

BASIX[®]Certificate

Building Sustainability Index www.basix.nsw.gov.au

Single Dwelling

Certificate number: 552458S

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 Planning & Infrastructure. This document is available at www.basix.nsw.gov.au

Director-General

Date of issue: Monday, 28 July 2014

To be valid, this certificate must be lodged within 3 months of the date of issue.



Project summary		
Project name	LOT 2302 CRN COMBEWOOD AVE , EMPIRE CCT PENRITH	
Street address	COMBEWOOD Avenue PENRITH 2750	
Local Government Area	Penrith City Council	
Plan type and plan number	deposited .	
Lot no.	2302	
Section no.	-	
Project type	attached dwelling house	
No. of bedrooms	4	
Project score		
Water	✓ 41	Target 40
Thermal Comfort	✓ Pass	Target Pass
Energy	✓ 44	Target 40

Certificate Prepared by

Name / Company Name: Residential Logistics

ABN (if applicable): 59102816991

Description of project

Project address

Project name	LOT 2302 CRN COMBEWOOD AVE , EMPIRE CCT PENRITH
Street address	N/A COMBEWOOD Avenue PENRITH 2750
Local Government Area	Penrith City Council
Plan type and plan number	Deposited Plan .
Lot no.	2302
Section no.	-

Project type

Project type	attached dwelling house
No. of bedrooms	4

Site details

Site area (m ²)	297
Roof area (m ²)	119
Conditioned floor area (m ²)	110
Unconditioned floor area (m ²)	14
Total area of garden and lawn (m ²)	155

Assessor details and thermal loads

Assessor number	n/a
Certificate number	n/a
Climate zone	n/a
Area adjusted cooling load (MJ/m ² .year)	n/a
Area adjusted heating load (MJ/m ² .year)	n/a

Other

none	n/a
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Project score

Water	 41	Target 40
Thermal Comfort	 Pass	Target Pass
Energy	 44	Target 40

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.

Water Commitments	Show on DA plans	Show on CC/CDC plans & specs	Certifier check
Fixtures			
The applicant must install showerheads with a minimum rating of 3 star (> 7.5 but <= 9 L/min) in all showers in the development.		✓	✓
The applicant must install a toilet flushing system with a minimum rating of 4 star in each toilet in the development.		✓	✓
The applicant must install taps with a minimum rating of 4 star in the kitchen in the development.		✓	
The applicant must install basin taps with a minimum rating of 4 star in each bathroom in the development.		✓	
Alternative water			
Rainwater tank			
The applicant must install a rainwater tank of at least 3000 litres on the site. This rainwater tank must meet, and be installed in accordance with, the requirements of all applicable regulatory authorities.	✓	✓	✓
The applicant must configure the rainwater tank to collect rain runoff from at least 119.41 square metres of the roof area of the development (excluding the area of the roof which drains to any stormwater tank or private dam).		✓	✓
The applicant must connect the rainwater tank to: <ul style="list-style-type: none"> all toilets in the development the cold water tap that supplies each clothes washer in the development at least one outdoor tap in the development (Note: NSW Health does not recommend that rainwater be used for human consumption in areas with potable water supply.) 		✓ ✓ ✓	✓ ✓ ✓

Thermal Comfort CommitmentsShow on
DA plansShow on CC/CDC
plans & specsCertifier
check**Floor, walls and ceiling/roof**

The applicant must construct the floor(s), walls, and ceiling/roof of the dwelling in accordance with the specifications listed in the table below.



Construction	Additional insulation required (R-Value)	Other specifications
floor - concrete slab on ground	nil	
floor - suspended floor above garage, framed	0.3 (or 1 including construction) (down)	
external wall - brick veneer	1.66 (or 2.20 including construction)	
external wall - framed (weatherboard, fibre cement, metal clad)	1.80 (or 2.20 including construction)	
internal wall shared with garage - plasterboard	nil	
ceiling and roof - flat ceiling / pitched roof	ceiling: 3 (up), roof: foil/sarking	unventilated; medium (solar absorptance 0.475-0.70)

Note Insulation specified in this Certificate must be installed in accordance with Part 3.12.1.1 of the Building Code of Australia.

Thermal Comfort Commitments	Show on DA plans	Show on CC/CDC plans & specs	Certifier check
Windows, glazed doors and skylights			
The applicant must install the windows, glazed doors and shading devices described in the table below, in accordance with the specifications listed in the table. Relevant overshadowing specifications must be satisfied for each window and glazed door.	✓	✓	✓
The dwelling may have 1 skylight (<0.7 square metres) and up to 2 windows/glazed doors (<0.7 square metres) which are not listed in the table.	✓	✓	✓
The following requirements must also be satisfied in relation to each window and glazed door:	✓	✓	✓
<ul style="list-style-type: none"> Except where the glass is 'single clear' or 'single toned', each window and glazed door must have a U-value no greater than that listed and a Solar Heat Gain Coefficient (SHGC) +/-10% of that listed. Total system U-values and SHGC must be calculated in accordance with National Fenestration Rating Council (NFRC) conditions. 			✓
<ul style="list-style-type: none"> The leading edge of each eave, pergola, verandah, balcony or awning must be no more than 500 millimetres above the head of the window or glazed door, except that a projection greater than 500 mm and up to 1500 mm above the head must be twice the value in the table. 	✓	✓	✓
<ul style="list-style-type: none"> Pergolas with polycarbonate roof or similar translucent material must have a shading coefficient of less than 0.35. 		✓	✓
<ul style="list-style-type: none"> Unless they have adjustable shading, pergolas must have fixed battens parallel to the window or glazed door above which they are situated, unless the pergola also shades a perpendicular window. The spacing between battens must not be more than 50 mm. 		✓	✓

Window/glazed door no.	Orientation	Maximum area (square metres)	Type	Shading	Overshadowing
W1	S	1.08	improved aluminium, single clear (U-value:6.44, SHGC:0.75)	none	not overshadowed
W2	S	1.08	improved aluminium, single clear (U-value:6.44, SHGC:0.75)	none	not overshadowed
W3	S	1.44	improved aluminium, single clear (U-value:6.44, SHGC:0.75)	eave/verandah/pergola/balcony 901-1,200 mm	not overshadowed
W4	S	1.44	improved aluminium, single clear (U-value:6.44, SHGC:0.75)	eave/verandah/pergola/balcony 901-1,200 mm	not overshadowed
W5	W	1.92	improved aluminium, single clear (U-value:6.44, SHGC:0.75)	eave/verandah/pergola/balcony 901-1,200 mm	not overshadowed
W6	W	1.20	improved aluminium, single clear (U-value:6.44, SHGC:0.75)	none	not overshadowed

Window/glazed door no.	Orientation	Maximum area (square metres)	Type	Shading	Overshadowing
W7	N	4.62	improved aluminium, single clear (U-value:6.44, SHGC:0.75)	eave/verandah/ pergola/balcony >2,000 mm	not overshadowed
W8	S	2.16	improved aluminium, single clear (U-value:6.44, SHGC:0.75)	eave/verandah/ pergola/balcony 601-750 mm	not overshadowed
W9	S	1.44	improved aluminium, single clear (U-value:6.44, SHGC:0.75)	eave/verandah/ pergola/balcony 601-750 mm	not overshadowed
W10	S	1.44	improved aluminium, single clear (U-value:6.44, SHGC:0.75)	eave/verandah/ pergola/balcony 601-750 mm	not overshadowed
W11	W	3.36	improved aluminium, single clear (U-value:6.44, SHGC:0.75)	eave/verandah/ pergola/balcony 601-750 mm	not overshadowed
W12	W	1.20	improved aluminium, single clear (U-value:6.44, SHGC:0.75)	eave/verandah/ pergola/balcony 601-750 mm	not overshadowed
W13	W	1.20	improved aluminium, single clear (U-value:6.44, SHGC:0.75)	eave/verandah/ pergola/balcony 601-750 mm	not overshadowed
W14	N	2.80	improved aluminium, single clear (U-value:6.44, SHGC:0.75)	eave/verandah/ pergola/balcony 601-750 mm	not overshadowed
W15	E	0.72	improved aluminium, single clear (U-value:6.44, SHGC:0.75)	eave/verandah/ pergola/balcony 601-750 mm	not overshadowed

Energy Commitments	Show on DA plans	Show on CC/CDC plans & specs	Certifier check
Hot water			
The applicant must install the following hot water system in the development, or a system with a higher energy rating: gas instantaneous with a performance of 5 stars.	✓	✓	✓
Cooling system			
The applicant must install the following cooling system, or a system with a higher energy rating, in at least 1 living area: 1-phase airconditioning; Energy rating: EER 2.5 - 3.0		✓	✓
The applicant must install the following cooling system, or a system with a higher energy rating, in at least 1 bedroom: 1-phase airconditioning; Energy rating: EER 2.5 - 3.0		✓	✓
The cooling system must provide for day/night zoning between living areas and bedrooms.		✓	✓
Heating system			
The applicant must install the following heating system, or a system with a higher energy rating, in at least 1 living area: 1-phase airconditioning; Energy rating: EER 2.5 - 3.0		✓	✓
The applicant must install the following heating system, or a system with a higher energy rating, in at least 1 bedroom: 1-phase airconditioning; Energy rating: EER 2.5 - 3.0		✓	✓
The heating system must provide for day/night zoning between living areas and bedrooms.		✓	✓
Ventilation			
<p>The applicant must install the following exhaust systems in the development:</p> <p>At least 1 Bathroom: individual fan, ducted to façade or roof; Operation control: manual switch on/off</p> <p>Kitchen: individual fan, ducted to façade or roof; Operation control: manual switch on/off</p> <p>Laundry: natural ventilation only, or no laundry; Operation control: n/a</p>		<p>✓</p> <p>✓</p> <p>✓</p>	<p>✓</p> <p>✓</p> <p>✓</p>
Natural lighting			
The applicant must install a window and/or skylight in the kitchen of the dwelling for natural lighting.	✓	✓	✓
The applicant must install a window and/or skylight in 2 bathroom(s)/toilet(s) in the development for natural lighting.	✓	✓	✓

Energy Commitments	Show on DA plans	Show on CC/CDC plans & specs	Certifier check
Other			
The applicant must install a gas cooktop & electric oven in the kitchen of the dwelling.		✓	
The applicant must install a fixed outdoor clothes drying line as part of the development.		✓	

Legend

In these commitments, "applicant" means the person carrying out the development.

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).

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.

Commitments identified with a  in the "Certifier check" column must be certified by a certifying authority as having been fulfilled, before a final occupation certificate (either interim or final) for the development may be issued.

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Director-General

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Project summary		
Project name	LOT 2303 CRN COMBEWOOD AVE , EMPIRE CCT PENRITH	
Street address	COMBEWOOD Avenue PENRITH 2750	
Local Government Area	Penrith City Council	
Plan type and plan number	deposited .	
Lot no.	2303	
Section no.	-	
Project type	attached dwelling house	
No. of bedrooms	4	
Project score		
Water	✓ 42	Target 40
Thermal Comfort	✓ Pass	Target Pass
Energy	✓ 45	Target 40

Certificate Prepared by

Name / Company Name: Residential Logistics

ABN (if applicable): 59102816991

Description of project

Project address

Project name	LOT 2303 CRN COMBEWOOD AVE , EMPIRE CCT PENRITH
Street address	N/A COMBEWOOD Avenue PENRITH 2750
Local Government Area	Penrith City Council
Plan type and plan number	Deposited Plan .
Lot no.	2303
Section no.	-

Project type

Project type	attached dwelling house
No. of bedrooms	4

Site details

Site area (m ²)	272
Roof area (m ²)	128
Conditioned floor area (m2)	110
Unconditioned floor area (m2)	14
Total area of garden and lawn (m2)	144

Assessor details and thermal loads

Assessor number	n/a
Certificate number	n/a
Climate zone	n/a
Area adjusted cooling load (MJ/m ² .year)	n/a
Area adjusted heating load (MJ/m ² .year)	n/a

Other

none	n/a
------	-----

Project score

Water	 42	Target 40
Thermal Comfort	 Pass	Target Pass
Energy	 45	Target 40

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.

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The applicant must install showerheads with a minimum rating of 3 star (> 7.5 but <= 9 L/min) in all showers in the development.		✓	✓
The applicant must install a toilet flushing system with a minimum rating of 4 star in each toilet in the development.		✓	✓
The applicant must install taps with a minimum rating of 4 star in the kitchen in the development.		✓	
The applicant must install basin taps with a minimum rating of 4 star in each bathroom in the development.		✓	
Alternative water			
Rainwater tank			
The applicant must install a rainwater tank of at least 3000 litres on the site. This rainwater tank must meet, and be installed in accordance with, the requirements of all applicable regulatory authorities.	✓	✓	✓
The applicant must configure the rainwater tank to collect rain runoff from at least 127.9 square metres of the roof area of the development (excluding the area of the roof which drains to any stormwater tank or private dam).		✓	✓
The applicant must connect the rainwater tank to: <ul style="list-style-type: none"> all toilets in the development the cold water tap that supplies each clothes washer in the development at least one outdoor tap in the development (Note: NSW Health does not recommend that rainwater be used for human consumption in areas with potable water supply.) 		✓ ✓ ✓	✓ ✓ ✓

Thermal Comfort CommitmentsShow on
DA plansShow on CC/CDC
plans & specsCertifier
check**Floor, walls and ceiling/roof**

The applicant must construct the floor(s), walls, and ceiling/roof of the dwelling in accordance with the specifications listed in the table below.



Construction	Additional insulation required (R-Value)	Other specifications
floor - concrete slab on ground	nil	
floor - suspended floor above garage, framed	0.3 (or 1 including construction) (down)	
external wall - brick veneer	1.66 (or 2.20 including construction)	
external wall - framed (weatherboard, fibre cement, metal clad)	1.80 (or 2.20 including construction)	
internal wall shared with garage - plasterboard	nil	
ceiling and roof - flat ceiling / pitched roof	ceiling: 3 (up), roof: foil/sarking	unventilated; medium (solar absorptance 0.475-0.70)

Note Insulation specified in this Certificate must be installed in accordance with Part 3.12.1.1 of the Building Code of Australia.

Thermal Comfort Commitments	Show on DA plans	Show on CC/CDC plans & specs	Certifier check
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The applicant must install the windows, glazed doors and shading devices described in the table below, in accordance with the specifications listed in the table. Relevant overshadowing specifications must be satisfied for each window and glazed door.	✓	✓	✓
The dwelling may have 1 skylight (<0.7 square metres) and up to 2 windows/glazed doors (<0.7 square metres) which are not listed in the table.	✓	✓	✓
The following requirements must also be satisfied in relation to each window and glazed door:	✓	✓	✓
<ul style="list-style-type: none"> Except where the glass is 'single clear' or 'single toned', each window and glazed door must have a U-value no greater than that listed and a Solar Heat Gain Coefficient (SHGC) +/-10% of that listed. Total system U-values and SHGC must be calculated in accordance with National Fenestration Rating Council (NFRC) conditions. 			✓
<ul style="list-style-type: none"> The leading edge of each eave, pergola, verandah, balcony or awning must be no more than 500 millimetres above the head of the window or glazed door, except that a projection greater than 500 mm and up to 1500 mm above the head must be twice the value in the table. 	✓	✓	✓
<ul style="list-style-type: none"> Pergolas with polycarbonate roof or similar translucent material must have a shading coefficient of less than 0.35. 		✓	✓
<ul style="list-style-type: none"> Unless they have adjustable shading, pergolas must have fixed battens parallel to the window or glazed door above which they are situated, unless the pergola also shades a perpendicular window. The spacing between battens must not be more than 50 mm. 		✓	✓

Window/glazed door no.	Orientation	Maximum area (square metres)	Type	Shading	Overshadowing
W1	S	1.08	improved aluminium, single clear (U-value:6.44, SHGC:0.75)	none	not overshadowed
W2	S	1.08	improved aluminium, single clear (U-value:6.44, SHGC:0.75)	none	not overshadowed
W3	S	1.08	improved aluminium, single clear (U-value:6.44, SHGC:0.75)	none	not overshadowed
W4	S	1.08	improved aluminium, single clear (U-value:6.44, SHGC:0.75)	none	not overshadowed
W5	E	2.16	improved aluminium, single clear (U-value:6.44, SHGC:0.75)	none	not overshadowed
W6	E	1.20	improved aluminium, single clear (U-value:6.44, SHGC:0.75)	none	not overshadowed

Window/glazed door no.	Orientation	Maximum area (square metres)	Type	Shading	Overshadowing
W7	N	4.62	improved aluminium, single clear (U-value:6.44, SHGC:0.75)	eave/verandah/ pergola/balcony >2,000 mm	not overshadowed
W8	S	1.62	improved aluminium, single clear (U-value:6.44, SHGC:0.75)	eave/verandah/ pergola/balcony 601-750 mm	not overshadowed
W9	S	1.62	improved aluminium, single clear (U-value:6.44, SHGC:0.75)	eave/verandah/ pergola/balcony 601-750 mm	not overshadowed
W10	S	1.08	improved aluminium, single clear (U-value:6.44, SHGC:0.75)	eave/verandah/ pergola/balcony 601-750 mm	not overshadowed
W11	S	1.08	improved aluminium, single clear (U-value:6.44, SHGC:0.75)	eave/verandah/ pergola/balcony 601-750 mm	not overshadowed
W12	S	1.08	improved aluminium, single clear (U-value:6.44, SHGC:0.75)	eave/verandah/ pergola/balcony 601-750 mm	not overshadowed
W13	N	1.20	improved aluminium, single clear (U-value:6.44, SHGC:0.75)	eave/verandah/ pergola/balcony 601-750 mm	not overshadowed
W14	N	1.60	improved aluminium, single clear (U-value:6.44, SHGC:0.75)	eave/verandah/ pergola/balcony 601-750 mm	not overshadowed
W15	W	0.72	improved aluminium, single clear (U-value:6.44, SHGC:0.75)	eave/verandah/ pergola/balcony 601-750 mm	not overshadowed

Energy Commitments	Show on DA plans	Show on CC/CDC plans & specs	Certifier check
Hot water			
The applicant must install the following hot water system in the development, or a system with a higher energy rating: gas instantaneous with a performance of 5 stars.	✓	✓	✓
Cooling system			
The applicant must install the following cooling system, or a system with a higher energy rating, in at least 1 living area: 1-phase airconditioning; Energy rating: EER 2.5 - 3.0		✓	✓
The applicant must install the following cooling system, or a system with a higher energy rating, in at least 1 bedroom: 1-phase airconditioning; Energy rating: EER 2.5 - 3.0		✓	✓
The cooling system must provide for day/night zoning between living areas and bedrooms.		✓	✓
Heating system			
The applicant must install the following heating system, or a system with a higher energy rating, in at least 1 living area: 1-phase airconditioning; Energy rating: EER 2.5 - 3.0		✓	✓
The applicant must install the following heating system, or a system with a higher energy rating, in at least 1 bedroom: 1-phase airconditioning; Energy rating: EER 2.5 - 3.0		✓	✓
The heating system must provide for day/night zoning between living areas and bedrooms.		✓	✓
Ventilation			
<p>The applicant must install the following exhaust systems in the development:</p> <p>At least 1 Bathroom: individual fan, ducted to façade or roof; Operation control: manual switch on/off</p> <p>Kitchen: individual fan, ducted to façade or roof; Operation control: manual switch on/off</p> <p>Laundry: natural ventilation only, or no laundry; Operation control: n/a</p>		<p style="text-align: center;">✓</p> <p style="text-align: center;">✓</p> <p style="text-align: center;">✓</p>	<p style="text-align: center;">✓</p> <p style="text-align: center;">✓</p> <p style="text-align: center;">✓</p>
Natural lighting			
The applicant must install a window and/or skylight in the kitchen of the dwelling for natural lighting.	✓	✓	✓
The applicant must install a window and/or skylight in 1 bathroom(s)/toilet(s) in the development for natural lighting.	✓	✓	✓

Energy Commitments	Show on DA plans	Show on CC/CDC plans & specs	Certifier check
Other			
The applicant must install a gas cooktop & electric oven in the kitchen of the dwelling.		✓	
The applicant must install a fixed outdoor clothes drying line as part of the development.		✓	

Legend

In these commitments, "applicant" means the person carrying out the development.

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).

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.

Commitments identified with a  in the "Certifier check" column must be certified by a certifying authority as having been fulfilled, before a final occupation certificate (either interim or final) for the development may be issued.

COLOUR SCHEDULE



CLIENT:	CHAMPION HOMES
BUILDING ADDRESS:	LOT 2302 COMBEWOOD AVENUE, THORNTON
COLOUR SCHEME:	CUSTOM BLUEBERRY ASH SCHEME

BRICKS:
BORAL ESCURA VELOUR
MINERAL



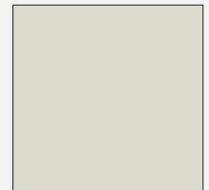
ACRYLIC RENDER TO FEATURE
ENTRY PROJECTION AND
GARAGE SURROUND FOR BOTH
GARAGES:
COLOR MATCH BRISTOL
CRACKED SLATE P236-N6



ACRYLIC RENDER TO
BALCONY AND VERANDAH
RENDER AREAS:
BRISTOL SHINING ARMOUR
P236-N5



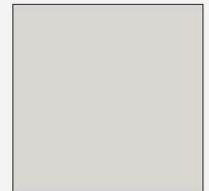
CLADDING:
BRISTOL GREY BEARD
P236-N2



ROOF TILES:
BORAL MACQUARIE
GUNMETAL



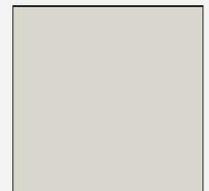
ENTRY DOOR:
COLOR MATCH BRISTOL
SILVER BELLS P236-N4
1/2 STRENGTH



GUTTERS & DOWNPIPES:
COLORBOND
MONUMENT



FASCIA:
COLORBOND
SURFMIST



WINDOWS:
SURFMIST



GARAGE DOORS:
COLORBOND
SURFMIST



Champion Homes Sales Pty Ltd ACN: 082 497 247 ABN: 33 082 497 247 Builder's Licence Number: 92732C HIA Member Number: 804674

Suite 1/600 Hoxton Park Road Hoxton Park NSW 2171 PO Box 95 Hoxton Park NSW 2171

Sales: 1300 136 200 Construction: (02) 9825 8000 Fax: (02) 9825 8110

Email: champion@championhomes.com.au Website: www.championhomes.com.au

Development Application – Semi-Detached Dwellings

Lot 2302 & Lot 2303 Empire Circuit, North Penrith

Submitted to Penrith City Council
On Behalf of Landcom

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- B** Architectural Drawings - Champion Homes Pty Ltd
- C** Subdivision Plan - Craig & Rhodes Surveyors
- D** BASIX Certificates – Building & Energy Consultants Australia
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1.0 Introduction

This Statement of Environmental Effects (SEE) is submitted to Penrith City Council in support of a Development Application (DA) for semi-detached dwellings as part of Stage 2 of the North Penrith project.

This DA seeks approval for:

- construction of 2 semi-detached dwellings and associated landscaping and parking.

Note: Penrith City Centre Local Environmental Plan 2008 defines residential accommodation as follows:

residential accommodation means a building or place used predominantly as a place of residence, but does not include tourist and visitor accommodation.

To avoid any confusion, the proposed development will be referred to as 'semi-detached dwellings' to be consistent with the Standard Instrument.

The SEE has been prepared by D-Plan Urban Planning Consultants Pty Ltd on behalf of Landcom, and is based on the Architectural Drawings provided by Champion Homes (see **Appendix B**) and other supporting technical information appended to the report (see Table of Contents).

This report describes the site, its environs, the proposed development, and provides an assessment of the proposal in terms of the matters for consideration under Section 79C(1) of the *Environmental Planning and Assessment Act 1979* (EP&A Act).

1.1 Planning Background

On 9 November 2011, the Minister for Planning approved a concurrent Concept Plan (MP 09-04536) and Project Application (MP 10-0078), and gazetted an amendment to Schedule 3 of the State Environmental Planning Policy (Major Development) 2005 for the redevelopment of the North Penrith site.

1.1.1 Concept Plan and State Significant Site Listing

The Concept Plan and the Schedule 3 amendment were intended to facilitate the development of a transit oriented and cohesive mixed uses development incorporating residential, retail, commercial, business, civic, community, industrial and recreation uses.

The statutory elements of the approved Concept Plan are contained in the Instrument of Approval and the amendment to Schedule 3 of State Environmental Planning Policy (Major Development) 2005.

The Schedule 3 amendment replaced the former local environmental planning instruments applying to the land and rezoned the land to R1 General Residential, B2 Local Centre, B4 Mixed Use, IN2 Light Industrial, RE1 Public Recreation and R2 Low Density Residential (Thornton Hall and curtilage).

The Amendment also identified:

- principal development standards that broadly guide yield and density of future development across the site;
- heritage items and nominated matters for consideration for future development to, on or within the vicinity of the heritage items must address; and
- the future consent role and approvals requirements/responsibilities.

The Concept Plan Approval included the following:

- land use type and distribution;
- approximately 900 – 1,000 dwellings, comprising a minimum of:
 - 100 seniors living/aged care dwellings;
 - 44 affordable/social housing dwellings; and
 - 44 adaptable dwellings;
- a range of dwelling typologies, building heights and densities;
- a Village Centre located adjacent to the Penrith Railway Station and centred around a public square;
- up to approximately 13,500m² of retail, business and commercial floor space;
- the retention and protection of land for Thornton Hall, a 19th Century homestead building and its associated curtilage;
- appropriate interpretation of the European and Aboriginal heritage values of the site including retention of Thornton Hall;
- an open space network (including water bodies) of approximately 7ha including the general location, level of embellishment and function of passive and active areas to serve the future residential and worker population;
- a road network and hierarchy for the site and a pedestrian, cycle and public transport network;
- a water cycle management strategy for the development; and
- strategies for the provision of other associated infrastructure including water and sewer (including a new sewer pumping station), power, telecommunications and gas.

1.1.2 Project Application

The Stage 1 Project Application granted approval for:

- subdivision to create 108 lots comprising:
 - 84 future residential lots;
 - 1 Village Centre lot;
 - 16 super lots;
 - 3 future open space lots, including 1 lot to accommodate the community centre;
 - 1 future industrial lot;
 - 1 sewer pumping station lot; and
 - 2 residue lots;
- site establishment and perimeter security measures;
- establishment of environmental and safety controls and traffic control measures;
- preparatory works, including small building demolition, trees/shrub removal, topsoil stripping and stockpiling for later reuse and the disposal of unsuitable topsoil material, and taking up and stockpiling existing concrete and asphalt hardstands and roads for later reuse in other stages of the construction works;
- bulk earthworks – cut and fill, including the importation of material to raise levels;
- sections of the retaining wall next to the Penrith Training Depot;

- roads and road intersections;
- drainage and stormwater management infrastructure;
- utilities servicing infrastructure, viz electrical, sewerage (including a sewer pumping station), telecommunications, potable water and gas;
- lots formation;
- minor works external to the site, such as footpaths;
- construction of the community pavilion;
- landscaping;
- erecting informative signage; and
- site de-establishment and handover.

Subsequent Stage Applications creating future residential allotments followed, including the subject allotments/site on which the proposed development will be situated.

1.2 Project Background

Each proposed development is subject to pre-assessment by Landcom before it is submitted to Penrith Council for DA assessment.

2.0 Site Analysis

2.1 Site Location and Context

The North Penrith site is located approximately 50 km to the west of Sydney CBD on the northern side the Penrith CBD. The North Penrith site's southern boundary adjoins the Penrith Railway Station. The North Penrith site is between Lemongrove Road to the east and Castlereagh Road to the west both of which are accessible via Coreen Avenue to the north – see **Figure 1**.

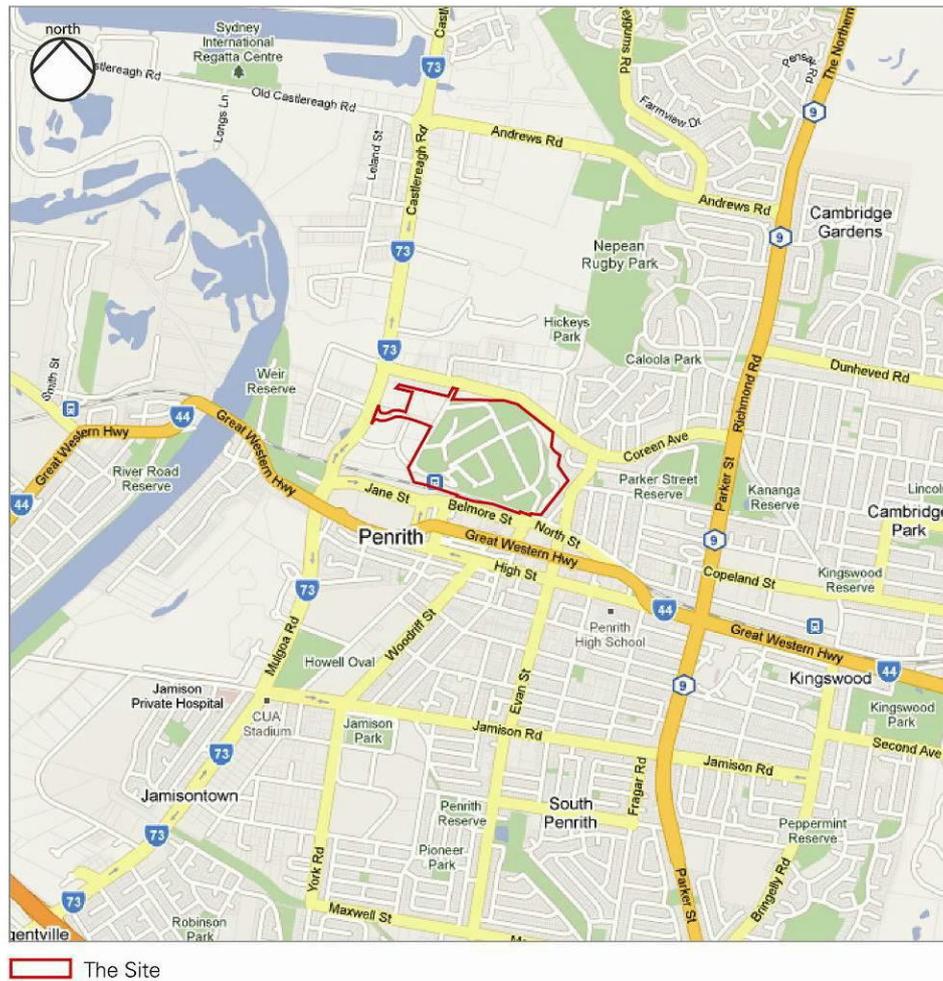


Figure 1 – Location of North Penrith site

2.2 Site Description

The subject land is known as Proposed Lot 2302 and Proposed Lot 2303 in Unregistered DP Empire Circuit, North Penrith, which is located on the northern eastern corner of Combewood Avenue and Empire Circuit, having direct frontage to both streets. The allotments are typical in shape with a primary frontage of 13.89m (excluding splay) along Combewood Avenue and 19m along Empire Circuit for Proposed Lot 2302 and 17m along Empire Circuit for Lot 2303, comprising site areas of 296.8m² and 272m² respectively.

The location of the site of the proposed development is within residential precinct **B9** as established within the Concept Plan and shown in **Figure 2**. The site is shown on the Location Plan in **Figure 3**.

The site's levels have been prepared as part of the Stage 2 Project Application earth works. Once completed, the site will have a gradual fall to from the southern boundary to the northern boundary of the site. The site is cleared of existing vegetation and does not contain any existing structures.

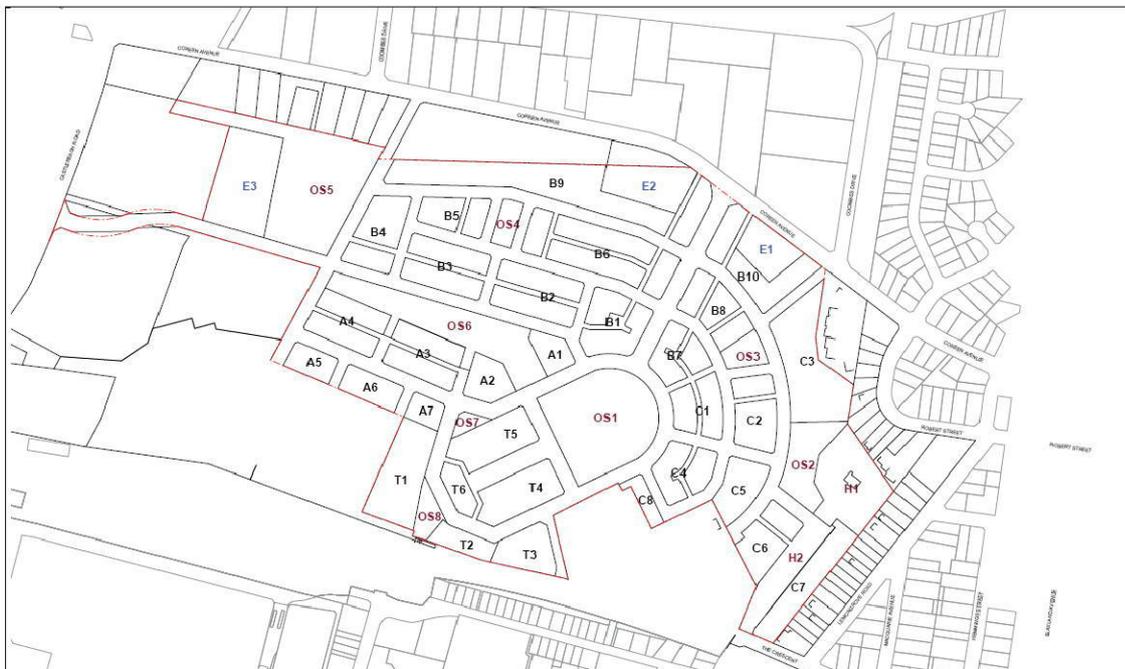


Figure 2 – Location plan



Figure 3 – Location of Integrated Housing development throughout North Penrith site

2.3 Surrounding Development

To the south and east of the site are roads with vacant allotments on the opposite side, which in the future will comprise development of a similar style and scale as proposed. To the west is open space.

The broader surrounding land uses to North Penrith as shown in **Figure 1** comprise residential, business and industrial uses including:

- industrial development north of Coreen Avenue and east ;
- the Penrith Railway Station and the Penrith Town Centre CBD to the south; and
- the existing residential suburb of Lemongrove to the east.

3.0 Description of Proposed Development

This chapter of the report provides a detailed description of the proposed development. Architectural and Landscape drawings are included at **Appendices B** and **E**.

This DA seeks approval for:

- Construction of 2 semi-detached dwellings and associated landscaping and parking.

3.1 Semi-detached Housing

The proposed development seeks approval for the construction of semi-detached dwellings. **Table 1** provides an overview of the key development information.

Architectural drawings showing the proposed dwellings are located at **Appendix B**. Landscape plans showing the proposed landscape works are located at **Appendix E**.

Table 1 - Key development information

	GFA (m ²)	Height (m)	Front Setback (m)	Rear Setback (m)	Landscape Area (m ²)	Private Open Space (m ²)	Car Spaces
Unit 1	146.29	7.722	4.534	4.13 (side)	154.67	64.24	2
Unit 2	146.28	7.711	3.0	4.13	143.54	101.54	2

The proposed development will connect to the electricity, stormwater, water, sewer, gas and telecommunication services within the road reserve which were provided as part of the Stage Project Applications in preparation for the subject DA.

3.2 Development Principles

The architectural character of each of the proposed dwellings has been designed in accordance with the development principles included in the North Penrith Design Code. As such each proposed dwelling:

- is of contemporary architectural style and character;
- the design skilfully addresses both street frontages,
- is appropriately designed to respond to the microclimate including sun, shade, breeze and general weather;
- relates well to and form a good interface with the overall subdivision, road and open space layout approved for the North Penrith site;
- incorporates appropriate durable and high quality materials, textures, forms and colours that will also complement the local landscape;
- includes opportunities for indoor/ outdoor relationships; and
- incorporates energy efficient measures.

3.3 Dwelling Form and Orientation

The proposed dwellings are two storeys in height (as set out in Table 1 above). Both units are north south orientated which enables adequate solar access to the internal and external living areas.

The bulk of the each dwelling is broken up with single storey elements and each dwelling skilfully addresses the street it has frontage to (i.e., Unit 1 faces Combewood Avenue and Unit 2 faces Empire Circuit). Living/dining rooms are positioned to the side/rear and open directly onto the outdoor courtyards and open space.

Each dwelling is similarly styled and articulated through the use of design features and building elements such as; entry features, a balcony, material selection, roof design, window placement and the use of modern and light-weight materials.

3.4 External Materials and Finishes

The proposed external materials and finishes are shown on the plans at **Appendix B** and have been selected from the Residential Design Palette included in the North Penrith Design Code to provide a contemporary appearance and ensure use of modern and lightweight materials.

3.5 Landscape and Open Space

The proposed landscape treatment for each residential lot is shown in the Landscape Plans at **Appendix E** and has been designed to contribute to the overall design of the dwellings and to provide versatile and functional outdoor living areas.

It should be noted that the landscape embellishment of the adjoining streetscapes has been delivered as part of the approved Stage Project Applications for the North Penrith site.

3.6 Access and Parking for Dwellings

The residential lots and dwellings will be accessed from Empire Circuit, being the secondary street frontage in terms of frontage length in this instance, via an integrated driveway leading directly from Empire Circuit.

Both dwellings have a single garage with a tandem space on the driveway.

3.7 Subdivision

The proposed allotments will form part of the overall subdivision of Lot 1197 in DP 117149.

The lots range in size with Proposed Lot 2302 being **296.8m²** and Proposed Lot 2303 being **272m²** respectively. A Preliminary Deposited Plan (draft plan) of the proposed subdivision is included at **Appendix C**.

3.8 Easements

The plan of subdivision will note any proposed easements and include a draft Section 88B Instrument if required.

3.9 Stormwater

The drains will connect to the stormwater drainage infrastructure within the roads, as approved as part of the Stage 1 and Stage 2 Project Applications. The proposed lots have been designed to allow stormwater to either drain directly to the road which they front onto, or via collective rear easements.

All stormwater will ultimately drain into the overall integrated stormwater management system for the broader North Penrith site.

3.10 Utility Services

Telephone, electricity, gas, water and sewer services will be installed underground within each of the adjoining road reserves. These services will be installed within trenches in the road reserves.

3.11 Erosion and Sediment Control

In carrying out subdivision works, erosion and sedimentation control measures will be implemented in accordance with the Proposed Site-Works Plan included at **Appendix B**.

4.0 Assessment of Planning Issues

This chapter contains our assessment of the environmental effects of the proposed development as described in the preceding chapters of this report.

Under Section 79C(1) of the EP&A Act, in determining a development application the consent authority has to take into account a range of matters relevant to the development including the provisions of environmental planning instruments; impacts of the built and natural environment, the social and economic impacts of the development; the suitability of the site; and whether the public interest would be served by the development.

A number of planning issues which would usually be considered as part of a DA were addressed as part of the Concept Plan and Project Application Environmental Assessments. As the proposed development is consistent with the Concept Approval this does not require further assessment (see Section 4.2). The issues include:

- Social and Economic Issues
- Community Services and Facilities
- Transport and Accessibility
- European Heritage
- Indigenous Heritage
- Geotechnical, Soil and Contamination
- Biodiversity
- Visual Impact
- Water and Hydrology
- Ecological Sustainable Development
- Utilities and Infrastructure
- Crime and Public Safety

Pursuant to Section 75P(1)(a) of the EP&A Act, Schedule 3 of the North Penrith Concept Approval sets out specific future environmental assessment requirements that apply to future development under Part 4 of the EP&A Act.

Accordingly, the assessment provided in this SEE includes the aforementioned matters in addition to other potential planning issues which are relevant to the detailed design of the building under the Concept Approval.

4.1 Compliance with Relevant Strategic and Statutory Plans and Policies

The following legislation, strategies and planning instruments, which are relevant to the proposed development to be addressed:

- State Environmental Planning Policy 55 – Remediation of Land (SEPP 55);
- State Environmental Planning Policy (Major Development) 2005 (Major Development SEPP);
- State Environmental Planning Policy (BASIX) 2008 (SEPP BASIX);
- Penrith Development Control Plan 2006;
- Penrith City Centre Development Control Plan 2007; and
- North Penrith Design Code 2013.

The DA's consistency and compliance with the relevant statutory plans and policies is located in **Table 2** below and in the detailed Table of Compliance at **Appendix I**. Variations to, and non-compliance with, the key standards and guidelines highlighted in the table are discussed in detail in the following sub-sections of this environmental assessment.

Table 2 – Summary of consistency with key strategic and statutory plans and policies

Instrument/Strategy	Comments	
State Planning Instruments and Controls		
SEPP 55	The Stage Project Applications will undertake the necessary works to ensure the site is suitable for the proposed residential use.	
SREP No. 20 Hawkesbury Nepean River	The proposed development complies with the broad aims and objectives of the SREP in that it will not have any direct impact on any environmentally sensitive areas, or the water quality or quantity of the aquatic ecosystem on the site, which the SREP seeks to preserve.	
SEPP (Major Development)	Division 2 Part 3A Projects	The project does not meet the criteria in Division 2 and is therefore a DA to Council under Part 4 of the EP&A Act.
	Clause 9 - Zone R1 General Residential	Semi-detached dwellings are permissible in the R1 General Residential Zone.
	Clause 14 – Subdivision	Separate application.
	Clause 16 - Minimum Subdivision Lot Size (120m ²)	The proposed lots are equal to or above the minimum lot size of 120m ² .
	Clause 17 - Residential Densities and Minimum Lot Sizes for Specific Development (120m ²)	The proposed lots are above the minimum lot size of 120m ² . Therefore development for semi-detached dwellings may be carried out.
	Clause 18 - Height of Buildings (12m - SEPP Map)	The proposed development will have a maximum height of 7.722m and therefore complies with the maximum height in the SEPP.
SEPP (BASIX)	A BASIX Certificate is included at Appendix D .	

Instrument/Strategy	Comments	
Local Planning Instruments and Controls		
North Penrith Design Code	Housing Density and Diversity	The proposed development will generally achieve the sub-precinct dwelling target range of 181-313 shown in Figure 6 of the Design Code.
	Subdivision	A separate application establishes the allotments on which the proposed semi-detached dwellings will be situated.
	Building Envelopes	The proposed development complies with the building envelope controls in Section 3.3 of the Design Code. See Section 4.3.4 below.
	Building Design and Articulation	The proposed development complies with the Building Design and Articulation controls in Section 3.4 of the Design Code. See Section 4.3.4 below.
	Private Open Space and Landscaping	The proposed development complies with the Private Open Space and Landscaping controls in section 3.5 of the Design Code. See Section 4.4 below.
	Fencing	The proposed fencing has been provided in accordance with Section 3.6 of the Design Code.
	Garages, Site Access and Parking	The proposed development complies with Section 3.7 of the Design Code.
	Visual and Acoustic Amenity	The proposed development complies with Section 3.8 of the Design Code.
	Specific Provisions - Key Sites	The proposed site is not identified in Figure 14 of the Design Code as an "Innovation Lot."
	Specific Provisions - Ancillary Dwellings	The proposed development does not comprise any ancillary dwellings.

4.2 Consistency with the Concept Plan

The North Penrith Concept Plan Approval established the vision and planning framework to be used by Penrith Council to assess the detailed design of the future buildings on the site. The Concept Plan Approval contains:

- Terms of Approval;
- Future Environmental Assessment Requirements;
- Statement of Commitments; and
- North Penrith Design Code.

The proposed development is consistent with the Concept Plan Terms of Approval and Statement of Commitments in that the proposed land-uses and subdivision pattern are generally consistent with the approved Concept Plan Maps.

4.3 Urban Design and Built Form

The proposed design and layout for development is considered suitable given that:

- the provision of more compact and efficiently shaped allotments enables affordable, yet amenable dwelling designs to be constructed;
- the subdivision pattern maximises the opportunity for a greater number of dwellings to obtain views across the public open space and the public domain; and
- the dwelling designs endeavour to ensure that a high quality product continues to be delivered within the North Penrith site.

4.3.1 Subdivision

The allotments on which the proposed semi-detached dwellings will be located will be established under a separate application, which will demonstrate the suitability of the allotments in terms of:

- The likely building zones and zero lot boundaries
- Allotments which are large enough to accommodate higher densities

Note:

A variety of allotment sizes is encouraged within the R1 – General Residential Zone of Penrith City Centre Local Environmental Plan 2008.

4.3.2 Design Quality

The proposed dwelling designs endeavour to ensure that a high quality product continues to be delivered within the North Penrith site that generally accord with the objectives and outcomes sought by the North Penrith Design Code. The proposed dwellings will have a positive impact upon the built environment and streetscape in that:

- The proposed two storey dwellings will add to the mix of one, two and three storey dwellings in the estate, which provide built variety to the streetscape;
- the proposed dwellings are sympathetic in terms of scale, height, bulk and design in accordance with that envisaged in the Design Code;
- the dwellings are appropriately designed to respond to the microclimate including sun, shade, breeze and general weather;
- the dwellings offer the ability to form a good interface with the public domain, through presentation to each street;
- the dwellings incorporate appropriate materials, textures, forms and colours that complement the local landscape and other future residential development;
- the dwellings incorporate energy efficient measures;
- the proposed designs ensure that affordable housing designs are provided to the market; and
- Both dwellings have private outdoor spaces in the form of courtyards or soft landscaped areas which contribute to softening the form of the dwellings.

4.3.3 Streetscape

As shown in the proposed architectural drawings at **Appendix B**, the proposed design for the dwellings will have a positive impact on the North Penrith site as a whole and the local streetscape for the following reasons:

- the proposed designs will provide an attractive and varied streetscape to each street;
- the proposed designs are of a high quality contemporary architectural design which will contribute to the character of the local environment and provide an attractive visual outlook;
- the proposed dwellings will use high quality and durable finishes to ensure that they fit in with the residential character of the estate and provide visual amenity for this part of the North Penrith site;
- the dwellings are designed to address both street frontages;
- the driveway colour finishes will match the external border paving of the dwellings; and
- the use of architectural elements such as porches and balconies define the dwelling entries and facades.

4.3.4 Building Envelopes

The proposed dwellings generally comply with the minimum required building envelope controls at Section 3.3 of the North Penrith Design Code. The proposal provides an articulation feature which addresses both Combewood Avenue and Empire Circuit.

It appears that the proposal complies with all of the numeric requirements of this section, and in this particular case the proposal will provide a good level of residential amenity to each dwelling and the adjacent property.

4.3.5 Overshadowing

The Architectural Plans at **Appendix B** include shadow diagrams depicting the shadows cast by each dwelling at 9am, 12noon and 3pm during the winter solstice.

These diagrams show that the development is able to achieve the required 2 hours of solar access between 9am and 3pm during the winter solstice and shadows cast by the development fall towards the street.

4.3.6 Privacy

The proposed dwellings have been designed to minimise the potential for adverse visual and acoustic privacy impacts on the adjacent dwellings through the provision of zero lot line. Furthermore, the main living rooms are all located on the ground floor and face Combewood Avenue and Empire Circuit. Bedrooms are located on the first floor. Both dwellings provide adequate setbacks, (as discussed above) so as not to impact on the visual privacy of neighbouring dwellings.

4.3.7 Internal Amenity

The internal layouts of the dwellings provide open plan layouts for ease of movement and efficient use of space. All bedrooms are adequately sized, generally have built in storage and have easy access to bathrooms.

4.3.8 Energy Efficiency

A BASIX certificate has been prepared for the proposed development and is included at **Appendix D**.

The certificate indicates that the BASIX scores for the units meet or exceed the BASIX target rates for water, thermal comfort and energy.

The BASIX commitments that form part of this proposal include the use of water efficient fixtures and energy efficient cooling, heating and ventilation systems and appliances, and the provision of rainwater tanks and insulation.

4.4 Landscape Design

Each dwelling will be landscaped in accordance with the Landscape Plans included at **Appendix E**.

These plans, designed in accordance with the development controls for private open space and landscaping are included at Section 3.5 of the North Penrith Design Code.

The concept landscape schemes for each lot, including the design and location of hard and soft landscaped areas and indicative planting schemes, have been matched to each dwelling to ensure compatible design and function.

Based on the site's characteristics and proposed dwelling designs for the development, the landscape design for each lot is appropriately structured to take into consideration:

- views;
- northerly aspects;
- prevailing westerly winds; and
- the location of easements and on-site services.

As a result of these considerations the resulting landscapes will:

- create gardens that are compatible in scale and form with the dwellings;
- integrate outdoor and internal living areas, allowing outdoor areas to act as an extension of the internal living areas of each dwelling;
- reduce stormwater runoff, increase water infiltration and allow air and water exchange to tree roots through the use of porous and permeable paving solutions such as gravel;
- provide a microclimate for each dwelling, suited to seasonal conditions;
- reduce water consumption through the provision and use of rainwater tanks that can be used for garden watering;
- the use of water efficient plants; and
- integrate with the proposed landscaping for public areas and road reserves throughout the estate.

4.5 Construction and waste management

Construction activity involves disturbing soils during construction of dwellings and landscaping. Accordingly, there is some potential for unconsolidated soils to be eroded by water and wind action.

The Proposed Site-Works Plan submitted and included at **Appendix B**, will provide the necessary measures and will ensure that soil and sediment remains on site and is prevented from entering the broader stormwater system for the North Penrith site.

Further, all waste material resulting from construction and subdivision work on the site will be disposed of, recycled or reused in accordance with the parameters set out in the Waste Management Plan included **Appendix H**.

4.6 Stormwater management

Stormwater will run from each lot directly into the roads and kerb inlet pits before flowing into the broader integrated stormwater system for the North Penrith site as approved under the respective Project Application.

This integrated approach to the stormwater management will:

- protect natural systems – including the rehabilitated lake system and further downstream, the protected wetland and the greater Hawkesbury- Nepean Catchment;
- integrate stormwater management with the provision of open space;
- protect water quality – by filtering stormwater from the urban environment prior to draining to the lake system;
- reduce run-off and peak flows – through localised detention measures; and
- add value while maintaining development costs in its construction and long term maintenance.

4.7 Contamination

Investigations undertaken as part of the Concept Plan assessment have concluded that the site is suitable for the proposed development without need for further investigations or remediation. Hence, the site is suitable for the proposed development with regard to the issue of contamination.

4.8 Social and Economic Impacts

This proposal will further commence the transformation of vacant and disused land into a functioning and attractive residential community.

During construction, construction personnel are likely to patronise local shops and services - providing a temporary economic benefit to these businesses. New residents will also patronise local shops and services and start to develop a residential community as envisaged.

4.9 Site Suitability

The site is considered suitable for the proposed development on the basis that it:

- does not contain any heritage items, nor is it associated with heritage values;
- contains the necessary services to support development such as water, sewer reticulation, electricity and telecommunications;
- will include the necessary infrastructure to support residential development including the provision of roads and stormwater measures.

The proposed development is suitable for the site in that it:

- is permissible with consent pursuant to SEPP Major Development;
- adds to the diversity of residential development to be delivered throughout the North Penrith site;
- provides a more affordable housing typology to that of single freestanding dwellings;
- will provide diversity in the design outcomes for the streetscapes throughout the North Penrith site;
- the development generally complies with the relevant built form development controls within the North Penrith Design Code; and
- will provide additional housing choice for local populations.

4.10 Public Interest

The development proposed in this application will contribute to the overall delivery of a unique residential development that will complement and support the Penrith Town Centre as envisaged by the approved Concept Plan and North Penrith DC. Hence, no element of the proposal will be detrimental to the public interest.

5.0 Conclusion

This DA seeks approval for semi-detached dwellings as part of Stage 2 of the North Penrith Project.

The proposed dwellings have been skilfully designed and will contribute to the streetscape amenity of both Combewood Avenue and Empire Circuit. Each dwelling will have a high level of residential amenity through the provision of private open space, landscaping, car parking and appropriately located site facilities.

The proposed development is consistent with the approved Concept Plan and satisfies all the relevant Future Environmental Assessment Requirements and relevant Concept Plan Statement of Commitments.

Furthermore, the development:

- is consistent with the objectives of SREP No.20 – Hawkesbury – Nepean River;
- is generally consistent with the provisions of SEPP Major Development and the North Penrith Design Code ;
- will deliver an efficient dwelling layout based on the subdivision plan that is consistent with the expectations set by the Concept Plan and Projection Application approvals;
- will implement suitable sediment and erosion measures during construction to ensure minimal impact to stormwater quality;
- will further progress the transformation of predominantly vacant land into a functioning and attractive residential community which will have economic and social benefits to the wider community;
- provide dwelling designs that are of a high quality contemporary architectural design and generally comply with the Design Code built form development controls;
- add to the varied and diverse streetscape within the North Penrith site; and
- more affordable dwelling designs and a greater range of housing choice will be provided to purchasers.

In light of the merits of the proposal and in the absence of any significant adverse environmental, social or economic impacts, we have no hesitation in recommending that the application be approved subject to standard conditions of consent.

6.0 DA Deliverables Checklist

	Provided	Copies
Architectural Drawings (scale):	✓	
Site Analysis <i>This must include:</i> <ul style="list-style-type: none"> ▪ Site Boundaries and dimensions. ▪ Contours or Australian Height Datum ground levels. ▪ Existing services/ easements. ▪ Any geotechnical hazards or restricted development areas. ▪ Location of existing buildings/structures. ▪ Location of existing trees (including girth and spread of canopy) and significant vegetation/topographical features. ▪ Street features 	✓	9
Site plan (1:200) <i>A site plan is an aerial view of the land showing the existing and proposed development. These should include:</i> <ul style="list-style-type: none"> ▪ The location of the land, the measurements of the boundaries of the land, and which direction is north. ▪ The location and uses of buildings, structures, swimming pools and fences that are proposed and already on the land. ▪ The distances to boundaries and other structures from the proposed development. ▪ The existing and proposed levels of the land (provide AHD levels on flood affected properties). ▪ The extent of any cut or fill and details of proposed retaining walls. ▪ The location of any trees (including street trees), their species names and canopy diameter. ▪ The location and width of any easement, right of ways and watercourses. ▪ The location of driveways, laybacks and utility installations (such as light poles) where applicable. ▪ The landscape area calculation. ▪ The location and uses of buildings on sites that adjoin the land. 	✓	9

	Provided	Copies
<p>Floor plans (1:100) <i>A floor plan is an aerial view of the internal layout of the development. These should include:</i></p> <ul style="list-style-type: none"> ▪ <i>The layout of the proposed and existing rooms, the room names, areas and dimensions.</i> ▪ <i>The window and door locations and sizes.</i> ▪ <i>The wall structure type and thickness.</i> ▪ <i>The floor levels (provide AHD levels on flood affected properties).</i> 	√	9
<p>Elevation plans (1:100) <i>An elevation plan is an external view of the proposed development. These should include:</i></p> <ul style="list-style-type: none"> ▪ <i>The side on views of each profile of the proposed development.</i> ▪ <i>The external walls and ridge heights.</i> ▪ <i>The window and door locations and sizes.</i> ▪ <i>The external materials and finishes.</i> ▪ <i>For additions and alterations you must clearly distinguish between the existing and proposed work.</i> 	√	9
<p>Section plans (1:100) <i>Showing a cut through of the development at important or typical points. These should include:</i></p> <ul style="list-style-type: none"> ▪ <i>The section names and their location on the floor plan.</i> ▪ <i>Proposed construction methods for floors, walls and roofs.</i> ▪ <i>Floor to ceiling heights.</i> 	√	9
<p>Shadow diagrams (9am, 12pm, 3pm on June 21) <i>Show the location of building footprints on adjoining properties where affected by any shadow.</i></p>	√	9
<p>Notification plan <i>A4 copy of the site plan and an elevation plan.</i></p>	√	1
<p>Statement of Environmental Effects <i>This must include:</i></p> <ul style="list-style-type: none"> ▪ <i>Site suitability</i> ▪ <i>Access and traffic</i> ▪ <i>Streetscape and design</i> ▪ <i>Services</i> ▪ <i>Privacy, views and overshadowing</i> ▪ <i>Social and economic effects</i> ▪ <i>Flora and fauna</i> ▪ <i>Planning policies and controls</i> 	√	9

	Provided	Copies
<p>Landscape Plan This must include:</p> <ul style="list-style-type: none"> ▪ All existing trees, landscape features and prominent structures. ▪ A schedule of proposed planting, including botanic name, common name, expected mature height and staking requirements. ▪ Details indicating a minimum of 300mm of good quality topsoil to all garden beds. ▪ Details indicating a minimum of 150mm of good quality topsoil to all park areas. ▪ All garden bed areas to be clearly defined by brick, concrete or timber edging with its top edge finishing flush with the surface of adjacent grass areas. 	√	9
<p>Erosion / Sediment Control Plan This plan should detail the sediment and erosion controls to be installed on site, including: site access, division of water, sediment basins and pump outs, sediment fences, gutter protection, stock piles, dust control.</p>	√	9
<p>Drainage Plan This plan should include:</p> <ul style="list-style-type: none"> ▪ Pipe sizes and location ▪ Size and location of pits ▪ On-site detention areas ▪ Stormwater calculations 	√	9
<p>Waste Management Plan The Plan must be in accordance with the requirements of Council's Development Control Plan for Control and Minimisation of Waste. It should also include:</p> <ul style="list-style-type: none"> ▪ Location of waste storage area (garbage and recycling) ▪ Location of collection area ▪ Construction of storage room ▪ Number of bins (garbage and recycling) ▪ Hours of collection 	√	9
<p>Subdivision Plans This must include:</p> <ul style="list-style-type: none"> ▪ Existing and proposed subdivision pattern ▪ Number and size of lots ▪ Road locations and dimensions 	√	9
<p>BASIX Certificate/s List the schedule of commitments for the application.</p>	√	9

	Provided	Copies
<p>Land owners consent <i>A signature from the landowner consenting to the proposed development.</i></p>	✓	1
<p>Signed DA Form <i>The complete DA form along with all of the deliverables found in this table.</i></p>	✓	1
<p>CD of DA <i>A CD the complete DA package (i.e. all the items listed on this checklist). Note: a copy of the DA form and land owners consent do not need to be provided on the CD.</i></p>	✓	1

APPENDIX “A”

SITE SURVEY

APPENDIX “B”

ARCHITECTURAL PLANS

APPENDIX "C"

**SUBDIVISION PLANS &
DRAFT SECTION 88B INSTRUMENT**

APPENDIX “D”

BASIX CERTIFICATES

APPENDIX "E"

LANDSCAPE PLAN

APPENDIX "F"

**SIGNED DA FORM
&
OWNERS CONSENT**

APPENDIX “G”

NOTIFICATION PLANS

APPENDIX “H”

WASTE MANAGEMENT PLAN



Waste Management Plan

Lot 2302 & 2303 Empire Circuit, North Penrith

**Prepared by:
D-Plan Urban Planning Consultants Pty Ltd
PO Box 201, Liverpool, NSW, 1871
Ph: (02) 9802 5030**

Waste Management Plan

Proposal

Site Address

Lot 2302 & 2303 Empire Circuit, North Penrith

Applicant

Champion Homes
PO Box 95
Hoxton Park, NSW, 2171
PH: (02) 9825 8000
Fax: (02) 9825 8110

Existing Structures on Site

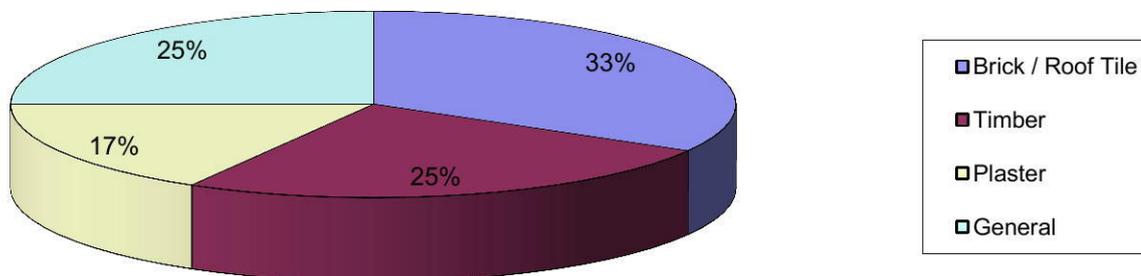
Vacant Lot

Description of Proposal

To erect Semi-Detached Dwellings

Summary

Construction Waste Estimates 12m3



Demolition Phase – N/A (Vacant Lot)

MATERIALS ON SITE	DESTINATION				
	Reuse and Recycle				Disposal
Type of materials estimated	Vol (*m3)	Wt (*t)	ON – SITE Proposed reuse and/or Recycling Methods	OFF – SITE Contractor and/or Recycling outlet	Contractor and/or Landfill Site

General waste may contain interior tiles (ceramic and other), plastics and glass. Waste is separated at recycling station nominated

- Green waste may comprise surface scrape, tree stumps and green materials, taken away by contractor for mulching.

Construction Phase

MATERIALS ON SITE	DESTINATION				
	Reuse and Recycle			Disposal	
Type of materials estimated	Vol (*m3)	Wt (*t)	ON – SITE Proposed reuse and/or Recycling Methods	OFF – SITE Contractor and/or Recycling outlet	Contractor and/or Landfill Site
Brick / Roof tiles	4 or 33%			Veolia Construction Waste Division (formerly known as Collex)	
Timber	3 or 25%			Veolia Construction Waste Division (formerly known as Collex)	
Plasterboard	2 or 17%			Veolia Construction Waste Division (formerly known as Collex)	
General Waste	3 or 25%			Veolia Construction Waste Division (formerly known as Collex)	

General waste may contain interior tiles (ceramic and other), plastics and glass. Waste is separated at recycling station nominated

Ongoing Management

Type of waste to be generated	Expected volume per week	Proposed onsite storage	Destination
Residual waste	140 Litres	Waste bin provided by Council	Council Weekly Service
Organic waste	240 Litres	Waste bin provided by Council	Council Fortnightly Service
Recycling waste	240 Litres	Waste bin provided by Council	Council Fortnightly Service

Waste Management Guidelines Applied

*D - Plan and Champion Homes follow strict Waste Management policies of **A**void **R**euse **R**ecycle and **D**ispose.*

CONTRACTOR AND OFFSITE VENUES SUMMARY

Construction Waste Contractor

Veolia Environmental Services formerly known as Collex (Construction Waste Division)

Ph: 4961 9111

Veolia was selected as one of the largest construction recyclers with offsite sorting and recycling services. Veolia has become Australia's environmental services leader in all facets of waste management and resource recovery.

Note: It is not mandatory that the nominated contractors are used, however it is a council requirement that proof of (disposal receipts) are kept.

APPENDIX “I”

TABLE OF COMPLIANCE

Table of Compliance

STAGE 2 - Development for Semi-Detached Dwellings

Lots 2302 & 2303 Empire Circuit, North Penrith

Section	Provisions	Proposal	Compliance (Yes, No or N/A)
North Penrith Design Code – (Penrith City Council) 2011			
3.0 Residential Development			
3.1 Housing Density and Diversity	<p>Controls</p> <p>(1) Between 900 and 1,000 dwellings are envisaged across the whole precinct. To ensure that a minimum of 900 dwellings is achieved as part of a subdivision application that creates more than 20 lots, the applicant is required to demonstrate that the sub-precinct dwelling target ranges shown in Figure 6 and the table below can be achieved. Subject to agreement of Council and consultation with relevant landowners, dwelling yields may be 'traded' between sub-precincts as long as it meets overall targets and objectives of this Design Code.</p>	<p>The subdivision creating the allotments on which the proposed development will be located will achieve the sub-precinct dwelling target range of 181 – 313 dwellings shown in Figure 6 of the Design Code.</p>	<p>Yes</p>
3.2 Subdivision	<p>Controls</p> <p>(1) All applications for Torrens title subdivision proposing residential allotments:</p> <ul style="list-style-type: none"> ▪ on land identified at Figure 7, or ▪ with a site area of less than 235m² and with a lot width of less than 8m (as measured at the front facade line) <p>are to be accompanied by plans for the proposed dwellings on those lots (ie an Integrated Development Application). The minimum number of allotments within an 'integrated development' is generally to be 3, except where indicated on Figure 7 of the Design Code – see Figure 7 at end of Table. .</p> <p><i>Note: For the purposes of determining the width of an allotment, the front facade line is defined as being 3m from the front, street boundary alignment.</i></p>	<p>N/A (Separate Application)</p>	<p>N/A</p>

Section	Provisions	Proposal	Compliance (Yes, No or N/A)
	<p>(2) For residential allotments with a width greater than or equal to 8m (measured at the front facade line), the subdivision application must include a Building Envelope Plan (see example at Appendix A of the Design Code). The Building Envelope Plan is to:</p> <ul style="list-style-type: none"> ▪ demonstrate that an appropriate built form and residential amenity can be delivered on the allotment in compliance with the relevant provisions of this Design Code, ▪ nominate elements such as front and side building setbacks, the location of zero lot lines, the preferred locations of private open space and garages and specific fencing requirements, ▪ nominate the minimum yield required of any 'super-lot' and / or for residual Integrated Development Application sites. <p>These restrictions will be approved as part of the subdivision application and are to be complied with by any future application proposing a dwelling on that lot.</p>		
	<p>(3) The location of the zero lot line is to be determined with regard to allotment orientation and the ability to achieve with solar access provisions within this Design Code. Where a zero lot line is nominated on allotment on the Building Envelope Plan, the adjoining allotment is to include a 900mm easement for maintenance of the boundary wall (and any services along the side of the dwelling / garage) on the adjoining property. No overhanging eaves or the like will be permitted within the easement. The s88B instrument supporting the easement is to be worded so that Council is removed from any dispute resolution process between adjoining allotments.</p>	<p>The location of the proposed allotments enables maintenance opportunities without the need to create an easement.</p> <p>The corner site location provides opportunities to orientate the dwellings to face each street.</p>	<p>Yes</p>

Section	Provisions	Proposal	Compliance (Yes, No or N/A)
	<p>(4) For residential development within the R1 zone (except for residential flat buildings):</p> <ul style="list-style-type: none"> ▪ the lot depth is generally to be between 25m and 30m, and ▪ the minimum lot width is 4.5m (for attached dwellings / semi-detached dwellings) and 8m for dwelling houses). <p><i>Note: Variations to (4) is permitted where it is part of an 'Integrated Development Application' and the applicant can demonstrate a good level of residential amenity can be achieved to both the proposed dwellings and adjacent properties.</i></p>	<p>N/A (Separate Subdivision Application)</p> <p><u>General Comment</u></p> <ul style="list-style-type: none"> ▪ The resulting allotments will be large enough to accommodate the proposed development involving semi-detached dwellings. Higher densities are encouraged where appropriate; ▪ A variety of allotment sizes is encouraged within the R1 Zone – General Residential Zone of Penrith City Centre Local Environmental Plan 2008; and ▪ The skilful design of the development results in a high level of residential amenity to each dwelling, through the provision of: <ul style="list-style-type: none"> • usable private open space areas • access to sunlight • off street car parking • landscaping opportunities • service areas 	<p>N/A</p>

Section	Provisions	Proposal	Compliance (Yes, No or N/A)
	(5) Residential allotments should be rectangular and be oriented to facilitate siting of dwellings and private open space to take advantage of winter solar access and summer sun deflection. The use of battle-axe lots is to be avoided where possible.	Due to the irregular shape of the parent allotment and orientation of the dwellings, the width and depth of the proposed allotments varies, however, the opportunities of the site having two street frontages, justifies the site being allocated for the purpose of semi-detached dwellings.	Yes
3.3 Building Envelopes	<p>Controls</p> <p>(1) The maximum number of storeys for residential development is shown at Figure 8 of the Design Code – see Figure 8 at end of Table.</p> <p>(2) For all residential development (excluding residential flat buildings), the floor area of the third storey is to be no more than 60% of the second storey.</p> <p>(3) The location and siting of the third storey is to ensure adequate solar access and privacy for the lot and adjacent residential lots.</p> <p>(4) Development adjacent to a laneway (ie ancillary dwelling) is to be no more than 2 storeys.</p> <p>(5) For 1 - 3 storey residential development within the R1 zone (except for ancillary dwellings), a minimum floor to ceiling height of 2,550mm is to be provided) for all ground floor living spaces. A preferred height of 2,700mm is encouraged for enhanced internal amenity.</p>	<p>The proposed development is for 2 storeys and therefore complies with maximum number of storeys shown in Figure 8 of the Design Code.</p> <p>The proposed development doesn't seek approval for 3 storeys.</p> <p>The proposed development doesn't seek approval for 3 storeys.</p> <p>N/A</p> <p>The proposed development will provide a minimum floor to ceiling height of 2.735m for all ground floor living spaces.</p>	<p>Yes</p> <p>Yes</p> <p>Yes</p> <p>N/A</p> <p>Yes</p>

Section	Provisions	Proposal	Compliance (Yes, No or N/A)
	<p>(6) The maximum depth of a dwelling (exclusive of roofs and privacy screens etc) from the front boundary is:</p> <ul style="list-style-type: none"> ▪ 15m for the second storey (identified as L2 on Figures 9-10 in DESIGN CODE), ▪ 12m for any third storey component of a dwelling (identified as L3 on Figures 9-10 in the Design Code). 	No dwellings exceed the maximum dwelling depths from the front boundary.	Yes
	<p>(7) The maximum depth of an ancillary dwelling (exclusive of roofs and privacy screens etc) from the rear boundary is 8m.</p>	No ancillary dwellings are proposed.	N/A
	<p>(8) Front setbacks for residential development within the R1 Zone (except for residential flat buildings) are (see Figures 9 and 10 of the Design Code – see Figures 9 & 10 at end of Table):</p> <ul style="list-style-type: none"> ▪ between 3m and 4.5m (to the front facade line), except on the western side of H1 (Thornton Hall heritage carriageway) where the front setback from the boundary line is to accommodate tree retention and access driveway, ▪ a minimum 5.5m (and a minimum 1m behind the front facade line) for the garage, and ▪ 0m to the secondary street (for a corner allotment) except for the first 7m of allotment which to be setback at 2m to accommodate the articulation zone requirements at Section 3.4 (see Figures 9-10 of the Design Code at end of the Table). 	<p>The proposed front setbacks are within the range of 3.0m - 4.5m and therefore generally comply with control (8).</p> <p>The garages are setback 5.64m.</p>	Yes
	<p>(9) The rear setback for the ground floor level of a dwelling is 0.9m. This does not apply to garages and ancillary dwellings adjacent to a rear lane which may be built to the rear boundary. A rear setback of 3m is required for all allotments that back onto the existing residential allotments fronting Lemongrove Road and for Block C3.</p>	The proposed rear setback of 4.13m or 5.00m depending on which boundary is taken to be the rear, complies with rear setback control.	Yes

Section	Provisions	Proposal	Compliance (Yes, No or N/A)												
	<p>(10) The minimum side setback requirements for residential development within the R1 Zone (except for residential flat buildings) is to be consistent with the table below. Projections permitted into side and rear setback areas include sun hoods, gutters, down pipes flues, light fittings and electricity or gas meters, rainwater tanks and hot water units and the like.</p> <table border="1" data-bbox="533 459 1216 1070"> <thead> <tr> <th data-bbox="533 459 864 512">Dwelling type</th> <th data-bbox="864 459 1216 512">Minimum side setbacks</th> </tr> </thead> <tbody> <tr> <td data-bbox="533 512 864 624">Ancillary dwellings</td> <td data-bbox="864 512 1216 624">0m on both sides 0m to rear lane</td> </tr> <tr> <td data-bbox="533 624 864 727">Multi-unit housing, attached dwellings</td> <td data-bbox="864 624 1216 727">0m on both sides</td> </tr> <tr> <td data-bbox="533 727 864 839">Semi-detached dwellings</td> <td data-bbox="864 727 1216 839">0m to 1 side 0.9m to 1 side</td> </tr> <tr> <td data-bbox="533 839 864 908">Dwelling houses (lots <8m wide)</td> <td data-bbox="864 839 1216 908">0m on both sides</td> </tr> <tr> <td data-bbox="533 908 864 1070">Dwelling houses (lots 8m wide and greater)</td> <td data-bbox="864 908 1216 1070">0m to 1 side 0.9m to 1 side - except for where permitted by (11) below</td> </tr> </tbody> </table>	Dwelling type	Minimum side setbacks	Ancillary dwellings	0m on both sides 0m to rear lane	Multi-unit housing, attached dwellings	0m on both sides	Semi-detached dwellings	0m to 1 side 0.9m to 1 side	Dwelling houses (lots <8m wide)	0m on both sides	Dwelling houses (lots 8m wide and greater)	0m to 1 side 0.9m to 1 side - except for where permitted by (11) below	The proposed development complies with the minimum side setbacks.	Yes
Dwelling type	Minimum side setbacks														
Ancillary dwellings	0m on both sides 0m to rear lane														
Multi-unit housing, attached dwellings	0m on both sides														
Semi-detached dwellings	0m to 1 side 0.9m to 1 side														
Dwelling houses (lots <8m wide)	0m on both sides														
Dwelling houses (lots 8m wide and greater)	0m to 1 side 0.9m to 1 side - except for where permitted by (11) below														

Section	Provisions	Proposal	Compliance (Yes, No or N/A)
	<p>(11) Despite (Section 3.3.10 of the Design Code), zero setbacks on both side boundaries for ancillary dwellings and dwelling houses are permitted where the following conditions apply:</p> <ul style="list-style-type: none"> ▪ the dwellings are designed in a coordinated manner so as to ensure compliance with the relevant controls within this Design Code, in particular, the private open space, privacy and solar access provisions; ▪ construction of adjoining dwellings is undertaken either concurrently or sequentially, ▪ reciprocal maintenance easements are included on adjoining allotment title (as per Section 3.2.3 of the Design Code), and ▪ compliance with the relevant aspects of the Building Code of Australia. 	Noted	N/A
	<p>(12) Where a studio loft above a garage straddles a property boundary, the central maintenance setback is not required. Appropriate arrangements for maintenance are to be included within the stratum lot title for the studio loft.</p>	No studio lofts are proposed	N/A
	<p>(13) Variations to the building envelope controls contained within Section 3.3 of the Design Code are permitted where it is part of an 'Integrated Development Application' and the applicant can demonstrate that a good level of residential amenity can be achieved to both the proposed dwellings and adjacent properties.</p>	Noted	N/A

Section	Provisions	Proposal	Compliance (Yes, No or N/A)														
3.4 Building Design and Articulation	<p>Controls</p> <p>(1) Particular attention is to be paid to the design quality of the front facade of a dwelling. An articulation zone is to be provided in front of the front facade line as illustrated at Figures 9 and 10 of the Design Code at the end of this Table. The articulation zone:</p> <ul style="list-style-type: none"> ▪ is to be setback at least 1 metre from the front boundary, ▪ must extend at least 7m from the front boundary line along the secondary street frontage (for corner allotments), and ▪ may extend over 2 storeys (for 2 and 3 storey development). 	<p>Articulation zone design elements are proposed in accordance with Figures 9 and 10 of the Design Code and are setback more than 1m, being the minimum stipulated in the Code.</p>	<p>Yes</p>														
	<p>(2) The front articulation zone should include at least 1 primary element or 2 secondary elements from the list below. Where a primary element is included, it should have a minimum depth of 2m. The minimum depth for a secondary element is 500mm.</p> <table border="1" data-bbox="533 807 1323 1114"> <thead> <tr> <th data-bbox="533 807 887 842">Primary elements</th> <th data-bbox="891 807 1323 842">Secondary elements</th> </tr> </thead> <tbody> <tr> <td data-bbox="533 847 887 879">Verandah / porch</td> <td data-bbox="891 847 1323 879">Entry feature or porticos</td> </tr> <tr> <td data-bbox="533 884 887 943">Balcony (incl upper level balcony over garage door)</td> <td data-bbox="891 884 1323 943">Awnings or other features over windows</td> </tr> <tr> <td data-bbox="533 948 887 979">Pergola</td> <td data-bbox="891 948 1323 979">Eaves and sun shading</td> </tr> <tr> <td data-bbox="533 984 887 1016"></td> <td data-bbox="891 984 1323 1016">Window box treatment</td> </tr> <tr> <td data-bbox="533 1021 887 1053"></td> <td data-bbox="891 1021 1323 1053">Recessed or projecting architectural elements</td> </tr> <tr> <td data-bbox="533 1058 887 1090"></td> <td data-bbox="891 1058 1323 1090">Bay windows</td> </tr> </tbody> </table>	Primary elements	Secondary elements	Verandah / porch	Entry feature or porticos	Balcony (incl upper level balcony over garage door)	Awnings or other features over windows	Pergola	Eaves and sun shading		Window box treatment		Recessed or projecting architectural elements		Bay windows	<p>The articulation zone elements include:</p> <ul style="list-style-type: none"> • Wrap-around verandah and balcony • Entry feature porticos • Recessed or projecting architectural elements 	<p>Yes</p>
	Primary elements	Secondary elements															
Verandah / porch	Entry feature or porticos																
Balcony (incl upper level balcony over garage door)	Awnings or other features over windows																
Pergola	Eaves and sun shading																
	Window box treatment																
	Recessed or projecting architectural elements																
	Bay windows																
<p>(3) For corner allotments the articulation zone is to be a minimum depth of 2m from the primary and secondary frontages and may include either primary and / or secondary elements as listed above.</p>	<p>The articulation zone comprises:</p> <ul style="list-style-type: none"> • An entry feature/wrap-around verandah and balcony to the primary frontage; and • Articulated architectural element and porch along the secondary frontage. 	<p>Yes</p>															

Section	Provisions	Proposal	Compliance (Yes, No or N/A)
	(4) For allotments located on the southern, eastern and western side of a street, the articulation zone may be designed to incorporate private open space, including principal private open space.	Both units have adequate private open space areas not within the articulation zone.	Yes
	(5) Consideration should be given to expressing the third storey of a dwelling in a more light weight manner than the structure below, through the use of material and colours and the like.	N/A	N/A
	(6) Eaves are to provide sun shading, to protect windows and doors and provide aesthetic interest. Subject to 3.2.3, eaves should have a minimum of 600mm overhang (measured to the fascia board). Council will consider alternative solutions to eaves so long as they provide appropriate sun shading to windows and display a high level of architectural merit.	The proposed 450mm eaves provide adequate shading to windows and produce a well- balanced top element to the dwelling. The BASIX Certificate demonstrates that the dwellings achieve a satisfactory energy efficiency rating.	No
	(7) Building colours, materials and finishes are to be consistent the Residential Design Palette included at Appendix C of the Design Code.	Details of finished surface materials including colours and textures accompany the application and are consistent with the Design Palette for the estate.	Yes
	(8) Multicoloured roof tiles are not permitted.	The selected roof tiles are not multi-coloured.	Yes

Section	Provisions	Proposal				Compliance (Yes, No or N/A)																	
3.5 Private Open Space and Landscaping	<p>Controls</p> <p>(1) Each dwelling is required to be provided with an area of Private Open Space (POS) and Principal Private Open Space (PPOS) consistent with the table below.</p> <table border="1" data-bbox="454 440 1308 1054"> <thead> <tr> <th data-bbox="454 440 562 512"></th> <th data-bbox="562 440 757 512">Studio Loft</th> <th colspan="3" data-bbox="757 440 1308 512">Multi-unit housing, attached & semi-detached dwellings and dwelling houses</th> </tr> <tr> <th data-bbox="454 512 562 600">Lot width*</th> <th data-bbox="562 512 757 600"></th> <th data-bbox="757 512 981 600"><6m</th> <th data-bbox="981 512 1176 600">6-10m</th> <th data-bbox="1176 512 1308 600">10m+</th> </tr> </thead> <tbody> <tr> <td data-bbox="454 600 562 903">POS</td> <td data-bbox="562 600 757 903">Studio and 1 bed: 4m² & min dimension 1m 2+ bed: 8m² & min dimension 1m</td> <td data-bbox="757 600 981 903">Minimum 20% of site area & min dimension of 2m</td> <td data-bbox="981 600 1176 903">Minimum 20% of site area & min dimension of 2m</td> <td data-bbox="1176 600 1308 903">Minimum 20% of site area & min dimension of 2m</td> </tr> <tr> <td data-bbox="454 903 562 1054">PPOS</td> <td data-bbox="562 903 757 1054">n/a</td> <td data-bbox="757 903 981 1054">16m² & min dimension of 3m</td> <td data-bbox="981 903 1176 1054">18m² & min dimension of 3m</td> <td data-bbox="1176 903 1308 1054">24m² & min dimension of 4m</td> </tr> </tbody> </table> <p data-bbox="439 1070 835 1098">* measured at the Front Facade Line</p>		Studio Loft	Multi-unit housing, attached & semi-detached dwellings and dwelling houses			Lot width*		<6m	6-10m	10m+	POS	Studio and 1 bed: 4m ² & min dimension 1m 2+ bed: 8m ² & min dimension 1m	Minimum 20% of site area & min dimension of 2m	Minimum 20% of site area & min dimension of 2m	Minimum 20% of site area & min dimension of 2m	PPOS	n/a	16m ² & min dimension of 3m	18m ² & min dimension of 3m	24m ² & min dimension of 4m	<p>The private Open Space Area for each unit exceeds the minimum 20% requirement; viz:</p> <p>Unit 1 – 22% or 64.24m² Unit 2 – 37% or 101.54m²</p> <p>A Principle Open Space area of 24m² with a minimum dimension of 4m is provided for each dwelling.</p>	<p>Yes</p> <p>Yes</p>
	Studio Loft	Multi-unit housing, attached & semi-detached dwellings and dwelling houses																					
Lot width*		<6m	6-10m	10m+																			
POS	Studio and 1 bed: 4m ² & min dimension 1m 2+ bed: 8m ² & min dimension 1m	Minimum 20% of site area & min dimension of 2m	Minimum 20% of site area & min dimension of 2m	Minimum 20% of site area & min dimension of 2m																			
PPOS	n/a	16m ² & min dimension of 3m	18m ² & min dimension of 3m	24m ² & min dimension of 4m																			

Section	Provisions	Proposal	Compliance (Yes, No or N/A)
	<p>(2) The location of PPOS is to be determined having regard to allotment orientation, dwelling layout, adjoining dwellings, landscape features, and the preferred locations of PPOS illustrated at Figure 11 of the Design Code at the end of this Table.</p> <p>Where an allotment is located on the southern, eastern and western side of a street, the PPOS may be located at the front of the dwelling in the form of a front garden court, verandah or balcony. PPOS located in the front of a dwelling must be useable and adjacent to a living space.</p>	<p>The location of the PPOS is considered to be appropriate in terms of the dwelling layouts, landscape features and envisaged locations of adjoining dwellings.</p> <p>Both PPOS areas are usable and located adjacent to a living space.</p>	<p>Yes</p> <p>Yes</p>
	<p>(3) Where the PPOS is a balcony or roof top area, it must be provided with a fence or landscaped screen at least 1m in height, and be directly accessible from a habitable room.</p>	<p>N/A</p>	<p>N/A</p>
	<p>(4) The POS of the studio loft is to be located and designed so as to minimise visual and acoustic privacy impacts upon the principal dwelling and its associated POS.</p>	<p>N/A</p>	<p>N/A</p>
	<p>(5) Fifty per cent of the area of the required PPOS (of both the proposed development and the adjoining properties) should receive at least 3 hours of sunlight between 9am and 3pm at the winter solstice (21 June).</p>	<p>Both PPOS areas receive the required solar access requirement.</p>	<p>Yes</p>

Section	Provisions	Proposal	Compliance (Yes, No or N/A)
	<p>(6) The first 1m of a site, measured from the front boundary, (excluding driveways, footpaths etc) is to be soft landscaped. Landscaping within the front yard is to comprise species from the Residential Design Palette included at Appendix C of the Design Code.</p> <p><i>Note: "Private open space" (POS) means the portion of private space which serves as an extension of the dwelling to provide space for relaxation, dining, entertainment and recreation. It may include a balcony, terrace, verandah and an outdoor room / 'alfresco room'. "Principal private open space" (PPOS) means the portion of private open space which is conveniently accessible from a living area of the dwelling, and which receives the required amount of solar access.</i></p>	<p>A landscape strip in excess of 1m is provided along the front perimeter of the site as required.</p>	<p>Yes</p>
<p>3.6 Fencing</p>	<p>Controls</p> <p>(1) Front fencing is required for all residential allotments. Front fencing is to:</p> <ul style="list-style-type: none"> ▪ be between 700mm and 1.2m high (including feature elements), ▪ be generally open in design and may comprise a solid component that is no higher than 700mm, ▪ extend along the side boundaries to the front facade line (or at least 1m behind the front facade line for dwelling houses), ▪ extend along the secondary street frontage to match the length of the articulation zone, and ▪ are not to impede safe sight lines for pedestrians and / or traffic. <p>(2) The design, materials and colour of front fencing is to be consistent with the Residential Design Palette included at Appendix C of the Design Code.</p>	<p>Front fencing details are provided on the Landscape Plan, demonstrating compliance with the controls for front fencing.</p> <p>In summary, the proposed front fencing is no higher than 1.2m with an open design.</p> <p>The fencing extends along the primary and secondary street frontages and does not impede sight lines.</p> <p>The design, materials and colours of the proposed front fencing is consistent with the Design Palette.</p>	<p>Yes</p> <p>Yes</p>

Section	Provisions	Proposal	Compliance (Yes, No or N/A)
	(3) Where a dwelling is located adjacent to open space, boundary fencing is to be of a high quality material and finish. Articulated post and paling fences (with exposed posts) are preferred in these locations. The design of the fencing is to permit casual surveillance of the open space and provide the dwelling with outlook towards the open space.	N/A	N/A
	(4) Timber paling or lapped / capped fencing only can be used internally between allotments. No sheet metal fencing is permitted within the project.	Timber paling fencing is proposed as detailed on the Landscape Plan.	Yes
3.7 Garages, Site Access and Parking	<p>Controls</p> <p>(1) The maximum parking rates for multi-unit housing, attached and semi-detached dwellings and dwelling houses are:</p> <ul style="list-style-type: none"> ▪ 1-2 bedroom: 1 space per dwelling, and ▪ 3+ bedroom: 2 spaces per dwelling. <p><i>Note: See Section 3.11 and 3.12 for parking rates for ancillary dwellings and residential flat development respectively.</i></p>	Two spaces are available to each dwelling in the form of a single width garage with a tandem space on the driveway.	Yes
	(2) All visitor parking is to be provided on-street.	Available	Yes
	(3) Parking for affordable housing and seniors housing is to be in accordance with <i>State Environmental Planning Policy (Affordable Rental Housing) 2009</i> and <i>State Environmental Planning Policy (Housing for Seniors or People with a Disability) 2004</i> respectively.	N/A	N/A

Section	Provisions	Proposal	Compliance (Yes, No or N/A)
	<p>(4) The garage arrangement is to be consistent with Figures 12 and 13 of the Design Code (included at the end of this Table) in that:</p> <ul style="list-style-type: none"> ▪ for lots less than 8m wide, all garaging is to be accessed from the rear lane (if rear loaded). If there is no rear laneway, a single / tandem garage is permitted at the front, ▪ for lots between 8m and 12m wide, garaging may comprise a single / tandem front loaded garage or a rear loaded, double / tandem garage, and ▪ for lots greater than 12m wide, garaging may either comprise a double front loaded garage or a rear loaded, double / tandem garage. <p><i>Note: For the purposes of determining the width of an allotment, the front facade line is defined as being 3m from the front, street boundary alignment.</i></p>	Single garages with tandem spaces on the driveway are provided for each dwelling.	Yes
	<p>(5) The maximum width of a garage door is 3.2m and 6m for single / tandem and double garages respectively. Where a studio loft is included, its own garage or carport requires access from the rear lane.</p>	The maximum width of the garage doors is 2.41m for each dwelling with a combined width of only 4.82m.	Yes
	<p>(6) Carports and garages are to be treated as an important element of the dwelling facade and interface with the public domain. They are to be integrated with and complementary, in terms of design and material, to the dwelling design. Garage doors are to be visually recessive through use of materials, colours, overhangs and the like.</p>	Garage dominance is addressed by; recessing, emphasis on main building and design elements and the use of subservient materials and colouring.	Yes
	<p>(7) The location of driveways is to be determined with regard to dwelling design and orientation, street gully pits and tree bays and is to maximise the availability of on-street parking.</p>	The location of the driveway is appropriate to the design of the development, taking into account streetscape elements and the corner location.	Yes
	<p>(8) All parking and driveway access is to comply with AS 2890.1 - 2004.</p>	Parking and driveway access is designed in accordance with AS 2890.1 - 2004	Yes

Section	Provisions	Proposal	Compliance (Yes, No or N/A)
3.8 Visual and Acoustic Amenity	<p>Controls</p> <p>(1) Direct overlooking of main habitable areas and private open spaces of adjacent dwellings should be minimised through building layout, window and balcony location and design, and the use of screening devices, including landscaping.</p>	<p>Privacy concerns are address by:</p> <ul style="list-style-type: none"> • Positioning low impact rooms on the first floor level • Raised sills and obscure glazing where necessary • Boundary fencing & landscaping 	Yes
	<p>(2) Habitable room windows with a direct sightline to the habitable room windows in an adjacent dwelling within 3m are to:</p> <ul style="list-style-type: none"> ▪ be obscured by fencing, screens or appropriate landscaping, or ▪ be offset from the edge of one window to the edge of the other by a distance sufficient to limit views into the adjacent window, or ▪ have sill height of 1.5m above floor level, or ▪ have fixed opaque glazing in any part of the window below 1.5m above floor level. 	N/A (No direct sightlines within 3m).	N/A
	<p>(3) A screening device is to have a maximum of 25% permeability to be considered effective.</p>	N/A	N/A
	<p>(4) The design of attached dwellings must minimise the opportunity for sound transmission through the building structure, with particular attention given to protecting bedrooms and living areas.</p>	The party wall between the dwellings runs through the garages.	Yes
	<p>(5) In attached dwellings, bedrooms of one dwelling are not to share walls with living spaces or garages of adjoining dwellings, unless it is demonstrated that the shared walls and floors meet the noise transmission and insulation requirements of the Building Code of Australia.</p>	N/A	N/A

Section	Provisions	Proposal	Compliance (Yes, No or N/A)
	<p>(6) Residential development in close proximity to the railway corridor, Coreen Avenue, the east and west sides of the Boulevard, the upgraded commuter car park and those flanking the entry road from Coreen Avenue to the commuter car park, are to include design measures so as to achieve the following internal noise levels at these residences:</p> <ul style="list-style-type: none"> ▪ a target internal noise level of 35 dB(A) LAeq is to apply in the sleeping areas, and ▪ a target internal noise level of 40 dB(A) LAeq in other living areas. <p>To achieve these target levels, the acoustic performance of the most exposed facades of these residences are recommended to provide an Rw (weighted sound reduction index) + Ctr (spectrum adaptation factor) of not less than 50dB for the composite wall area. Reference can be made to the BCA for details on deemed-to-satisfy construction.</p>	N/A	N/A
	<p>(7) Residential buildings further within the development (and not affected by heavy vehicle noise along the Boulevard) may achieve a construction of 10 dB less than the above specified targets.</p>	Noted	Yes
3.9 Development in Proximity to a Rail Corridor	<p>Controls</p> <p>(1) The siting and design of developments on land sited on or within 60m of an operating rail corridor or land reserved for the construction of a railway line is to address matters raised in the Interim Guidelines for Applicants – consideration of rail noise and vibration in the planning process (RailCorp) and where appropriate, incorporate any recommendations into the design of the development.</p>	N/A	N/A
	<p>(2) In assessing applications for development on land sited on or within 60m of an operating rail corridor or land reserved for the construction of a railway line, the consent authority is to have regard to the matters raised in the Interim Guidelines for Councils – consideration of rail noise and vibration in the planning process (RailCorp) and where appropriate, any matters raised by Rail Corporation New South Wales to the development.</p>	N/A	N/A

Section	Provisions	Proposal	Compliance (Yes, No or N/A)
3.10 Specific Provisions - Key Sites – Controls See Figure 17 from Design Code	Entry Boulevard Lots		
	<ul style="list-style-type: none"> ▪ A minimum building height of 2 storeys is required for all lots. A third storey is preferred on corner lots. 	N/A	N/A
	<ul style="list-style-type: none"> ▪ Dwelling facades are to display high quality materials and finishes consistent with the Residential Design Palette (Appendix C of the Design Code). 	N/A	N/A
	<ul style="list-style-type: none"> ▪ Despite Section 3.7, all garaging is to be from the rear lane. 	N/A	N/A
	<ul style="list-style-type: none"> ▪ Front fencing is to generally consistent and assist in unifying the streetscape. 	N/A	N/A
	'Dress Circle' Park Lots		
	<ul style="list-style-type: none"> ▪ A building height of 3 storeys is encouraged for all dwellings (except for ancillary dwellings). 	N/A	N/A
	<ul style="list-style-type: none"> ▪ A high level of consistency of built form and massing is required across the dwelling frontages to achieve a harmonious streetscape and a strong urban edge to the oval. 	N/A	N/A
	<ul style="list-style-type: none"> ▪ Buildings are to take advantage of the location overlooking the oval with front balconies and terraces. 	N/A	N/A
	<ul style="list-style-type: none"> ▪ Dwellings are to display high quality materials and finishes consistent with the Residential Design Palette (Appendix C of the Design Code). 	N/A	N/A
	<ul style="list-style-type: none"> ▪ Identical facades are to be limited to no more than 4 dwellings in a row. 	N/A	N/A
	<ul style="list-style-type: none"> ▪ Despite Section 3.7, all garaging is to be from the rear lane. 	N/A	N/A

Section	Provisions	Proposal	Compliance (Yes, No or N/A)
	Innovation Lots		
	<ul style="list-style-type: none"> ▪ Housing is to demonstrate how compact, affordable dwellings can achieve a high level of internal amenity (see examples at Appendix B). 	N/A	N/A
	<ul style="list-style-type: none"> ▪ Dwellings are to be single or double storey and may include 0m side and rear setbacks. 	N/A	N/A
	Canal Edge Lots		
	<ul style="list-style-type: none"> ▪ A minimum building height of 3 storeys is encouraged for all residential dwellings (except for ancillary dwellings). 	N/A	N/A
	<ul style="list-style-type: none"> ▪ Building form and massing is to create a strong consistent edge to the canal. 	N/A	N/A
	<ul style="list-style-type: none"> ▪ Entrances stairs to dwellings off the canal walk are to be paired together. 	N/A	N/A
	<ul style="list-style-type: none"> ▪ The ground floor level and front yard / private open space of the dwellings is to be raised above the level of the pedestrian boardwalk to provide privacy for the dwellings. 	N/A	N/A
	<ul style="list-style-type: none"> ▪ Detailing of front fencing and landscaping (fronting the canal) is to balance privacy and surveillance issues. The front fencing treatment is to be of high quality and consistent along the full length of the canal frontage. 	N/A	N/A
	<ul style="list-style-type: none"> ▪ The dwelling facades are to display high quality materials and finishes consistent with the Residential Design Palette (Appendix C of the Design Code). 	N/A	N/A
	<ul style="list-style-type: none"> ▪ Buildings are to take advantage of the location overlooking the canal and include high levels of glazing and front balconies and terraces. 	N/A	N/A
	<ul style="list-style-type: none"> ▪ Despite Section 3.7, all garaging is to be from the rear lane. 	N/A	N/A
	Opportunity Site		

Section	Provisions	Proposal	Compliance (Yes, No or N/A)										
	<ul style="list-style-type: none"> ▪ The Opportunity Site may accommodate a variety of land uses, in addition to residential, such as commercial office, institution, education uses or the like, adjacent to the Village Centre. 	N/A	N/A										
	<ul style="list-style-type: none"> ▪ Non-residential uses fronting the canal should address the canal with semi-active uses 	N/A	N/A										
	<ul style="list-style-type: none"> ▪ The road and block pattern within the site may vary in response to alternative uses. 	N/A	N/A										
	<ul style="list-style-type: none"> ▪ Building heights (of up to 6 storeys) are permitted for uses on the Opportunity Site. 	N/A	N/A										
3.12 Specific Provisions - Ancillary Dwellings	<p>Controls</p> <p>(1) Subdivision applications that involve the creation of a laneway are to nominate the preferred location of an ancillary dwelling so as to achieve an acceptable degree of passive surveillance within the laneway. The preferred locations for ancillary dwellings are shown at Figure 17 of the Design Code – see Figure 17 from the Design Code at end of Table.</p>	N/A	N/A										
	<p>(2) Ancillary dwelling development is to be consistent with the controls in the table below.</p> <table border="1"> <thead> <tr> <th>Element</th> <th>Control</th> </tr> </thead> <tbody> <tr> <td>Setbacks</td> <td>0m to sides and to laneway</td> </tr> <tr> <td>Max. building height</td> <td>2 storeys (ie 1 floor above the garage)</td> </tr> <tr> <td>Private open space (required for studio lofts only)</td> <td>Studio and 1 bed: 4m², min dimension 1m 2+ bed: 8m², min dimension 1m</td> </tr> <tr> <td>Max car parking</td> <td>Secondary dwellings - 0 spaces Studio lofts - 1 space</td> </tr> </tbody> </table>	Element	Control	Setbacks	0m to sides and to laneway	Max. building height	2 storeys (ie 1 floor above the garage)	Private open space (required for studio lofts only)	Studio and 1 bed: 4m ² , min dimension 1m 2+ bed: 8m ² , min dimension 1m	Max car parking	Secondary dwellings - 0 spaces Studio lofts - 1 space	N/A	N/A
Element	Control												
Setbacks	0m to sides and to laneway												
Max. building height	2 storeys (ie 1 floor above the garage)												
Private open space (required for studio lofts only)	Studio and 1 bed: 4m ² , min dimension 1m 2+ bed: 8m ² , min dimension 1m												
Max car parking	Secondary dwellings - 0 spaces Studio lofts - 1 space												

Section	Provisions	Proposal	Compliance (Yes, No or N/A)
	(3) The design and layout of studio lofts is to minimise overlooking and overshadowing of the private space of the principal dwelling and any adjacent dwellings.	N/A	N/A
	(4) Strata title subdivision of a studio loft into a separate allotment will be permissible only where the following are provided: <ul style="list-style-type: none"> ▪ appropriate private open space, ▪ separate pedestrian access, ▪ one on-site car parking space, ▪ separate services for mail delivery and waste collection, and an on-site garbage storage area which is not visible from public street, ▪ separate connections and metering for utilities, and ▪ compliance with the Building Code of Australia. 	N/A	N/A