjZ 2 Orient 0	Anea 1.88 Area 2.15 Area 0.55	<pre>Mype Hollow core door Type Abs Insulation Fibro Cavity Panel 70mm gap 0.30 Bulk Insulation R1.50 Name Glass Frame Opening Covering Shading GGG-05-001a Single Glazed Clear Aluminium 45% Opening Sliding, Two Lites Holland Blind Vertical Louvres, Horizontal Blades</pre>
Door I(2, 1) External Wall Wall E 3 Window	Width 0.92 Length 1.00 Width	Height 2.04 Height 2.70 Height	1.70 Eaves	2 AdjZ 2 Orient	Anea 1.88 Area .15 Area	<pre>Hype Hollow core door Type Abs Insulation Fibro Cavity Panel 70mm gap 0.30 Bulk Insulation R1.50 Name Glass Frame Opening Covering Shading GGG-05-001a Single Glazed Clear Aluminium 45% Opening Sliding, Two Lites Holland Blind Vertical Louvres, Horizontal Blades Fibro Cavity Panel 70mm gap 0.30</pre>
Door I(2, 1) External Wall Wall E 3 Window Window(3, 1)	Width 0.92 Length 1.00 Width 0.61	Height 2.04 Height 2.70 Height 0.90	1.70 Eaves	2 AdjZ 2 Orient 0	Anea 1.88 Area 2.15 Area 0.55	<pre>Mype Hollow core door Type Abs Insulation Fibro Cavity Panel 70mm gap 0.30 Bulk Insulation R1.50 Name Glass Frame Opening Covering Shading GGG-05-001a Single Glazed Clear Aluminium 45% Opening Sliding, Two Lites Holland Blind Vertical Louvres, Horizontal Blades</pre>
Door I(2, 1) External Wall Wall E 3 Window Window(3, 1)	Width 0.92 Length 1.00 Width 0.61	Height 2.04 Height 2.70 Height 0.90	1.70 Eaves	2 AdjZ 2 Orient 0	Anea 1.88 Area 2.15 Area 0.55	<pre>Hype Hollow core door Type Abs Insulation Fibro Cavity Panel 70mm gap 0.30 Bulk Insulation R1.50 Name Glass Frame Opening Covering Shading GGG-05-001a Single Glazed Clear Aluminium 45% Opening Sliding, Two Lites Holland Blind Vertical Louvres, Horizontal Blades Fibro Cavity Panel 70mm gap 0.30</pre>
Door I(2, 1) External Wall Wall E 3 Window Window(3, 1) Wall E 4	Width 0.92 Length 1.00 Width 0.61 4.10	Height 2.04 Height 2.70 Height 0.90 2.70	1.70 Eaves	2 AdjZ 2 Orient 0 Orient 0	Anea 1.88 Area 2.15 Area 0.55 9.98	<pre>Hype Hollow core door Type Abs Insulation Fibro Cavity Panel 70mm gap 0.30 Bulk Insulation R1.50 Name Glass Frame Opening Covering Shading GGG-05-001a Single Glazed Clear Aluminium 45% Opening Sliding, Two Lites Holland Blind Vertical Louvres, Horizontal Blades Fibro Cavity Panel 70mm gap 0.30 Bulk Insulation R1.50</pre>
Door I(2, 1) External Wall Wall E 3 Window Window(3, 1) Wall E 4	Width 0.92 Length 1.00 Width 0.61 4.10	Height 2.04 Height 2.70 Height 0.90 2.70	1.70 Eaves	2 AdjZ 2 Orient 0 Orient 0	Anea 1.88 Area 2.15 Area 0.55 9.98	TypeHollow core doorTypeAbsInsulationFibro Cavity Panel 70mm gap0.30Bulk Insulation R1.50NameGlassGpeningCoveringShadingGGG-05-001aSingle Glazed ClearGGG-05-001aSingle Glazed ClearAluminium45% Opening Sliding, Two LitesFibro Cavity Panel 70mm gap0.30Bulk Insulation R1.50NameGlassFrame
Door I(2, 1) External Wall Wall E 3 Window Window(3, 1) Wall E 4 Window	Width 0.92 Length 1.00 Width 0.61 4.10 Width	Height 2.04 Height 2.70 Height 0.90 2.70	1.70 Eaves	2 AdjZ 2 Orient 0 Orient 90 Orient	Anea 1.88 Area 2.15 Area 0.55 9.98 Area	TypeHollow core doorTypeAbsInsulationFibro Cavity Panel 70mm gap0.30Bulk Insulation R1.50NameGlassGpeningCoveringShadingGGG-05-001aSingle Glazed ClearGGG-05-001aSingle Glazed ClearAluminium45% Opening Sliding, Two LitesHolland BlindVertical Louvres, Horizontal BladesFibro Cavity Panel 70mm gap0.30Bulk Insulation R1.50NameGlassGpeningCoveringShading
Door I(2, 1) External Wall Wall E 3 Window Window(3, 1) Wall E 4	Width 0.92 Length 1.00 Width 0.61 4.10	Height 2.04 Height 2.70 Height 0.90 2.70	1.70 Eaves	2 AdjZ 2 Orient 0 Orient 0	Anea 1.88 Area 2.15 Area 0.55 9.98	TypeHollow core doorTypeAbsInsulationFibro Cavity Panel 70mm gap0.30Bulk Insulation R1.50NameGlassGpeningCoveringShadingGGG-05-001aSingle Glazed ClearGGG-05-001aSingle Glazed ClearAluminium45% Opening Sliding, Two LitesHolland BlindVertical Louvres, Horizontal BladesFibro Cavity Panel 70mm gap0.30Bulk Insulation R1.50NameGlassGpeningCoveringShadingGGG-05-001aSingle Glazed ClearAluminium
Door I(2, 1) External Wall Wall E 3 Window Window(3, 1) Wall E 4 Window	Width 0.92 Length 1.00 Width 0.61 4.10 Width	Height 2.04 Height 2.70 Height 0.90 2.70	1.70 Eaves	2 AdjZ 2 Orient 0 Orient 90 Orient	Anea 1.88 Area 2.15 Area 0.55 9.98 Area	TypeHollow core doorTypeAbsInsulationFibro Cavity Panel 70mm gap0.30Bulk Insulation R1.50NameGlassGpeningCoveringShadingGGG-05-001aSingle Glazed ClearAluminium45% Opening Sliding, Two LitesFibro Cavity Panel 70mm gap0.30Bulk Insulation R1.50NameGlassFrameOpeningCoveringShadingGGG-05-001aSingle Glazed ClearAluminium45% OpeningCoveringShadingGGG-05-001aSingle Glazed ClearAluminium45% Opening Sliding, Two LitesHolland Blind
Door I(2, 1) External Wall Wall E 3 Window Window(3, 1) Wall E 4 Window Window(4, 1)	Width 0.92 Length 1.00 Width 0.61 4.10 Width	Height 2.04 Height 2.70 Height 0.90 2.70 Height	1.70 Eaves 1.70 0.50	2 AdjZ 2 Orient 0 90 Orient 90	Anea 1.88 Area 2.15 Area 0.55 9.98 Area 1.09	TypeHollow core doorTypeAbsInsulationFibro Cavity Panel 70mm gap0.30Bulk Insulation R1.50NameGlassGpeningCoveringShadingGGG-05-001aSingle Glazed ClearGGG-05-001aSingle Glazed ClearAluminium45% Opening Sliding, Two LitesHolland BlindVertical Louvres, Horizontal BladesFibro Cavity Panel 70mm gap0.30Bulk Insulation R1.50NameGlassFrameOpeningCoveringShadingGGG-05-001aSingle Glazed ClearAluminium45% Opening Sliding, Two LitesHolland BlindVertical Louvres, Horizontal Blades
Door I(2, 1) External Wall Wall E 3 Window Window(3, 1) Wall E 4 Window	Width 0.92 Length 1.00 Width 0.61 4.10 Width	Height 2.04 Height 2.70 Height 0.90 2.70	1.70 Eaves	2 AdjZ 2 Orient 0 Orient 90 Orient	Anea 1.88 Area 2.15 Area 0.55 9.98 Area	TypeHollow core doorTypeAbsInsulationFibro Cavity Panel 70mm gap0.30Bulk Insulation R1.50NameGlassGpeningCoveringShadingGGG-05-001aSingle Glazed ClearGGG-05-001aSingle Glazed ClearAluminium45% Opening Sliding, Two LitesFibro Cavity Panel 70mm gap0.30Bulk Insulation R1.50NameGlassFrameOpeningCoveringShadingGGG-05-001aSingle Glazed ClearAluminium45% OpeningCoveringShadingGGG-05-001aSingle Glazed ClearAluminium45% Opening Sliding, Two LitesHolland BlindVertical Louvres, Horizontal BladesFibro Cavity Panel 70mm gap0.30
Door I(2, 1) External Wall Wall E 3 Window Window(3, 1) Wall E 4 Window Window(4, 1) Wall E 5	Width 0.92 Length 1.00 Width 0.61 4.10 Width	Height 2.04 Height 2.70 Height 0.90 2.70 Height 2.70	1.70 Eaves 1.70 0.50 Eaves 0.50	2 AdjZ 2 Orient 0 90 Orient 90 180	Anea 1.88 Area 2.15 Area 0.55 9.98 Area 1.09 9.08	TypeHollow core doorTypeAbsInsulationFibro Cavity Panel 70mm gap0.30Bulk Insulation R1.50NameGlassGpeningCoveringShadingGGG-05-001aSingle Glazed ClearGGG-05-001aSingle Glazed ClearAluminium45% Opening Sliding, Two LitesHorizontal BladesFibro Cavity Panel 70mm gap0.30Bulk Insulation R1.50NameGlassGGG-05-001aSingle Glazed ClearAluminium45% OpeningCoveringShadingGGG-05-001aSingle Glazed ClearAluminium45% Opening Sliding, Two LitesHolland BlindVertical Louvres, Horizontal BladesFibro Cavity Panel 70mm gap0.30Bulk Insulation R1.50
Door I(2, 1) External Wall Wall E 3 Window Window(3, 1) Wall E 4 Window Window(4, 1)	Width 0.92 Length 1.00 Width 0.61 4.10 Width	Height 2.04 Height 2.70 Height 0.90 2.70 Height	1.70 Eaves 1.70 0.50	2 AdjZ 2 Orient 0 90 Orient 90	Anea 1.88 Area 2.15 Area 0.55 9.98 Area 1.09	TypeHollow core doorTypeAbsInsulationFibro Cavity Panel 70mm gap0.30Bulk Insulation R1.50NameGlassGpeningCoveringShadingGGG-05-001aSingle Glazed ClearGGG-05-001aSingle Glazed ClearAluminium45% Opening Sliding, Two LitesFibro Cavity Panel 70mm gap0.30Bulk Insulation R1.50NameGlassFrameOpeningCoveringShadingGGG-05-001aSingle Glazed ClearAluminium45% OpeningCoveringShadingGGG-05-001aSingle Glazed ClearAluminium45% Opening Sliding, Two LitesHolland BlindVertical Louvres, Horizontal BladesFibro Cavity Panel 70mm gap0.30
Door I(2, 1) External Wall Wall E 3 Window Window(3, 1) Wall E 4 Window Window(4, 1) Wall E 5	Width 0.92 Length 1.00 Width 0.61 4.10 Width	Height 2.04 Height 2.70 Height 0.90 2.70 Height 2.70	1.70 Eaves 1.70 0.50 Eaves 0.50	2 AdjZ 2 Orient 0 90 Orient 90 180	Anea 1.88 Area 2.15 Area 0.55 9.98 Area 1.09 9.08	TypeHollow core doorTypeAbsInsulationFibro Cavity Panel 70mm gap0.30Bulk Insulation R1.50NameGlassGpeningCoveringShadingGGG-05-001aSingle Glazed ClearGGG-05-001aSingle Glazed ClearAluminium45% Opening Sliding, Two LitesHorizontal BladesFibro Cavity Panel 70mm gap0.30Bulk Insulation R1.50NameGlassGGG-05-001aSingle Glazed ClearAluminium45% OpeningCoveringShadingGGG-05-001aSingle Glazed ClearAluminium45% Opening Sliding, Two LitesHolland BlindVertical Louvres, Horizontal BladesFibro Cavity Panel 70mm gap0.30Bulk Insulation R1.50
Door I(2, 1) External Wall Wall E 3 Window Window(3, 1) Wall E 4 Window Window(4, 1) Wall E 5	Width 0.92 Length 1.00 Width 0.61 4.10 Width	Height 2.04 Height 2.70 Height 0.90 2.70 Height 2.70	1.70 Eaves 1.70 0.50 Eaves 0.50	2 AdjZ 2 Orient 0 90 Orient 90 180	Anea 1.88 Area 2.15 Area 0.55 9.98 Area 1.09 9.08	TypeHollow core doorTypeAbsInsulationFibro Cavity Panel 70mm gap0.30Bulk Insulation R1.50NameGlassGpeningCoveringShadingGGG-05-001aSingle Glazed ClearGGG-05-001aSingle Glazed ClearAluminium45% Opening Sliding, Two LitesHorizontal BladesFibro Cavity Panel 70mm gap0.30Bulk Insulation R1.50NameGlassGGG-05-001aSingle Glazed ClearAluminium45% OpeningCoveringShadingGGG-05-001aSingle Glazed ClearAluminium45% Opening Sliding, Two LitesHolland BlindVertical Louvres, Horizontal BladesFibro Cavity Panel 70mm gap0.30Bulk Insulation R1.50NameGlassFrame
Door I(2, 1) External Wall Wall E 3 Window Window(3, 1) Wall E 4 Window Window(4, 1) Wall E 5	Width 0.92 Length 1.00 Width 0.61 4.10 Width	Height 2.04 Height 2.70 Height 0.90 2.70 Height 2.70	1.70 Eaves 1.70 0.50 Eaves 0.50	2 AdjZ 2 Orient 0 90 Orient 90 180	Anea 1.88 Area 2.15 Area 0.55 9.98 Area 1.09 9.08	TypeHollow core doorTypeAbsInsulationFibro Cavity Panel 70mm gap0.30Bulk Insulation R1.50NameGlassGpeningCoveringShadingGGG-05-001aSingle Glazed ClearGGG-05-001aSingle Glazed ClearAluminium45% Opening Sliding, Two LitesHorizontal BladesFibro Cavity Panel 70mm gap0.30Bulk Insulation R1.50NameGlassGGG-05-001aSingle Glazed ClearAluminium45% OpeningCoveringShadingGGG-05-001aSingle Glazed ClearAluminium45% Opening Sliding, Two LitesHolland BlindVertical Louvres, Horizontal BladesFibro Cavity Panel 70mm gap0.30Bulk Insulation R1.50NameGlassFrameOpeningCovering
Door I(2, 1) External Wall Wall E 3 Window Window(3, 1) Wall E 4 Window Window(4, 1) Wall E 5 Window	Width 0.92 Length 1.00 Width 0.61 4.10 Width 1.81 (3.90) Width	Height 2.04 Height 2.70 Height 0.90 2.70 Height 2.70 Height	1.70 Eaves 1.70 0.50 0.50 0.30 Eaves	2 AdjZ 2 Orient 0 90 Orient 90 180 Orient	Anea 1.88 Area 2.15 Area 0.55 9.98 Area 1.09 9.08 Area	<pre>Hype Hollow core door Type Abs Insulation Fibro Cavity Panel 70mm gap 0.30 Bulk Insulation R1.50 Name Glass Frame Opening Covering Shading GGG-05-001a Single Glazed Clear Aluminium 45% Opening Sliding, Two Lites Holland Blind Vertical Louvres, Horizontal Blades Fibro Cavity Panel 70mm gap 0.30 Bulk Insulation R1.50 Name Glass Frame Opening Covering Shading GGG-05-001a Single Glazed Clear Aluminium 45% Opening Sliding, Two Lites Holland Blind Vertical Louvres, Horizontal Blades Fibro Cavity Panel 70mm gap 0.30 Bulk Insulation R1.50 Name Glass Frame Opening Covering Sliding, Two Lites Holland Blind Vertical Louvres, Horizontal Blades Fibro Cavity Panel 70mm gap 0.30 Bulk Insulation R1.50 Name Glass Frame Opening Covering Shading GGG-05-001a Single Glazed Clear Aluminium</pre>
Door I(2, 1) External Wall Wall E 3 Window Window(3, 1) Wall E 4 Window Window(4, 1) Wall E 5 Window	Width 0.92 Length 1.00 Width 0.61 4.10 Width 1.81 (3.90) Width	Height 2.04 Height 2.70 Height 0.90 2.70 Height 2.70 Height	1.70 Eaves 1.70 0.50 0.50 0.30 Eaves	2 AdjZ 2 Orient 0 90 Orient 90 180 Orient	Anea 1.88 Area 2.15 Area 0.55 9.98 Area 1.09 9.08 Area	<pre>Hype Hollow core door Type Abs Insulation Fibro Cavity Panel 70mm gap 0.30 Bulk Insulation R1.50 Name Glass Frame Opening Covering Shading GGG-05-001a Single Glazed Clear Aluminium 45% Opening Sliding, Two Lites Holland Blind Vertical Louvres, Horizontal Blades Fibro Cavity Panel 70mm gap 0.30 Bulk Insulation R1.50 Name Glass Frame Opening Covering Shading GGG-05-001a Single Glazed Clear Aluminium 45% Opening Sliding, Two Lites Holland Blind Vertical Louvres, Horizontal Blades Fibro Cavity Panel 70mm gap 0.30 Bulk Insulation R1.50 Name Glass Frame Opening Sliding, Two Lites Holland Blind Vertical Louvres, Horizontal Blades Fibro Cavity Panel 70mm gap 0.30 Bulk Insulation R1.50 Name Glass Frame Opening Covering Shading GGG-05-001a Single Glazed Clear Aluminium 45% Opening Sliding, Two Lites Holland Blind</pre>
Door I(2, 1) External Wall Wall E 3 Window Window(3, 1) Wall E 4 Window Window(4, 1) Wall E 5 Window	Width 0.92 Length 1.00 Width 0.61 4.10 Width 1.81 (3.90) Width	Height 2.04 Height 2.70 Height 0.90 2.70 Height 2.70 Height	1.70 Eaves 1.70 0.50 0.50 0.30 Eaves	2 AdjZ 2 Orient 0 90 Orient 90 180 Orient	Anea 1.88 Area 2.15 Area 0.55 9.98 Area 1.09 9.08 Area	<pre>Hype Hollow core door Type Abs Insulation Fibro Cavity Panel 70mm gap 0.30 Bulk Insulation R1.50 Name Glass Frame Opening Covering Shading GGG-05-001a Single Glazed Clear Aluminium 45% Opening Sliding, Two Lites Holland Blind Vertical Louvres, Horizontal Blades Fibro Cavity Panel 70mm gap 0.30 Bulk Insulation R1.50 Name Glass Frame Opening Covering Shading GGG-05-001a Single Glazed Clear Aluminium 45% Opening Sliding, Two Lites Holland Blind Vertical Louvres, Horizontal Blades Fibro Cavity Panel 70mm gap 0.30 Bulk Insulation R1.50 Name Glass Frame Opening Covering Sliding, Two Lites Holland Blind Vertical Louvres, Horizontal Blades Fibro Cavity Panel 70mm gap 0.30 Bulk Insulation R1.50 Name Glass Frame Opening Covering Shading GGG-05-001a Single Glazed Clear Aluminium</pre>

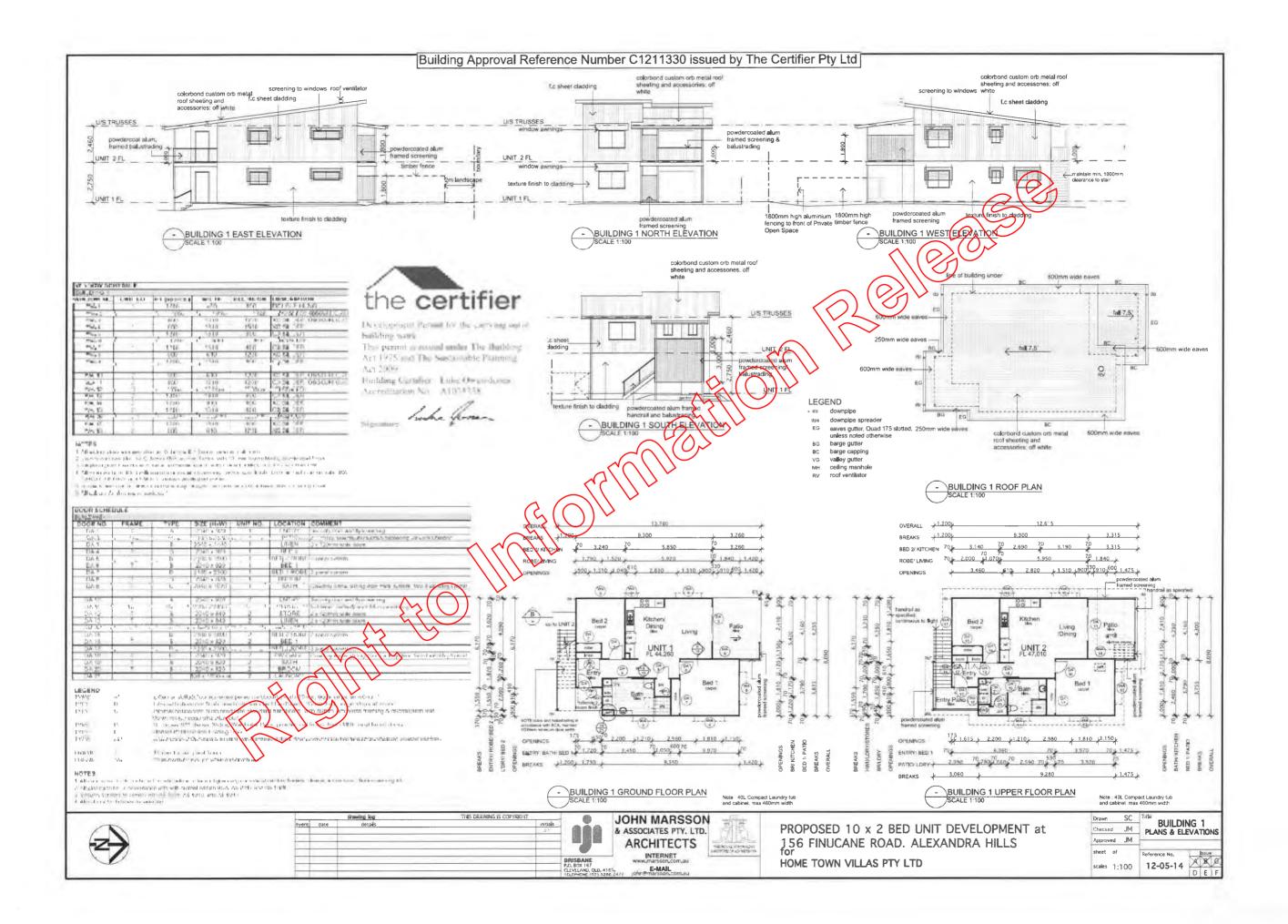


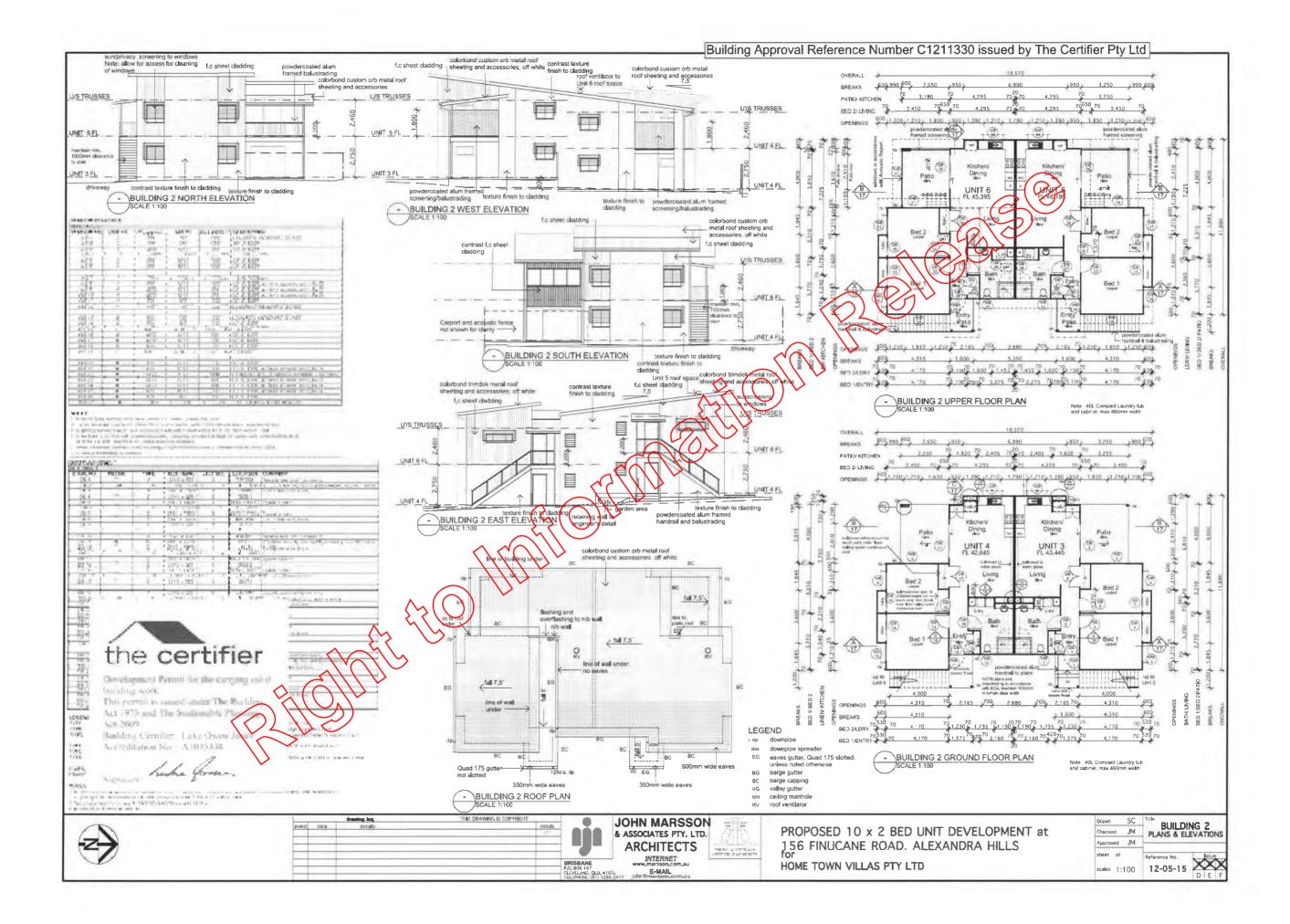
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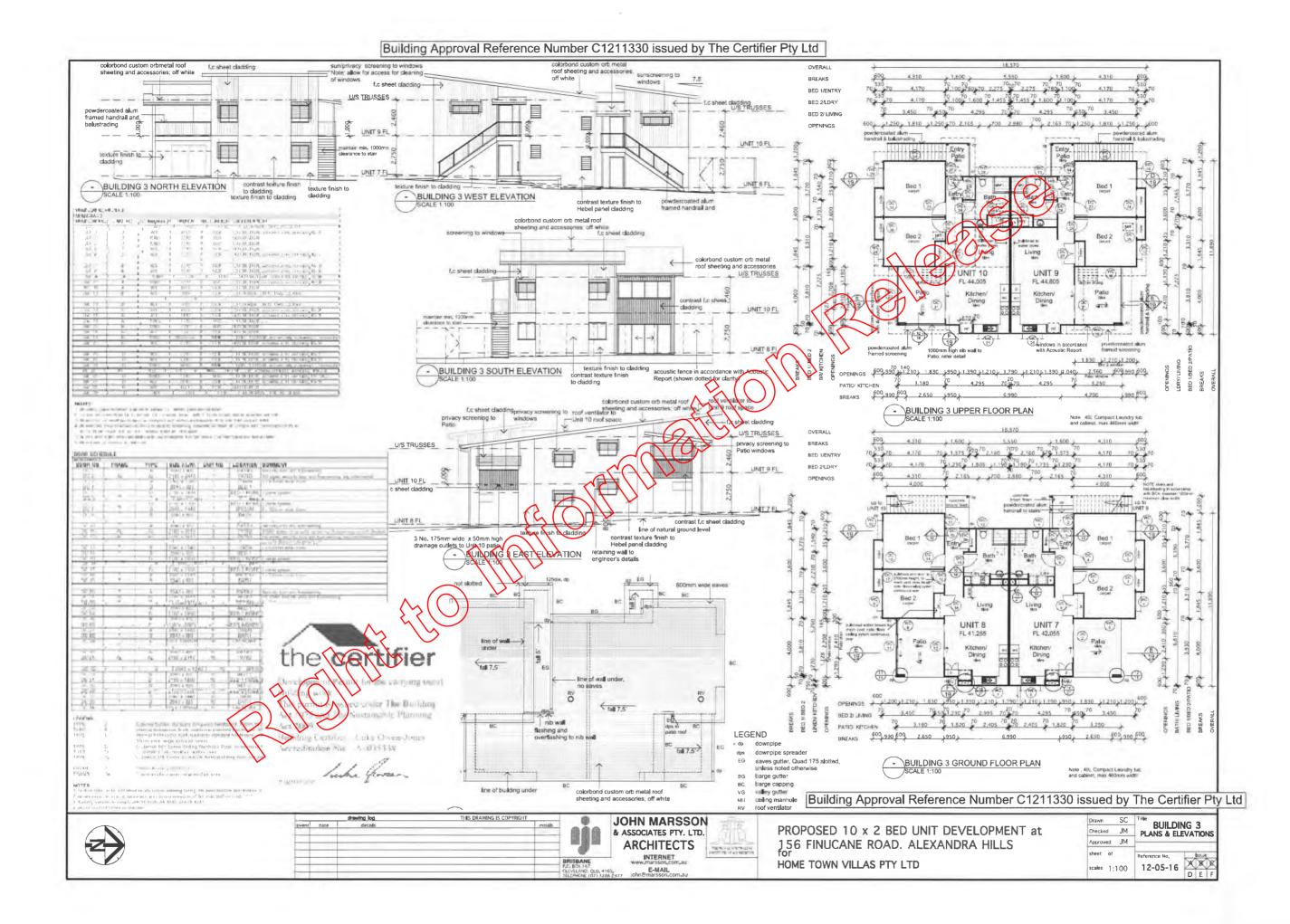




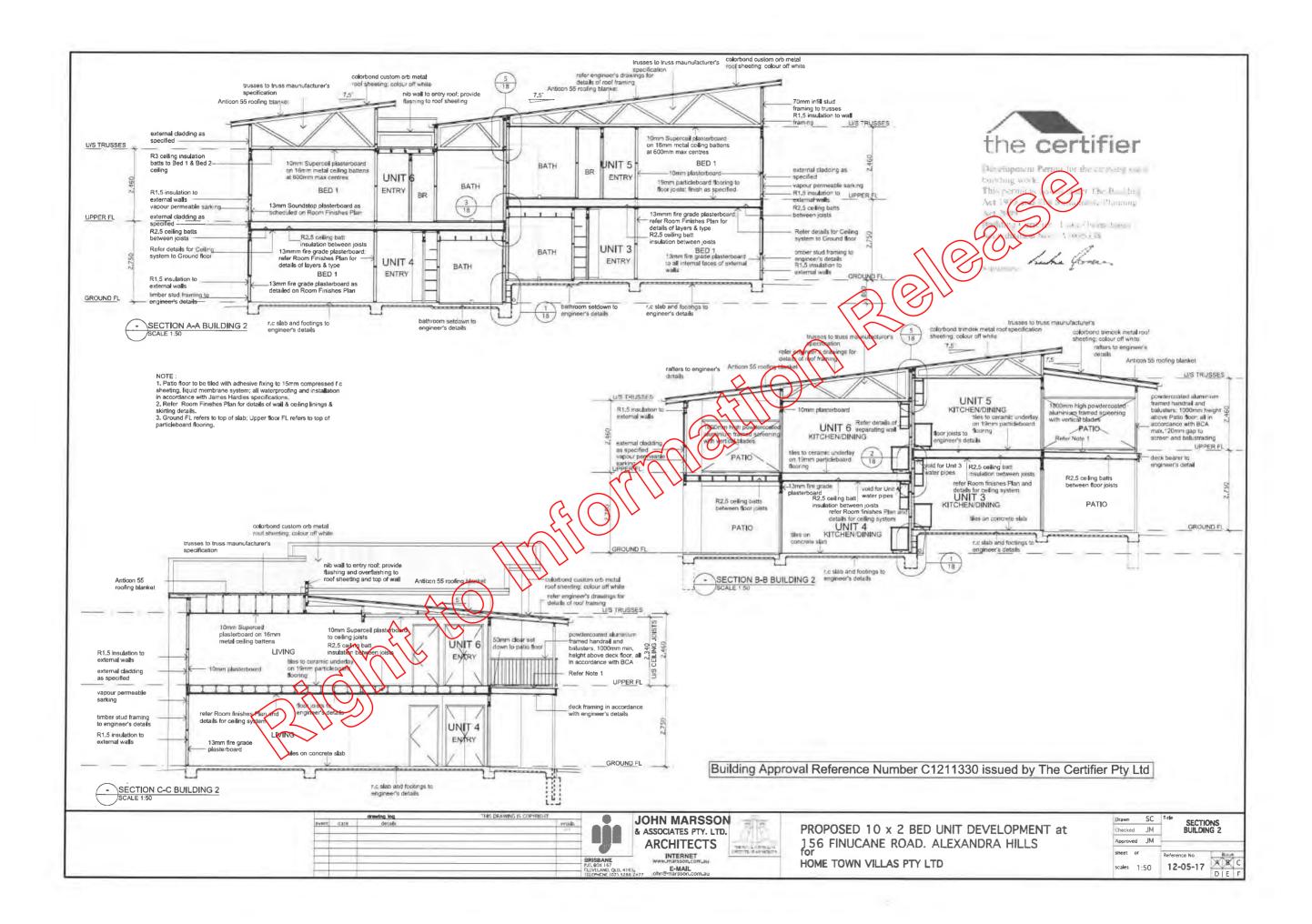


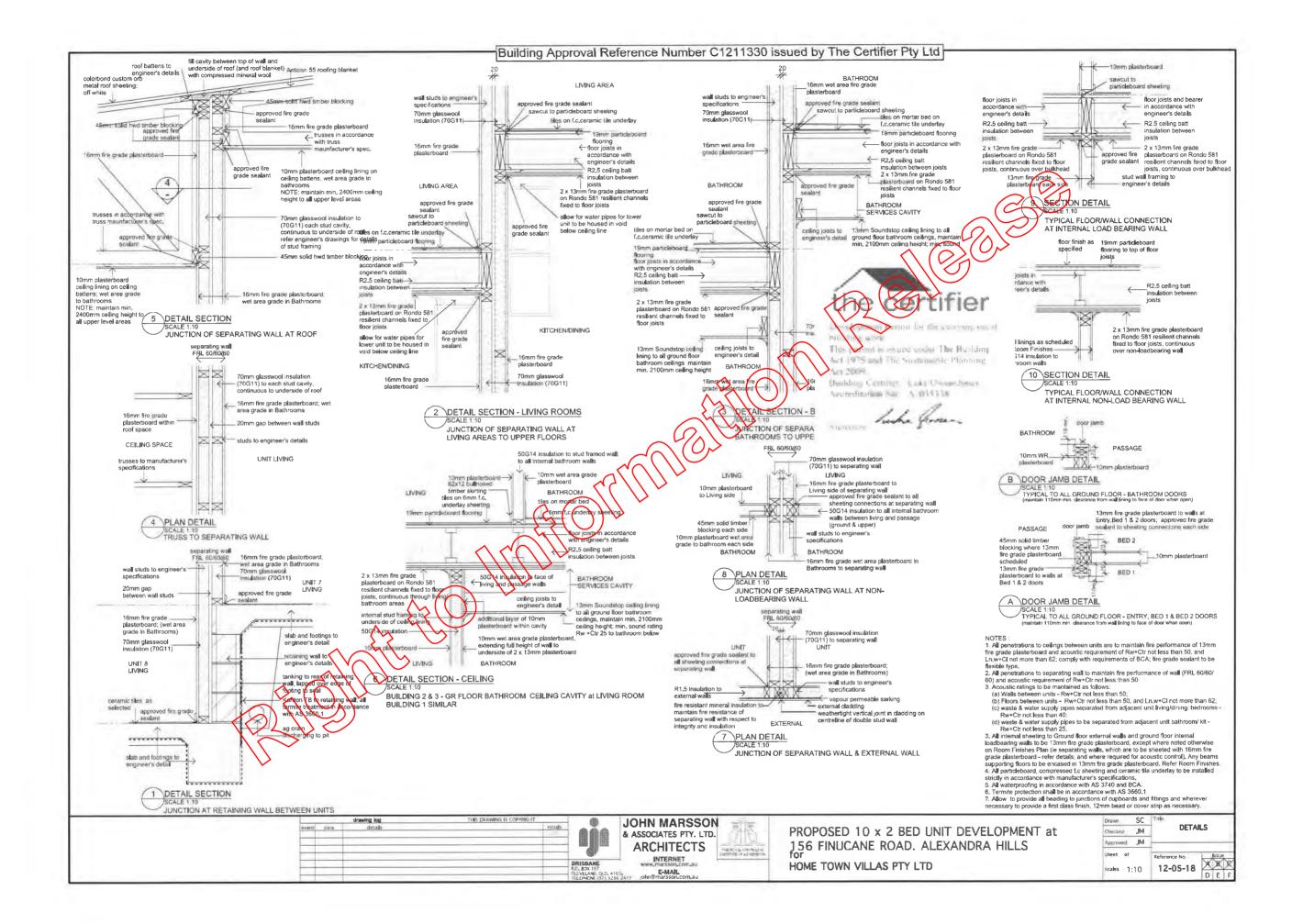
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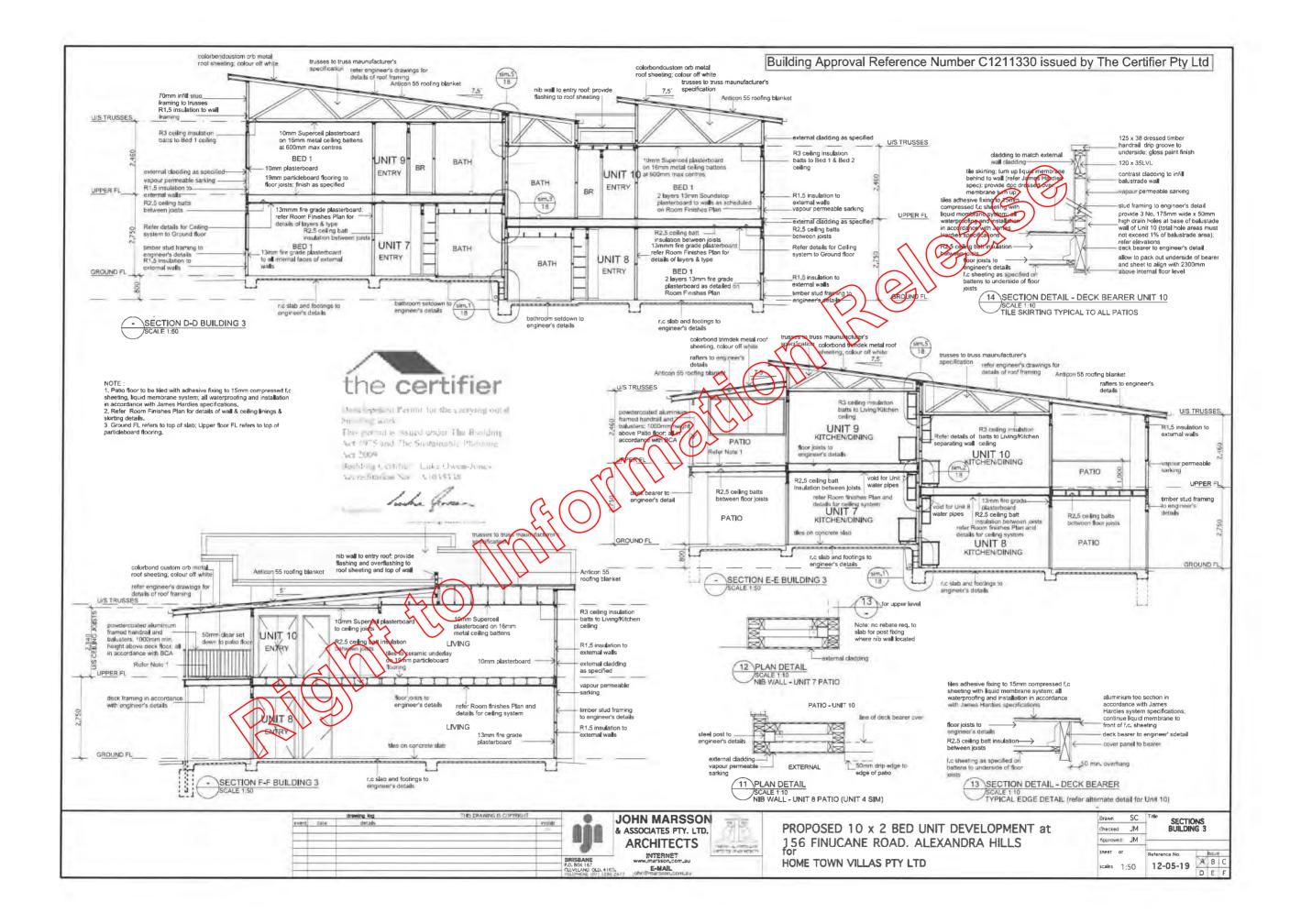
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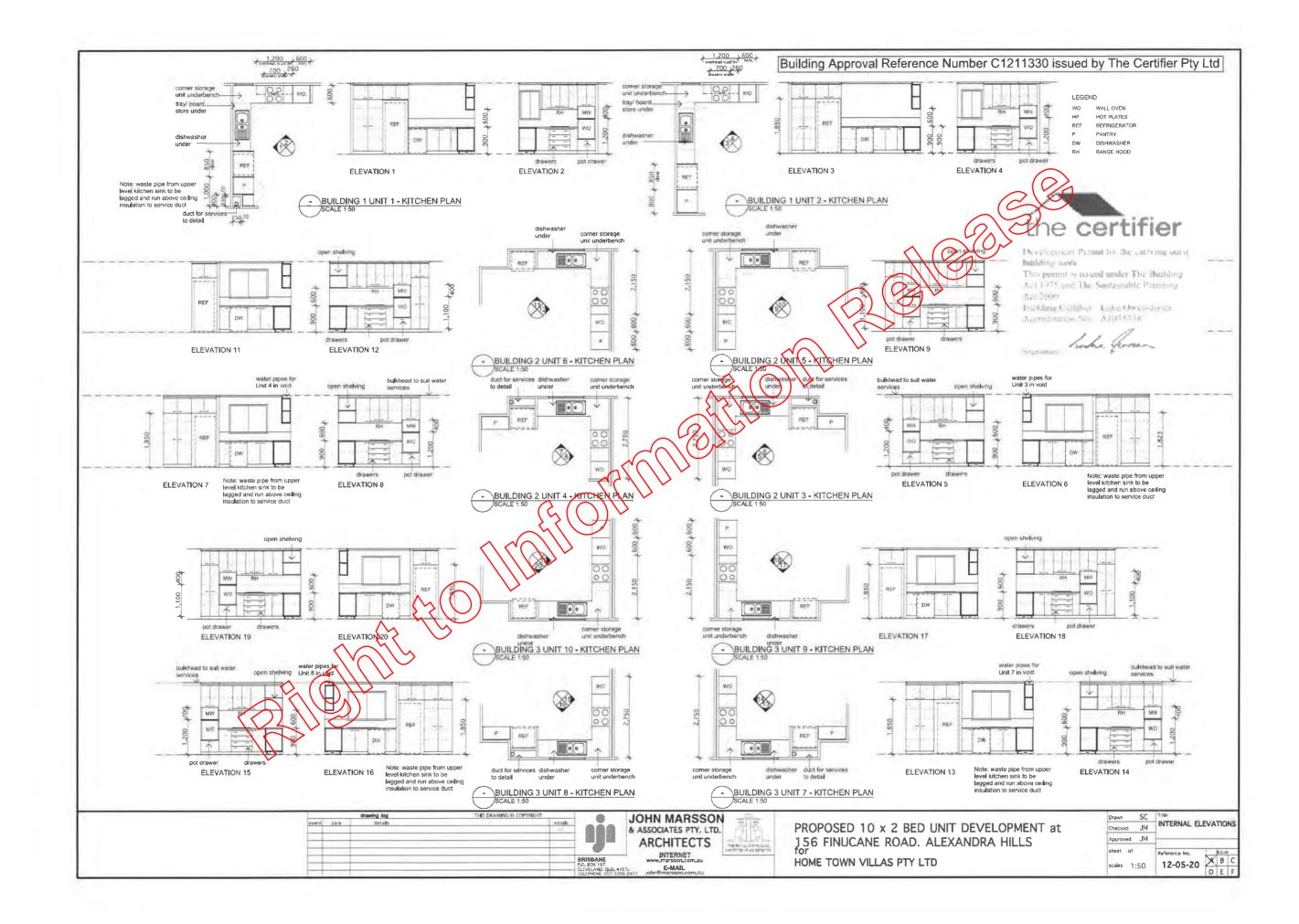
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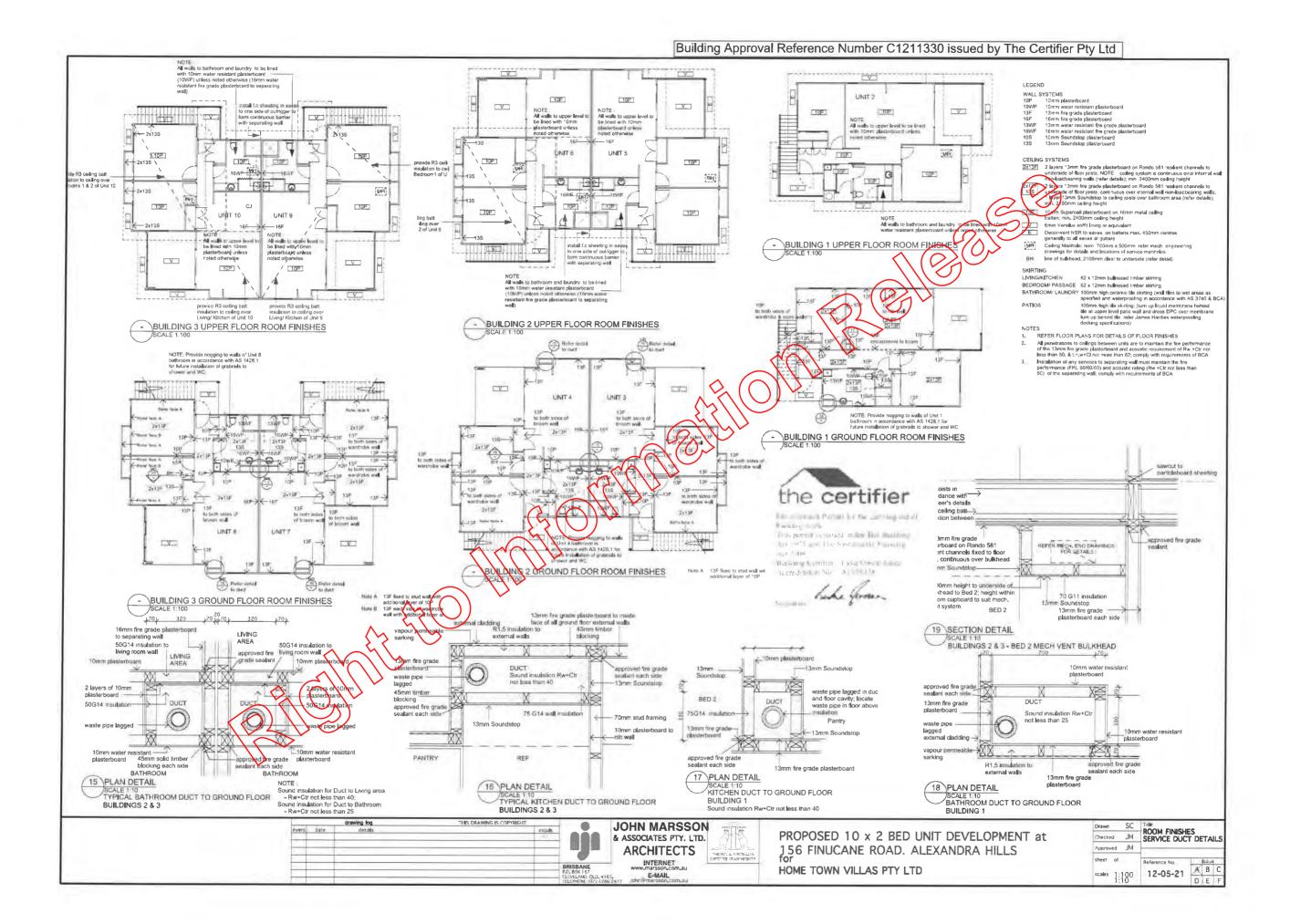




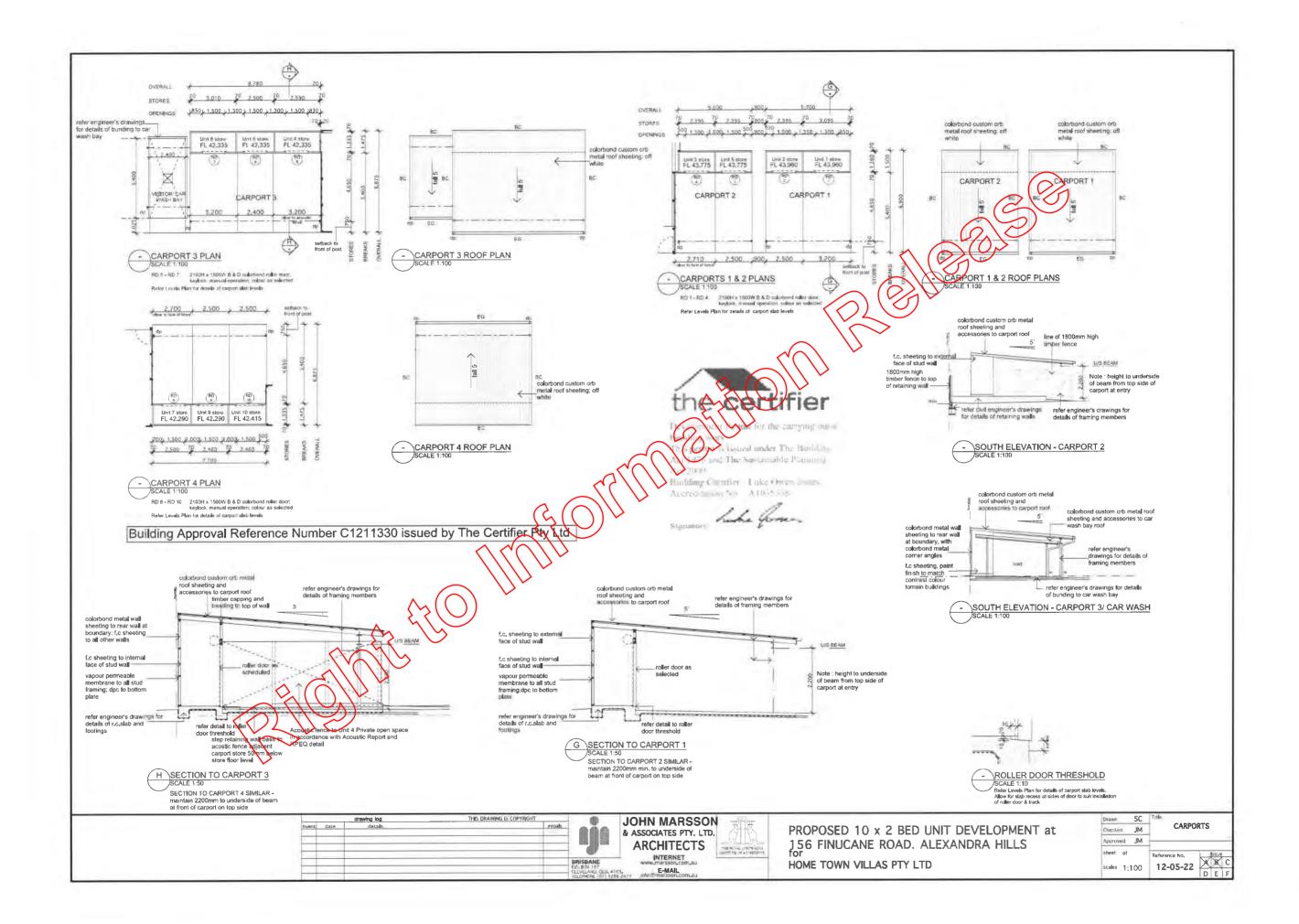


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Certificate of Supervision



Information

Use this form to provide the required **Certificate of Supervision** as part of the request to Council for acceptance of development works **On Maintenance**.

The certificate indicates that the As-Constructed development works have been supervised throughout construction to completion in accordance with the approved engineering design and specification/s. The various parties responsible for the supervision of the development works are to sign the certificate.

Reference:

Part 11 – Planning Scheme Policies, Chapter 9 – Infrastructure works – Chapter 2 – Documentation and General Conditions – <u>Figure 2 – Certificate of</u> <u>Supervision</u>.

The Certificate of Supervision

This pertains to the following

Application number

Site location

Declaration

It is hereby certified that all inspections and supervision were carried out at the appropriate stages of construction.

The supervision and testing associated with the works are in accordance with the specification, documentations and requirements of the relevant local government codes and policies.

Name	
FICARDO FA	THEZ
Qualification	0)
CIVIL ENGRAFER	7
Registered Professional Engin	eer of QLD (RPEQ) number
RPEQ 10733	
Company	
PROJECTS AND	DESIGNS P/L
Signature	Date
M	28-1-2015
Version Control: CS	P040 – 05/01/2015

Information Privacy Act 2009 - Redland City Council is collecting your personal information in order to process this application. The information will only be used by authorised Council Officers for the purpose of ensuring our records are accurate. Your information will not be given to any other person or agency unless you have given us permission or we are required by law to do so.

Redland City Council PO Box 21 Cleveland QLD 4163 | T 07 3829 8999 | F 07 3829 8765 | E rcc@redland.qld.gov.au | W www.redland.qld.gov.au