

Certificate number: 309478M_04

This certificate confirms that the proposed development will meet the NSW government's requirements for sustainability, if it is built in accordance with the commitments set out below. Terms used in this certificate, or in the commitments, have the meaning given by the document entitled "BASIX Definitions" dated 29/06/2009 published by the Department of Planning. This document is available at www.basix.nsw.gov.au

Director-General

Date of issue: Friday, 22 October 2010



Planning

Project summary	
Project name	Lindfield Retail & Residential Devel_04
Street address	23-37 Lindfield Avenue Lindfield 2070
Local Government Area	Ku-ring-gai Council
Plan type and plan number	deposited 1067930
Lot no.	101
Section no.	-
No. of unit buildings	2
No. of units in unit buildings	102
No. of attached dwelling houses	0
No. of separate dwelling houses	0
Project score	
Water	✓ 40 Target 40
Thermal Comfort	✓ Pass Target Pass
Energy	✓ 31 Target 30

Certificate Prepared by (please complete before submitting to Council or PCA)	
Name / Company Name:	
ABN (if applicable):	

Description of project

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Lot no.	101
Section no.	-
Project type	
No. of unit buildings	2
No. of units in unit buildings	102
No. of attached dwelling houses	0
No. of separate dwelling houses	0
Site details	
Site area (m²)	3099
Roof area (m²)	1728
Non-residential floor area (m²)	3677
Residential car spaces	102
Non-residential car spaces	48

Common area landscape	
Common area lawn (m²)	0
Common area garden (m²)	250
Area of indigenous or low water use species (m²)	250
Assessor details	
Assessor number	20776
Certificate number	12714371
Climate zone	56
Project score	
Water	✓ 40 Target 40
Thermal Comfort	✓ Pass Target Pass
Energy	✓ 31 Target 30

Description of project

The tables below describe the dwellings and common areas within the project

Unit building - Building 1, 44 dwellings, 5 storeys above ground

Dwelling no.	No. of bedrooms	Conditioned floor area (m ²)	Unconditioned floor area (m ²)	Area of garden & lawn (m ²)	Indigenous species (min area m ²)	Dwelling no.	No. of bedrooms	Conditioned floor area (m ²)	Unconditioned floor area (m ²)	Area of garden & lawn (m ²)	Indigenous species (min area m ²)
1	2	83.0	11.0	0	0	2	1	43.0	6.0	0	0
5	1	61.0	8.0	0	0	6	1	62.0	6.0	0	0
9	1	46.0	6.0	0	0	10	2	87.0	11.0	0	0
13	1	67.0	6.0	0	0	14	1	46.0	6.0	0	0
17	1	46.0	6.0	0	0	18	1	67.0	6.0	0	0
21	2	83.0	11.0	0	0	22	1	46.0	6.0	0	0
25	2	83.0	11.0	0	0	26	2	83.0	11.0	0	0
29	1	46.0	6.0	0	0	30	2	83.0	11.0	0	0
33	1	67.0	6.0	0	0	34	1	46.0	6.0	0	0
37	1	46.0	6.0	0	0	38	1	68.0	5.0	0	0
41	3	112.0	18.0	0	0	42	3	109.0	19.0	0	0

Dwelling no.	No. of bedrooms	Conditioned floor area (m ²)	Unconditioned floor area (m ²)	Area of garden & lawn (m ²)	Indigenous species (min area m ²)	Dwelling no.	No. of bedrooms	Conditioned floor area (m ²)	Unconditioned floor area (m ²)	Area of garden & lawn (m ²)	Indigenous species (min area m ²)
3	1	67.0	6.0	0	0	7	1	46.0	6.0	0	0
11	2	83.0	11.0	0	0	15	2	87.0	11.0	0	0
19	1	46.0	6.0	0	0	23	1	67.0	6.0	0	0
27	1	46.0	6.0	0	0	31	2	83.0	11.0	0	0
35	2	83.0	11.0	0	0	39	1	46.0	6.0	0	0
43	3	109.0	19.0	0	0						

Dwelling no.	No. of bedrooms	Conditioned floor area (m ²)	Unconditioned floor area (m ²)	Area of garden & lawn (m ²)	Indigenous species (min area m ²)	Dwelling no.	No. of bedrooms	Conditioned floor area (m ²)	Unconditioned floor area (m ²)	Area of garden & lawn (m ²)	Indigenous species (min area m ²)
4	1	46.0	6.0	0	0	16	2	87.0	11.0	0	0
8	1	67.0	6.0	0	0	20	2	83.0	11.0	0	0
12	1	46.0	6.0	0	0	24	1	46.0	6.0	0	0
28	1	67.0	6.0	0	0	32	1	46.0	6.0	0	0
36	2	83.0	11.0	0	0	40	2	83.0	11.0	0	0
44	3	112.0	18.0	0	0						

Unit building - Building 2, 58 dwellings, 6 storeys above ground

Dwelling no.	No. of bedrooms	Conditioned floor area (m ²)	Unconditioned floor area (m ²)	Area of garden & lawn (m ²)	Indigenous species (min area m ²)
1	2	84.0	9.0	0	0
5	1	78.0	7.0	0	0
9	1	63.0	9.0	0	0
13	2	83.0	11.0	0	0
17	1	51.0	7.0	0	0
21	2	84.0	9.0	0	0
25	1	78.0	7.0	0	0
29	1	63.0	9.0	0	0
33	2	83.0	11.0	0	0
37	1	51.0	7.0	0	0
41	2	84.0	9.0	0	0
45	1	78.0	7.0	0	0
49	1	63.0	9.0	0	0
53	2	83.0	11.0	0	0
57	3	104.0	13.0	0	0

Dwelling no.	No. of bedrooms	Conditioned floor area (m ²)	Unconditioned floor area (m ²)	Area of garden & lawn (m ²)	Indigenous species (min area m ²)
3	2	83.0	11.0	0	0
7	1	51.0	7.0	0	0
11	2	84.0	9.0	0	0
15	1	78.0	7.0	0	0
19	1	63.0	9.0	0	0
23	2	83.0	11.0	0	0
27	1	51.0	7.0	0	0
31	2	84.0	9.0	0	0
35	1	78.0	7.0	0	0
39	1	63.0	9.0	0	0
43	2	83.0	11.0	0	0
47	1	51.0	7.0	0	0
51	2	84.0	9.0	0	0
55	1	78.0	7.0	0	0

Dwelling no.	No. of bedrooms	Conditioned floor area (m ²)	Unconditioned floor area (m ²)	Area of garden & lawn (m ²)	Indigenous species (min area m ²)
4	2	83.0	11.0	0	0
8	1	46.0	6.0	0	0
12	2	84.0	8.0	0	0
16	1	51.0	7.0	0	0
20	1	60.0	7.0	0	0
24	2	83.0	11.0	0	0
28	1	46.0	6.0	0	0
32	2	84.0	8.0	0	0
36	1	60.0	7.0	0	0
40	1	60.0	7.0	0	0
44	2	83.0	11.0	0	0
48	1	46.0	6.0	0	0
52	1	54.0	8.0	0	0
56	1	45.0	7.0	0	0

Description of project

The tables below describe the dwellings and common areas within the project

Common areas of unit building - Building 1

Common area	Floor area (m²)
Lift car (No. 1)	-
Lift motor room (No. 2)	5.15
Storage (No. 1)	25.08
Fire Stairs (No. 2)	1
Hallway/lobby L2, B1, LHS	21.41
Hallway/lobby L4, B1, RHS	22.63
Hallway/lobby L5, B1, LHS	22.62

Common area	Floor area (m²)
Lift car (No. 2)	-
Garbage room (No. 1)	14.01
Storage (No. 2)	25.08
Hallway/lobby L1 B1	79.42
Hallway/lobby L3, B1, RHS	22.62
Hallway/lobby L4, B1, LHS	22.63

Common area	Floor area (m²)
Lift motor room (No. 1)	5.17
Garbage room (No. 2)	32.06
Fire Stairs (No. 1)	1
Hallway/lobby L2 B1, RHS	25.32
Hallway/lobby L3, B1, LHS	22.62
Hallway/lobby L5, B1, RHS	22.62

Common areas of unit building - Building 2

Common area	Floor area (m²)
Lift car (No. 3)	-
Lift motor room (No. 4)	4.77
Fire Stairs (No. 3)	1
Hallway/lobby L2, B2, RHS	15.40
Hallway/lobby L3, B2, LHS	31.29
Hallway/lobby L5, B2, RHS	15.40
Hallway/lobby L6, B2, LHS	31.29

Common area	Floor area (m²)
Lift car (No. 4)	-
Garbage room (No. 3)	27.09
Fire Stairs (No. 4)	1
Hallway/lobby L2, B2, LHS	31.29
Hallway/lobby L4, B2, RHS	15.4
Hallway/lobby L5, B2, LHS	31.29
Hallway/lobby L7, B2, RHS	15.40

Common area	Floor area (m²)
Lift motor room (No. 3)	4.77
Garbage room (No. 4)	15.12
Ground floor lobby type (No. 1)	84.37
Hallway/lobby L3, B2, RHS	15.40
Hallway/lobby L4, B2, LHS	31.29
Hallway/lobby L6, B2, RHS	15.40
Hallway/lobby L7, B2, LHS	31.29

Common areas of the development (non-building specific)

Common area	Floor area (m²)
Car park area (No. 1)	2949.50

Common area	Floor area (m²)
Car park area (No. 2)	2506.38

Schedule of BASIX commitments

1. Commitments for unit building - Building 1

- (a) Dwellings
 - (i) Water
 - (ii) Energy
 - (iii) Thermal Comfort
- (b) Common areas and central systems/facilities
 - (i) Water
 - (ii) Energy

2. Commitments for unit building - Building 2

- (a) Dwellings
 - (i) Water
 - (ii) Energy
 - (iii) Thermal Comfort
- (b) Common areas and central systems/facilities
 - (i) Water
 - (ii) Energy

3. Commitments for attached dwelling houses

4. Commitments for separate dwelling houses

5. Commitments for common areas and central systems/facilities for the development (non-building specific)

- (i) Water
- (ii) Energy

Schedule of BASIX commitments

The commitments set out below regulate how the proposed development is to be carried out. It is a condition of any development consent granted, or complying development certificate issued, for the proposed development, that BASIX commitments be complied with.

1. Commitments for unit building - Building 1

(a) Dwellings

(i) Water	Show on DA plans	Show on CC/CDC plans & specs	Certifier check
(a) The applicant must comply with the commitments listed below in carrying out the development of a dwelling listed in a table below.			
(b) The applicant must plant indigenous or low water use species of vegetation throughout the area of land specified for the dwelling in the "Indigenous species" column of the table below, as private landscaping for that dwelling. (This area of indigenous vegetation is to be contained within the "Area of garden and lawn" for the dwelling specified in the "Description of Project" table).	✓	✓	
(c) If a rating is specified in the table below for a fixture or appliance to be installed in the dwelling, the applicant must ensure that each such fixture and appliance meets the rating specified for it.		✓	✓
(d) The applicant must install an on demand hot water recirculation system which regulates all hot water use throughout the dwelling, where indicated for a dwelling in the "HW recirculation or diversion" column of the table below.		✓	✓
(e) The applicant must install:			
(aa) a hot water diversion system to all showers, kitchen sinks and all basins in the dwelling, where indicated for a dwelling in the "HW recirculation or diversion" column of the table below; and		✓	✓
(bb) a separate diversion tank (or tanks) connected to the hot water diversion systems of at least 100 litres. The applicant must connect the hot water diversion tank to all toilets in the dwelling.		✓	✓
(e) The applicant must not install a private swimming pool or spa for the dwelling, with a volume exceeding that specified for it in the table below.	✓	✓	
(f) If specified in the table, that pool or spa (or both) must have a pool cover or shading (or both).		✓	
(g) The pool or spa must be located as specified in the table.	✓	✓	
(h) The applicant must install, for the dwelling, each alternative water supply system, with the specified size, listed for that dwelling in the table below. Each system must be configured to collect run-off from the areas specified (excluding any area which supplies any other alternative water supply system), and to divert overflow as specified. Each system must be connected as specified.	✓	✓	✓

Dwelling no.	Fixtures					Appliances		Individual pool					Individual spa		
	All shower-heads	All toilet flushing systems	All kitchen taps	All bathroom taps	HW recirculation or diversion	All clothes washers	All dish-washers	Volume (max volume)	Pool cover	Pool location	Pool shaded	Volume (max volume)	Spa cover	Spa shaded	
All dwellings	3 star (> 7.5 but <= 9 L/min)	4 star	5 star	5 star	no	-	-	-	-	-	-	-	-	-	-

Alternative water source								
Dwelling no.	Alternative water supply systems	Size	Configuration	Landscape connection	Toilet connection (s)	Laundry connection	Pool top-up	Spa top-up
All dwellings	on-site recycled water system (no. 1)	See central systems	See central systems	no	yes	no	no	no
None	-	-	-	-	-	-	-	-

(ii) Energy	Show on DA plans	Show on CC/CDC plans & specs	Certifier check
(a) The applicant must comply with the commitments listed below in carrying out the development of a dwelling listed in a table below.			
(b) The applicant must install each hot water system specified for the dwelling in the table below, so that the dwelling's hot water is supplied by that system. If the table specifies a central hot water system for the dwelling, then the applicant must connect that central system to the dwelling, so that the dwelling's hot water is supplied by that central system.	✓	✓	✓
(c) The applicant must install, in each bathroom, kitchen and laundry of the dwelling, the ventilation system specified for that room in the table below. Each such ventilation system must have the operation control specified for it in the table.		✓	✓
(d) The applicant must install the cooling and heating system/s specified for the dwelling under the "Living areas" and "Bedroom areas" headings of the "Cooling" and "Heating" columns in the table below, in/for at least 1 living/bedroom area of the dwelling. If no cooling or heating system is specified in the table for "Living areas" or "Bedroom areas", then no systems may be installed in any such areas. If the term "zoned" is specified beside an air conditioning system, then the system must provide for day/night zoning between living areas and bedrooms.		✓	✓
(e) This commitment applies to each room or area of the dwelling which is referred to in a heading to the "Artificial lighting" column of the table below (but only to the extent specified for that room or area). The applicant must ensure that the "primary type of artificial lighting" for each such room in the dwelling is fluorescent lighting or light emitting diode (LED) lighting. If the term "dedicated" is specified for a particular room or area, then the light fittings in that room or area must only be capable of being used for fluorescent lighting or light emitting diode (LED) lighting.		✓	✓

(ii) Energy	Show on DA plans	Show on CC/CDC plans & specs	Certifier check
(f) This commitment applies to each room or area of the dwelling which is referred to in a heading to the "Natural lighting" column of the table below (but only to the extent specified for that room or area). The applicant must ensure that each such room or area is fitted with a window and/or skylight.	✓	✓	✓
(g) This commitment applies if the applicant installs a water heating system for the dwelling's pool or spa. The applicant must: (aa) install the system specified for the pool in the "Individual Pool" column of the table below (or alternatively must not install any system for the pool). If specified, the applicant must install a timer, to control the pool's pump; and (bb) install the system specified for the spa in the "Individual Spa" column of the table below (or alternatively must not install any system for the spa). If specified, the applicant must install a timer to control the spa's pump.		✓ ✓	
(h) The applicant must install in the dwelling: (aa) the kitchen cook-top and oven specified for that dwelling in the "Appliances & other efficiency measures" column of the table below; (bb) each appliance for which a rating is specified for that dwelling in the "Appliances & other efficiency measures" column of the table, and ensure that the appliance has that minimum rating; and (cc) any clothes drying line specified for the dwelling in the "Appliances & other efficiency measures" column of the table.		✓ ✓ ✓	✓
(i) If specified in the table, the applicant must carry out the development so that each refrigerator space in the dwelling is "well ventilated".		✓	

	Hot water	Bathroom ventilation system		Kitchen ventilation system		Laundry ventilation system	
Dwelling no.	Hot water system	Each bathroom	Operation control	Each kitchen	Operation control	Each laundry	Operation control
All dwellings	central hot water system 1	individual fan, ducted to façade or roof	interlocked to light	individual fan, ducted to façade or roof	manual switch on/off	natural ventilation only, or no laundry	-

Dwelling no.	Cooling		Heating		Artificial lighting							Natural lighting	
	living areas	bedroom areas	living areas	bedroom areas	No. of bedrooms &/or study	No. of living &/or dining rooms	Each kitchen	All bathrooms/ toilets	Each laundry	All hallways	No. of bathrooms &/or toilets	Main kitchen	
41, 42, 43, 44	ceiling fans + 1-phase airconditioning 4 Star (new rating)	ceiling fans	1-phase airconditioning 4 Star (new rating)	-	3 (dedicated)	1 (dedicated)	yes (dedicated)	yes (dedicated)	yes (dedicated)	yes (dedicated)	3	no	
1, 10, 11, 15, 16, 20, 21, 25, 26, 30, 31, 35, 36, 40	ceiling fans + 1-phase airconditioning 4 Star (new rating)	ceiling fans	1-phase airconditioning 4 Star (new rating)	-	2 (dedicated)	1 (dedicated)	yes (dedicated)	yes (dedicated)	yes (dedicated)	yes (dedicated)	2	no	
2, 3, 4, 5, 6, 7, 8, 9, 12, 13, 14, 17, 18, 19, 22, 23, 24, 27, 28, 29, 32, 33, 34, 37, 38, 39	ceiling fans + 1-phase airconditioning 4 Star (new rating)	ceiling fans	1-phase airconditioning 4 Star (new rating)	-	1 (dedicated)	1 (dedicated)	yes (dedicated)	yes (dedicated)	yes (dedicated)	yes (dedicated)	1	no	

Individual pool			Individual spa		Appliances & other efficiency measures							
Dwelling no.	Pool heating system	Timer	Spa heating system	Timer	Kitchen cooktop/oven	Refrigerator	Well ventilated fridge space	Dishwasher	Clothes washer	Clothes dryer	Indoor or sheltered clothes drying line	Private outdoor or unsheltered clothes drying line
All dwellings	-	-	-	-	electric cooktop & electric oven	-	yes	-	-	-	yes	no

(iii) Thermal Comfort		Show on DA plans	Show on CC/CDC plans & specs	Certifier check
(a) The applicant must attach the certificate referred to under "Assessor details" on the front page of this BASIX certificate (the "Assessor Certificate") to the development application and construction certificate application for the proposed development (or, if the applicant is applying for a complying development certificate for the proposed development, to that application). The applicant must also attach the Assessor Certificate to the application for a final occupation certificate for the proposed development.				
(b) The Assessor Certificate must have been issued by an Accredited Assessor in accordance with the Thermal Comfort Protocol.				
(c) The details of the proposed development on the Assessor Certificate must be consistent with the details shown in this BASIX Certificate, including the details shown in the "Thermal Loads" table below.				
(d) The applicant must show on the plans accompanying the development application for the proposed development, all matters which the Thermal Comfort Protocol requires to be shown on those plans. Those plans must bear a stamp of endorsement from the Accredited Assessor, to certify that this is the case.				
(e) The applicant must show on the plans accompanying the application for a construction certificate (or complying development certificate, if applicable), all thermal performance specifications set out in the Assessor Certificate, and all aspects of the proposed development which were used to calculate those specifications.				
(f) The applicant must construct the development in accordance with all thermal performance specifications set out in the Assessor Certificate, and in accordance with those aspects of the development application or application for a complying development certificate which were used to calculate those specifications.			✓	✓
(g) Where there is an in-slab heating or cooling system, the applicant must: (aa) Install insulation with an R-value of not less than 1.0 around the vertical edges of the perimeter of the slab; or (bb) On a suspended floor, install insulation with an R-value of not less than 1.0 underneath the slab and around the vertical edges of the perimeter of the slab.		✓	✓	✓
(h) The applicant must construct the floors and walls of the development in accordance with the specifications listed in the table below.		✓	✓	✓

Thermal loads	
Dwelling no.	Area adjusted heating load (in mJ/m ² /yr)
5	18
6	53
41, 44	53
42, 43	43
1, 11, 20, 21, 30, 31, 40	32
Thermal loads	
	Area adjusted cooling load (in mJ/m ² /yr)
	18
	24
	56
	53
	51

Thermal loads		
Dwelling no.	Area adjusted heating load (in mJ/m ² /yr)	Area adjusted cooling load (in mJ/m ² /yr)
10, 15, 16, 25, 26, 35, 36	22	25
2, 7, 12, 17, 22, 27, 32, 37	7	39
3, 8, 13, 18, 23, 28, 33, 38	23	24
All other dwellings	14	27

(b) Common areas and central systems/facilities

(i) Water		Show on DA plans	Show on CC/CDC plans & specs	Certifier check
(a) If, in carrying out the development, the applicant installs a showerhead, toilet, tap or clothes washer into a common area, then that item must meet the specifications listed for it in the table.			✓	✓
(b) The applicant must install (or ensure that the development is serviced by) the alternative water supply system(s) specified in the "Central systems" column of the table below. In each case, the system must be sized, be configured, and be connected, as specified in the table.		✓	✓	✓
(c) A swimming pool or spa listed in the table must not have a volume (in kLs) greater than that specified for the pool or spa in the table.		✓	✓	
(d) A pool or spa listed in the table must have a cover or shading if specified for the pool or spa in the table.			✓	
(e) The applicant must install each fire sprinkler system listed in the table so that the system is configured as specified in the table.			✓	✓
(f) The applicant must ensure that the central cooling system for a cooling tower is configured as specified in the table.			✓	✓

Common area	Showerheads rating	Toilets rating	Taps rating	Clothes washers rating
All common areas	no common facility	no common facility	no common facility	no common laundry facility

(ii) Energy		Show on DA plans	Show on CC/CDC plans & specs	Certifier check
(a) If, in carrying out the development, the applicant installs a ventilation system to service a common area specified in the table below, then that ventilation system must be of the type specified for that common area, and must meet the efficiency measure specified.			✓	✓
(b) In carrying out the development, the applicant must install, as the "primary type of artificial lighting" for each common area specified in the table below, the lighting specified for that common area. This lighting must meet the efficiency measure specified. The applicant must also install a centralised lighting control system or Building Management System (BMS) for the common area, where specified.			✓	✓
(c) The applicant must install the systems and fixtures specified in the "Central energy systems" column of the table below. In each case, the system or fixture must be of the type, and meet the specifications, listed for it in the table.		✓	✓	✓

Common area ventilation system		Common area lighting			
Common area	Ventilation system type	Ventilation efficiency measure	Primary type of artificial lighting	Lighting efficiency measure	Lighting control system/BMS
Lift car (No. 1)	-	-	compact fluorescent	connected to lift call button	Yes
Lift car (No. 2)	-	-	compact fluorescent	connected to lift call button	Yes
Lift motor room (No. 1)	ventilation exhaust only	thermostatically controlled	fluorescent	manual on / manual off	Yes
Lift motor room (No. 2)	ventilation exhaust only	thermostatically controlled	fluorescent	manual on / manual off	Yes
Garbage room (No. 1)	ventilation exhaust only	-	fluorescent	motion sensors	Yes
Garbage room (No. 2)	ventilation exhaust only	-	fluorescent	motion sensors	Yes
Storage (No. 1)	no mechanical ventilation	-	fluorescent	motion sensors	Yes
Storage (No. 2)	no mechanical ventilation	-	fluorescent	motion sensors	Yes
Fire Stairs (No. 1)	ventilation supply only	none ie. continuous	fluorescent	motion sensors	Yes
Fire Stairs (No. 2)	ventilation supply only	none ie. continuous	fluorescent	motion sensors	Yes
Hallway/lobby L1 B1	no mechanical ventilation	-	compact fluorescent	motion sensors	Yes
Hallway/lobby L2 B1, RHS	no mechanical ventilation	-	compact fluorescent	motion sensors	Yes
Hallway/lobby L2, B1, LHS	no mechanical ventilation	-	compact fluorescent	motion sensors	Yes
Hallway/lobby L3, B1, RHS	no mechanical ventilation	-	compact fluorescent	motion sensors	Yes
Hallway/lobby L3, B1, LHS	no mechanical ventilation	-	compact fluorescent	motion sensors	Yes
Hallway/lobby L4, B1, RHS	no mechanical ventilation	-	compact fluorescent	motion sensors	Yes
Hallway/lobby L4, B1, LHS	no mechanical ventilation	-	compact fluorescent	motion sensors	Yes
Hallway/lobby L5, B1, RHS	no mechanical ventilation	-	compact fluorescent	motion sensors	Yes
Hallway/lobby L5, B1, LHS	no mechanical ventilation	-	compact fluorescent	motion sensors	Yes

Central energy systems		Type	Specification
Lift (No. 1)		gearless traction with V V V F motor	Number of levels (including basement): 8
Lift (No. 2)		gearless traction with V V V F motor	Number of levels (including basement): 8

2. Commitments for unit building - Building 2

(a) Dwellings

(i) Water	Show on DA plans	Show on CC/CDC plans & specs	Certifier check
(a) The applicant must comply with the commitments listed below in carrying out the development of a dwelling listed in a table below.			
(b) The applicant must plant indigenous or low water use species of vegetation throughout the area of land specified for the dwelling in the "Indigenous species" column of the table below, as private landscaping for that dwelling. (This area of indigenous vegetation is to be contained within the "Area of garden and lawn" for the dwelling specified in the "Description of Project" table).	✓	✓	
(c) If a rating is specified in the table below for a fixture or appliance to be installed in the dwelling, the applicant must ensure that each such fixture and appliance meets the rating specified for it.		✓	✓
(d) The applicant must install an on demand hot water recirculation system which regulates all hot water use throughout the dwelling, where indicated for a dwelling in the "HW recirculation or diversion" column of the table below.		✓	✓
(e) The applicant must install: (aa) a hot water diversion system to all showers, kitchen sinks and all basins in the dwelling, where indicated for a dwelling in the "HW recirculation or diversion" column of the table below; and (bb) a separate diversion tank (or tanks) connected to the hot water diversion systems of at least 100 litres. The applicant must connect the hot water diversion tank to all toilets in the dwelling.		✓ ✓	✓ ✓
(e) The applicant must not install a private swimming pool or spa for the dwelling, with a volume exceeding that specified for it in the table below.	✓	✓	
(f) If specified in the table, that pool or spa (or both) must have a pool cover or shading (or both).		✓	
(g) The pool or spa must be located as specified in the table.	✓	✓	
(h) The applicant must install, for the dwelling, each alternative water supply system, with the specified size, listed for that dwelling in the table below. Each system must be configured to collect run-off from the areas specified (excluding any area which supplies any other alternative water supply system), and to divert overflow as specified. Each system must be connected as specified.	✓	✓	✓

Dwelling no.	Fixtures					Appliances		Individual pool					Individual spa		
	All shower-heads	All toilet flushing systems	All kitchen taps	All bathroom taps	HW recirculation or diversion	All clothes washers	All dish-washers	Volume (max volume)	Pool cover	Pool location	Pool shaded	Volume (max volume)	Spa cover	Spa shaded	
All dwellings	3 star (> 7.5 but <= 9 L/min)	4 star	5 star	5 star	no	-	-	-	-	-	-	-	-	-	

Alternative water source									
Dwelling no.	Alternative water supply systems	Size	Configuration	Landscape connection	Toilet connection (s)	Laundry connection	Pool top-up	Spa top-up	
All dwellings	on-site recycled water system (no. 1)	See central systems	See central systems	no	yes	no	no	no	
None	-	-	-	-	-	-	-	-	

(ii) Energy	Show on DA plans	Show on CC/CDC plans & specs	Certifier check
(a) The applicant must comply with the commitments listed below in carrying out the development of a dwelling listed in a table below.			
(b) The applicant must install each hot water system specified for the dwelling in the table below, so that the dwelling's hot water is supplied by that system. If the table specifies a central hot water system for the dwelling, then the applicant must connect that central system to the dwelling, so that the dwelling's hot water is supplied by that central system.	✓	✓	✓
(c) The applicant must install, in each bathroom, kitchen and laundry of the dwelling, the ventilation system specified for that room in the table below. Each such ventilation system must have the operation control specified for it in the table.		✓	✓
(d) The applicant must install the cooling and heating system/s specified for the dwelling under the "Living areas" and "Bedroom areas" headings of the "Cooling" and "Heating" columns in the table below, in/for at least 1 living/bedroom area of the dwelling. If no cooling or heating system is specified in the table for "Living areas" or "Bedroom areas", then no systems may be installed in any such areas. If the term "zoned" is specified beside an air conditioning system, then the system must provide for day/night zoning between living areas and bedrooms.		✓	✓
(e) This commitment applies to each room or area of the dwelling which is referred to in a heading to the "Artificial lighting" column of the table below (but only to the extent specified for that room or area). The applicant must ensure that the "primary type of artificial lighting" for each such room in the dwelling is fluorescent lighting or light emitting diode (LED) lighting. If the term "dedicated" is specified for a particular room or area, then the light fittings in that room or area must only be capable of being used for fluorescent lighting or light emitting diode (LED) lighting.		✓	✓

(ii) Energy	Show on DA plans	Show on CC/CDC plans & specs	Certifier check
(f) This commitment applies to each room or area of the dwelling which is referred to in a heading to the "Natural lighting" column of the table below (but only to the extent specified for that room or area). The applicant must ensure that each such room or area is fitted with a window and/or skylight.	✓	✓	✓
(g) This commitment applies if the applicant installs a water heating system for the dwelling's pool or spa. The applicant must: (aa) install the system specified for the pool in the "Individual Pool" column of the table below (or alternatively must not install any system for the pool). If specified, the applicant must install a timer, to control the pool's pump; and (bb) install the system specified for the spa in the "Individual Spa" column of the table below (or alternatively must not install any system for the spa). If specified, the applicant must install a timer to control the spa's pump.		✓ ✓	
(h) The applicant must install in the dwelling: (aa) the kitchen cook-top and oven specified for that dwelling in the "Appliances & other efficiency measures" column of the table below; (bb) each appliance for which a rating is specified for that dwelling in the "Appliances & other efficiency measures" column of the table, and ensure that the appliance has that minimum rating; and (cc) any clothes drying line specified for the dwelling in the "Appliances & other efficiency measures" column of the table.		✓ ✓ ✓	✓
(i) If specified in the table, the applicant must carry out the development so that each refrigerator space in the dwelling is "well ventilated".		✓	

	Hot water	Bathroom ventilation system		Kitchen ventilation system		Laundry ventilation system	
Dwelling no.	Hot water system	Each bathroom	Operation control	Each kitchen	Operation control	Each laundry	Operation control
All dwellings	central hot water system 1	individual fan, ducted to façade or roof	interlocked to light	individual fan, ducted to façade or roof	manual switch on/off	natural ventilation only, or no laundry	-

Dwelling no.	Cooling		Heating		Artificial lighting							Natural lighting	
	living areas	bedroom areas	living areas	bedroom areas	No. of bedrooms &/or study	No. of living &/or dining rooms	Each kitchen	All bathrooms/toilets	Each laundry	All hallways	No. of bathrooms &/or toilets	Main kitchen	
57	ceiling fans + 1-phase airconditioning 4 Star (new rating)	ceiling fans	1-phase airconditioning 4 Star (new rating)	-	3 (dedicated)	1 (dedicated)	yes (dedicated)	yes (dedicated)	yes (dedicated)	yes (dedicated)	3	no	
6, 7, 8, 9, 10, 16, 17, 18, 19, 20, 26, 27, 28, 29, 30, 36, 37, 38, 39, 40, 46, 47, 48, 49, 50, 52, 56	ceiling fans + 1-phase airconditioning 4 Star (new rating)	ceiling fans	1-phase airconditioning 4 Star (new rating)	-	1 (dedicated)	1 (dedicated)	yes (dedicated)	yes (dedicated)	yes (dedicated)	yes (dedicated)	1	no	
1, 2, 3, 4, 5, 11, 12, 13, 14, 15, 21, 22, 23, 24, 25, 31, 32, 33, 34, 35, 41, 42, 43, 44, 45, 51, 53, 54, 55, 58	ceiling fans + 1-phase airconditioning 4 Star (new rating)	ceiling fans	1-phase airconditioning 4 Star (new rating)	-	2 (dedicated)	1 (dedicated)	yes (dedicated)	yes (dedicated)	yes (dedicated)	yes (dedicated)	2	no	

Individual pool		Individual spa		Appliances & other efficiency measures								
Dwelling no.	Pool heating system	Timer	Spa heating system	Timer	Kitchen cooktop/oven	Refrigerator	Well ventilated fridge space	Dishwasher	Clothes washer	Clothes dryer	Indoor or sheltered clothes drying line	Private outdoor or unsheltered clothes drying line
All dwellings	-	-	-	-	electric cooktop & electric oven	-	yes	-	-	-	yes	no

(iii) Thermal Comfort	Show on DA plans	Show on CC/CDC plans & specs	Certifier check
(a) The applicant must attach the certificate referred to under "Assessor details" on the front page of this BASIX certificate (the "Assessor Certificate") to the development application and construction certificate application for the proposed development (or, if the applicant is applying for a complying development certificate for the proposed development, to that application). The applicant must also attach the Assessor Certificate to the application for a final occupation certificate for the proposed development.			
(b) The Assessor Certificate must have been issued by an Accredited Assessor in accordance with the Thermal Comfort Protocol.			
(c) The details of the proposed development on the Assessor Certificate must be consistent with the details shown in this BASIX Certificate, including the details shown in the "Thermal Loads" table below.			
(d) The applicant must show on the plans accompanying the development application for the proposed development, all matters which the Thermal Comfort Protocol requires to be shown on those plans. Those plans must bear a stamp of endorsement from the Accredited Assessor, to certify that this is the case.			
(e) The applicant must show on the plans accompanying the application for a construction certificate (or complying development certificate, if applicable), all thermal performance specifications set out in the Assessor Certificate, and all aspects of the proposed development which were used to calculate those specifications.			
(f) The applicant must construct the development in accordance with all thermal performance specifications set out in the Assessor Certificate, and in accordance with those aspects of the development application or application for a complying development certificate which were used to calculate those specifications.		✓	✓
(g) Where there is an in-slab heating or cooling system, the applicant must: (aa) Install insulation with an R-value of not less than 1.0 around the vertical edges of the perimeter of the slab; or (bb) On a suspended floor, install insulation with an R-value of not less than 1.0 underneath the slab and around the vertical edges of the perimeter of the slab.	✓	✓	✓
(h) The applicant must construct the floors and walls of the development in accordance with the specifications listed in the table below.	✓	✓	✓

Thermal loads		
Dwelling no.	Area adjusted heating load (in mJ/m ² /yr)	Area adjusted cooling load (in mJ/m ² /yr)
52	34	27
56	46	57
57	60	43
58	54	38
2, 12, 22, 32, 42	36	26
8, 18, 28, 38, 48	12	28
9, 19, 29, 39, 49	20	23
1, 11, 21, 31, 41, 51	19	20
5, 15, 25, 35, 45, 55	11	21
10, 20, 26, 30, 36, 40, 50	21	28
6, 7, 16, 17, 27, 37, 46, 47	32	36
All other dwellings	22	25

(b) Common areas and central systems/facilities

(i) Water		Show on DA plans	Show on CC/CDC plans & specs	Certifier check
(a) If, in carrying out the development, the applicant installs a showerhead, toilet, tap or clothes washer into a common area, then that item must meet the specifications listed for it in the table.			✓	✓
(b) The applicant must install (or ensure that the development is serviced by) the alternative water supply system(s) specified in the "Central systems" column of the table below. In each case, the system must be sized, be configured, and be connected, as specified in the table.		✓	✓	✓
(c) A swimming pool or spa listed in the table must not have a volume (in kLs) greater than that specified for the pool or spa in the table.		✓	✓	
(d) A pool or spa listed in the table must have a cover or shading if specified for the pool or spa in the table.			✓	
(e) The applicant must install each fire sprinkler system listed in the table so that the system is configured as specified in the table.			✓	✓
(f) The applicant must ensure that the central cooling system for a cooling tower is configured as specified in the table.			✓	✓

Common area	Showerheads rating	Toilets rating	Taps rating	Clothes washers rating
All common areas	no common facility	no common facility	no common facility	no common laundry facility

(ii) Energy		Show on DA plans	Show on CC/CDC plans & specs	Certifier check
(a) If, in carrying out the development, the applicant installs a ventilation system to service a common area specified in the table below, then that ventilation system must be of the type specified for that common area, and must meet the efficiency measure specified.			✓	✓
(b) In carrying out the development, the applicant must install, as the "primary type of artificial lighting" for each common area specified in the table below, the lighting specified for that common area. This lighting must meet the efficiency measure specified. The applicant must also install a centralised lighting control system or Building Management System (BMS) for the common area, where specified.			✓	✓
(c) The applicant must install the systems and fixtures specified in the "Central energy systems" column of the table below. In each case, the system or fixture must be of the type, and meet the specifications, listed for it in the table.		✓	✓	✓

Common area	Common area ventilation system		Common area lighting		
	Ventilation system type	Ventilation efficiency measure	Primary type of artificial lighting	Lighting efficiency measure	Lighting control system/BMS
Lift car (No. 3)	-	-	compact fluorescent	connected to lift call button	Yes
Lift car (No. 4)	-	-	compact fluorescent	connected to lift call button	Yes
Lift motor room (No. 3)	ventilation exhaust only	thermostatically controlled	fluorescent	manual on / manual off	Yes
Lift motor room (No. 4)	ventilation exhaust only	thermostatically controlled	fluorescent	manual on / manual off	Yes
Garbage room (No. 3)	ventilation exhaust only	-	fluorescent	motion sensors	Yes
Garbage room (No. 4)	ventilation exhaust only	-	fluorescent	motion sensors	Yes
Fire Stairs (No. 3)	ventilation supply only	none ie. continuous	fluorescent	motion sensors	Yes
Fire Stairs (No. 4)	ventilation supply only	none ie. continuous	fluorescent	motion sensors	Yes
Ground floor lobby type (No. 1)	no mechanical ventilation	-	compact fluorescent	motion sensors	Yes
Hallway/lobby L2, B2, RHS	no mechanical ventilation	-	compact fluorescent	motion sensors	Yes
Hallway/lobby L2, B2, LHS	no mechanical ventilation	-	compact fluorescent	motion sensors	Yes
Hallway/lobby L3, B2, RHS	no mechanical ventilation	-	compact fluorescent	motion sensors	Yes
Hallway/lobby L3, B2, LHS	no mechanical ventilation	-	compact fluorescent	motion sensors	Yes
Hallway/lobby L4, B2, RHS	no mechanical ventilation	-	compact fluorescent	motion sensors	Yes
Hallway/lobby L4, B2, LHS	no mechanical ventilation	-	compact fluorescent	motion sensors	Yes
Hallway/lobby L5, B2, RHS	no mechanical ventilation	-	compact fluorescent	motion sensors	Yes
Hallway/lobby L5, B2, LHS	no mechanical ventilation	-	compact fluorescent	motion sensors	Yes
Hallway/lobby L6, B2, RHS	no mechanical ventilation	-	compact fluorescent	motion sensors	Yes
Hallway/lobby L6, B2, LHS	no mechanical ventilation	-	compact fluorescent	motion sensors	Yes
Hallway/lobby L7, B2, RHS	no mechanical ventilation	-	compact fluorescent	motion sensors	Yes
Hallway/lobby L7, B2, LHS	no mechanical ventilation	-	compact fluorescent	motion sensors	Yes

Central energy systems		Type	Specification
Lift (No. 3)		gearless traction with V V V F motor	Number of levels (including basement): 10

Central energy systems	Type	Specification
Lift (No. 4)	gearless traction with V V V F motor	Number of levels (including basement): 10

5. Commitments for common areas and central systems/facilities for the development (non-building specific)

(b) Common areas and central systems/facilities

(i) Water		Show on DA plans	Show on CC/CDC plans & specs	Certifier check
(a) If, in carrying out the development, the applicant installs a showerhead, toilet, tap or clothes washer into a common area, then that item must meet the specifications listed for it in the table.			✓	✓
(b) The applicant must install (or ensure that the development is serviced by) the alternative water supply system(s) specified in the "Central systems" column of the table below. In each case, the system must be sized, be configured, and be connected, as specified in the table.		✓	✓	✓
(c) A swimming pool or spa listed in the table must not have a volume (in kLs) greater than that specified for the pool or spa in the table.		✓	✓	
(d) A pool or spa listed in the table must have a cover or shading if specified for the pool or spa in the table.			✓	
(e) The applicant must install each fire sprinkler system listed in the table so that the system is configured as specified in the table.			✓	✓
(f) The applicant must ensure that the central cooling system for a cooling tower is configured as specified in the table.			✓	✓

Common area	Showerheads rating	Toilets rating	Taps rating	Clothes washers rating
All common areas	no common facility	no common facility	no common facility	no common laundry facility

Central systems	Size	Configuration	Connection (to allow for...)
Central on-site recycled/alternative water supply (No. 1)	To supply at least 1200 litres of recycled water per day to the development (over and above the system's committed capacity, if any)	-	- Irrigation of 0 square metres of common landscape area on the site - car washing in 0 car washing bays on the site

(ii) Energy		Show on DA plans	Show on CC/CDC plans & specs	Certifier check
(a) If, in carrying out the development, the applicant installs a ventilation system to service a common area specified in the table below, then that ventilation system must be of the type specified for that common area, and must meet the efficiency measure specified.			✓	✓
(b) In carrying out the development, the applicant must install, as the "primary type of artificial lighting" for each common area specified in the table below, the lighting specified for that common area. This lighting must meet the efficiency measure specified. The applicant must also install a centralised lighting control system or Building Management System (BMS) for the common area, where specified.			✓	✓
(c) The applicant must install the systems and fixtures specified in the "Central energy systems" column of the table below. In each case, the system or fixture must be of the type, and meet the specifications, listed for it in the table.		✓	✓	✓

Common area ventilation system				Common area lighting		
Common area	Ventilation system type	Ventilation efficiency measure	Primary type of artificial lighting	Lighting efficiency measure	Lighting control system/BMS	
Car park area (No. 1)	ventilation exhaust only	carbon monoxide monitor + VSD fan	fluorescent	motion sensors	Yes	
Car park area (No. 2)	ventilation exhaust only	carbon monoxide monitor + VSD fan	fluorescent	motion sensors	Yes	

Central energy systems		Specification
Central hot water system (No. 1)	Type solar - gas boosted	Solar collector area (minimum, in square metres): 40 Piping insulation (ringmain & supply risers): (b) Piping internal to building: R1.0 (~38 mm)

Notes

1. In these commitments, "applicant" means the person carrying out the development.
2. The applicant must identify each dwelling, building and common area listed in this certificate, on the plans accompanying any development application, and on the plans and specifications accompanying the application for a construction certificate / complying development certificate, for the proposed development, using the same identifying letter or reference as is given to that dwelling, building or common area in this certificate.
3. This note applies if the proposed development involves the erection of a building for both residential and non-residential purposes (or the change of use of a building for both residential and non-residential purposes). Commitments in this certificate which are specified to apply to a "common area" of a building or the development, apply only to that part of the building or development to be used for residential purposes.
4. If this certificate lists a central system as a commitment for a dwelling or building, and that system will also service any other dwelling or building within the development, then that system need only be installed once (even if it is separately listed as a commitment for that other dwelling or building).
5. If a star or other rating is specified in a commitment, this is a minimum rating.
6. All alternative water systems to be installed under these commitments (if any), must be installed in accordance with the requirements of all applicable regulatory authorities. NOTE: NSW Health does not recommend that stormwater, recycled water or private dam water be used to irrigate edible plants which are consumed raw, or that rainwater be used for human consumption in areas with potable water supply.

Legend

1. Commitments identified with a "✓" in the "Show on DA plans" column must be shown on the plans accompanying the development application for the proposed development (if a development application is to be lodged for the proposed development).
2. Commitments identified with a "✓" in the "Show on CC/CDC plans and specs" column must be shown in the plans and specifications accompanying the application for a construction certificate / complying development certificate for the proposed development.
3. Commitments identified with a "✓" in the "Certifier check" column must be certified by a certifying authority as having been fulfilled. (Note: a certifying authority must not issue an occupation certificate (either interim or final) for a building listed in this certificate, or for any part of such a building, unless it is satisfied that each of the commitments whose fulfilment it is required to monitor in relation to the building or part, has been fulfilled).

Assessor Certificate

Multiple Dwellings

Certificate Version 6.1. Prior versions not valid after 1 March 2006

Issued in accordance with
BASIX Thermal Comfort Simulation Method.



Assessor			
Name:	Katherine Gregory	Company:	GHD Pty Ltd
Address:	GHD Level 3, 24 Honeysuckle Drive NEWCASTLE NSW 2300		
Phone:	(02) 4979 9986	Fax:	(02) 4979 9988
Email:	katy.gregory@ghd.com		
Declaration of interest:	The Assessor has provided design advice to the Applicant		
Client			
Name:	Peter Israel	Company:	PTI Group
Address:	Level 10, 263 Clarence Street SYDNEY NSW 2000		
Phone:	(02) 9283 0860	Fax:	(02) 9283 0870
Email:	peter@ptigroup.com.au		
Project			
Address:	23-37 Lindfield Avenue LINDFIELD NSW 2070		
Applicant:	JBA Urban Planning	LGA:	Ku-ring-gai Council
Assessment			
Date:	20/10/2010	File ref:	15047
Software:	AccuRate		Version:
1.1.4.1			
Documentation			

All details, upon which this assessment has been based, are included in the project documentation that has been stamped and signed by the Assessor issuing this certificate, as identified below:

Thermal Performance Spec:

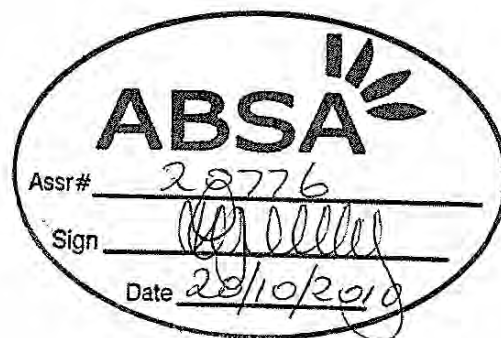
Attached, Affixed to drawings Page#: DA00-DA16

Drawings: (Title, Ref.#, Revision, Issue date, etc)

DA07

Building Specifications: (Title, Ref.#, Revision, Issue date, etc)

Only specifications, detailed on Drawings identified above, have been referenced



Affix assessor stamp

ABSA Assessor Certificate		Assessor # 20776		Certificate # 12714371		Issued: 19/10/2010	
Thermal performance specifications						Page 1 of 1	
Unit number(s)	Certificate number	Floor area (M ²)		Predict. loads (MJ/M ² /y)		Concessions	Qualify for ventilation bonus
		Cond.	Uncond.	Heat	Cool (Sens & Lat)		
Type A	12714371	83	11	32	51	None	N/A
Type A1	26295782	87	11	22	25	None	N/A
Type B	61011973	51	7	32	36	None	N/A
Type B1	16208148	60	7	21	28	None	N/A
Type C	74542839	67	6	23	24	None	N/A
Type D	89018515	84	9	19	20	None	N/A
Type E	73578791	78	7	11	21	None	N/A
Type F	24944817	84	8	36	26	None	N/A
Type G	78567714	46	6	12	28	None	N/A
Type H	72764855	63	9	20	23	None	N/A
Type I	63318226	54	8	34	27	None	N/A
Type J	16817541	45	7	46	57	None	N/A
Type K	85409648	74	11	54	38	None	N/A

Type L	83254026	104	13	60	43	None	N/A
Type M	51434566	62	6	53	24	None	N/A
Type N	77626089	61	8	18	18	None	N/A
Type O	37229450	109	19	46	53	None	N/A
Type O1	18970382	112	18	53	56	None	N/A
Type P	63557735	46	6	14	27	None	N/A
Type P1	44400565	46	6	7	39	None	N/A

Assessor # 20776

Certificate # 12714371

Issued: 19/10/2010

Thermal Performance Specifications

These are the Specifications upon which the Certified Assessment is based. If details included in these Specifications vary from other drawings or written specifications, these Specifications shall take precedence. If only one specification option is detailed for a building element, that specification must apply to all instances of that element for the project. If alternate specifications are detailed for a building element, the location and extent of alternate specifications must be detailed below and / or clearly indicated on referenced documents

Windows	Product ID	Glass	Frame	U value	SHGC	Area M ²	Detail
Generic 10		Single glazed Low-e	Aluminium	5.70	0.47		As per detail on plans
Generic 11		Single glazed Low-e	Improve Aluminium	4.32	0.47		As per detail on plans

Skylights	Product ID	Glass	Frame	U value	SHGC	Area M ²	Detail
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Any U and SHGC values specified on Certificates Issued after 1 May 2007 are according to NFRC 100. All values prior to this date are ANAC. Alternate products may be used if their U value is lower, and the SHGC value is less than 10% higher or lower.

External walls	Construction	Insulation	Colour – solar abs.	Detail
Concrete		R1.5	Medium – SA 0.475-0.7	Throughout

Internal walls	Construction	Insulation	Detail
Plasterboard on Studs		None	As per detail on plans
Concrete Block & Plasterboard		None	As per detail on plans

Floors	Construction	Insulation	Covering	Detail
Concrete		None	Carpet	As per detail on plans
Concrete		None	Ceramic Tile	As per detail on plans

Ceilings	Construction	Insulation	Detail
Plasterboard		None	Throughout

Roof	Construction	Insulation	Colour – solar abs.	Detail
Concrete		R3.0	Medium – SA 0.475-0.7	Throughout

Window cover	Internal (curtains)	External (awnings, shutters, etc)
Holland blinds	Throughout	None As per detail on plans

Fixed shading	Eaves (width - inc. gutters, h't above windows)	Verandahs, Pergolas (type, description)
0	0 As per detail on plans	

Overshadowing	Overshadowing structures	Overshadowing trees
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Orientation, Exposure, Ventilation and Infiltration

Orientation of nominal north:	45
Terrain category:	Suburban
Roof ventilation:	Unventilated
Cross ventilation:	None
Subfloor:	Enclosed
Living area open to entry:	Yes
Doors separate living areas:	No
Stair open to heated areas:	No
Seals to windows and doors:	Yes
Exhaust fans without dampers:	No
Ventilated skylights:	No
Open fire, unflued gas heat:	No
Vented downlights:	No
Wall and ceiling vents:	No

ABSA Assessor stamp



Assessor Certificate

Single Dwelling

Certificate Version 6.1.1. Prior versions not valid after 1 March 2006

Issued in accordance with the requirements of
BASIX THERMAL COMFORT - Simulation Method



Assessor			
Name:	Katherine Gregory	Company:	GHD
Address:	GHD Level 3, 24 Honeysuckle Drive NEWCASTLE NSW 2300		
Phone:	(02) 4979 9986	Fax:	(02) 4979 9988
Email:	katy.gregory@ghd.com.au		
Declaration of Interest: The Assessor has provided design advice to the Applicant			

Client			
Name:	Peter Israel	Company:	PTI Group
Address:	Level 10 263 Clarence Street SYDNEY NSW 2000		
Phone:	0292830860	Fax:	0292830870
Email:	peter@ptigroup.com.au		

Project			
Address:	Type A 23-37 Lindfield Avenue LINDFIELD NSW 2070		
Lot / DP:	101-103 / 1067930	LGA:	Ku-ring-gai
Applicant: JBA Urban Planning			

Assessment			
Date:	10/06/2010	Job ID:	2215047
Filename:	G:\22\15047\Technical\AccuR Run # 3		
Software:	AccuRate	Version:	1.1.4.1
Climate Zone:	56		

Referenced documents	
<i>All details, upon which this Assessment has been based, are included in the project documentation which has been stamped and signed by the Assessor issuing this Certificate, as detailed below:</i>	
Thermal Performance Specification / Commitments attached and affixed to drawings, page: DA07	
Drawings:	DA00-DA16

Specifications: Only specifications, detailed on Drawings identified above, have been referenced

ABSA Assessor Certificate	Assessor # 20776	Certificate # 12714371	Issued: 19-Oct-10
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THERMAL COMFORT - Simulation Method

The details must be entered into your BASIX Assessment

Area calculations (M2)	
Net Conditioned Floor Area: 83	Net Unconditioned Floor Area: 11
Concessions / Ventilation Bonus	
Eligible Concessions: None	
The dwelling has the required shading to qualify for BASIX cross ventilation bonus: N/A	

Predicted annual energy loads

Heating:	32
Cooling:	51
(sensible + latent)	
Total:	83

ABSA Assessor stamp



Thermal Performance Specifications - BASIX THERMAL COMFORT - Simulation Method

These are the Specifications upon which the Certified Assessment is based. If details included in these Specifications vary from other drawings or written specifications, these Specifications shall take precedence. If only one specification option is detailed for a building element, that specification must apply to all instances of that element for the project. If alternate specifications are detailed for a building element, the location and extent of alternate specifications must be detailed below and / or clearly indicated on referenced documents.

Windows	Product ID	Glass	Frame	U value	SHGC	Area M2	Detail
Generic 10		Single glazed low e	Aluminium	5.70	0.47	28.11	As per detail on plans

Skylights	Product ID	Glass	Frame	U value	SHGC	Area M2
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Any U and SHGC values specified on Certificates Issued after 1 May 2007 are according to NFRC. All values prior to this date are ANAC. Alternate products may be used if their U value is lower, and the SHGC value is less than 10% higher or lower.

External walls	Construction	Insulation	Colour - Solar absorptancy	Detail
Concrete		R1.5	Medium - SA 0.475 - 0.7	Throughout

Internal walls	Construction	Insulation	Detail
Plasterboard on Studs	None		As per detail on plans
Concrete Block & Plasterboard	None		As per detail on plans

Floors	Construction	Insulation	Covering	Detail
Concrete	None		Carpet	As per detail on plans
Concrete	None		Ceramic Tile	As per detail on plans

Ceilings	Construction	Insulation	Detail
Plasterboard	None		Throughout

Roof	Construction	Insulation	Colour - Solar absorptancy	Detail
Concrete		R3.0	Medium - SA 0.475 - 0.7	Throughout

Window cover	Internal (curtains)	External (awnings, shutters, etc)
Holland blinds	Throughout	None As per detail on plans

Fixed shading	Eaves (width - inc. gutters, height above windows)	Verandahs, Pergolas (type, description)
0	0 As per detail on plans	

Overshadowing	Overshadowing structures	Overshadowing trees
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Orientation, Exposure, Ventilation and Infiltration

Orientation of nominal north elevation	45
Terrain category	Suburban
Roof ventilation:	Unventilated
Cross ventilation:	None
Subfloor ventilation:	Enclosed
Living area open to entry:	Yes
Living areas separated by doors:	No
Stair open to heated areas:	No
Weather seals to windows and doors:	Yes
Exhaust fans without dampers:	No
Ventilated skylights:	No
Open fireplace or unflued gas heater:	No
Vented downlights:	No
Wall and ceiling vents:	No

ABSA Assessor stamp



Assessor Certificate

Single Dwelling

Certificate Version 6.1.1. Prior versions not valid after 1 March 2006

Issued in accordance with the requirements of
BASIX THERMAL COMFORT - Simulation Method



Assessor			
Name:	Katherine Gregory	Company:	GHD
Address:	GHD Level 3, 24 Honeysuckle Drive NEWCASTLE NSW 2300		
Phone:	(02) 4979 9986	Fax:	(02) 4979 9988
Email:	katy.gregory@ghd.com.au		
Declaration of Interest: The Assessor has provided design advice to the Applicant			

Client			
Name:	Peter Israel	Company:	PTI Group
Address:	Level 10 263 Clarence Street SYDNEY NSW 2000		
Phone:	0292830860	Fax:	0292830870
Email:	peter@ptigroup.com.au		

Project			
Address:	Type A1 23-37 Lindfield Avenue LINDFIELD NSW 2070		
Lot / DP:	101-103 / 1067930	LGA:	Ku-ring-gai
Applicant: JBA Urban Planning			

Assessment			
Date:	10/06/2010	Job ID:	2215047
Filename:	G:\22\15047\Technical\AccuR Run # 3		
Software:	AccuRate	Version:	1.1.4.1
Climate Zone:	56		

Referenced documents	
<i>All details, upon which this Assessment has been based, are included in the project documentation which has been stamped and signed by the Assessor issuing this Certificate, as detailed below:</i>	
Thermal Performance Specification / Commitments attached and affixed to drawings, page: DA07	
Drawings:	DA00-DA16

Specifications: Only specifications, detailed on Drawings identified above, have been referenced

ABSA Assessor Certificate	Assessor # 20776	Certificate # 26295782	Issued: 20-Oct-10
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THERMAL COMFORT - Simulation Method

The details must be entered into your BASIX Assessment

Area calculations (M2)	
Net Conditioned Floor Area: 87	Net Unconditioned Floor Area: 11
Concessions / Ventilation Bonus	
Eligible Concessions: None	
The dwelling has the required shading to qualify for BASIX cross ventilation bonus: N/A	

Predicted annual energy loads

Heating:	22
Cooling:	25
(sensible + latent)	
Total:	47

ABSA Assessor stamp



Thermal Performance Specifications - BASIX THERMAL COMFORT - Simulation Method

These are the Specifications upon which the Certified Assessment is based. If details included in these Specifications vary from other drawings or written specifications, these Specifications shall take precedence. If only one specification option is detailed for a building element, that specification must apply to all instances of that element for the project. If alternate specifications are detailed for a building element, the location and extent of alternate specifications must be detailed below and / or clearly indicated on referenced documents.

Windows	Product ID	Glass	Frame	U value	SHGC	Area M2	Detail
Generic 10		Single glazed low e	Aluminium	5.70	0.47	28.11	As per detail on plans

Skylights	Product ID	Glass	Frame	U value	SHGC	Area M2
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Any U and SHGC values specified on Certificates Issued after 1 May 2007 are according to NFRC. All values prior to this date are ANAC. Alternate products may be used if their U value is lower, and the SHGC value is less than 10% higher or lower.

External walls	Construction	Insulation	Colour - Solar absorptancy	Detail
Concrete		R1.5	Medium - SA 0.475 - 0.7	Throughout

Internal walls	Construction	Insulation	Detail
Plasterboard on Studs	None		As per detail on plans
Concrete Block & Plasterboard	None		As per detail on plans

Floors	Construction	Insulation	Covering	Detail
Concrete	None		Carpet	As per detail on plans
Concrete	None		Ceramic Tile	As per detail on plans

Ceilings	Construction	Insulation	Detail
Plasterboard	None		Throughout

Roof	Construction	Insulation	Colour - Solar absorptancy	Detail
Concrete		R3.0	Medium - SA 0.475 - 0.7	Throughout

Window cover	Internal (curtains)	External (awnings, shutters, etc)
Holland blinds	Throughout	None As per detail on plans

Fixed shading	Eaves (width - inc. gutters, height above windows)	Verandahs, Pergolas (type, description)
0	0 As per detail on plans	

Overshadowing	Overshadowing structures	Overshadowing trees
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Orientation, Exposure, Ventilation and Infiltration

Orientation of nominal north elevation	45
Terrain category	Suburban
Roof ventilation:	Unventilated
Cross ventilation:	None
Subfloor ventilation:	Enclosed
Living area open to entry:	Yes
Living areas separated by doors:	No
Stair open to heated areas:	No
Weather seals to windows and doors:	Yes
Exhaust fans without dampers:	No
Ventilated skylights:	No
Open fireplace or unflued gas heater:	No
Vented downlights:	No
Wall and ceiling vents:	No

ABSA Assessor stamp



Assessor Certificate

Single Dwelling

Certificate Version 6.1.1. Prior versions not valid after 1 March 2006

Issued in accordance with the requirements of
BASIX THERMAL COMFORT - Simulation Method



Assessor			
Name:	Katherine Gregory	Company:	GHD
Address:	GHD Level 3, 24 Honeysuckle Drive NEWCASTLE NSW 2300		
Phone:	(02) 4979 9986	Fax:	(02) 4979 9988
Email:	katy.gregory@ghd.com.au		
Declaration of Interest: The Assessor has provided design advice to the Applicant			

Client			
Name:	Peter Israel	Company:	PTI Group
Address:	Level 10 263 Clarence Street SYDNEY NSW 2000		
Phone:	0292830860	Fax:	0292830870
Email:	peter@ptigroup.com.au		

Project			
Address:	Type B 23-37 Lindfield Avenue LINDFIELD NSW 2070		
Lot / DP:	101-103 / 1067930	LGA:	Ku-ring-gai
Applicant: JBA Urban Planning			

Assessment			
Date:	10/06/2010	Job ID:	2215047
Filename:	G:\22\15047\Technical\AccuR Run # 3		
Software:	AccuRate	Version:	1.1.4.1
Climate Zone:	56		

Referenced documents			
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Thermal Performance Specification / Commitments attached and affixed to drawings, page: DA07			
Drawings:	DA00-DA16		

Specifications: Only specifications, detailed on Drawings identified above, have been referenced

ABSA Assessor Certificate	Assessor # 20776	Certificate # 61011973	Issued: 20-Oct-10
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THERMAL COMFORT - Simulation Method

The details must be entered into your BASIX Assessment

Area calculations (M2)	
Net Conditioned Floor Area: 51	Net Unconditioned Floor Area: 7
Concessions / Ventilation Bonus	
Eligible Concessions: None	
The dwelling has the required shading to qualify for BASIX cross ventilation bonus: N/A	

Predicted annual energy loads

Heating:	32
Cooling:	36
(sensible + latent)	
Total:	68

ABSA Assessor stamp



Thermal Performance Specifications - BASIX THERMAL COMFORT - Simulation Method

These are the Specifications upon which the Certified Assessment is based. If details included in these Specifications vary from other drawings or written specifications, these Specifications shall take precedence. If only one specification option is detailed for a building element, that specification must apply to all instances of that element for the project. If alternate specifications are detailed for a building element, the location and extent of alternate specifications must be detailed below and / or clearly indicated on referenced documents.

Windows	Product ID	Glass	Frame	U value	SHGC	Area M2	Detail
Generic 10		Single glazed low e	Aluminium	5.70	0.47	18.63	As per detail on plans

Skylights	Product ID	Glass	Frame	U value	SHGC	Area M2
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Any U and SHGC values specified on Certificates Issued after 1 May 2007 are according to NFRC. All values prior to this date are ANAC. Alternate products may be used if their U value is lower, and the SHGC value is less than 10% higher or lower.

External walls	Construction	Insulation	Colour - Solar absorptancy	Detail
Concrete		R1.5	Medium - SA 0.475 - 0.7	Throughout

Internal walls	Construction	Insulation	Detail
Plasterboard on Studs	None		As per detail on plans
Concrete Block & Plasterboard	None		As per detail on plans

Floors	Construction	Insulation	Covering	Detail
Concrete	None		Carpet	As per detail on plans
Concrete	None		Ceramic Tile	As per detail on plans

Ceilings	Construction	Insulation	Detail
Plasterboard	None		Throughout

Roof	Construction	Insulation	Colour - Solar absorptancy	Detail
Concrete		R3.0	Medium - SA 0.475 - 0.7	Throughout

Window cover	Internal (curtains)	External (awnings, shutters, etc)
Holland blinds	Throughout	None As per detail on plans

Fixed shading	Eaves (width - inc. gutters, height above windows)	Verandahs, Pergolas (type, description)
0	0 As per detail on plans	

Overshadowing	Overshadowing structures	Overshadowing trees
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Orientation, Exposure, Ventilation and Infiltration

Orientation of nominal north elevation	45
Terrain category	Suburban
Roof ventilation:	Unventilated
Cross ventilation:	None
Subfloor ventilation:	Enclosed
Living area open to entry:	Yes
Living areas separated by doors:	No
Stair open to heated areas:	No
Weather seals to windows and doors:	Yes
Exhaust fans without dampers:	No
Ventilated skylights:	No
Open fireplace or unflued gas heater:	No
Vented downlights:	No
Wall and ceiling vents:	No

ABSA Assessor stamp



Assessor Certificate

Single Dwelling

Certificate Version 6.1.1. Prior versions not valid after 1 March 2006

Issued in accordance with the requirements of
BASIX THERMAL COMFORT - Simulation Method



Assessor			
Name:	Katherine Gregory	Company:	GHD
Address:	GHD Level 3, 24 Honeysuckle Drive NEWCASTLE NSW 2300		
Phone:	(02) 4979 9986	Fax:	(02) 4979 9988
Email:	katy.gregory@ghd.com.au		
Declaration of Interest: The Assessor has provided design advice to the Applicant			
Client			
Name:	Peter Israel	Company:	PTI Group
Address:	Level 10 263 Clarence Street SYDNEY NSW 2000		
Phone:	0292830860	Fax:	0292830870
Email:	peter@ptigroup.com.au		
Project			
Address:	Type B1 23-37 Lindfield Avenue LINDFIELD NSW 2070		
Lot / DP:	101-103 / 1067930	LGA:	Ku-ring-gai
Applicant:	JBA Urban Planning		
Assessment			
Date:	10/06/2010	Job ID:	2215047
Filename:	G:\22\15047\Technical\AccuR Run # 3		
Software:	AccuRate	Version:	1.1.4.1
Climate Zone:	56		
Referenced documents			
<i>All details, upon which this Assessment has been based, are included in the project documentation which has been stamped and signed by the Assessor issuing this Certificate, as detailed below:</i>			
Thermal Performance Specification / Commitments attached and affixed to drawings, page: DA07			
Drawings:	DA00-DA16		
Specifications: Only specifications, detailed on Drawings identified above, have been referenced			

ABSA Assessor Certificate **Assessor # 20776** **Certificate # 16208148** **Issued: 20-Oct-10**

THERMAL COMFORT - Simulation Method

The details must be entered into your BASIX Assessment

Area calculations (M2)	
Net Conditioned Floor Area: 60	Net Unconditioned Floor Area: 7
Concessions / Ventilation Bonus	
Eligible Concessions: None	
The dwelling has the required shading to qualify for BASIX cross ventilation bonus: N/A	

Predicted annual energy loads

Heating:	21
Cooling:	28
(sensible + latent)	
Total:	49

ABSA Assessor stamp



Thermal Performance Specifications - BASIX THERMAL COMFORT - Simulation Method

These are the Specifications upon which the Certified Assessment is based. If details included in these Specifications vary from other drawings or written specifications, these Specifications shall take precedence. If only one specification option is detailed for a building element, that specification must apply to all instances of that element for the project. If alternate specifications are detailed for a building element, the location and extent of alternate specifications must be detailed below and / or clearly indicated on referenced documents.

Windows	Product ID	Glass	Frame	U value	SHGC	Area M2	Detail
Generic 10		Single glazed low e	Aluminium	5.70	0.47	11.7	As per detail on plans

Skylights	Product ID	Glass	Frame	U value	SHGC	Area M2
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External walls	Construction	Insulation	Colour - Solar absorptancy	Detail
Concrete		R1.5	Medium - SA 0.475 - 0.7	Throughout

Internal walls	Construction	Insulation	Detail
Plasterboard on Studs	None		As per detail on plans
Concrete Block & Plasterboard	None		As per detail on plans

Floors	Construction	Insulation	Covering	Detail
Concrete	None		Carpet	As per detail on plans
Concrete	None		Ceramic Tile	As per detail on plans

Ceilings	Construction	Insulation	Detail
Plasterboard	None		Throughout

Roof	Construction	Insulation	Colour - Solar absorptancy	Detail
Concrete		R3.0	Medium - SA 0.475 - 0.7	Throughout

Window cover	Internal (curtains)	External (awnings, shutters, etc)
Holland blinds	Throughout	None As per detail on plans

Fixed shading	Eaves (width - inc. gutters, height above windows)	Verandahs, Pergolas (type, description)
0	0 As per detail on plans	

Overshadowing	Overshadowing structures	Overshadowing trees
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Orientation, Exposure, Ventilation and Infiltration

Orientation of nominal north elevation	45
Terrain category	Suburban
Roof ventilation:	Unventilated
Cross ventilation:	None
Subfloor ventilation:	Enclosed
Living area open to entry:	Yes
Living areas separated by doors:	No
Stair open to heated areas:	No
Weather seals to windows and doors:	Yes
Exhaust fans without dampers:	No
Ventilated skylights:	No
Open fireplace or unflued gas heater:	No
Vented downlights:	No
Wall and ceiling vents:	No

ABSA Assessor stamp



Assessor Certificate

Single Dwelling

Certificate Version 6.1.1. Prior versions not valid after 1 March 2006

Issued in accordance with the requirements of
BASIX THERMAL COMFORT - Simulation Method



Assessor			
Name:	Katherine Gregory	Company:	GHD
Address:	GHD Level 3, 24 Honeysuckle Drive NEWCASTLE NSW 2300		
Phone:	(02) 4979 9986	Fax:	(02) 4979 9988
Email:	katy.gregory@ghd.com.au		
Declaration of Interest: The Assessor has provided design advice to the Applicant			

Client			
Name:	Peter Israel	Company:	PTI Group
Address:	Level 10 263 Clarence Street SYDNEY NSW 2000		
Phone:	0292830860	Fax:	0292830870
Email:	peter@ptigroup.com.au		

Project			
Address:	Type C 23-37 Lindfield Avenue LINDFIELD NSW 2070		
Lot / DP:	101-103 / 1067930	LGA:	Ku-ring-gai
Applicant: JBA Urban Planning			

Assessment			
Date:	10/06/2010	Job ID:	2215047
Filename:	G:\22\15047\Technical\AccuR Run # 3		
Software:	AccuRate	Version:	1.1.4.1
Climate Zone:	56		

Referenced documents			
<i>All details, upon which this Assessment has been based, are included in the project documentation which has been stamped and signed by the Assessor issuing this Certificate, as detailed below:</i>			
Thermal Performance Specification / Commitments attached and affixed to drawings, page: DA07			
Drawings:	DA00-DA16		

Specifications: Only specifications, detailed on Drawings identified above, have been referenced

ABSA Assessor Certificate	Assessor # 20776	Certificate # 74542839	Issued: 20-Oct-10
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THERMAL COMFORT - Simulation Method

The details must be entered into your BASIX Assessment

Area calculations (M2)	
Net Conditioned Floor Area: 67	Net Unconditioned Floor Area: 6
Concessions / Ventilation Bonus	
Eligible Concessions: None	
The dwelling has the required shading to qualify for BASIX cross ventilation bonus: N/A	

Predicted annual energy loads

Heating:	23	
Cooling:	24	
(sensible + latent)		
Total:	47	

Thermal Performance Specifications - BASIX THERMAL COMFORT - Simulation Method

These are the Specifications upon which the Certified Assessment is based. If details included in these Specifications vary from other drawings or written specifications, these Specifications shall take precedence. If only one specification option is detailed for a building element, that specification must apply to all instances of that element for the project. If alternate specifications are detailed for a building element, the location and extent of alternate specifications must be detailed below and / or clearly indicated on referenced documents.

Windows	Product ID	Glass	Frame	U value	SHGC	Area M2	Detail
Generic 10		Single glazed low e	Aluminium	5.70	0.47	16.20	As per detail on plans

Skylights	Product ID	Glass	Frame	U value	SHGC	Area M2
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Any U and SHGC values specified on Certificates Issued after 1 May 2007 are according to NFRC. All values prior to this date are ANAC. Alternate products may be used if their U value is lower, and the SHGC value is less than 10% higher or lower.

External walls	Construction	Insulation	Colour - Solar absorptancy	Detail
Concrete		R1.5	Medium - SA 0.475 - 0.7	Throughout

Internal walls	Construction	Insulation	Detail
Plasterboard on Studs	None		As per detail on plans
Concrete Block & Plasterboard	None		As per detail on plans

Floors	Construction	Insulation	Covering	Detail
Concrete	None		Carpet	As per detail on plans
Concrete	None		Ceramic Tile	As per detail on plans

Ceilings	Construction	Insulation	Detail
Plasterboard	None		Throughout

Roof	Construction	Insulation	Colour - Solar absorptancy	Detail
Concrete		R3.0	Medium - SA 0.475 - 0.7	Throughout

Window cover	Internal (curtains)	External (awnings, shutters, etc)
Holland blinds	Throughout	None As per detail on plans

Fixed shading	Eaves (width - inc. gutters, height above windows)	Verandahs, Pergolas (type, description)
0	0 As per detail on plans	

Overshadowing	Overshadowing structures	Overshadowing trees
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Orientation, Exposure, Ventilation and Infiltration

Orientation of nominal north elevation	45
Terrain category	Suburban
Roof ventilation:	Unventilated
Cross ventilation:	None
Subfloor ventilation:	Enclosed
Living area open to entry:	Yes
Living areas separated by doors:	No
Stair open to heated areas:	No
Weather seals to windows and doors:	Yes
Exhaust fans without dampers:	No
Ventilated skylights:	No
Open fireplace or unflued gas heater:	No
Vented downlights:	No
Wall and ceiling vents:	No

ABSA Assessor stamp



Assessor Certificate

Single Dwelling

Certificate Version 6.1.1. Prior versions not valid after 1 March 2006

Issued in accordance with the requirements of
BASIX THERMAL COMFORT - Simulation Method



Assessor			
Name:	Katherine Gregory	Company:	GHD
Address:	GHD Level 3, 24 Honeysuckle Drive NEWCASTLE NSW 2300		
Phone:	(02) 4979 9986	Fax:	(02) 4979 9988
Email:	katy.gregory@ghd.com.au		
Declaration of Interest: The Assessor has provided design advice to the Applicant			
Client			
Name:	Peter Israel	Company:	PTI Group
Address:	Level 10 263 Clarence Street SYDNEY NSW 2000		
Phone:	0292830860	Fax:	0292830870
Email:	peter@ptigroup.com.au		
Project			
Address:	Type D 23-37 Lindfield Avenue LINDFIELD NSW 2070		
Lot / DP:	101-103 / 1067930	LGA:	Ku-ring-gai
Applicant:	JBA Urban Planning		
Assessment			
Date:	10/06/2010	Job ID:	2215047
Filename:	G:\22\15047\Technical\AccuR Run # 3		
Software:	AccuRate	Version:	1.1.4.1
Climate Zone:	56		
Referenced documents			
<i>All details, upon which this Assessment has been based, are included in the project documentation which has been stamped and signed by the Assessor issuing this Certificate, as detailed below:</i>			
Thermal Performance Specification / Commitments attached and affixed to drawings, page: DA07			
Drawings:	DA00-DA16		
Specifications: Only specifications, detailed on Drawings identified above, have been referenced			

ABSA Assessor Certificate **Assessor #** 20776 **Certificate #** 89018515 **Issued:** 20-Oct-10

THERMAL COMFORT - Simulation Method

The details must be entered into your BASIX Assessment

Area calculations (M2)	
Net Conditioned Floor Area: 86	Net Unconditioned Floor Area: 9
Concessions / Ventilation Bonus	
Eligible Concessions: None	
The dwelling has the required shading to qualify for BASIX cross ventilation bonus: N/A	

Predicted annual energy loads

Heating:	19
Cooling:	20
(sensible + latent)	
Total:	39

ABSA Assessor stamp



Thermal Performance Specifications - BASIX THERMAL COMFORT - Simulation Method

These are the Specifications upon which the Certified Assessment is based. If details included in these Specifications vary from other drawings or written specifications, these Specifications shall take precedence. If only one specification option is detailed for a building element, that specification must apply to all instances of that element for the project. If alternate specifications are detailed for a building element, the location and extent of alternate specifications must be detailed below and / or clearly indicated on referenced documents.

Windows	Product ID	Glass	Frame	U value	SHGC	Area M2	Detail
Generic 10		Single glazed low e	Aluminium	5.70	0.47	28.08	As per detail on plans

Skylights	Product ID	Glass	Frame	U value	SHGC	Area M2
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Any U and SHGC values specified on Certificates Issued after 1 May 2007 are according to NFRC. All values prior to this date are ANAC. Alternate products may be used if their U value is lower, and the SHGC value is less than 10% higher or lower.

External walls	Construction	Insulation	Colour - Solar absorptancy	Detail
Concrete		R1.5	Medium - SA 0.475 - 0.7	Throughout

Internal walls	Construction	Insulation	Detail
Plasterboard on Studs	None		As per detail on plans
Concrete Block & Plasterboard	None		As per detail on plans

Floors	Construction	Insulation	Covering	Detail
Concrete	None		Carpet	As per detail on plans
Concrete	None		Ceramic Tile	As per detail on plans

Ceilings	Construction	Insulation	Detail
Plasterboard	None		Throughout

Roof	Construction	Insulation	Colour - Solar absorptancy	Detail
Concrete		R3.0	Medium - SA 0.475 - 0.7	Throughout

Window cover	Internal (curtains)	External (awnings, shutters, etc)
Holland blinds	Throughout	None
		As per detail on plans

Fixed shading	Eaves (width - inc. gutters, height above windows)	Verandahs, Pergolas (type, description)
0	0	As per detail on plans

Overshadowing	Overshadowing structures	Overshadowing trees
---------------	--------------------------	---------------------

Orientation, Exposure, Ventilation and Infiltration

Orientation of nominal north elevation	45
Terrain category	Suburban
Roof ventilation:	Unventilated
Cross ventilation:	None
Subfloor ventilation:	Enclosed
Living area open to entry:	Yes
Living areas separated by doors:	No
Stair open to heated areas:	No
Weather seals to windows and doors:	Yes
Exhaust fans without dampers:	No
Ventilated skylights:	No
Open fireplace or unflued gas heater:	No
Vented downlights:	No
Wall and ceiling vents:	No

ABSA Assessor stamp



Assessor Certificate

Single Dwelling

Certificate Version 6.1.1. Prior versions not valid after 1 March 2006

Issued in accordance with the requirements of
BASIX THERMAL COMFORT - Simulation Method



Assessor			
Name:	Katherine Gregory	Company:	GHD
Address:	GHD Level 3, 24 Honeysuckle Drive NEWCASTLE NSW 2300		
Phone:	(02) 4979 9986	Fax:	(02) 4979 9988
Email:	katy.gregory@ghd.com.au		
Declaration of Interest: The Assessor has provided design advice to the Applicant			
Client			
Name:	Peter Israel	Company:	PTI Group
Address:	Level 10 263 Clarence Street SYDNEY NSW 2000		
Phone:	0292830860	Fax:	0292830870
Email:	peter@ptigroup.com.au		
Project			
Address:	Type E 23-37 Lindfield Avenue LINDFIELD NSW 2070		
Lot / DP:	101-103 / 1067930	LGA:	Ku-ring-gai
Applicant:	JBA Urban Planning		
Assessment			
Date:	10/06/2010	Job ID:	2215047
Filename:	G:\22\15047\Technical\AccuR Run # 3		
Software:	AccuRate	Version:	1.1.4.1
Climate Zone:	56		
Referenced documents			
<i>All details, upon which this Assessment has been based, are included in the project documentation which has been stamped and signed by the Assessor issuing this Certificate, as detailed below:</i>			
Thermal Performance Specification / Commitments attached and affixed to drawings, page: DA07			
Drawings:	DA00-DA16		
Specifications: Only specifications, detailed on Drawings identified above, have been referenced			

ABSA Assessor Certificate **Assessor # 20776** **Certificate # 73578791** **Issued: 20-Oct-10**

THERMAL COMFORT - Simulation Method

The details must be entered into your BASIX Assessment

Area calculations (M2)	
Net Conditioned Floor Area: 78	Net Unconditioned Floor Area: 7
Concessions / Ventilation Bonus	
Eligible Concessions: None	
The dwelling has the required shading to qualify for BASIX cross ventilation bonus: N/A	

Predicted annual energy loads

Heating:	11
Cooling:	21
(sensible + latent)	
Total:	32

ABSA Assessor stamp



Thermal Performance Specifications - BASIX THERMAL COMFORT - Simulation Method

These are the Specifications upon which the Certified Assessment is based. If details included in these Specifications vary from other drawings or written specifications, these Specifications shall take precedence. If only one specification option is detailed for a building element, that specification must apply to all instances of that element for the project. If alternate specifications are detailed for a building element, the location and extent of alternate specifications must be detailed below and / or clearly indicated on referenced documents.

Windows	Product ID	Glass	Frame	U value	SHGC	Area M2	Detail
Generic 10		Single glazed low e	Aluminium	5.70	0.47	21.6	As per detail on plans

Skylights	Product ID	Glass	Frame	U value	SHGC	Area M2
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Any U and SHGC values specified on Certificates Issued after 1 May 2007 are according to NFRC. All values prior to this date are ANAC. Alternate products may be used if their U value is lower, and the SHGC value is less than 10% higher or lower.

External walls	Construction	Insulation	Colour - Solar absorptancy	Detail
Concrete		R1.5	Medium - SA 0.475 - 0.7	Throughout

Internal walls	Construction	Insulation	Detail
Plasterboard on Studs	None		As per detail on plans
Concrete Block & Plasterboard	None		As per detail on plans

Floors	Construction	Insulation	Covering	Detail
Concrete	None		Carpet	As per detail on plans
Concrete	None		Ceramic Tile	As per detail on plans

Ceilings	Construction	Insulation	Detail
Plasterboard	None		Throughout

Roof	Construction	Insulation	Colour - Solar absorptancy	Detail
Concrete		R3.0	Medium - SA 0.475 - 0.7	Throughout

Window cover	Internal (curtains)	External (awnings, shutters, etc)
Holland blinds	Throughout	None As per detail on plans

Fixed shading	Eaves (width - inc. gutters, height above windows)	Verandahs, Pergolas (type, description)
0	0 As per detail on plans	

Overshadowing	Overshadowing structures	Overshadowing trees
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Orientation, Exposure, Ventilation and Infiltration

Orientation of nominal north elevation	45
Terrain category	Suburban
Roof ventilation:	Unventilated
Cross ventilation:	None
Subfloor ventilation:	Enclosed
Living area open to entry:	Yes
Living areas separated by doors:	No
Stair open to heated areas:	No
Weather seals to windows and doors:	Yes
Exhaust fans without dampers:	No
Ventilated skylights:	No
Open fireplace or unflued gas heater:	No
Vented downlights:	No
Wall and ceiling vents:	No

ABSA Assessor stamp



Assessor Certificate

Single Dwelling

Certificate Version 6.1.1. Prior versions not valid after 1 March 2006

Issued in accordance with the requirements of
BASIX THERMAL COMFORT - Simulation Method



Assessor			
Name:	Katherine Gregory	Company:	GHD
Address:	GHD Level 3, 24 Honeysuckle Drive NEWCASTLE NSW 2300		
Phone:	(02) 4979 9986	Fax:	(02) 4979 9988
Email:	katy.gregory@ghd.com.au		
Declaration of Interest: The Assessor has provided design advice to the Applicant			

Client			
Name:	Peter Israel	Company:	PTI Group
Address:	Level 10 263 Clarence Street SYDNEY NSW 2000		
Phone:	0292830860	Fax:	0292830870
Email:	peter@ptigroup.com.au		

Project			
Address:	Type F 23-37 Lindfield Avenue LINDFIELD NSW 2070		
Lot / DP:	101-103 / 1067930	LGA:	Ku-ring-gai
Applicant: JBA Urban Planning			

Assessment			
Date:	10/06/2010	Job ID:	2215047
Filename:	G:\22\15047\Technical\AccuR Run # 3		
Software:	AccuRate	Version:	1.1.4.1
Climate Zone:	56		

Referenced documents	
<i>All details, upon which this Assessment has been based, are included in the project documentation which has been stamped and signed by the Assessor issuing this Certificate, as detailed below:</i>	
Thermal Performance Specification / Commitments attached and affixed to drawings, page: DA07	
Drawings:	DA00-DA16

Specifications: Only specifications, detailed on Drawings identified above, have been referenced

ABSA Assessor Certificate	Assessor # 20776	Certificate # 24944817	Issued: 20-Oct-10
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THERMAL COMFORT - Simulation Method

The details must be entered into your BASIX Assessment

Area calculations (M2)	
Net Conditioned Floor Area: 84	Net Unconditioned Floor Area: 8
Concessions / Ventilation Bonus	
Eligible Concessions: None	
The dwelling has the required shading to qualify for BASIX cross ventilation bonus: N/A	

Predicted annual energy loads

Heating:	36
Cooling:	26
(sensible + latent)	
Total:	62

ABSA Assessor stamp



Thermal Performance Specifications - BASIX THERMAL COMFORT - Simulation Method

These are the Specifications upon which the Certified Assessment is based. If details included in these Specifications vary from other drawings or written specifications, these Specifications shall take precedence. If only one specification option is detailed for a building element, that specification must apply to all instances of that element for the project. If alternate specifications are detailed for a building element, the location and extent of alternate specifications must be detailed below and / or clearly indicated on referenced documents.

Windows	Product ID	Glass	Frame	U value	SHGC	Area M2	Detail
Generic 10		Single glazed low e	Aluminium	5.70	0.47	24.03	As per detail on plans

Skylights	Product ID	Glass	Frame	U value	SHGC	Area M2
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Any U and SHGC values specified on Certificates Issued after 1 May 2007 are according to NFRC. All values prior to this date are ANAC. Alternate products may be used if their U value is lower, and the SHGC value is less than 10% higher or lower.

External walls	Construction	Insulation	Colour - Solar absorptancy	Detail
Concrete		R1.5	Medium - SA 0.475 - 0.7	Throughout

Internal walls	Construction	Insulation	Detail
Plasterboard on Studs	None		As per detail on plans
Concrete Block & Plasterboard	None		As per detail on plans

Floors	Construction	Insulation	Covering	Detail
Concrete	None		Carpet	As per detail on plans
Concrete	None		Ceramic Tile	As per detail on plans

Ceilings	Construction	Insulation	Detail
Plasterboard	None		Throughout

Roof	Construction	Insulation	Colour - Solar absorptancy	Detail
Concrete		R3.0	Medium - SA 0.475 - 0.7	Throughout

Window cover	Internal (curtains)	External (awnings, shutters, etc)
Holland blinds	Throughout	None As per detail on plans

Fixed shading	Eaves (width - inc. gutters, height above windows)	Verandahs, Pergolas (type, description)
0	0 As per detail on plans	

Overshadowing	Overshadowing structures	Overshadowing trees
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Orientation, Exposure, Ventilation and Infiltration

Orientation of nominal north elevation	45
Terrain category	Suburban
Roof ventilation:	Unventilated
Cross ventilation:	None
Subfloor ventilation:	Enclosed
Living area open to entry:	Yes
Living areas separated by doors:	No
Stair open to heated areas:	No
Weather seals to windows and doors:	Yes
Exhaust fans without dampers:	No
Ventilated skylights:	No
Open fireplace or unflued gas heater:	No
Vented downlights:	No
Wall and ceiling vents:	No

ABSA Assessor stamp



Assessor Certificate

Single Dwelling

Certificate Version 6.1.1. Prior versions not valid after 1 March 2006

Issued in accordance with the requirements of
BASIX THERMAL COMFORT - Simulation Method



Assessor			
Name:	Katherine Gregory	Company:	GHD
Address:	GHD Level 3, 24 Honeysuckle Drive NEWCASTLE NSW 2300		
Phone:	(02) 4979 9986	Fax:	(02) 4979 9988
Email:	katy.gregory@ghd.com.au		
Declaration of Interest: The Assessor has provided design advice to the Applicant			
Client			
Name:	Peter Israel	Company:	PTI Group
Address:	Level 10 263 Clarence Street SYDNEY NSW 2000		
Phone:	0292830860	Fax:	0292830870
Email:	peter@ptigroup.com.au		
Project			
Address:	Type G 23-37 Lindfield Avenue LINDFIELD NSW 2070		
Lot / DP:	101-103 / 1067930	LGA:	Ku-ring-gai
Applicant:			
Assessment			
Date:	10/06/2010	Job ID:	2215047
Filename:	G:\22\15047\Technical\AccuR Run # 3		
Software:	AccuRate	Version:	1.1.4.1
Climate Zone:	56		
Referenced documents			
<i>All details, upon which this Assessment has been based, are included in the project documentation which has been stamped and signed by the Assessor issuing this Certificate, as detailed below:</i>			
Thermal Performance Specification / Commitments attached and affixed to drawings, page: DA07			
Drawings:	DA00-DA16		
Specifications: Only specifications, detailed on Drawings identified above, have been referenced			

ABSA Assessor Certificate **Assessor # 20776** **Certificate # 78567714** **Issued: 20-Oct-10**

THERMAL COMFORT - Simulation Method

The details must be entered into your BASIX Assessment

Area calculations (M2)	
Net Conditioned Floor Area: 46	Net Unconditioned Floor Area: 6
Concessions / Ventilation Bonus	
Eligible Concessions: None	
The dwelling has the required shading to qualify for BASIX cross ventilation bonus: N/A	

Predicted annual energy loads

Heating:	12
Cooling:	28
(sensible + latent)	
Total:	40

ABSA Assessor stamp



Thermal Performance Specifications - BASIX THERMAL COMFORT - Simulation Method

These are the Specifications upon which the Certified Assessment is based. If details included in these Specifications vary from other drawings or written specifications, these Specifications shall take precedence. If only one specification option is detailed for a building element, that specification must apply to all instances of that element for the project. If alternate specifications are detailed for a building element, the location and extent of alternate specifications must be detailed below and / or clearly indicated on referenced documents.

Windows	Product ID	Glass	Frame	U value	SHGC	Area M2	Detail
Generic 10		Single glazed low e	Aluminium	5.70	0.47	11.34	As per detail on plans

Skylights	Product ID	Glass	Frame	U value	SHGC	Area M2
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Any U and SHGC values specified on Certificates Issued after 1 May 2007 are according to NFRC. All values prior to this date are ANAC. Alternate products may be used if their U value is lower, and the SHGC value is less than 10% higher or lower.

External walls	Construction	Insulation	Colour - Solar absorptancy	Detail
Concrete		R1.5	Medium - SA 0.475 - 0.7	Throughout

Internal walls	Construction	Insulation	Detail
Plasterboard on Studs	None		As per detail on plans
Concrete Block & Plasterboard	None		As per detail on plans

Floors	Construction	Insulation	Covering	Detail
Concrete	None		Carpet	As per detail on plans
Concrete	None		Ceramic Tile	As per detail on plans

Ceilings	Construction	Insulation	Detail
Plasterboard	None		Throughout

Roof	Construction	Insulation	Colour - Solar absorptancy	Detail
Concrete		R3.0	Medium - SA 0.475 - 0.7	Throughout

Window cover	Internal (curtains)	External (awnings, shutters, etc)
Holland blinds	Throughout	None As per detail on plans

Fixed shading	Eaves (width - inc. gutters, height above windows)	Verandahs, Pergolas (type, description)
0	0 As per detail on plans	

Overshadowing	Overshadowing structures	Overshadowing trees
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Orientation, Exposure, Ventilation and Infiltration

Orientation of nominal north elevation	45
Terrain category	Suburban
Roof ventilation:	Unventilated
Cross ventilation:	None
Subfloor ventilation:	Enclosed
Living area open to entry:	Yes
Living areas separated by doors:	No
Stair open to heated areas:	No
Weather seals to windows and doors:	Yes
Exhaust fans without dampers:	No
Ventilated skylights:	No
Open fireplace or unflued gas heater:	No
Vented downlights:	No
Wall and ceiling vents:	No

ABSA Assessor stamp



Assessor Certificate

Single Dwelling

Certificate Version 6.1.1. Prior versions not valid after 1 March 2006

Issued in accordance with the requirements of
BASIX THERMAL COMFORT - Simulation Method



Assessor			
Name:	Katherine Gregory	Company:	GHD
Address:	GHD Level 3, 24 Honeysuckle Drive NEWCASTLE NSW 2300		
Phone:	(02) 4979 9986	Fax:	(02) 4979 9988
Email:	katy.gregory@ghd.com.au		
Declaration of Interest: The Assessor has provided design advice to the Applicant			

Client			
Name:	Peter Israel	Company:	PTI Group
Address:	Level 10 263 Clarence Street SYDNEY NSW 2000		
Phone:	0292830860	Fax:	0292830870
Email:	peter@ptigroup.com.au		

Project			
Address:	Type H 23-37 Lindfield Avenue LINDFIELD NSW 2070		
Lot / DP:	101-103 / 1067930	LGA:	Ku-ring-gai
Applicant: JBA Urban Planning			

Assessment			
Date:	10/06/2010	Job ID:	2215047
Filename:	G:\22\15047\Technical\AccuR Run # 3		
Software:	AccuRate	Version:	1.1.4.1
Climate Zone:	56		

Referenced documents			
<i>All details, upon which this Assessment has been based, are included in the project documentation which has been stamped and signed by the Assessor issuing this Certificate, as detailed below:</i>			
Thermal Performance Specification / Commitments attached and affixed to drawings, page: DA07			
Drawings:	DA00-DA16		

Specifications: Only specifications, detailed on Drawings identified above, have been referenced

ABSA Assessor Certificate	Assessor # 20776	Certificate # 72764855	Issued: 20-Oct-10
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THERMAL COMFORT - Simulation Method

The details must be entered into your BASIX Assessment

Area calculations (M2)	
Net Conditioned Floor Area: 63	Net Unconditioned Floor Area 9
Concessions / Ventilation Bonus	
Eligible Concessions: None	
The dwelling has the required shading to qualify for BASIX cross ventilation bonus: N/A	

Predicted annual energy loads

Heating:	20	
Cooling:	23	
(sensible + latent)		
Total:	43	

Thermal Performance Specifications - BASIX THERMAL COMFORT - Simulation Method

These are the Specifications upon which the Certified Assessment is based. If details included in these Specifications vary from other drawings or written specifications, these Specifications shall take precedence. If only one specification option is detailed for a building element, that specification must apply to all instances of that element for the project. If alternate specifications are detailed for a building element, the location and extent of alternate specifications must be detailed below and / or clearly indicated on referenced documents.

Windows	Product ID	Glass	Frame	U value	SHGC	Area M2	Detail
Generic 10		Single glazed low e	Aluminium	5.70	0.47	13.34	As per detail on plans

Skylights	Product ID	Glass	Frame	U value	SHGC	Area M2
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Any U and SHGC values specified on Certificates Issued after 1 May 2007 are according to NFRC. All values prior to this date are ANAC. Alternate products may be used if their U value is lower, and the SHGC value is less than 10% higher or lower.

External walls	Construction	Insulation	Colour - Solar absorptancy	Detail
Concrete		R1.5	Medium - SA 0.475 - 0.7	Throughout

Internal walls	Construction	Insulation	Detail
Plasterboard on Studs	None		As per detail on plans
Concrete Block & Plasterboard	None		As per detail on plans

Floors	Construction	Insulation	Covering	Detail
Concrete	None		Carpet	As per detail on plans
Concrete	None		Ceramic Tile	As per detail on plans

Ceilings	Construction	Insulation	Detail
Plasterboard	None		Throughout

Roof	Construction	Insulation	Colour - Solar absorptancy	Detail
Concrete		R3.0	Medium - SA 0.475 - 0.7	Throughout

Window cover	Internal (curtains)	External (awnings, shutters, etc)
Holland blinds	Throughout	None As per detail on plans

Fixed shading	Eaves (width - inc. gutters, height above windows)	Verandahs, Pergolas (type, description)
0	0 As per detail on plans	

Overshadowing	Overshadowing structures	Overshadowing trees
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Orientation, Exposure, Ventilation and Infiltration

Orientation of nominal north elevation	45
Terrain category	Suburban
Roof ventilation:	Unventilated
Cross ventilation:	None
Subfloor ventilation:	Enclosed
Living area open to entry:	Yes
Living areas separated by doors:	No
Stair open to heated areas:	No
Weather seals to windows and doors:	Yes
Exhaust fans without dampers:	No
Ventilated skylights:	No
Open fireplace or unflued gas heater:	No
Vented downlights:	No
Wall and ceiling vents:	No

ABSA Assessor stamp



Assessor Certificate

Single Dwelling

Certificate Version 6.1.1. Prior versions not valid after 1 March 2006

Issued in accordance with the requirements of
BASIX THERMAL COMFORT - Simulation Method



Assessor			
Name:	Katherine Gregory	Company:	GHD
Address:	GHD Level 3, 24 Honeysuckle Drive NEWCASTLE NSW 2300		
Phone:	(02) 4979 9986	Fax:	(02) 4979 9988
Email:	katy.gregory@ghd.com.au		
Declaration of Interest: The Assessor has provided design advice to the Applicant			

Client			
Name:	Peter Israel	Company:	PTI Group
Address:	Level 10 263 Clarence Street SYDNEY NSW 2000		
Phone:	0292830860	Fax:	0292830870
Email:	peter@ptigroup.com.au		

Project			
Address:	Type I 23-37 Lindfield Avenue LINDFIELD NSW 2070		
Lot / DP:	101-103 / 1067930	LGA:	Ku-ring-gai
Applicant: JBA Urban Planning			

Assessment			
Date:	10/06/2010	Job ID:	2215047
Filename:	G:\22\15047\Technical\AccuR Run # 3		
Software:	AccuRate	Version:	1.1.4.1
Climate Zone:	56		

Referenced documents	
<i>All details, upon which this Assessment has been based, are included in the project documentation which has been stamped and signed by the Assessor issuing this Certificate, as detailed below:</i>	
Thermal Performance Specification / Commitments attached and affixed to drawings, page: DA07	
Drawings:	DA00-DA16

Specifications: Only specifications, detailed on Drawings identified above, have been referenced

ABSA Assessor Certificate	Assessor # 20776	Certificate # 63318226	Issued: 20-Oct-10
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THERMAL COMFORT - Simulation Method

The details must be entered into your BASIX Assessment

Area calculations (M2)	
Net Conditioned Floor Area: 54	Net Unconditioned Floor Area: 8
Concessions / Ventilation Bonus	
Eligible Concessions: None	
The dwelling has the required shading to qualify for BASIX cross ventilation bonus: N/A	

Predicted annual energy loads

Heating:	34	
Cooling:	27	
(sensible + latent)		
Total:	61	

Thermal Performance Specifications - BASIX THERMAL COMFORT - Simulation Method

These are the Specifications upon which the Certified Assessment is based. If details included in these Specifications vary from other drawings or written specifications, these Specifications shall take precedence. If only one specification option is detailed for a building element, that specification must apply to all instances of that element for the project. If alternate specifications are detailed for a building element, the location and extent of alternate specifications must be detailed below and / or clearly indicated on referenced documents.

Windows	Product ID	Glass	Frame	U value	SHGC	Area M2	Detail
Generic 10		Single glazed low e	Aluminium	5.70	0.47	13.5	As per detail on plans

Skylights	Product ID	Glass	Frame	U value	SHGC	Area M2
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Any U and SHGC values specified on Certificates Issued after 1 May 2007 are according to NFRC. All values prior to this date are ANAC. Alternate products may be used if their U value is lower, and the SHGC value is less than 10% higher or lower.

External walls	Construction	Insulation	Colour - Solar absorptancy	Detail
Concrete		R1.5	Medium - SA 0.475 - 0.7	Throughout

Internal walls	Construction	Insulation	Detail
Plasterboard on Studs	None		As per detail on plans
Concrete Block & Plasterboard	None		As per detail on plans

Floors	Construction	Insulation	Covering	Detail
Concrete	None		Carpet	As per detail on plans
Concrete	None		Ceramic Tile	As per detail on plans

Ceilings	Construction	Insulation	Detail
Plasterboard	None		Throughout

Roof	Construction	Insulation	Colour - Solar absorptancy	Detail
Concrete		R3.0	Medium - SA 0.475 - 0.7	Throughout

Window cover	Internal (curtains)	External (awnings, shutters, etc)
Holland blinds	Throughout	None As per detail on plans

Fixed shading	Eaves (width - inc. gutters, height above windows)	Verandahs, Pergolas (type, description)
0	0 As per detail on plans	

Overshadowing	Overshadowing structures	Overshadowing trees
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Orientation, Exposure, Ventilation and Infiltration

Orientation of nominal north elevation	45
Terrain category	Suburban
Roof ventilation:	Unventilated
Cross ventilation:	None
Subfloor ventilation:	Enclosed
Living area open to entry:	Yes
Living areas separated by doors:	No
Stair open to heated areas:	No
Weather seals to windows and doors:	Yes
Exhaust fans without dampers:	No
Ventilated skylights:	No
Open fireplace or unflued gas heater:	No
Vented downlights:	No
Wall and ceiling vents:	No

ABSA Assessor stamp



Assessor Certificate

Single Dwelling

Certificate Version 6.1.1. Prior versions not valid after 1 March 2006

Issued in accordance with the requirements of
BASIX THERMAL COMFORT - Simulation Method



Assessor			
Name:	Katherine Gregory	Company:	GHD
Address:	GHD Level 3, 24 Honeysuckle Drive NEWCASTLE NSW 2300		
Phone:	(02) 4979 9986	Fax:	(02) 4979 9988
Email:	katy.gregory@ghd.com.au		
Declaration of Interest: The Assessor has provided design advice to the Applicant			
Client			
Name:	Peter Israel	Company:	PTI Group
Address:	Level 10 263 Clarence Street SYDNEY NSW 2000		
Phone:	0292830860	Fax:	0292830870
Email:	peter@ptigroup.com.au		
Project			
Address:	Type J 23-37 Lindfield Avenue LINDFIELD NSW 2070		
Lot / DP:	101-103 / 1067930	LGA:	Ku-ring-gai
Applicant:	JBA Urban Planning		
Assessment			
Date:	10/06/2010	Job ID:	2215047
Filename:	G:\22\15047\Technical\AccuR Run # 3		
Software:	AccuRate	Version:	1.1.4.1
Climate Zone:	56		
Referenced documents			
<i>All details, upon which this Assessment has been based, are included in the project documentation which has been stamped and signed by the Assessor issuing this Certificate, as detailed below:</i>			
Thermal Performance Specification / Commitments attached and affixed to drawings, page: DA07			
Drawings:	DA00-DA16		
Specifications: Only specifications, detailed on Drawings identified above, have been referenced			

ABSA Assessor Certificate **Assessor # 20776** **Certificate # 16817541** **Issued: 20-Oct-10**

THERMAL COMFORT - Simulation Method

The details must be entered into your BASIX Assessment

Area calculations (M2)	
Net Conditioned Floor Area: 45	Net Unconditioned Floor Area: 7
Concessions / Ventilation Bonus	
Eligible Concessions: None	
The dwelling has the required shading to qualify for BASIX cross ventilation bonus: N/A	

Predicted annual energy loads

Heating:	46
Cooling:	57
(sensible + latent)	
Total:	103

ABSA Assessor stamp



Thermal Performance Specifications - BASIX THERMAL COMFORT - Simulation Method

These are the Specifications upon which the Certified Assessment is based. If details included in these Specifications vary from other drawings or written specifications, these Specifications shall take precedence. If only one specification option is detailed for a building element, that specification must apply to all instances of that element for the project. If alternate specifications are detailed for a building element, the location and extent of alternate specifications must be detailed below and / or clearly indicated on referenced documents.

Windows	Product ID	Glass	Frame	U value	SHGC	Area M2	Detail
Generic 10		Single glazed low e	Aluminium	5.70	0.47	20.25	As per detail on plans

Skylights	Product ID	Glass	Frame	U value	SHGC	Area M2
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Any U and SHGC values specified on Certificates Issued after 1 May 2007 are according to NFRC. All values prior to this date are ANAC. Alternate products may be used if their U value is lower, and the SHGC value is less than 10% higher or lower.

External walls	Construction	Insulation	Colour - Solar absorptancy	Detail
Concrete		R1.5	Medium - SA 0.475 - 0.7	Throughout

Internal walls	Construction	Insulation	Detail
Plasterboard on Studs	None		As per detail on plans
Concrete Block & Plasterboard	None		As per detail on plans

Floors	Construction	Insulation	Covering	Detail
Concrete	None		Carpet	As per detail on plans
Concrete	None		Ceramic Tile	As per detail on plans

Ceilings	Construction	Insulation	Detail
Plasterboard	None		Throughout

Roof	Construction	Insulation	Colour - Solar absorptancy	Detail
Concrete		R3.0	Medium - SA 0.475 - 0.7	Throughout

Window cover	Internal (curtains)	External (awnings, shutters, etc)
Holland blinds	Throughout	None As per detail on plans

Fixed shading	Eaves (width - inc. gutters, height above windows)	Verandahs, Pergolas (type, description)
0	0 As per detail on plans	

Overshadowing	Overshadowing structures	Overshadowing trees
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Orientation, Exposure, Ventilation and Infiltration

Orientation of nominal north elevation	45
Terrain category	Suburban
Roof ventilation:	Unventilated
Cross ventilation:	None
Subfloor ventilation:	Enclosed
Living area open to entry:	Yes
Living areas separated by doors:	No
Stair open to heated areas:	No
Weather seals to windows and doors:	Yes
Exhaust fans without dampers:	No
Ventilated skylights:	No
Open fireplace or unflued gas heater:	No
Vented downlights:	No
Wall and ceiling vents:	No

ABSA Assessor stamp



Assessor Certificate

Single Dwelling

Certificate Version 6.1.1. Prior versions not valid after 1 March 2006

Issued in accordance with the requirements of
BASIX THERMAL COMFORT - Simulation Method



Assessor			
Name:	Katherine Gregory	Company:	GHD
Address:	GHD Level 3, 24 Honeysuckle Drive NEWCASTLE NSW 2300		
Phone:	(02) 4979 9986	Fax:	(02) 4979 9988
Email:	katy.gregory@ghd.com.au		
Declaration of Interest: The Assessor has provided design advice to the Applicant			
Client			
Name:	Peter Israel	Company:	PTI Group
Address:	Level 10 263 Clarence Street SYDNEY NSW 2000		
Phone:	0292830860	Fax:	0292830870
Email:	peter@ptigroup.com.au		
Project			
Address:	Type K 23-37 Lindfield Avenue LINDFIELD NSW 2070		
Lot / DP:	101-103 / 1067930	LGA:	Ku-ring-gai
Applicant: JBA Urban Planning			
Assessment			
Date:	10/06/2010	Job ID:	2215047
Filename:	G:\22\15047\Technical\AccuR Run # 3		
Software:	AccuRate	Version:	1.1.4.1
Climate Zone:	56		
Referenced documents			
<i>All details, upon which this Assessment has been based, are included in the project documentation which has been stamped and signed by the Assessor issuing this Certificate, as detailed below:</i>			
Thermal Performance Specification / Commitments attached and affixed to drawings, page: DA07			
Drawings:	DA00-DA16		
Specifications: Only specifications, detailed on Drawings identified above, have been referenced			

ABSA Assessor Certificate **Assessor #** 20776 **Certificate #** 85409648 **Issued:** 20-Oct-10

THERMAL COMFORT - Simulation Method

The details must be entered into your BASIX Assessment

Area calculations (M2)	
Net Conditioned Floor Area: 74	Net Unconditioned Floor Area: 11
Concessions / Ventilation Bonus	
Eligible Concessions: None	
The dwelling has the required shading to qualify for BASIX cross ventilation bonus: N/A	

Predicted annual energy loads

Heating:	54
Cooling:	38
(sensible + latent)	
Total:	92

ABSA Assessor stamp



Thermal Performance Specifications - BASIX THERMAL COMFORT - Simulation Method

These are the Specifications upon which the Certified Assessment is based. If details included in these Specifications vary from other drawings or written specifications, these Specifications shall take precedence. If only one specification option is detailed for a building element, that specification must apply to all instances of that element for the project. If alternate specifications are detailed for a building element, the location and extent of alternate specifications must be detailed below and / or clearly indicated on referenced documents.

Windows	Product ID	Glass	Frame	U value	SHGC	Area M2	Detail
Generic 11		Single glazed low e	Alum. / thermal break	4.32	0.47	43.47	As per detail on plans

Skylights	Product ID	Glass	Frame	U value	SHGC	Area M2
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Any U and SHGC values specified on Certificates Issued after 1 May 2007 are according to NFRC. All values prior to this date are ANAC. Alternate products may be used if their U value is lower, and the SHGC value is less than 10% higher or lower.

External walls	Construction	Insulation	Colour - Solar absorptancy	Detail
Concrete		R1.5	Medium - SA 0.475 - 0.7	Throughout

Internal walls	Construction	Insulation	Detail
Plasterboard on Studs	None		As per detail on plans
Concrete Block & Plasterboard	None		As per detail on plans

Floors	Construction	Insulation	Covering	Detail
Concrete	None		Carpet	As per detail on plans
Concrete	None		Ceramic Tile	As per detail on plans

Ceilings	Construction	Insulation	Detail
Plasterboard	None		Throughout

Roof	Construction	Insulation	Colour - Solar absorptancy	Detail
Concrete		R3.0	Medium - SA 0.475 - 0.7	Throughout

Window cover	Internal (curtains)	External (awnings, shutters, etc)
Holland blinds	Throughout	None As per detail on plans

Fixed shading	Eaves (width - inc. gutters, height above windows)	Verandahs, Pergolas (type, description)
0	0 As per detail on plans	

Overshadowing	Overshadowing structures	Overshadowing trees
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Orientation, Exposure, Ventilation and Infiltration

Orientation of nominal north elevation	45
Terrain category	Suburban
Roof ventilation:	Unventilated
Cross ventilation:	None
Subfloor ventilation:	Enclosed
Living area open to entry:	Yes
Living areas separated by doors:	No
Stair open to heated areas:	No
Weather seals to windows and doors:	Yes
Exhaust fans without dampers:	No
Ventilated skylights:	No
Open fireplace or unflued gas heater:	No
Vented downlights:	No
Wall and ceiling vents:	No

ABSA Assessor stamp



Assessor Certificate

Single Dwelling

Certificate Version 6.1.1. Prior versions not valid after 1 March 2006

Issued in accordance with the requirements of
BASIX THERMAL COMFORT - Simulation Method



Assessor			
Name:	Katherine Gregory	Company:	GHD
Address:	GHD Level 3, 24 Honeysuckle Drive NEWCASTLE NSW 2300		
Phone:	(02) 4979 9986	Fax:	(02) 4979 9988
Email:	katy.gregory@ghd.com.au		
Declaration of Interest: The Assessor has provided design advice to the Applicant			

Client			
Name:	Peter Israel	Company:	PTI Group
Address:	Level 10 263 Clarence Street SYDNEY NSW 2000		
Phone:	0292830860	Fax:	0292830870
Email:	peter@ptigroup.com.au		

Project			
Address:	Type L 23-37 Lindfield Avenue LINDFIELD NSW 2070		
Lot / DP:	101-103 / 1067930	LGA:	Ku-ring-gai
Applicant: JBA Urban Planning			

Assessment			
Date:	10/06/2010	Job ID:	2215047
Filename:	G:\22\15047\Technical\AccuR Run # 3		
Software:	AccuRate	Version:	1.1.4.1
Climate Zone:	56		

Referenced documents	
<i>All details, upon which this Assessment has been based, are included in the project documentation which has been stamped and signed by the Assessor issuing this Certificate, as detailed below:</i>	
Thermal Performance Specification / Commitments attached and affixed to drawings, page: DA07	
Drawings:	DA00-DA16

Specifications: Only specifications, detailed on Drawings identified above, have been referenced

ABSA Assessor Certificate	Assessor # 20776	Certificate # 83254026	Issued: 20-Oct-10
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THERMAL COMFORT - Simulation Method

The details must be entered into your BASIX Assessment

Area calculations (M2)	
Net Conditioned Floor Area: 104	Net Unconditioned Floor Area: 13
Concessions / Ventilation Bonus	
Eligible Concessions: None	
The dwelling has the required shading to qualify for BASIX cross ventilation bonus: N/A	

Predicted annual energy loads

Heating: 60	
Cooling: 43 (sensible + latent)	
Total: 103	

Thermal Performance Specifications - BASIX THERMAL COMFORT - Simulation Method

These are the Specifications upon which the Certified Assessment is based. If details included in these Specifications vary from other drawings or written specifications, these Specifications shall take precedence. If only one specification option is detailed for a building element, that specification must apply to all instances of that element for the project. If alternate specifications are detailed for a building element, the location and extent of alternate specifications must be detailed below and / or clearly indicated on referenced documents.

Windows	Product ID	Glass	Frame	U value	SHGC	Area M2	Detail
Generic 1		Single glazed low e	Aluminium	5.32	0.47	26.19	As per detail on plans

Skylights	Product ID	Glass	Frame	U value	SHGC	Area M2
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Any U and SHGC values specified on Certificates Issued after 1 May 2007 are according to NFRC. All values prior to this date are ANAC. Alternate products may be used if their U value is lower, and the SHGC value is less than 10% higher or lower.

External walls	Construction	Insulation	Colour - Solar absorptancy	Detail
Concrete		R1.5	Medium - SA 0.475 - 0.7	Throughout

Internal walls	Construction	Insulation	Detail
Plasterboard on Studs	None		As per detail on plans
Concrete Block & Plasterboard	None		As per detail on plans

Floors	Construction	Insulation	Covering	Detail
Concrete	None		Carpet	As per detail on plans
Concrete	None		Ceramic Tile	As per detail on plans

Ceilings	Construction	Insulation	Detail
Plasterboard	None		Throughout

Roof	Construction	Insulation	Colour - Solar absorptancy	Detail
Concrete		R3.0	Medium - SA 0.475 - 0.7	Throughout

Window cover	Internal (curtains)	External (awnings, shutters, etc)
Holland blinds	Throughout	None As per detail on plans

Fixed shading	Eaves (width - inc. gutters, height above windows)	Verandahs, Pergolas (type, description)
0	0 As per detail on plans	

Overshadowing	Overshadowing structures	Overshadowing trees
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Orientation, Exposure, Ventilation and Infiltration

Orientation of nominal north elevation	45
Terrain category	Suburban
Roof ventilation:	Unventilated
Cross ventilation:	None
Subfloor ventilation:	Enclosed
Living area open to entry:	Yes
Living areas separated by doors:	No
Stair open to heated areas:	No
Weather seals to windows and doors:	Yes
Exhaust fans without dampers:	No
Ventilated skylights:	No
Open fireplace or unflued gas heater:	No
Vented downlights:	No
Wall and ceiling vents:	No

ABSA Assessor stamp



Assessor Certificate

Single Dwelling

Certificate Version 6.1.1. Prior versions not valid after 1 March 2006

Issued in accordance with the requirements of
BASIX THERMAL COMFORT - Simulation Method



Assessor			
Name:	Katherine Gregory	Company:	GHD
Address:	GHD Level 3, 24 Honeysuckle Drive NEWCASTLE NSW 2300		
Phone:	(02) 4979 9986	Fax:	(02) 4979 9988
Email:	katy.gregory@ghd.com.au		
Declaration of Interest: The Assessor has provided design advice to the Applicant			
Client			
Name:	Peter Israel	Company:	PTI Group
Address:	Level 10 263 Clarence Street SYDNEY NSW 2000		
Phone:	0292830860	Fax:	0292830870
Email:	peter@ptigroup.com.au		
Project			
Address:	Type M 23-37 Lindfield Avenue LINDFIELD NSW 2070		
Lot / DP:	101-103 / 1067930	LGA:	Ku-ring-gai
Applicant:	JBA Urban Planning		
Assessment			
Date:	10/06/2010	Job ID:	2215047
Filename:	G:\22\15047\Technical\AccuR Run # 3		
Software:	AccuRate	Version:	1.1.4.1
Climate Zone:	56		
Referenced documents			
<i>All details, upon which this Assessment has been based, are included in the project documentation which has been stamped and signed by the Assessor issuing this Certificate, as detailed below:</i>			
Thermal Performance Specification / Commitments attached and affixed to drawings, page: DA07			
Drawings:	DA00-DA16		
Specifications: Only specifications, detailed on Drawings identified above, have been referenced			

ABSA Assessor Certificate **Assessor # 20776** **Certificate # 51434566** **Issued: 20-Oct-10**

THERMAL COMFORT - Simulation Method

The details must be entered into your BASIX Assessment

Area calculations (M2)	
Net Conditioned Floor Area: 62	Net Unconditioned Floor Area: 6
Concessions / Ventilation Bonus	
Eligible Concessions: None	
The dwelling has the required shading to qualify for BASIX cross ventilation bonus: N/A	

Predicted annual energy loads

Heating:	53
Cooling:	24
(sensible + latent)	
Total:	77

ABSA Assessor stamp



Thermal Performance Specifications - BASIX THERMAL COMFORT - Simulation Method

These are the Specifications upon which the Certified Assessment is based. If details included in these Specifications vary from other drawings or written specifications, these Specifications shall take precedence. If only one specification option is detailed for a building element, that specification must apply to all instances of that element for the project. If alternate specifications are detailed for a building element, the location and extent of alternate specifications must be detailed below and / or clearly indicated on referenced documents.

Windows	Product ID	Glass	Frame	U value	SHGC	Area M2	Detail
Generic 10		Single glazed low e	Aluminium	5.70	0.47	25.38	As per detail on plans

Skylights	Product ID	Glass	Frame	U value	SHGC	Area M2
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Any U and SHGC values specified on Certificates Issued after 1 May 2007 are according to NFRC. All values prior to this date are ANAC. Alternate products may be used if their U value is lower, and the SHGC value is less than 10% higher or lower.

External walls	Construction	Insulation	Colour - Solar absorptancy	Detail
Concrete		R1.5	Medium - SA 0.475 - 0.7	Throughout

Internal walls	Construction	Insulation	Detail
Plasterboard on Studs	None		As per detail on plans
Concrete Block & Plasterboard	None		As per detail on plans

Floors	Construction	Insulation	Covering	Detail
Concrete	None		Carpet	As per detail on plans
Concrete	None		Ceramic Tile	As per detail on plans

Ceilings	Construction	Insulation	Detail
Plasterboard	None		Throughout

Roof	Construction	Insulation	Colour - Solar absorptancy	Detail
Concrete		R3.0	Medium - SA 0.475 - 0.7	Throughout

Window cover	Internal (curtains)	External (awnings, shutters, etc)
Holland blinds	Throughout	None As per detail on plans

Fixed shading	Eaves (width - inc. gutters, height above windows)	Verandahs, Pergolas (type, description)
0	0 As per detail on plans	

Overshadowing	Overshadowing structures	Overshadowing trees
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Orientation, Exposure, Ventilation and Infiltration

Orientation of nominal north elevation	45
Terrain category	Suburban
Roof ventilation:	Unventilated
Cross ventilation:	None
Subfloor ventilation:	Enclosed
Living area open to entry:	Yes
Living areas separated by doors:	No
Stair open to heated areas:	No
Weather seals to windows and doors:	Yes
Exhaust fans without dampers:	No
Ventilated skylights:	No
Open fireplace or unflued gas heater:	No
Vented downlights:	No
Wall and ceiling vents:	No

ABSA Assessor stamp



Assessor Certificate

Single Dwelling

Certificate Version 6.1.1. Prior versions not valid after 1 March 2006

Issued in accordance with the requirements of
BASIX THERMAL COMFORT - Simulation Method



Assessor			
Name:	Katherine Gregory	Company:	GHD
Address:	GHD Level 3, 24 Honeysuckle Drive NEWCASTLE NSW 2300		
Phone:	(02) 4979 9986	Fax:	(02) 4979 9988
Email:	katy.gregory@ghd.com.au		
Declaration of Interest: The Assessor has provided design advice to the Applicant			

Client			
Name:	Peter Israel	Company:	PTI Group
Address:	Level 10 263 Clarence Street SYDNEY NSW 2000		
Phone:	0292830860	Fax:	0292830870
Email:	peter@ptigroup.com.au		

Project			
Address:	Type N 23-37 Lindfield Avenue LINDFIELD NSW 2070		
Lot / DP:	101-103 / 1067930	LGA:	Ku-ring-gai
Applicant: JBA Urban Planning			

Assessment			
Date:	10/06/2010	Job ID:	2215047
Filename:	G:\22\15047\Technical\AccuR Run # 3		
Software:	AccuRate	Version:	1.1.4.1
Climate Zone:	56		

Referenced documents	
<i>All details, upon which this Assessment has been based, are included in the project documentation which has been stamped and signed by the Assessor issuing this Certificate, as detailed below:</i>	
Thermal Performance Specification / Commitments attached and affixed to drawings, page: DA07	
Drawings:	DA00-DA16

Specifications: Only specifications, detailed on Drawings identified above, have been referenced

ABSA Assessor Certificate	Assessor # 20776	Certificate # 77626089	Issued: 20-Oct-10
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THERMAL COMFORT - Simulation Method

The details must be entered into your BASIX Assessment

Area calculations (M2)	
Net Conditioned Floor Area: 61	Net Unconditioned Floor Area: 8
Concessions / Ventilation Bonus	
Eligible Concessions: None	
The dwelling has the required shading to qualify for BASIX cross ventilation bonus: N/A	

Predicted annual energy loads

Heating:	18	
Cooling:	18	
(sensible + latent)		
Total:	36	

Thermal Performance Specifications - BASIX THERMAL COMFORT - Simulation Method

These are the Specifications upon which the Certified Assessment is based. If details included in these Specifications vary from other drawings or written specifications, these Specifications shall take precedence. If only one specification option is detailed for a building element, that specification must apply to all instances of that element for the project. If alternate specifications are detailed for a building element, the location and extent of alternate specifications must be detailed below and / or clearly indicated on referenced documents.

Windows	Product ID	Glass	Frame	U value	SHGC	Area M2	Detail
Generic 10		Single glazed low e	Aluminium	5.7	0.47	22.68	As per detail on plans

Skylights	Product ID	Glass	Frame	U value	SHGC	Area M2
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Any U and SHGC values specified on Certificates Issued after 1 May 2007 are according to NFRC. All values prior to this date are ANAC. Alternate products may be used if their U value is lower, and the SHGC value is less than 10% higher or lower.

External walls	Construction	Insulation	Colour - Solar absorptancy	Detail
Concrete		R1.5	Medium - SA 0.475 - 0.7	Throughout

Internal walls	Construction	Insulation	Detail
Plasterboard on Studs	None		As per detail on plans
Concrete Block & Plasterboard	None		As per detail on plans

Floors	Construction	Insulation	Covering	Detail
Concrete	None		Carpet	As per detail on plans
Concrete	None		Ceramic Tile	As per detail on plans

Ceilings	Construction	Insulation	Detail
Plasterboard	None		Throughout

Roof	Construction	Insulation	Colour - Solar absorptancy	Detail
Concrete		R3.0	Medium - SA 0.475 - 0.7	Throughout

Window cover	Internal (curtains)	External (awnings, shutters, etc)
Holland blinds	Throughout	None As per detail on plans

Fixed shading	Eaves (width - inc. gutters, height above windows)	Verandahs, Pergolas (type, description)
0	0 As per detail on plans	

Overshadowing	Overshadowing structures	Overshadowing trees
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Orientation, Exposure, Ventilation and Infiltration

Orientation of nominal north elevation	45
Terrain category	Suburban
Roof ventilation:	Unventilated
Cross ventilation:	None
Subfloor ventilation:	Enclosed
Living area open to entry:	Yes
Living areas separated by doors:	No
Stair open to heated areas:	No
Weather seals to windows and doors:	Yes
Exhaust fans without dampers:	No
Ventilated skylights:	No
Open fireplace or unflued gas heater:	No
Vented downlights:	No
Wall and ceiling vents:	No

ABSA Assessor stamp



Assessor Certificate

Single Dwelling

Certificate Version 6.1.1. Prior versions not valid after 1 March 2006

Issued in accordance with the requirements of
BASIX THERMAL COMFORT - Simulation Method



Assessor			
Name:	Katherine Gregory	Company:	GHD
Address:	GHD Level 3, 24 Honeysuckle Drive NEWCASTLE NSW 2300		
Phone:	(02) 4979 9986	Fax:	(02) 4979 9988
Email:	katy.gregory@ghd.com.au		
Declaration of Interest: The Assessor has provided design advice to the Applicant			

Client			
Name:	Peter Israel	Company:	PTI Group
Address:	Level 10 263 Clarence Street SYDNEY NSW 2000		
Phone:	0292830860	Fax:	0292830870
Email:	peter@ptigroup.com.au		

Project			
Address:	Type O 23-37 Lindfield Avenue LINDFIELD NSW 2070		
Lot / DP:	101-103 / 1067930	LGA:	Ku-ring-gai
Applicant: JBA Urban Planning			

Assessment			
Date:	10/06/2010	Job ID:	2215047
Filename:	G:\22\15047\Technical\AccuR Run # 3		
Software:	AccuRate	Version:	1.1.4.1
Climate Zone:	56		

Referenced documents	
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Thermal Performance Specification / Commitments attached and affixed to drawings, page: DA07	
Drawings:	DA00-DA16

Specifications: Only specifications, detailed on Drawings identified above, have been referenced

ABSA Assessor Certificate	Assessor # 20776	Certificate # 37229450	Issued: 20-Oct-10
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THERMAL COMFORT - Simulation Method

The details must be entered into your BASIX Assessment

Area calculations (M2)	
Net Conditioned Floor Area: 109	Net Unconditioned Floor Area: 19
Concessions / Ventilation Bonus	
Eligible Concessions: None	
The dwelling has the required shading to qualify for BASIX cross ventilation bonus: N/A	

Predicted annual energy loads

Heating:	46	
Cooling:	53	
(sensible + latent)		
Total:	99	

Thermal Performance Specifications - BASIX THERMAL COMFORT - Simulation Method

These are the Specifications upon which the Certified Assessment is based. If details included in these Specifications vary from other drawings or written specifications, these Specifications shall take precedence. If only one specification option is detailed for a building element, that specification must apply to all instances of that element for the project. If alternate specifications are detailed for a building element, the location and extent of alternate specifications must be detailed below and / or clearly indicated on referenced documents.

Windows	Product ID	Glass	Frame	U value	SHGC	Area M2	Detail
Generic 10		Single glazed low e	Aluminium	5.7	0.47	60.21	As per detail on plans

Skylights	Product ID	Glass	Frame	U value	SHGC	Area M2
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Any U and SHGC values specified on Certificates Issued after 1 May 2007 are according to NFRC. All values prior to this date are ANAC. Alternate products may be used if their U value is lower, and the SHGC value is less than 10% higher or lower.

External walls	Construction	Insulation	Colour - Solar absorptancy	Detail
Concrete		R1.5	Medium - SA 0.475 - 0.7	Throughout

Internal walls	Construction	Insulation	Detail
Plasterboard on Studs	None		As per detail on plans
Concrete Block & Plasterboard	None		As per detail on plans

Floors	Construction	Insulation	Covering	Detail
Concrete	None		Carpet	As per detail on plans
Concrete	None		Ceramic Tile	As per detail on plans

Ceilings	Construction	Insulation	Detail
Plasterboard	None		Throughout

Roof	Construction	Insulation	Colour - Solar absorptancy	Detail
Concrete		R3.0	Medium - SA 0.475 - 0.7	Throughout

Window cover	Internal (curtains)	External (awnings, shutters, etc)
Holland blinds	Throughout	None
		As per detail on plans

Fixed shading	Eaves (width - inc. gutters, height above windows)	Verandahs, Pergolas (type, description)
0	0	As per detail on plans

Overshadowing	Overshadowing structures	Overshadowing trees
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Orientation, Exposure, Ventilation and Infiltration

Orientation of nominal north elevation	45
Terrain category	Suburban
Roof ventilation:	Unventilated
Cross ventilation:	None
Subfloor ventilation:	Enclosed
Living area open to entry:	Yes
Living areas separated by doors:	No
Stair open to heated areas:	No
Weather seals to windows and doors:	Yes
Exhaust fans without dampers:	No
Ventilated skylights:	No
Open fireplace or unflued gas heater:	No
Vented downlights:	No
Wall and ceiling vents:	No

ABSA Assessor stamp



Assessor Certificate

Single Dwelling

Certificate Version 6.1.1. Prior versions not valid after 1 March 2006

Issued in accordance with the requirements of
BASIX THERMAL COMFORT - Simulation Method



Assessor			
Name:	Katherine Gregory	Company:	GHD
Address:	GHD Level 3, 24 Honeysuckle Drive NEWCASTLE NSW 2300		
Phone:	(02) 4979 9986	Fax:	(02) 4979 9988
Email:	katy.gregory@ghd.com.au		
Declaration of Interest: The Assessor has provided design advice to the Applicant			
Client			
Name:	Peter Israel	Company:	PTI Group
Address:	Level 10 263 Clarence Street SYDNEY NSW 2000		
Phone:	0292830860	Fax:	0292830870
Email:	peter@ptigroup.com.au		
Project			
Address:	Type O1 23-37 Lindfield Avenue LINDFIELD NSW 2070		
Lot / DP:	101-103 / 1067930	LGA:	Ku-ring-gai
Applicant: JBA Urban Planning			
Assessment			
Date:	10/06/2010	Job ID:	2215047
Filename:	G:\22\15047\Technical\AccuR Run # 3		
Software:	AccuRate	Version:	1.1.4.1
Climate Zone:	56		
Referenced documents			
<i>All details, upon which this Assessment has been based, are included in the project documentation which has been stamped and signed by the Assessor issuing this Certificate, as detailed below:</i>			
Thermal Performance Specification / Commitments attached and affixed to drawings, page: DA07			
Drawings:	DA00-DA16		
Specifications: Only specifications, detailed on Drawings identified above, have been referenced			

ABSA Assessor Certificate **Assessor # 20776** **Certificate # 18970382** **Issued: 20-Oct-10**

THERMAL COMFORT - Simulation Method

The details must be entered into your BASIX Assessment

Area calculations (M2)	
Net Conditioned Floor Area:	112
Net Unconditioned Floor Area:	18
Concessions / Ventilation Bonus	
Eligible Concessions: None	
The dwelling has the required shading to qualify for BASIX cross ventilation bonus: N/A	

Predicted annual energy loads

Heating:	53
Cooling:	56
(sensible + latent)	
Total:	109

ABSA Assessor stamp



Thermal Performance Specifications - BASIX THERMAL COMFORT - Simulation Method

These are the Specifications upon which the Certified Assessment is based. If details included in these Specifications vary from other drawings or written specifications, these Specifications shall take precedence. If only one specification option is detailed for a building element, that specification must apply to all instances of that element for the project. If alternate specifications are detailed for a building element, the location and extent of alternate specifications must be detailed below and / or clearly indicated on referenced documents.

Windows	Product ID	Glass	Frame	U value	SHGC	Area M2	Detail
Generic 10		Single glazed low e	Aluminium	5.7	0.47	60.21	As per detail on plans

Skylights	Product ID	Glass	Frame	U value	SHGC	Area M2
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Any U and SHGC values specified on Certificates Issued after 1 May 2007 are according to NFRC. All values prior to this date are ANAC. Alternate products may be used if their U value is lower, and the SHGC value is less than 10% higher or lower.

External walls	Construction	Insulation	Colour - Solar absorptancy	Detail
Concrete		R1.5	Medium - SA 0.475 - 0.7	Throughout

Internal walls	Construction	Insulation	Detail
Plasterboard on Studs	None		As per detail on plans
Concrete Block & Plasterboard	None		As per detail on plans

Floors	Construction	Insulation	Covering	Detail
Concrete	None		Carpet	As per detail on plans
Concrete	None		Ceramic Tile	As per detail on plans

Ceilings	Construction	Insulation	Detail
Plasterboard	None		Throughout

Roof	Construction	Insulation	Colour - Solar absorptancy	Detail
Concrete		R3.0	Medium - SA 0.475 - 0.7	Throughout

Window cover	Internal (curtains)	External (awnings, shutters, etc)
Holland blinds	Throughout	None As per detail on plans

Fixed shading	Eaves (width - inc. gutters, height above windows)	Verandahs, Pergolas (type, description)
0	0 As per detail on plans	

Overshadowing	Overshadowing structures	Overshadowing trees
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Orientation, Exposure, Ventilation and Infiltration

Orientation of nominal north elevation	45
Terrain category	Suburban
Roof ventilation:	Unventilated
Cross ventilation:	None
Subfloor ventilation:	Enclosed
Living area open to entry:	Yes
Living areas separated by doors:	No
Stair open to heated areas:	No
Weather seals to windows and doors:	Yes
Exhaust fans without dampers:	No
Ventilated skylights:	No
Open fireplace or unflued gas heater:	No
Vented downlights:	No
Wall and ceiling vents:	No

ABSA Assessor stamp



Assessor Certificate

Single Dwelling

Certificate Version 6.1.1. Prior versions not valid after 1 March 2006

Issued in accordance with the requirements of
BASIX THERMAL COMFORT - Simulation Method



Assessor			
Name:	Katherine Gregory	Company:	GHD
Address:	GHD Level 3, 24 Honeysuckle Drive NEWCASTLE NSW 2300		
Phone:	(02) 4979 9986	Fax:	(02) 4979 9988
Email:	katy.gregory@ghd.com.au		
Declaration of Interest: The Assessor has provided design advice to the Applicant			
Client			
Name:	Peter Israel	Company:	PTI Group
Address:	Level 10 263 Clarence Street SYDNEY NSW 2000		
Phone:	0292830860	Fax:	0292830870
Email:	peter@ptigroup.com.au		
Project			
Address:	Type P 23-37 Lindfield Avenue LINDFIELD NSW 2070		
Lot / DP:	101-103 / 1067930	LGA:	Ku-ring-gai
Applicant:	JBA Urban Planning		
Assessment			
Date:	10/06/2010	Job ID:	2215047
Filename:	G:\22\15047\Technical\AccuR Run # 3		
Software:	AccuRate	Version:	1.1.4.1
Climate Zone:	56		
Referenced documents			
<i>All details, upon which this Assessment has been based, are included in the project documentation which has been stamped and signed by the Assessor issuing this Certificate, as detailed below:</i>			
Thermal Performance Specification / Commitments attached and affixed to drawings, page: DA07			
Drawings:	DA00-DA16		
Specifications: Only specifications, detailed on Drawings identified above, have been referenced			

ABSA Assessor Certificate **Assessor #** 20776 **Certificate #** 63557735 **Issued:** 20-Oct-10

THERMAL COMFORT - Simulation Method

The details must be entered into your BASIX Assessment

Area calculations (M2)	
Net Conditioned Floor Area: 46	Net Unconditioned Floor Area: 6
Concessions / Ventilation Bonus	
Eligible Concessions: None	
The dwelling has the required shading to qualify for BASIX cross ventilation bonus: N/A	

Predicted annual energy loads

Heating:	14
Cooling:	27
(sensible + latent)	
Total:	41

ABSA Assessor stamp



Thermal Performance Specifications - BASIX THERMAL COMFORT - Simulation Method

These are the Specifications upon which the Certified Assessment is based. If details included in these Specifications vary from other drawings or written specifications, these Specifications shall take precedence. If only one specification option is detailed for a building element, that specification must apply to all instances of that element for the project. If alternate specifications are detailed for a building element, the location and extent of alternate specifications must be detailed below and / or clearly indicated on referenced documents.

Windows	Product ID	Glass	Frame	U value	SHGC	Area M2	Detail
Generic 10		Single glazed low e	Aluminium	5.7	0.47	16.47	As per detail on plans

Skylights	Product ID	Glass	Frame	U value	SHGC	Area M2
-----------	------------	-------	-------	---------	------	---------

Any U and SHGC values specified on Certificates Issued after 1 May 2007 are according to NFRC. All values prior to this date are ANAC. Alternate products may be used if their U value is lower, and the SHGC value is less than 10% higher or lower.

External walls	Construction	Insulation	Colour - Solar absorptancy	Detail
Concrete		R1.5	Medium - SA 0.475 - 0.7	Throughout

Internal walls	Construction	Insulation	Detail
Plasterboard on Studs	None		As per detail on plans
Concrete Block & Plasterboard	None		As per detail on plans

Floors	Construction	Insulation	Covering	Detail
Concrete	None		Carpet	As per detail on plans
Concrete	None		Ceramic Tile	As per detail on plans

Ceilings	Construction	Insulation	Detail
Plasterboard	None		Throughout

Roof	Construction	Insulation	Colour - Solar absorptancy	Detail
Concrete		R3.0	Medium - SA 0.475 - 0.7	Throughout

Window cover	Internal (curtains)	External (awnings, shutters, etc)
Holland blinds	Throughout	None As per detail on plans

Fixed shading	Eaves (width - inc. gutters, height above windows)	Verandahs, Pergolas (type, description)
0	0 As per detail on plans	

Overshadowing	Overshadowing structures	Overshadowing trees
---------------	--------------------------	---------------------

Orientation, Exposure, Ventilation and Infiltration

Orientation of nominal north elevation	45
Terrain category	Suburban
Roof ventilation:	Unventilated
Cross ventilation:	None
Subfloor ventilation:	Enclosed
Living area open to entry:	Yes
Living areas separated by doors:	No
Stair open to heated areas:	No
Weather seals to windows and doors:	Yes
Exhaust fans without dampers:	No
Ventilated skylights:	No
Open fireplace or unflued gas heater:	No
Vented downlights:	No
Wall and ceiling vents:	No

ABSA Assessor stamp



Assessor Certificate

Single Dwelling

Certificate Version 6.1.1. Prior versions not valid after 1 March 2006

Issued in accordance with the requirements of
BASIX THERMAL COMFORT - Simulation Method



Assessor			
Name:	Katherine Gregory	Company:	GHD
Address:	GHD Level 3, 24 Honeysuckle Drive NEWCASTLE NSW 2300		
Phone:	(02) 4979 9986	Fax:	(02) 4979 9988
Email:	katy.gregory@ghd.com.au		
Declaration of Interest: The Assessor has provided design advice to the Applicant			

Client			
Name:	Peter Israel	Company:	PTI Group
Address:	Level 10 263 Clarence Street SYDNEY NSW 2000		
Phone:	0292830860	Fax:	0292830870
Email:	peter@ptigroup.com.au		

Project			
Address:	Type P1 23-37 Lindfield Avenue LINDFIELD NSW 2070		
Lot / DP:	101-103 / 1067930	LGA:	Ku-ring-gai
Applicant: JBA Urban Planning			

Assessment			
Date:	10/06/2010	Job ID:	2215047
Filename:	G:\22\15047\Technical\AccuR Run # 3		
Software:	AccuRate	Version:	1.1.4.1
Climate Zone:	56		

Referenced documents	
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Thermal Performance Specification / Commitments attached and affixed to drawings, page: DA07	
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Specifications: Only specifications, detailed on Drawings identified above, have been referenced

ABSA Assessor Certificate	Assessor # 20776	Certificate # 44400565	Issued: 20-Oct-10
----------------------------------	-------------------------	-------------------------------	--------------------------

THERMAL COMFORT - Simulation Method

The details must be entered into your BASIX Assessment

Area calculations (M2)	
Net Conditioned Floor Area: 46	Net Unconditioned Floor Area: 6
Concessions / Ventilation Bonus	
Eligible Concessions: None	
The dwelling has the required shading to qualify for BASIX cross ventilation bonus: N/A	

Predicted annual energy loads

Heating:	7	
Cooling:	39	
(sensible + latent)		
Total:	46	

Thermal Performance Specifications - BASIX THERMAL COMFORT - Simulation Method

These are the Specifications upon which the Certified Assessment is based. If details included in these Specifications vary from other drawings or written specifications, these Specifications shall take precedence. If only one specification option is detailed for a building element, that specification must apply to all instances of that element for the project. If alternate specifications are detailed for a building element, the location and extent of alternate specifications must be detailed below and / or clearly indicated on referenced documents.

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Generic 10		Single glazed low e	Aluminium	5.7	0.47	18.63	As per detail on plans

Skylights	Product ID	Glass	Frame	U value	SHGC	Area M2
-----------	------------	-------	-------	---------	------	---------

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Concrete Block & Plasterboard	None		As per detail on plans

Floors	Construction	Insulation	Covering	Detail
Concrete	None		Carpet	As per detail on plans
Concrete	None		Ceramic Tile	As per detail on plans

Ceilings	Construction	Insulation	Detail
Plasterboard	None		Throughout

Roof	Construction	Insulation	Colour - Solar absorptancy	Detail
Concrete		R3.0	Medium - SA 0.475 - 0.7	Throughout

Window cover	Internal (curtains)	External (awnings, shutters, etc)
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Overshadowing	Overshadowing structures	Overshadowing trees
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Orientation, Exposure, Ventilation and Infiltration

Orientation of nominal north elevation	45
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Stair open to heated areas:	No
Weather seals to windows and doors:	Yes
Exhaust fans without dampers:	No
Ventilated skylights:	No
Open fireplace or unflued gas heater:	No
Vented downlights:	No
Wall and ceiling vents:	No

ABSA Assessor stamp





LINDFIELD RETAIL & RESIDENTIAL DEVELOPMENT

23- 37 LINDFIELD AVE
LINDFIELD, NSW

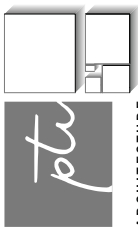
PREPARED FOR
COOGEE BAY VILLAGE
PTY LTD

P194.1

- NOTE
1. Contractors to verify all dimensions on site before any shop drawings or work is commenced.
 2. All dimensions are to be taken in preference to scaled drawings.
 3. The drawings are to be read in conjunction with the specification and engineers drawings.

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REVISIONS				
REV	DESCRIPTION	BY	CHK	DATE
A	DEVELOPMENT APPLICATION	VO	VO	22.07.10
B	REVISED DRAWINGS SCHEDULE	YN	YN	04.10.10



ARCHITECTURE
Project Tourism International Architecture Pty Ltd Level 10, 263 Clarence St Sydney 2000
T (02) 9283 0860 F (02) 9283 0870 www.pti.org.au ABN 90 090 071 022
Notified Registered Architect (Peer level (Reg no. 5544))

COMMERCIAL & DESIGN ARCHITECTS
INTERIOR DESIGNERS
PROPERTY DEVELOPMENT ANALYSTS & ADVISORS
FOR TOURISM, LEISURE, ENTERTAINMENT & RESIDENTIAL PROPERTIES

CLIENT :
COOGEE BAY VILLAGE
PTY LTD

PROJECT :
LINDFIELD RETAIL &
RESIDENTIAL DEVELOPMENT

DRAWING TITLE:
COVER SHEET & LOCATION
PLAN

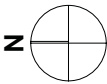
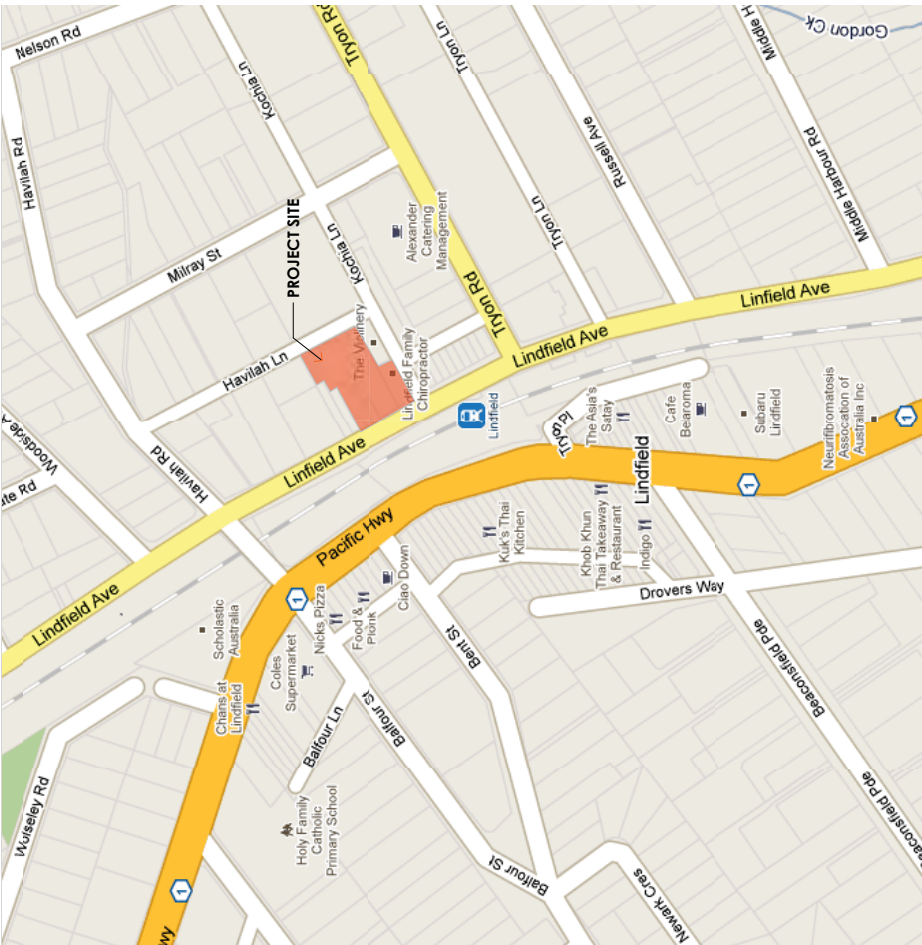
SCALE: NTS

PRINT DATE:	7/10/2010	TRUE NORTH:
DRAWN BY:	VD	
CHECKED BY:	AM	
PROJECT No:	P194.1	

A DA 00 B
disc stages dwg no. revision

DRAWING SCHEDULE	
NUMBER	CONTENT

- DA 00 COVER PAGE
- DA 01 SITE ANALYSIS
- DA 02 SITE PLAN
- DA 03 BASEMENT LEVEL PLAN
- DA 04 LOWER GROUND PLAN
- DA 05 UPPER GROUND PLAN
- DA 06 LEVEL 1 PLAN
- DA 07 LEVEL 2 PLAN
- DA 08 LEVEL 3 PLAN
- DA 09 LEVEL 4 PLAN
- DA 10 LEVEL 5 PLAN
- DA 11 LEVEL 6 PLAN
- DA 12 LEVEL 7 PLAN
- DA 13 ROOF LEVEL PLAN
- DA 14 ELEVATIONS SHEET 1
- DA 15 ELEVATIONS SHEET 2
- DA 16 ELEVATIONS SHEET 3
- DA 17 SECTIONS SHEET 1
- DA 18 SECTIONS SHEET 2
- DA 19 SHADOW DIAGRAMS- MARCH
- DA 20 SHADOW DIAGRAMS- JUNE
- DA 21 SHADOW DIAGRAMS- SEPTEMBER
- DA 22 SHADOW DIAGRAMS- DECEMBER
- DA 23 MISCELLANEOUS
- DA 24 PHOTO MONTAGE 1
- DA 25 PHOTO MONTAGE 2
- DA 26 PHOTO MONTAGE 3
- DA 27 PHOTO MONTAGE 4
- DA 28 PHOTO MONTAGE 5
- DA 29 PHOTO MONTAGE 6
- DA 30 PHOTO MONTAGE 7
- DA 31 PHOTO MONTAGE 8
- DA 32 POSSIBLE FUTURE EXTENSION



LOCATION MAP



APARTMENT SCHEDULE			
APARTMENTS	BUILDING A	BUILDING B	TOTAL

1 BEDS	26	27	53
2 BEDS	14	30	44
3 BEDS	4	1	5
TOTAL	44	58	102

RETAIL SCHEDULE	
UPPER GROUND	LEVEL 1

RETAIL 1	RETAIL 3
RETAIL 2	RETAIL 5
	RETAIL 5

CAR PARKING SCHEDULE			
CAR SPACES	BASEMENT	LOWER GROUND	TOTAL

RETAIL		48	48
RESIDENTIAL	89	13	102
ADJOINING LOT		25	25
TOTAL	89	86	175

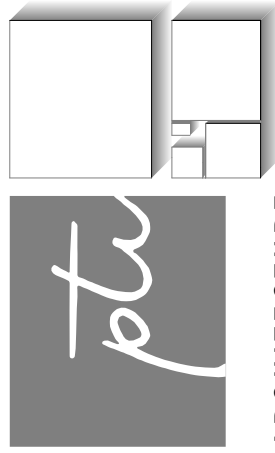
NOTE

- Contractors to verify all dimensions on site before any shop drawings.
- Work is commenced.
- Figures and dimensions to be taken in preference to scaled drawings.
- This drawing is to be read in conjunction with the specification and engineers drawings.

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REVISIONS			
REV	DESCRIPTION	BY	CHK
A	DEVELOPMENT APPLICATION	VD	

DATE	22.07.10
------	----------



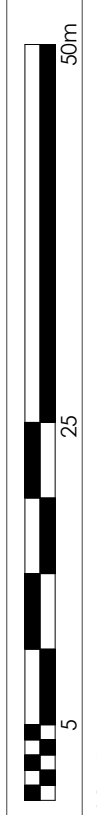
ARCHITECTURE
Project Tourism International Architecture Pty Ltd Level 10, 263 Clarence St, Sydney 2000
T (02) 9283 0880 F (02) 9283 0870 www.ptigroup.com.au ABN 90 050 071 022
Notified Registered Architect (Pty Ltd) (Reg No. 5564)

COMMERCIAL & DESIGN ARCHITECTS
INTERIOR DESIGNERS
PROPERTY DEVELOPMENT ANALYSTS & ADVISORS
FOR TOURISM, LEISURE, ENTERTAINMENT & RESIDENTIAL PROPERTIES

CLIENT:
**COOGEE BAY VILLAGE
PTY LTD**

PROJECT:
**LINDFIELD RETAIL &
RESIDENTIAL DEVELOPMENT**

DRAWING TITLE:
SITE PLAN



PRINT DATE:	7/10/2010	TRUE NORTH:	
DRAWN BY:	VD		
CHECKED BY:	AM		
PROJECT NO:	P194.1		

disc:	A	DA	02	A	revision
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ABC

Asst # 25

Sign

Date 20/10/2010

1 SITE PLAN 1:500

NOTE

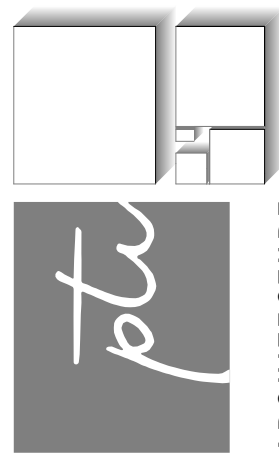
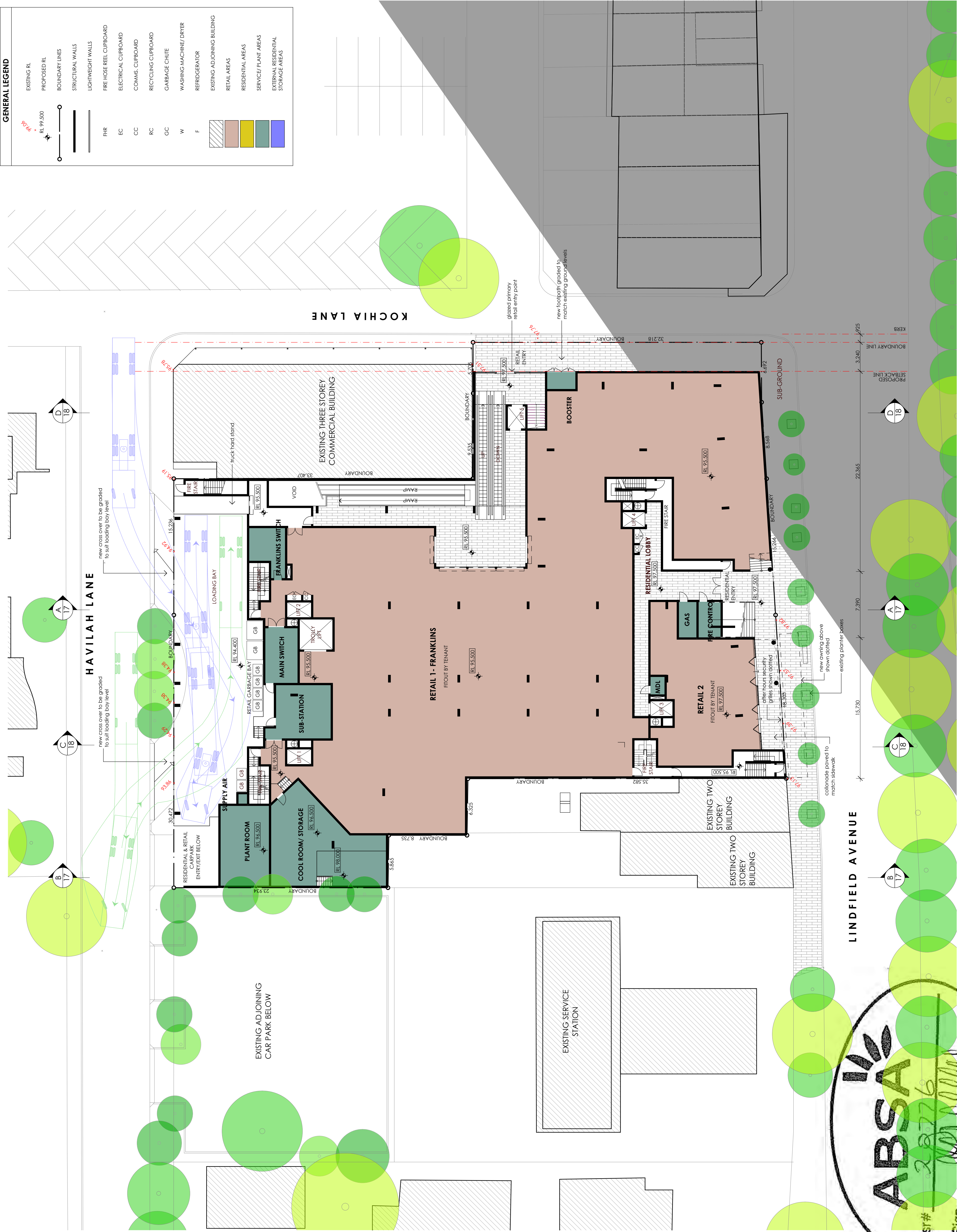
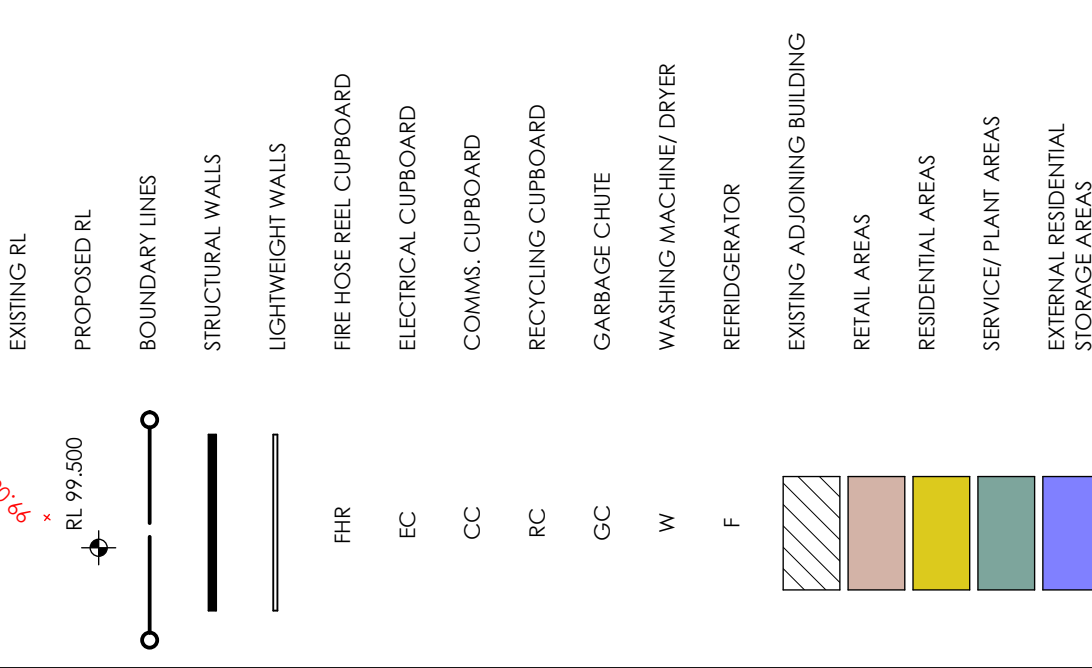
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REVISIONS

REV	DESCRIPTION	BY	CHK	DATE
A	DEVELOPMENT APPLICATION	VD	TN	22.07.10
B	UPDATED SUBMISSION WITH PROPOSED SETBACK LINE			06.10.10

GENERAL LEGEND



ARCHITECTURE
Project Tourism International Architecture Pty Ltd Level 10, 263 Clarence St Sydney 2000
T (02) 9283 0880 F (02) 9283 0870 www.ptigroup.com.au ABN 90 050 071 022
Nominated Registered Architect (Peter Iosif (Reg No. 5564))

COMMERCIAL & DESIGN ARCHITECTS
INTERIOR DESIGNERS
PROPERTY DEVELOPMENT ANALYSTS & ADVISORS
FOR TOURISM, LEISURE, ENTERTAINMENT & RESIDENTIAL PROPERTIES

CLIENT :

COOGEE BAY VILLAGE
PTY LTD

PROJECT :

LINDFIELD RETAIL &
RESIDENTIAL DEVELOPMENT

DRAWING TITLE:

UPPER GROUND LEVEL PLAN



SCALE: 1:200 @ A1, 1:400 @ A3

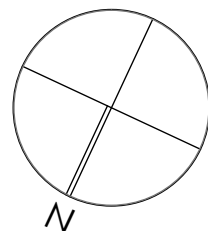
PRINT DATE: 7/10/2010

DRAWN BY: VD

CHECKED BY: AM

PROJECT NO: P194.1

TRUE NORTH:



A DA 05 B
disc stage: dwg no. revision



1 UPPER GROUND LEVEL
1:200

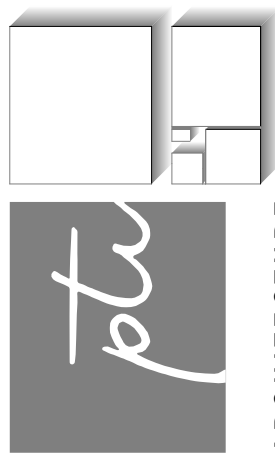
NOTE

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REVISIONS

REV	DESCRIPTION	BY	CHK	DATE
A	DEVELOPMENT APPLICATION	VO		22.07.10
B	UPDATED SUBMISSION WITH PROPOSED SETBACK LINE	TN		06.10.10



ARCHITECTURE

Project Tourism International Architecture Pty Ltd Level 10, 263 Clarence St, Sydney 2000
T (02) 9283 0880 F (02) 9283 0870 www.ptiprop.com.au ABN 90 050 071 022

Nominated Registered Architect (Peter Israel) (Reg No. 5564)

COMMERCIAL & DESIGN ARCHITECTS
INTERIOR DESIGNERS
PROPERTY DEVELOPMENT ANALYSTS & ADVISORS
FOR TOURISM, LEISURE, ENTERTAINMENT & RESIDENTIAL PROPERTIES

CLIENT :

COOGEE BAY VILLAGE
PTY LTD

PROJECT :

LINDFIELD RETAIL &
RESIDENTIAL DEVELOPMENT

DRAWING TITLE:

LEVEL 1 PLAN



SCALE: 1:200 @ A1, 1:400 @ A3

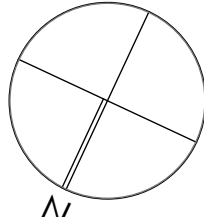
PRINT DATE: 7/10/2010

TRUE NORTH:

DRAWN BY: VD

CHECKED BY: AM

PROJECT NO: P194.1



A DA 06 B
disc stage dwg no revision

GENERAL LEGEND

- EXISTING RL
- PROPOSED RL
- BOUNDARY LINES
- STRUCTURAL WALLS
- LIGHTWEIGHT WALLS
- FHR
- EC
- CC
- RC
- GC
- W
- F
- EXISTING ADJOINING BUILDING
- RETAIL AREAS
- RESIDENTIAL AREAS
- SERVICE/PLANT AREAS
- EXTERNAL RESIDENTIAL STORAGE AREAS



LEVEL 1
1:200

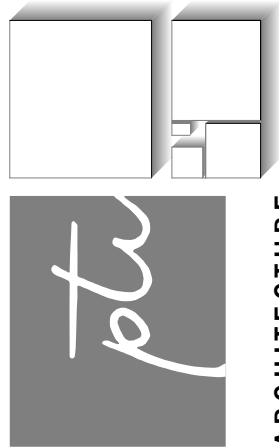
NOTE

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REVISIONS			
REV	DESCRIPTION	BY	CHK
A	DEVELOPMENT APPLICATION	VD	
B	UPDATED SUBMISSION WITH PROPOSED SETBACK LINE & REVISED LAYOUTS OF UNIT TYPE D & F	TN	

REV	DESCRIPTION	BY	CHK	DATE
A	DEVELOPMENT APPLICATION	VD		22.07.10
B	UPDATED SUBMISSION WITH PROPOSED SETBACK LINE & REVISED LAYOUTS OF UNIT TYPE D & F	TN		06.10.10



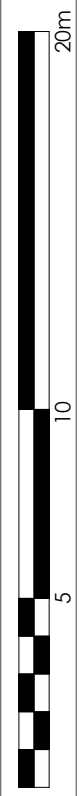
ARCHITECTURE
Project Tourism International Architecture Pty Ltd Level 10, 263 Clarence St, Sydney 2000
T (02) 9283 0860 F (02) 9283 0870 www.ptiprou.com.au ABN 90 050 071 022
Nominated Registered Architect (Peter Isreal) (Reg No. 5564)

COMMERCIAL & DESIGN ARCHITECTS
INTERIOR DESIGNERS
PROPERTY DEVELOPMENT ANALYSTS & ADVISORS
FOR TOURISM, LEISURE, ENTERTAINMENT & RESIDENTIAL PROPERTIES

CLIENT:
**COOGEE BAY VILLAGE
PTY LTD**

PROJECT:
**LINDFIELD RETAIL &
RESIDENTIAL DEVELOPMENT**

DRAWING TITLE:
LEVEL 2 PLAN



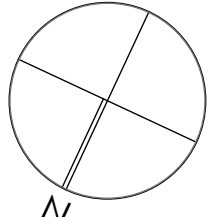
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PRINT DATE: 7/10/2010 TRUE NORTH:

DRAWN BY: VD

CHECKED BY: AM

PROJECT NO: P194.1



A DA 07 B
disc stage: dwg no. revision

GENERAL LEGEND

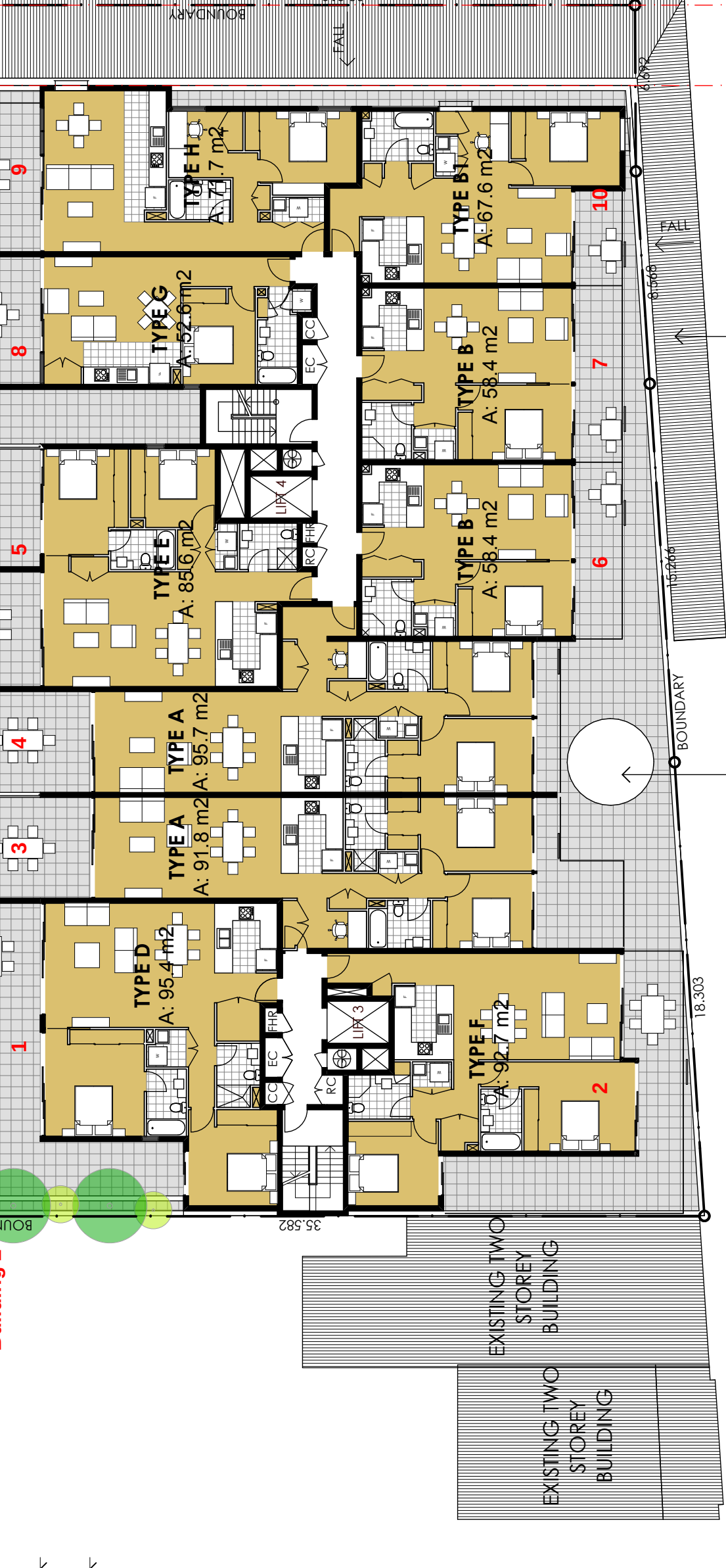
- EXISTING RL
- PROPOSED RL
- BOUNDARY LINES
- STRUCTURAL WALLS
- LIGHTWEIGHT WALLS
- FHR
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- GC
- W
- F
- EXISTING ADJOINING BUILDING
- RETAIL AREAS
- RESIDENTIAL AREAS
- SERVICE/PLANT AREAS
- EXTERNAL RESIDENTIAL STORAGE AREAS

Building 1

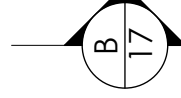
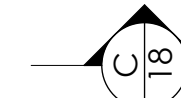
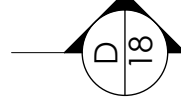


COURTYARD BELOW

Building 2



EXISTING THREE
STOREY BUILDING



1 LEVEL 2 1:200

NOTE

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- Figures and dimensions should be taken in preference to scaled dwags.
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REVISIONS

REV	DESCRIPTION	BY	CHK	DATE
A	DEVELOPMENT APPLICATION			22.07.10
B	UPDATED SUBMISSION WITH PROPOSED SETBACK LINE & REVISED LAYOUTS OF UNIT TYPE D & F	TD		06.10.10

GENERAL LEGEND

EXISTING RL

PROPOSED RL

BOUNDARY LINES

STRUCTURAL WALLS

LIGHTWEIGHT WALLS

FHR

EC

CC

RC

GC

W

F

EXISTING ADJOINING BUILDING

RETAIL AREAS

RESIDENTIAL AREAS

SERVICE/PLANT AREAS

EXTERNAL RESIDENTIAL STORAGE AREAS

PRE HOSE REEL CUPBOARD

ELECTRICAL CUPBOARD

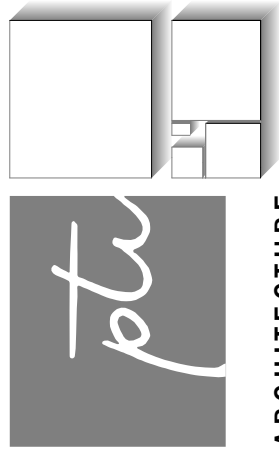
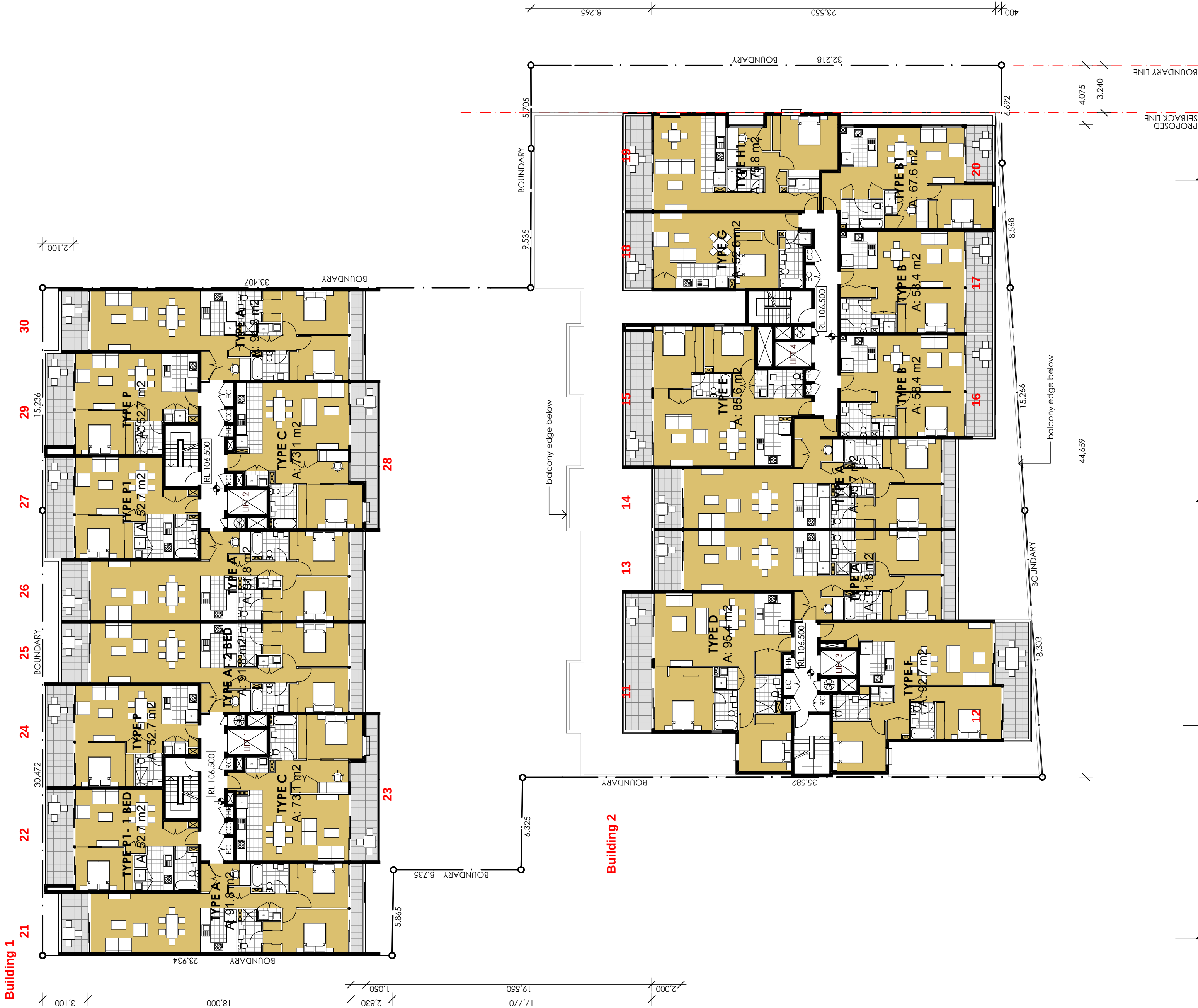
COMMS. CUPBOARD

RECYCLING CUPBOARD

GARBAGE CHUTE

WASHING MACHINE/ DRYER

REFRIGERATOR



ARCHITECTURE

Project Tourism International Architecture Pty Ltd Level 10, 263 Clarence St, Sydney 2000
T (02) 9283 0860 F (02) 9283 0870 www.ptipa.com.au ABN 90 050 071 022

Nominated Registered Architect: Peter Iosad (Reg No. 5564)

COMMERCIAL & DESIGN ARCHITECTS
INTERIOR DESIGNERS
PROPERTY DEVELOPMENT ANALYSTS & ADVISORS
FOR TOURISM, LEISURE, ENTERTAINMENT & RESIDENTIAL PROPERTIES

CLIENT:

COOGEE BAY VILLAGE
PTY LTD

PROJECT:

LINDFIELD RETAIL &
RESIDENTIAL DEVELOPMENT

DRAWING TITLE:

LEVEL 3 PLAN



SCALE: 1:200 @ A1, 1:400 @ A3

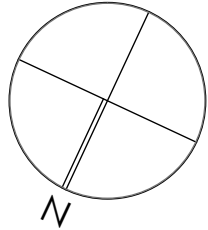
PRINT DATE: 7/10/2010

TRUE NORTH:

DRAWN BY: VD

CHECKED BY: AM

PROJECT NO: P194.1



A DA 08 B
disc stage: dwg no. revision



1 LEVEL 3
1:200

NOTE

- Contractors to verify all dimensions on site before any shop drawings work is commenced.
- Figures and dimensions to be taken in preference to scaled dwags.
- This drawing is to be read in conjunction with the specification and engineers drawings.

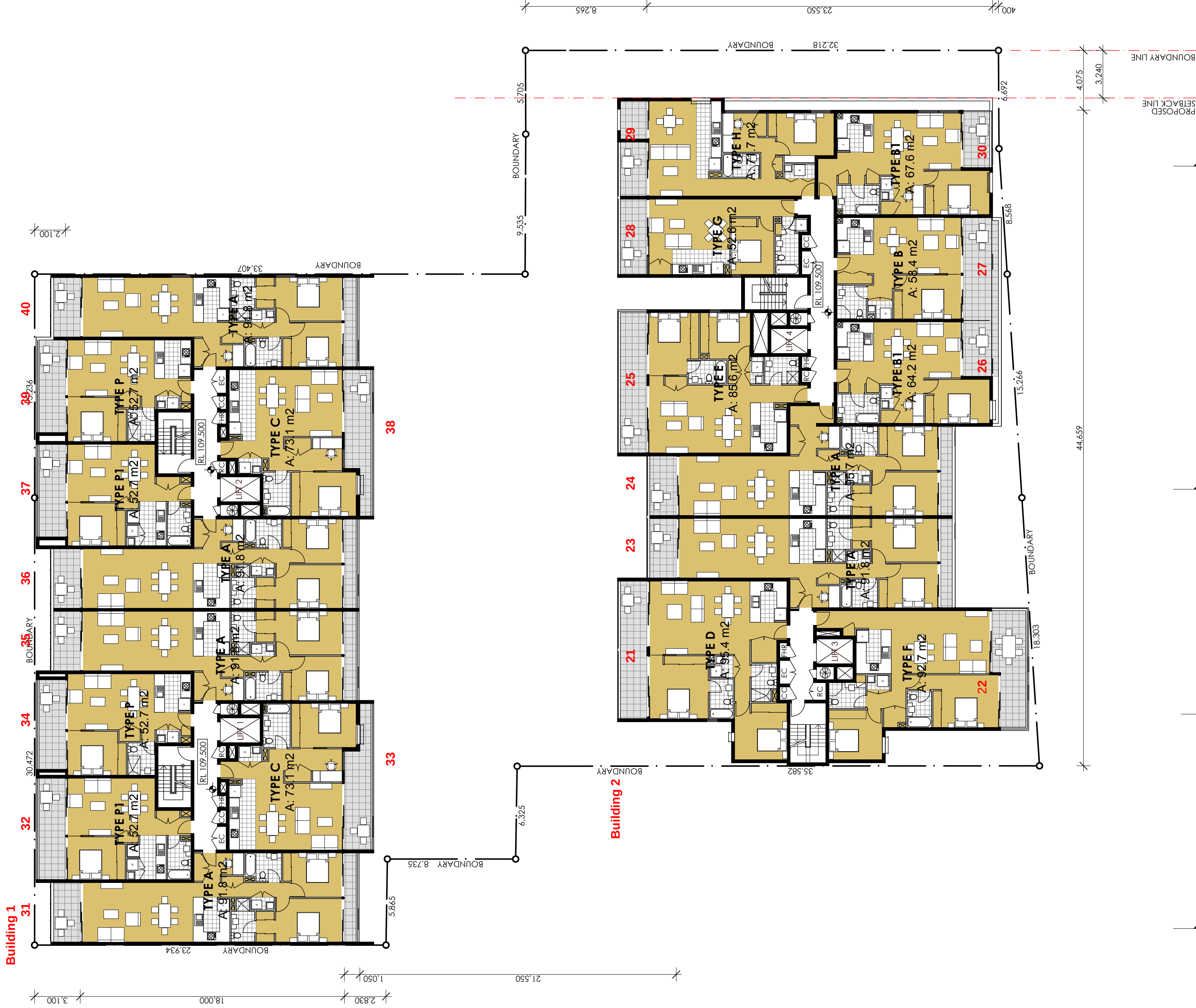
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REVISIONS

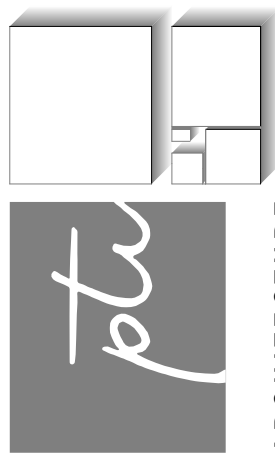
REV	DESCRIPTION	BY	CHK	DATE
A	DEVELOPMENT APPLICATION	VD		22/07/10
B	UPDATED SUBMISSION WITH PROPOSED SETBACK LINE & REVISED LAYOUTS OF UNIT TYPE D & F	TN		06/10/10

GENERAL LEGEND

EXISTING RL	PROPOSED RL
BOUNDARY LINES	STRUCTURAL WALLS
LIGHTWEIGHT WALLS	FIRE HOSE REEL CUPBOARD
FHR	ELECTRICAL CUPBOARD
EC	COMMS. CUPBOARD
CC	RECYCLING CUPBOARD
RC	GARBAGE CHUTE
GC	WASHING MACHINE/ DRYER
W	REFRIGERATOR
F	EXISTING ADJOINING BUILDING
	RETAIL AREAS
	RESIDENTIAL AREAS
	SERVICE/ PLANT AREAS
	EXTERNAL RESIDENTIAL STORAGE AREAS



1 LEVEL 4 1:200



Project Tourism International Architecture Pty Ltd Level 10, 263 Clarence St, Sydney 2000
T (02) 9283 0880 F (02) 9283 0870 www.ptgroup.com.au ABN 90 050 071 022
Nominated Registered Architect - Peter Toal (Reg no. 2564)

COMMERCIAL & DESIGN ARCHITECTS
INTERIOR DESIGNERS
PROPERTY DEVELOPMENT ANALYSTS & ADVISORS
FOR TOURISM, LEISURE, ENTERTAINMENT & RESIDENTIAL PROPERTIES

CLIENT:
COOGEE BAY VILLAGE
PTY LTD

PROJECT:
LINDFIELD RETAIL &
RESIDENTIAL DEVELOPMENT

DRAWING TITLE:
LEVEL 4 PLAN



SCALE: 1:200 @ A1, 1:400 @ A3

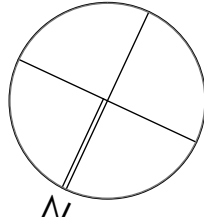
PRINT DATE: 7/10/2010

TRUE NORTH:

DRAWN BY: VD

CHECKED BY: AM

PROJECT NO: P194.1



A DA 09 B
disc stage dwg no. revision

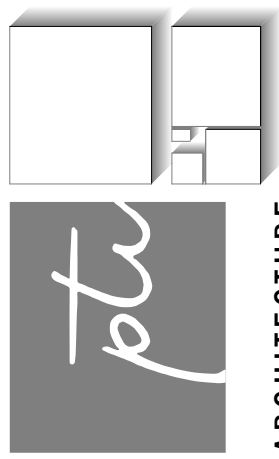
NOTE

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REVISIONS

REV	DESCRIPTION	BY	CHK	DATE
A	DEVELOPMENT APPLICATION	VD		22.07.10
B	UPDATED SUBMISSION WITH PROPOSED SETBACK LINE & REVISED LAYOUTS OF UNIT TYPE D & F	TN		06.10.10



ARCHITECTURE

Project Tourism International Architecture Pty Ltd Level 10, 263 Clarence St, Sydney 2000
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Nominated Registered Architect - Peter Ismail (Reg no. 2564)

COMMERCIAL & DESIGN ARCHITECTS
INTERIOR DESIGNERS
PROPERTY DEVELOPMENT ANALYSTS & ADVISORS
FOR TOURISM, LEISURE, ENTERTAINMENT & RESIDENTIAL PROPERTIES

CLIENT :

COOGEE BAY VILLAGE
PTY LTD

PROJECT :

LINDFIELD RETAIL &
RESIDENTIAL DEVELOPMENT

DRAWING TITLE:

LEVEL 6 PLAN



SCALE: 1:200 @ A1, 1:400 @ A3

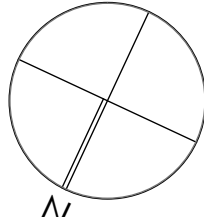
PRINT DATE: 7/10/2010

TRUE NORTH:

DRAWN BY: VD

CHECKED BY: AM

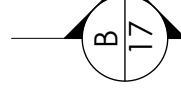
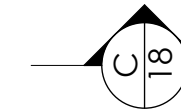
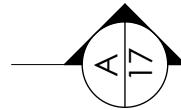
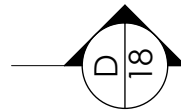
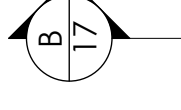
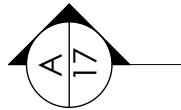
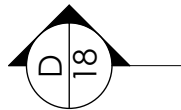
PROJECT NO: P194.1



A	DA	11	B
disc	stage	dwg no.	revision

GENERAL LEGEND

- EXISTING RL
- PROPOSED RL
- BOUNDARY LINES
- STRUCTURAL WALLS
- LIGHTWEIGHT WALLS
- FHR
- EC
- CC
- RC
- GC
- W
- F
- EXISTING ADJOINING BUILDING
- RETAIL AREAS
- RESIDENTIAL AREAS
- SERVICE/PLANT AREAS
- EXTERNAL RESIDENTIAL STORAGE AREAS



LEVEL 6
1:200

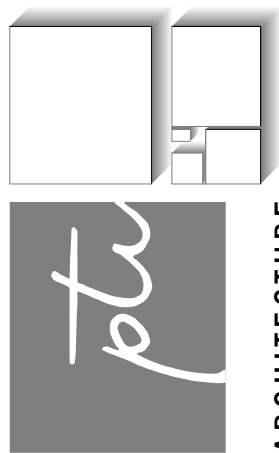
NOTE

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REVISIONS

REV	DESCRIPTION	BY	CHK	DATE
A	DEVELOPMENT APPLICATION	VD		22.07.10
B	UPDATED SUBMISSION WITH PROPOSED SETBACK LINE & REVISED THE OUTERMOST BLOCK ON THE SOUTHERN WEST OF BUILDING B	TN		06.10.10



ARCHITECTURE

Project Tourism International Architecture Pty Ltd Level 10, 263 Clarence St, Sydney 2000
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Nominated Registered Architect - Peter Ismail (Reg no. 5564)

COMMERCIAL & DESIGN ARCHITECTS
INTERIOR DESIGNERS
PROPERTY DEVELOPMENT ANALYSTS & ADVISORS
FOR TOURISM, LEISURE, ENTERTAINMENT & RESIDENTIAL PROPERTIES

CLIENT :

COOGEE BAY VILLAGE
PTY LTD

PROJECT :

LINDFIELD RETAIL &
RESIDENTIAL DEVELOPMENT

DRAWING TITLE:

LEVEL 7 PLAN



SCALE: 1:200 @ A1, 1:400 @ A3

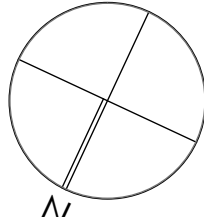
PRINT DATE: 7/10/2010

TRUE NORTH:

DRAWN BY: VD

CHECKED BY: AM

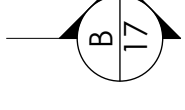
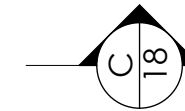
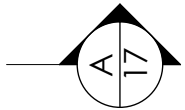
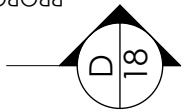
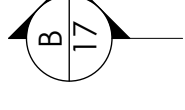
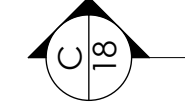
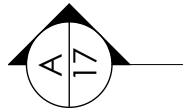
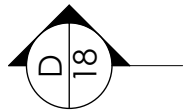
PROJECT NO: P194.1



A	DA	12	B
disc	stage	dwg no.	revision

GENERAL LEGEND

EXISTING RL	PROPOSED RL
BOUNDARY LINES	STRUCTURAL WALLS
LIGHTWEIGHT WALLS	FIRE HOSE REEL CUPBOARD
EC	ELECTRICAL CUPBOARD
CC	COMMS. CUPBOARD
RC	RECYCLING CUPBOARD
GC	GARBAGE CHUTE
W	WASHING MACHINE/ DRYER
F	REFRIGERATOR
EXISTING ADJOINING BUILDING	RETAIL AREAS
RESIDENTIAL AREAS	SERVICE/ PLANT AREAS
EXTERNAL RESIDENTIAL STORAGE AREAS	



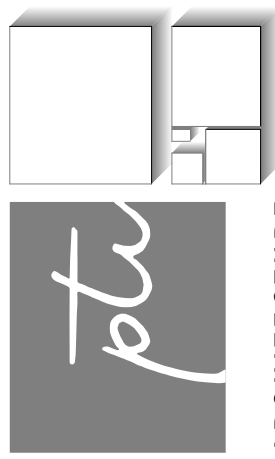
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REVISIONS

REV	DESCRIPTION	BY	CHK	DATE
A	DEVELOPMENT APPLICATION	VD		22.07.10
B	UPDATED SUBMISSION WITH PROPOSED SETBACK LINE & REVISED LAYOUTS OF UNIT TYPE D & I	TN		06.10.10



ARCHITECTURE

Project Tourism International Architecture Pty Ltd Level 10, 263 Clarence St, Sydney 2000
T (02) 9283 0860 F (02) 9283 0870 www.ptigroup.com.au ABN 90 050 071 022
Nominated Registered Architect (Peter Israel) (Reg No. 5564)

COMMERCIAL & DESIGN ARCHITECTS
INTERIOR DESIGNERS
PROPERTY DEVELOPMENT ANALYSTS & ADVISORS
FOR TOURISM, LEISURE, ENTERTAINMENT & RESIDENTIAL PROPERTIES

CLIENT :

COOGEE BAY VILLAGE
PTY LTD

PROJECT :

LINDFIELD RETAIL &
RESIDENTIAL DEVELOPMENT

DRAWING TITLE:

ROOF LEVEL



SCALE: 1:200 @ A1, 1:400 @ A3

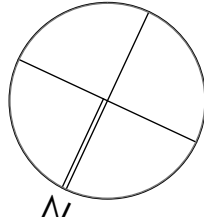
PRINT DATE: 7/10/2010

TRUE NORTH:

DRAWN BY: VD

CHECKED BY: AM

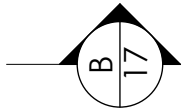
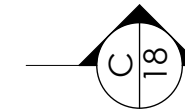
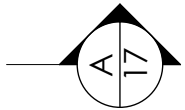
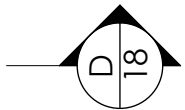
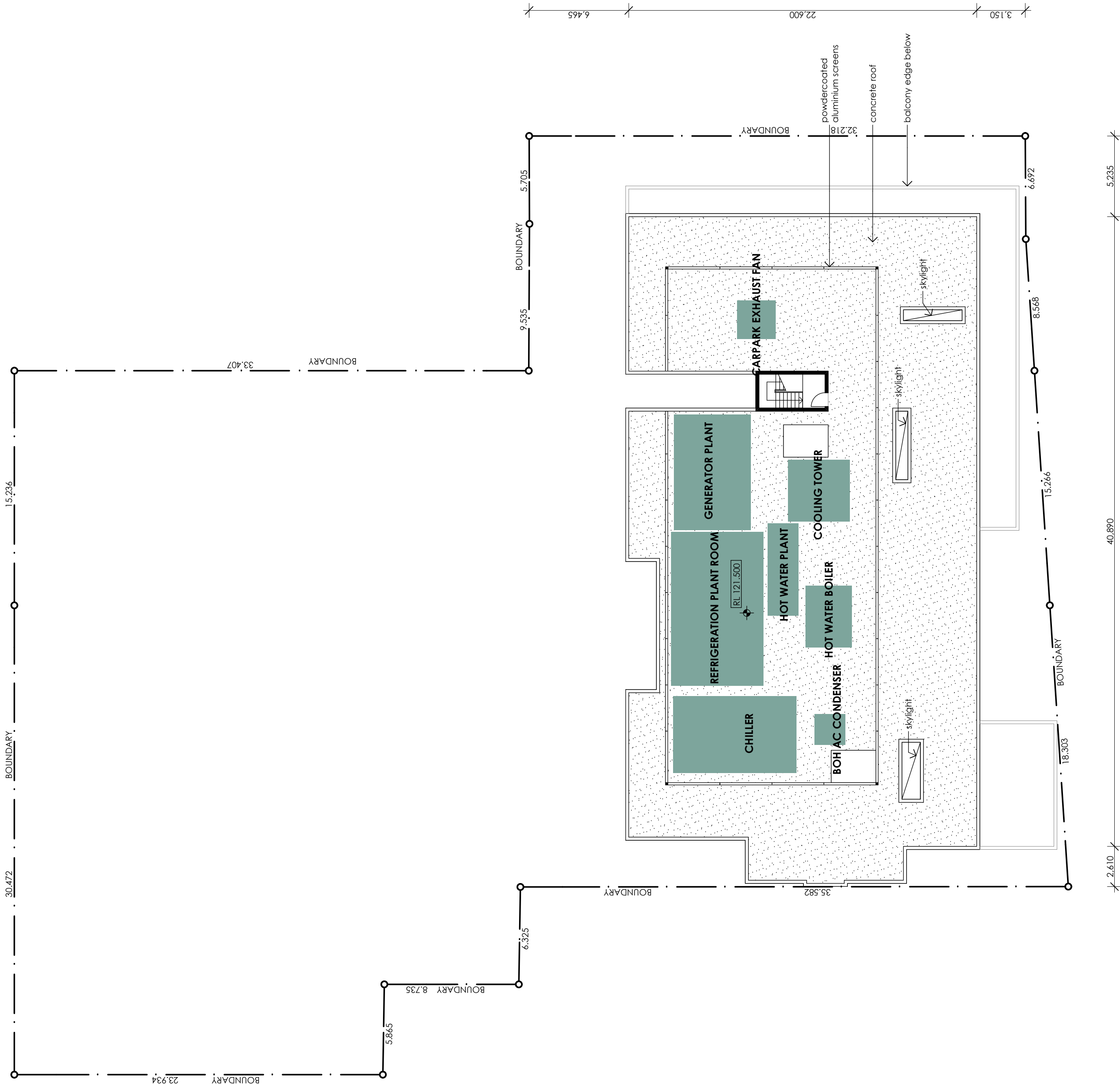
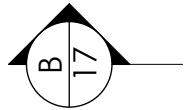
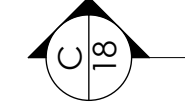
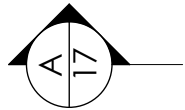
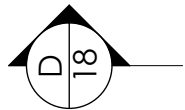
PROJECT NO: P194.1



A	DA	13	B
disc	stage	dwg no.	revision

GENERAL LEGEND

EXISTING RL	PROPOSED RL
BOUNDARY LINES	STRUCTURAL WALLS
LIGHTWEIGHT WALLS	
FHR	EC
COMMS. CUPBOARD	RC
RECYCLING CUPBOARD	GC
GARBAGE CHUTE	W
WASHING MACHINE/ DRYER	F
REFRIGERATOR	
EXISTING ADJOINING BUILDING	RETAIL AREAS
RESIDENTIAL AREAS	SERVICE/ PLANT AREAS
EXTERNAL RESIDENTIAL STORAGE AREAS	



1 ROOF LEVEL
1:200



