

Appendices

**St Leonards South
Masterplan
Draft**

**Appendix A
3-D Modelling**

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A 3D Modelling

A1 Background

This section examines the sub-precinct via the process of 3-D modelling.

The Consultant team has used 3-D modelling throughout the Masterplanning process to facilitate best practice in terms of solar access in a south facing, steeply sloping context.

This modelling for the preferred Masterplan (Figure A1) can be accessed via Council website. It illustrates the following:

- Existing shadow impacts
- Building Height modelling for solar access and shadow impacts for 6, 8, 10 and 12 storey perimeter blockdevelopment in order to assist in determining appropriate building heights
- 3-D Modelling of the Preferred Masterplan to assess and explain solar access and shadow impacts
- 3-D Modelling of preferred masterplan to visualize massing around the railway station

This interactive process has assisted in the design of a Masterplan which fits with the site context and provides good solar access and good amelioration of shadow impacts within a difficult redevelopment context.



A2

**Existing shadow
Impacts**

A2 Existing shadow Impacts

These figures show shadows by existing and approved buildings on an hourly basis between 9am and 3pm. They demonstrate that:

- Existing and approved high rise buildings already have an impact on the Precinct in early morning (9-11am, midwinter)
- Existing buildings along the highway have an impact throughout the day (midwinter)
- The south facing slope means that even single storey dwellings throw significant shadows in early morning and late afternoon
- (see Figures A2- A8)

Existing and proposed/approved development contribute to the shadow impact on the sub-precinct particularly in the north of the sub-precinct and in the early/mid morning.



FIG A3
Existing shadows 10:00 am



FIG A4
Existing shadows 11:00 am



FIG A2
Existing shadows 9:00 am

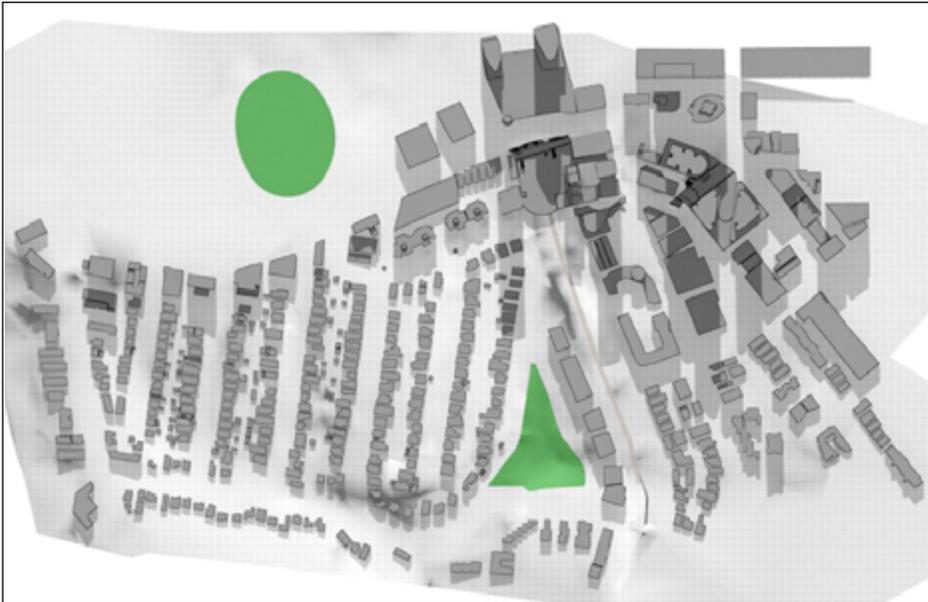


FIG A5
Existing shadows 12:00 pm



FIG A7
Existing shadows 2:00 pm

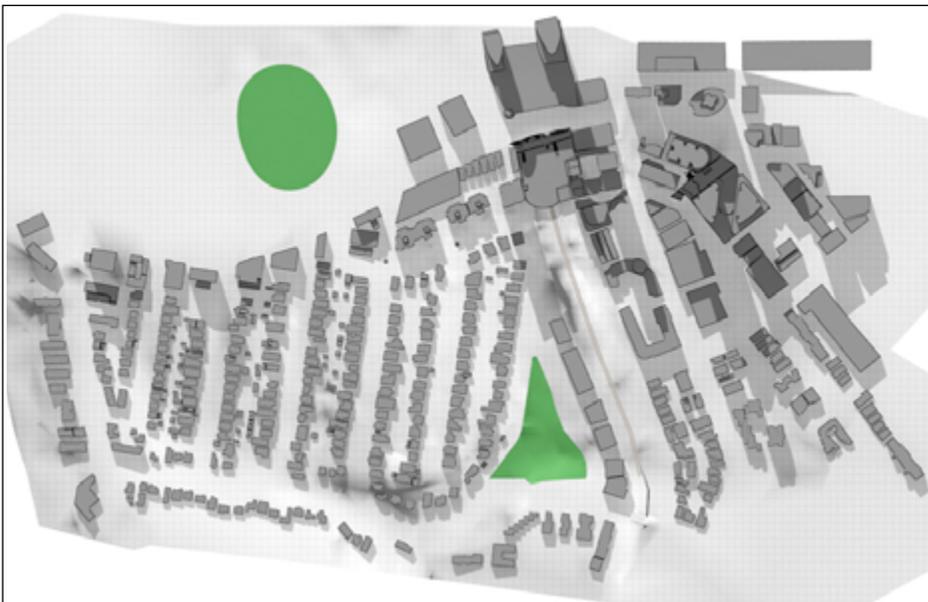


FIG A6
Existing shadows 1:00 pm



FIG A8
Existing shadows 3:00 pm

A3

**Variable Building
Heights**

A3.1 3D Modelling - 6 storeys

Solar Access to Open Space / Public Domain

The modelling indicates that 6 storey perimeter block development provides very good solar

access to open space areas and public domain between 10.30am and 1.30pm. (Figures A9-A12)

Note that there are some impacts caused by existing/approved development. (am)

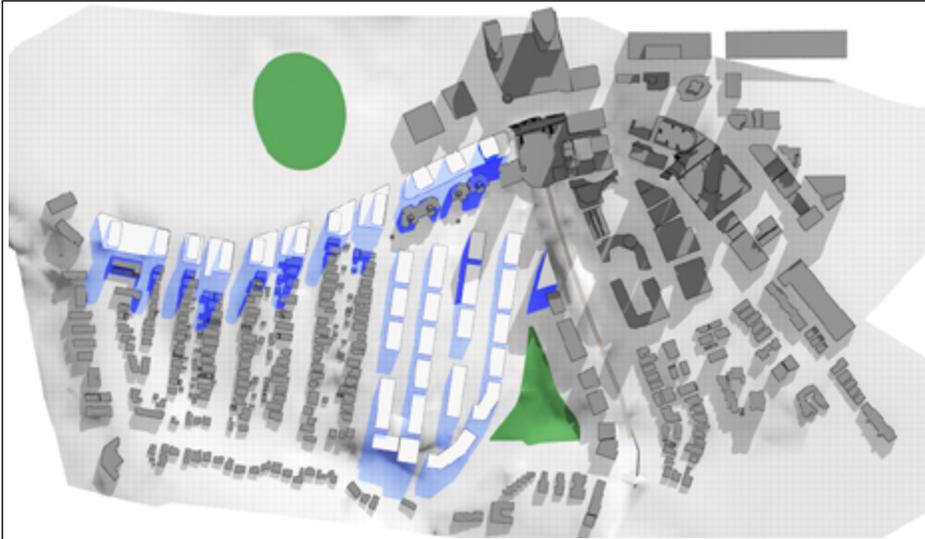


FIG A9
Shadow intervals 6 storeys plan view 10:30 am

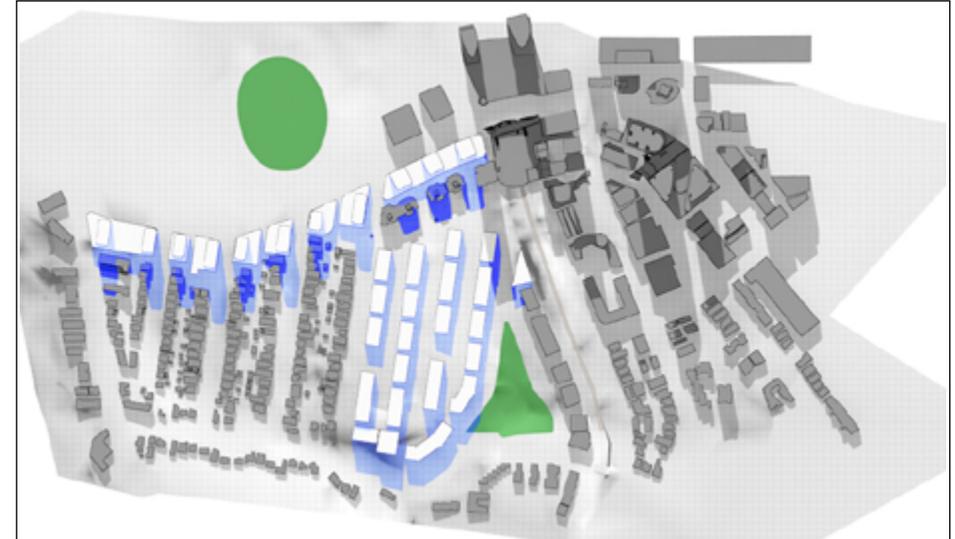


FIG A11
Shadow intervals 6 storeys plan view 12:30 pm



FIG A10
Shadow intervals 6 storeys plan view 11:30 am



FIG A12
Shadow intervals 6 storeys plan view 1:30 pm

Note: Grey shadows are from existing / approved buildings. Blues are from proposed draft Master Plan

Solar Access to Eastern facades (6 Storeys)

Figures A13 - A16 demonstrate that most east facing building facades receive adequate solar access between 9am and 11am.

Note that this is impacted somewhat by existing/approved buildings in the early morning.

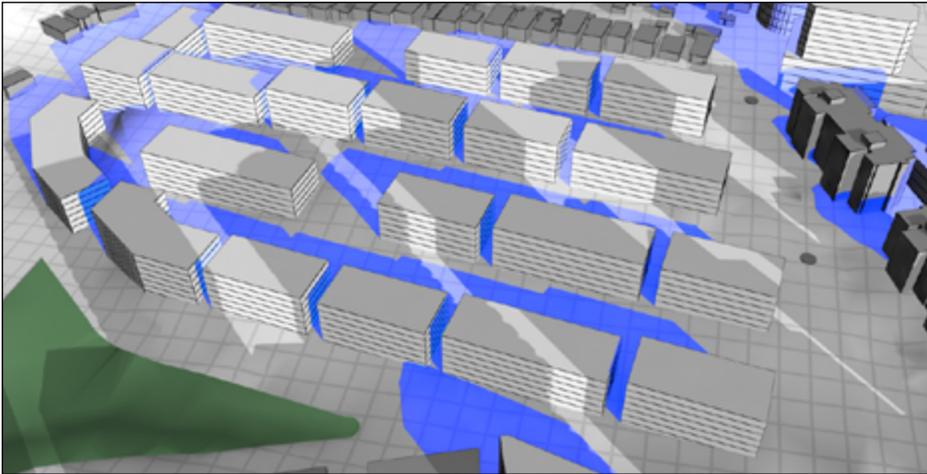


FIG A13
Shadow intervals 6 storeys perspective view 1, 9:00 am

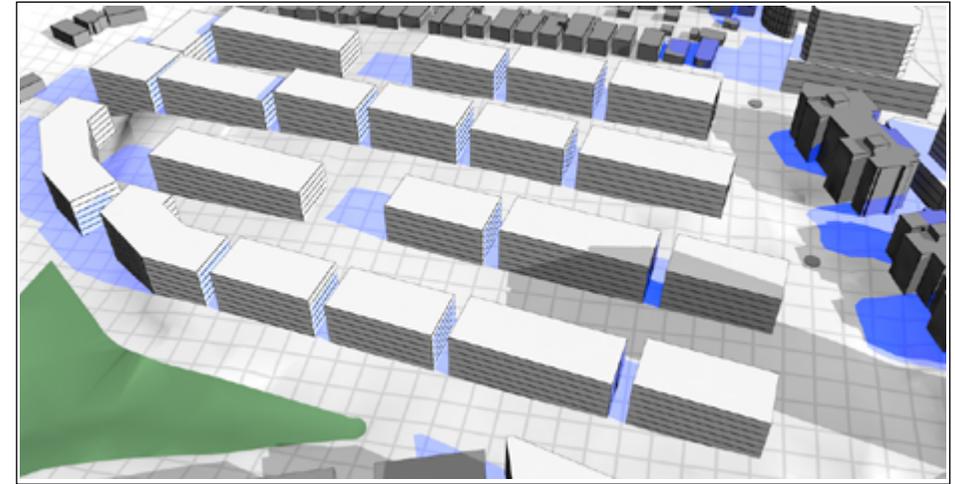


FIG A15
Shadow intervals 6 storeys perspective view 1, 11:00 am

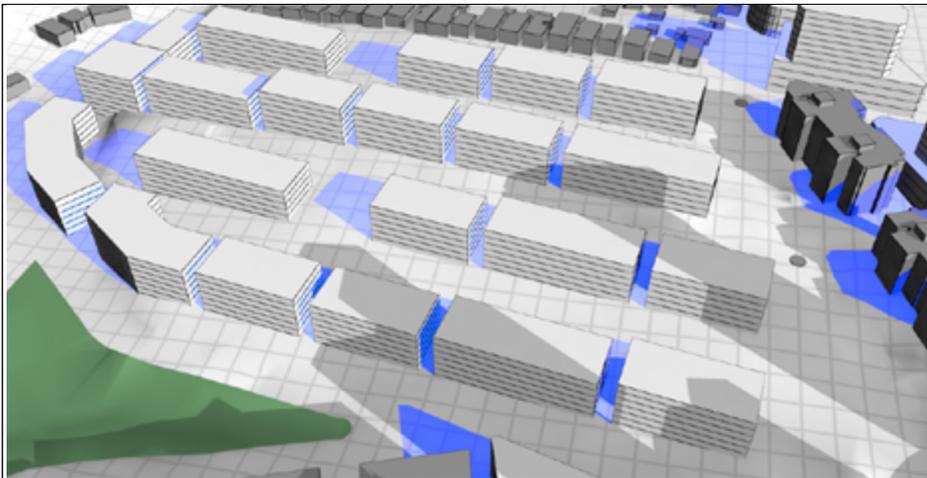


FIG A14
Shadow intervals 6 storeys perspective view 1, 10:00 am

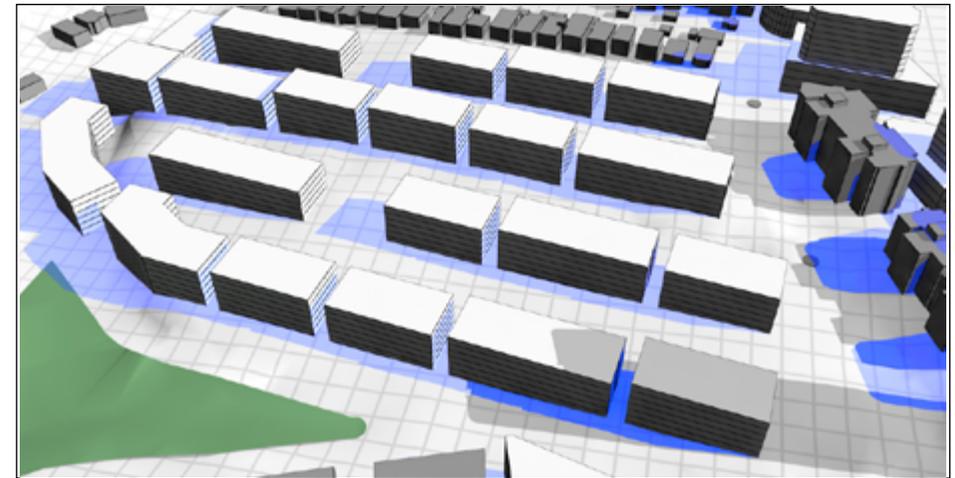


FIG A16
Shadow intervals 6 storeys perspective view 1, 12:00 noon

Note: Grey shadows are from existing /approved buildings. Blues are from proposed draft Master Plan

Solar Access to Western facades (6 Storeys)

Figures A17-A20 demonstrate that most west facing facades receive adequate solar access between noon and 2pm.

This indicates that:

6 storey perimeter block development is readily achievable in terms of solar access and shadow impacts.

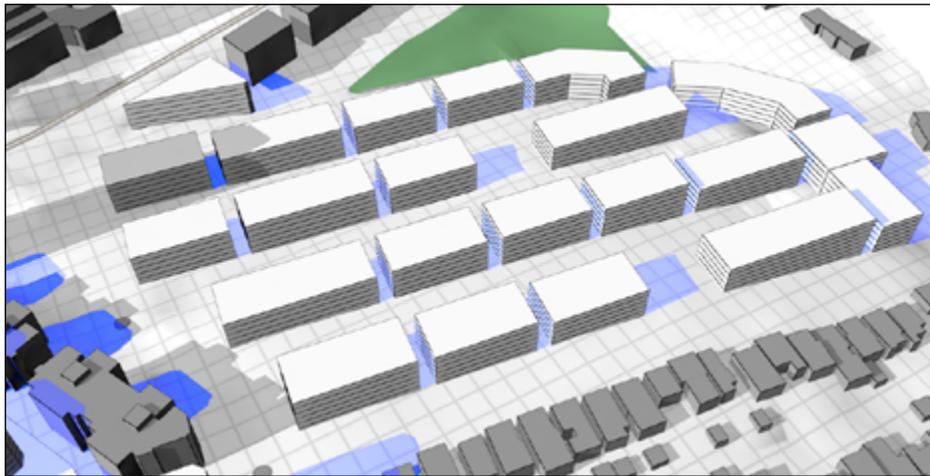


FIG A17
Shadow intervals 6 storeys perspective view 2, 12:00 noon

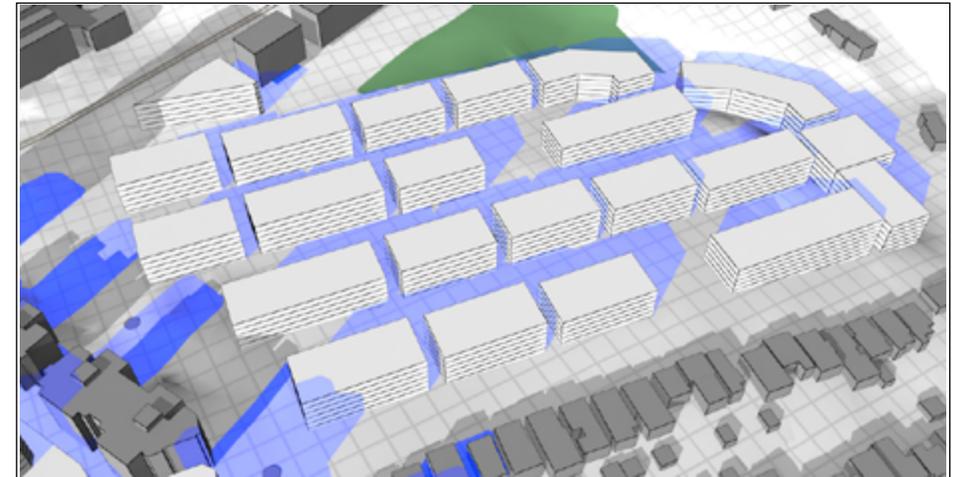


FIG A19
Shadow intervals 6 storeys perspective view 2, 2:00 pm

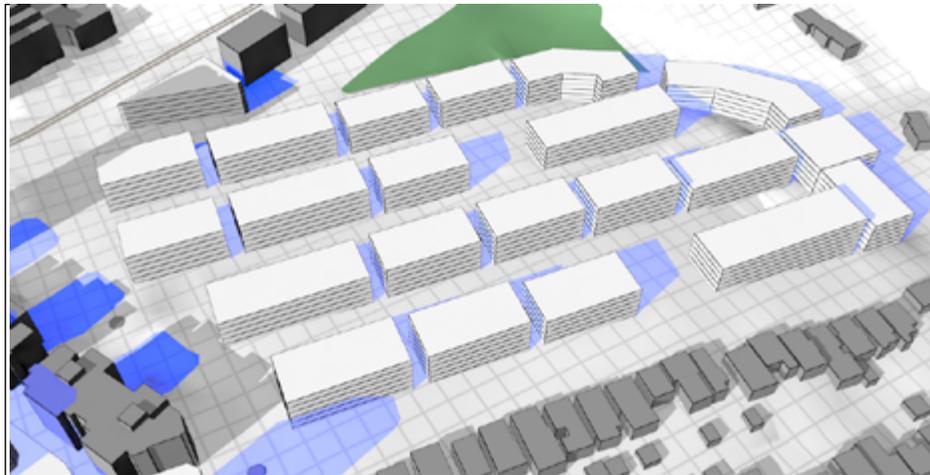


FIG A18
Shadow intervals 6 storeys perspective view 2, 1:00 pm

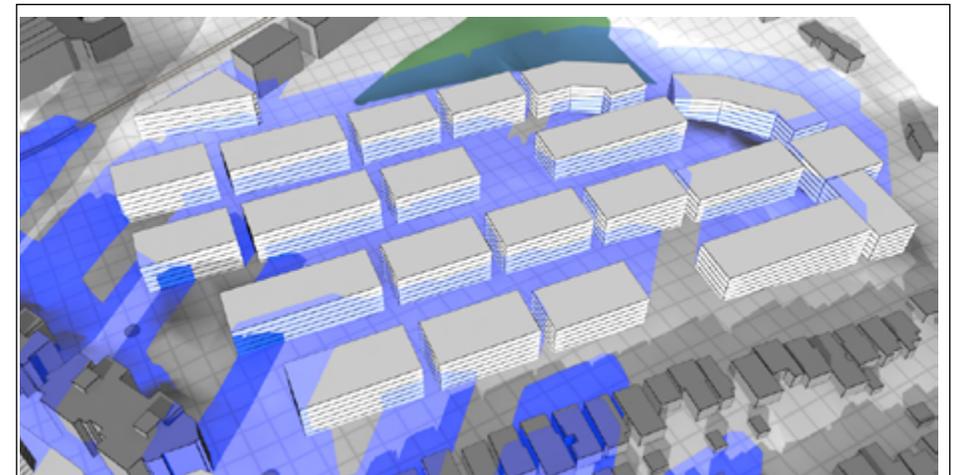


FIG A20
Shadow intervals 6 storeys perspective view 2, 3:00 pm

Note: Grey shadows are from existing /approved buildings. Blues are from proposed draft Master Plan

A3.2 3D Modelling - 8 storeys

Solar Access to Open Space / Public Domain

3-D modelling of 8 storey perimeter block development indicates that:

- There is adequate and appropriate solar access to proposed to common/private

open space and public domain areas between 10am and 1pm (Figures A21-A24)

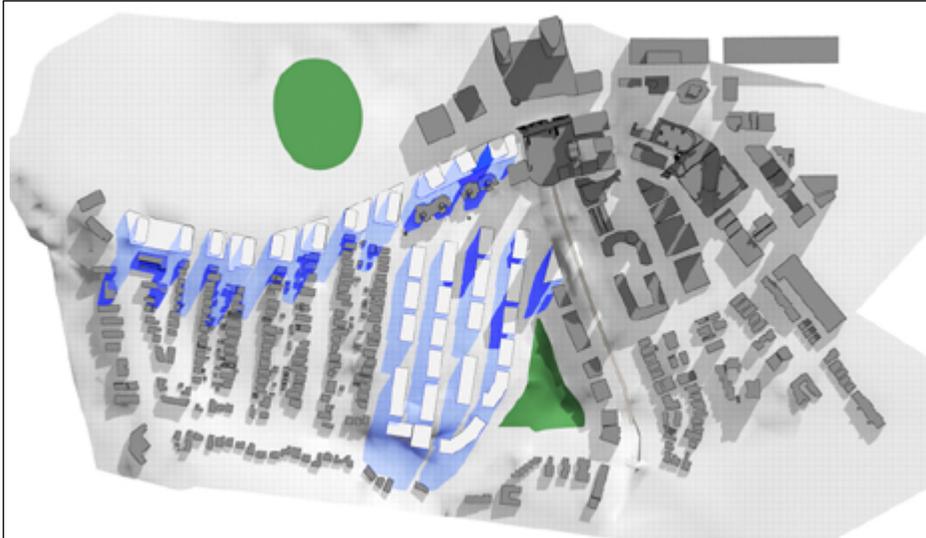


FIG A21
Shadow intervals 8 storeys plan view 10:00 am

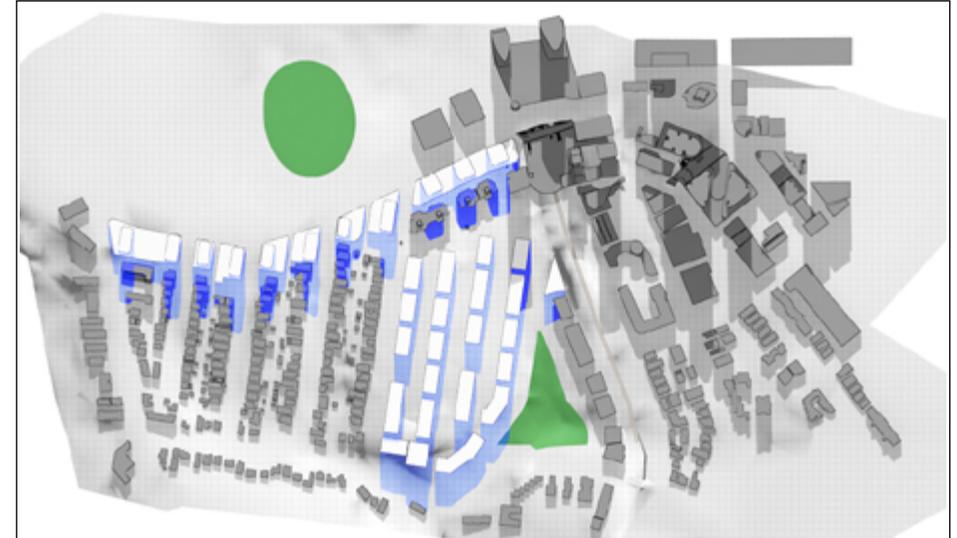


FIG A23
Shadow intervals 8 storeys plan view 12:00 pm

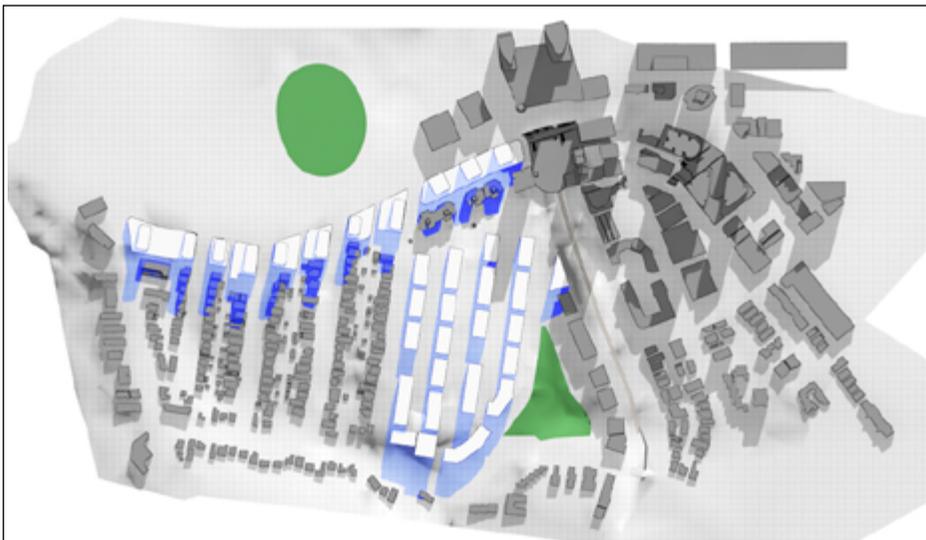


FIG A22
Shadow intervals 8 storeys plan view 11:00 am

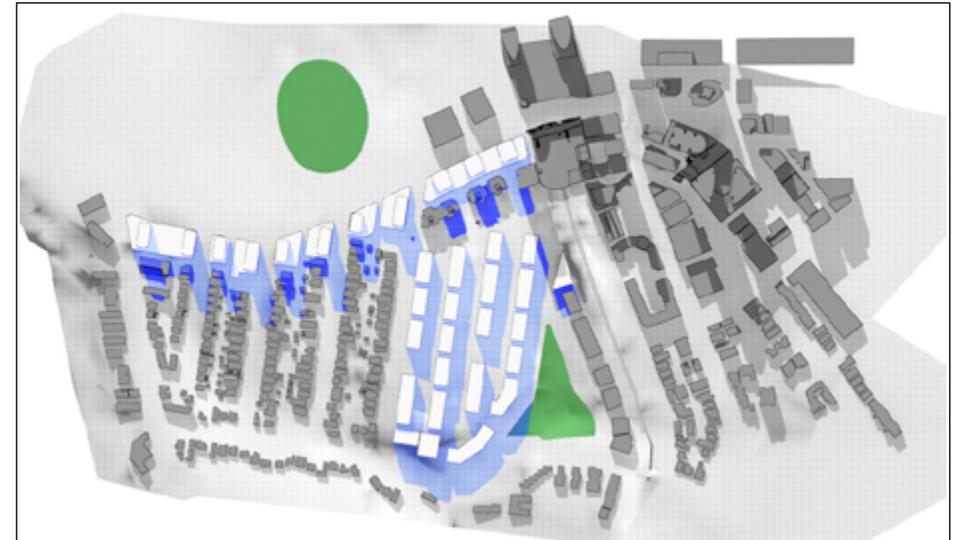


FIG A24
Shadow intervals 8 storeys plan view 1:00 pm

Note: Grey shadows are from existing /approved buildings. Blues are from proposed draft Master Plan

Solar Access to Eastern facades (8 storeys)

- There is generally adequate solar access to east-facing facades between 9am and 11am (Figures A25-A28).

Note that existing/approved development cause partial overshadowing in the early morning (9am – 10am).

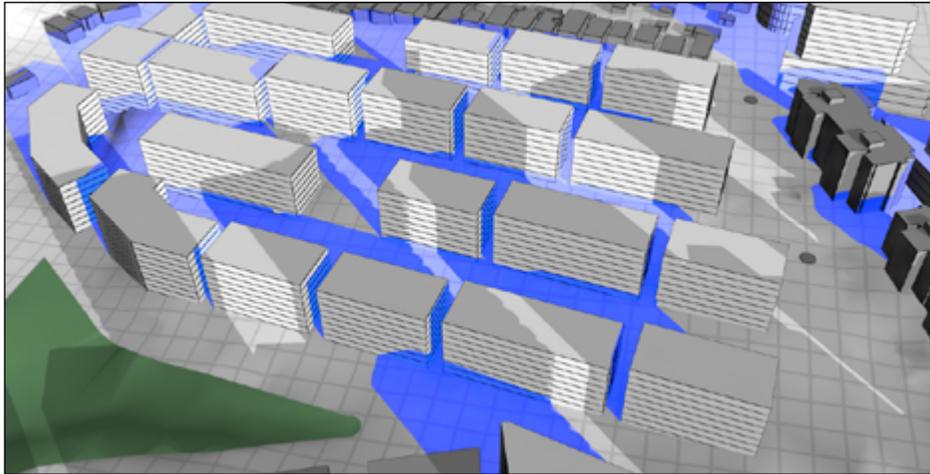


FIG A25
Shadow intervals 8 storeys perspective view 1, 9:00 am

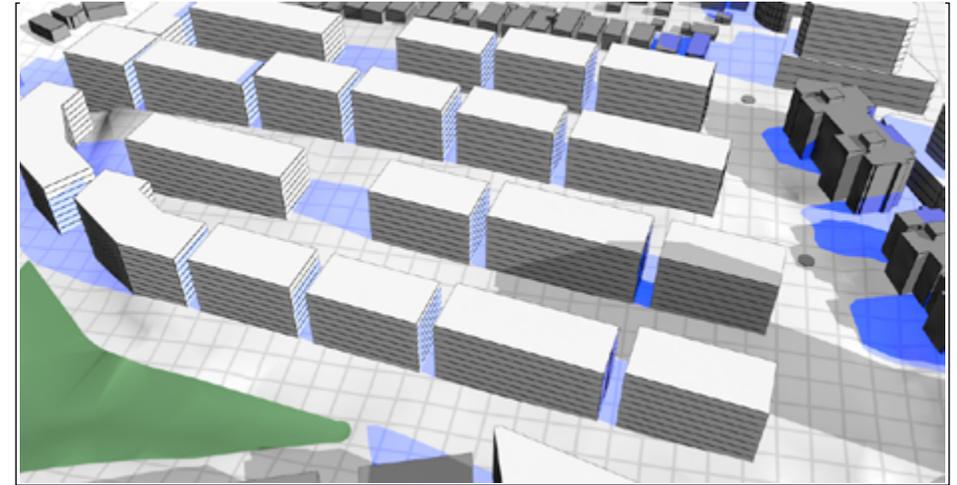


FIG A27
Shadow intervals 8 storeys perspective view 1, 11:00 am

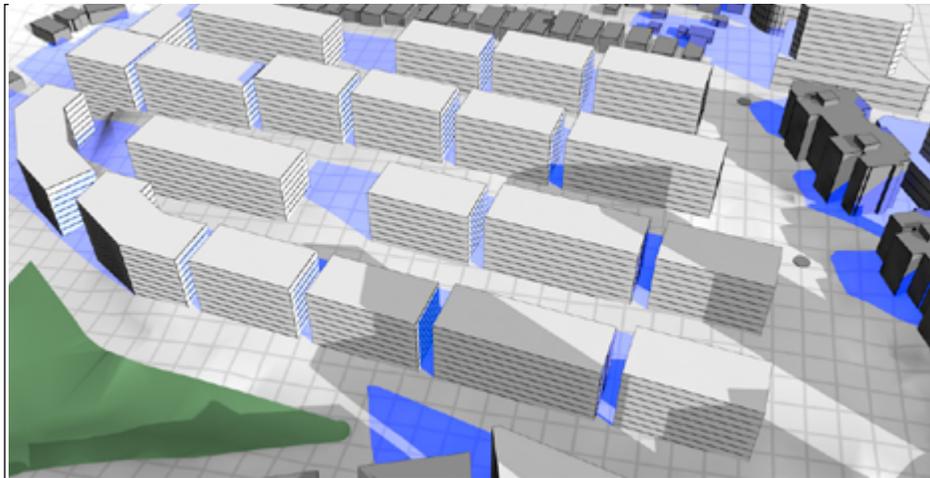


FIG A26
Shadow intervals 8 storeys perspective view 1, 10:00 am

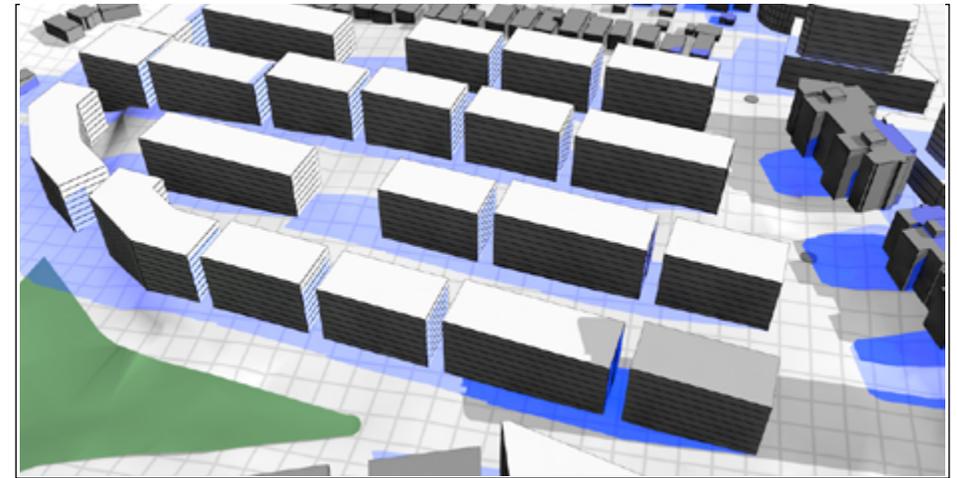


FIG A28
Shadow intervals 8 storeys perspective view 1, 12:00 noon

Note: Grey shadows are from existing /approved buildings. Blues are from proposed draft Master Plan

Solar Access to Western facades (8 storeys)

- There is adequate and appropriate solar access to west facing facades between 12.30pm and 2.30pm (See Figures A29 - A32).

This indicates that:

8 storey development is generally achievable in terms of solar access requirements and management of shadow impacts.

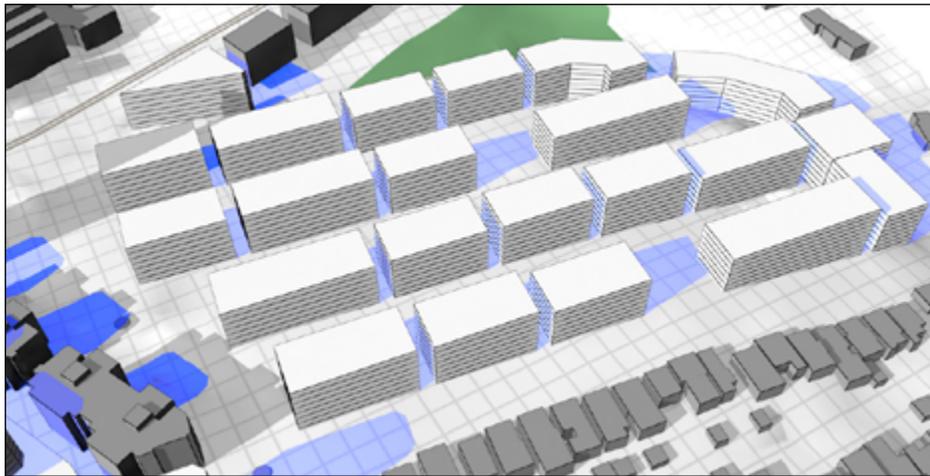


FIG A29
Shadow intervals 8 storeys perspective view 2, 12:30 pm

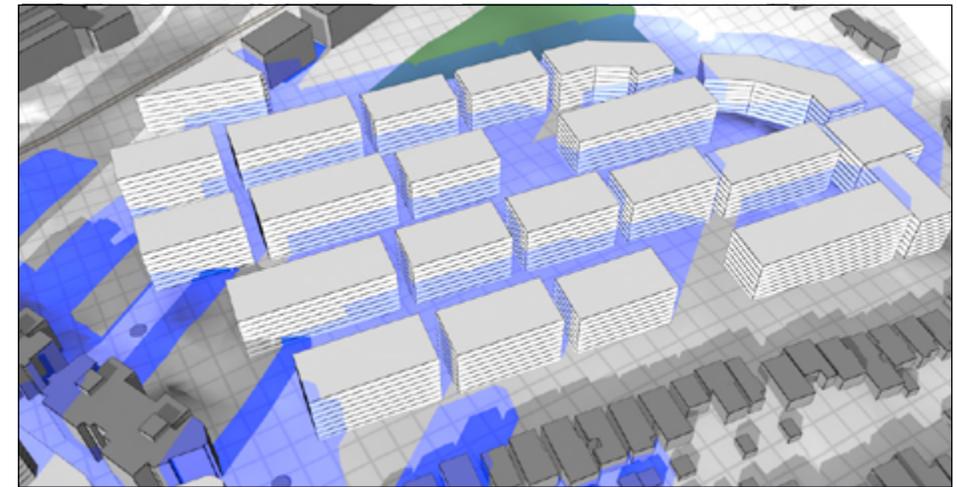


FIG A31
Shadow intervals 8 storeys perspective view 2, 2:30 pm

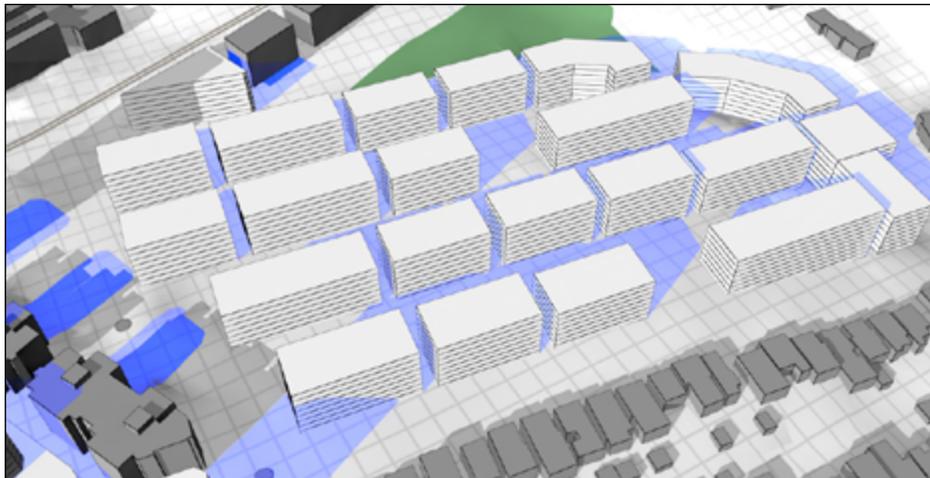


FIG A30
Shadow intervals 8 storeys perspective view 2, 1:30 pm

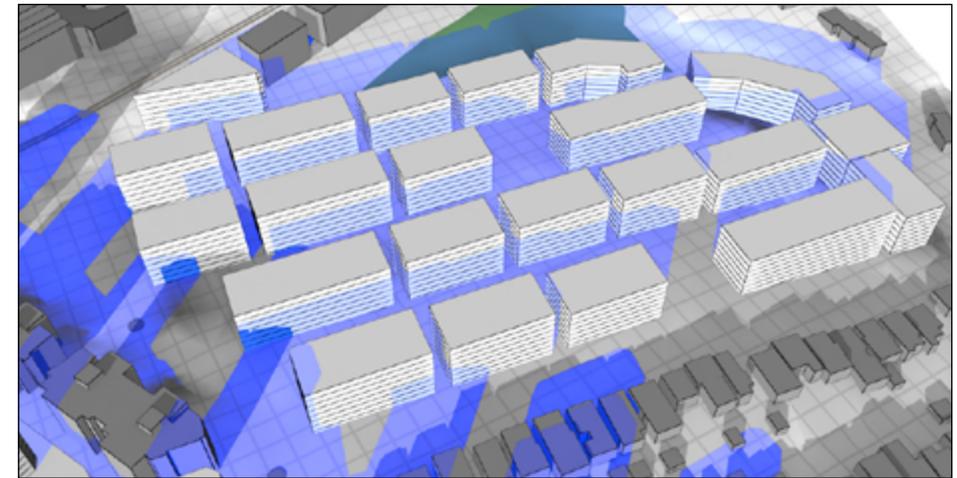


FIG A32
Shadow intervals 8 storeys perspective view 2, 3:00 pm

Note: Grey shadows are from existing /approved buildings. Blues are from proposed draft Master Plan

A3.3 3D Modelling - 10 storeys

Solar Access to Open Space / Public Domain

3-D modelling of 10 storey perimeter block development indicates the following:

- There is adequate and appropriate solar access possible to common/private open space and public domain areas between 10.30am and 12.30pm (Figures A33 - A35)

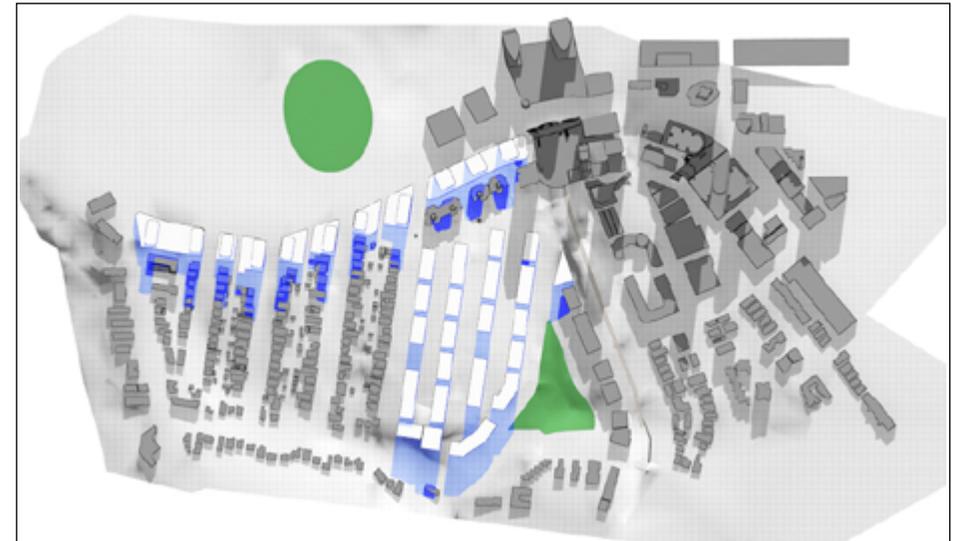


FIG A34
Shadow intervals 10 storeys plan view 11:30 am

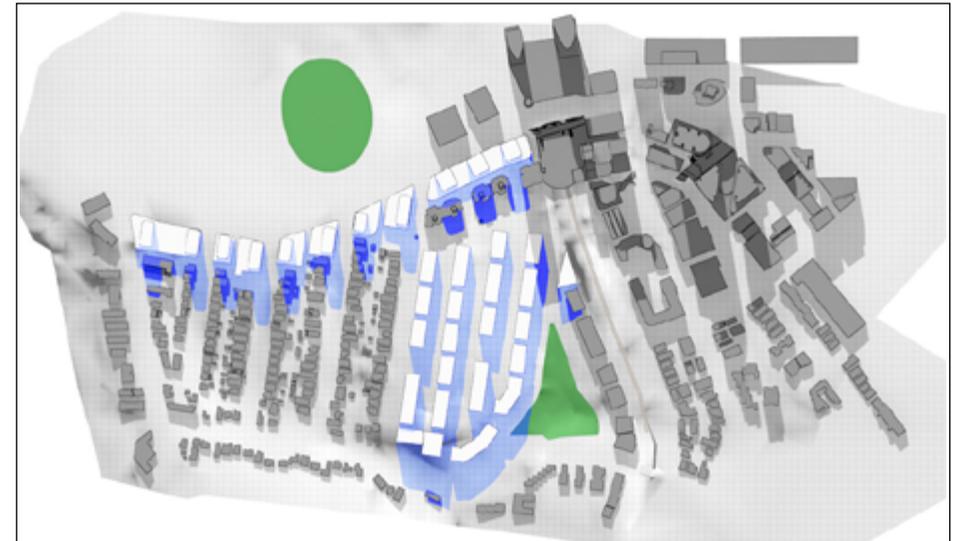


FIG A35
Shadow intervals 10 storeys plan view 12:30 pm

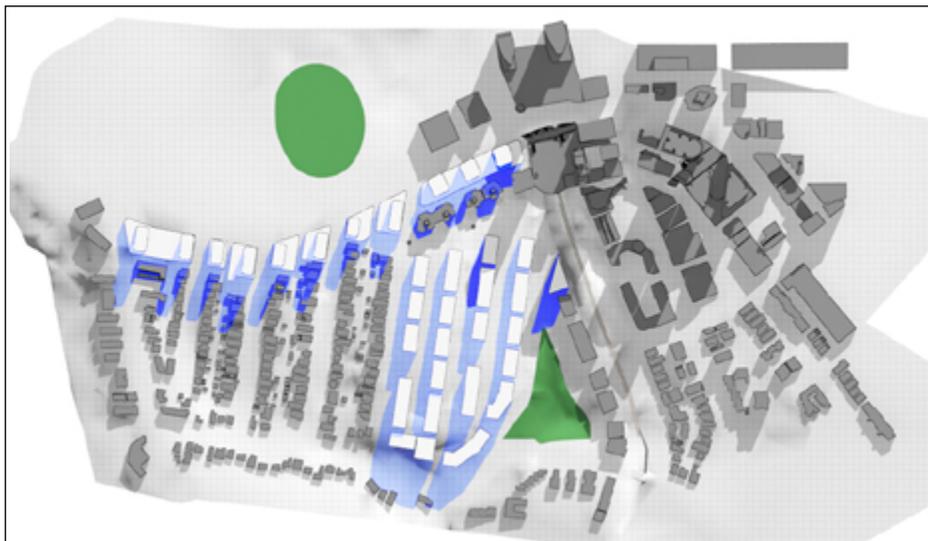


FIG A33
Shadow intervals 10 storeys plan view 10:30 am

Note: Grey shadows are from existing /approved buildings. Blues are from proposed draft Master Plan

Solar Access to Eastern facades (10 Storeys)

- There is adequate solar access to east facing facades between 9am and 11am but with some localised overshadowing caused by existing/approved development (Figures A36 - A39).

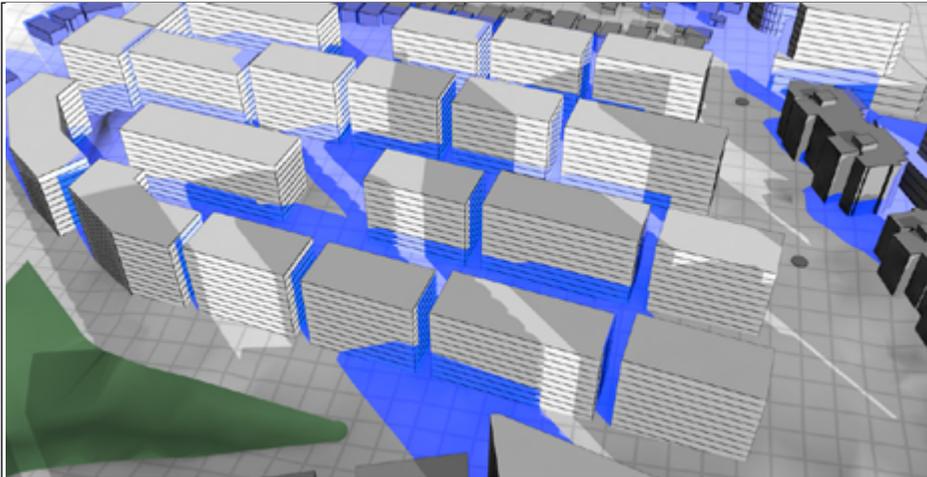


FIG A36
Shadow intervals 10 storeys perspective view 1, 9:00 am

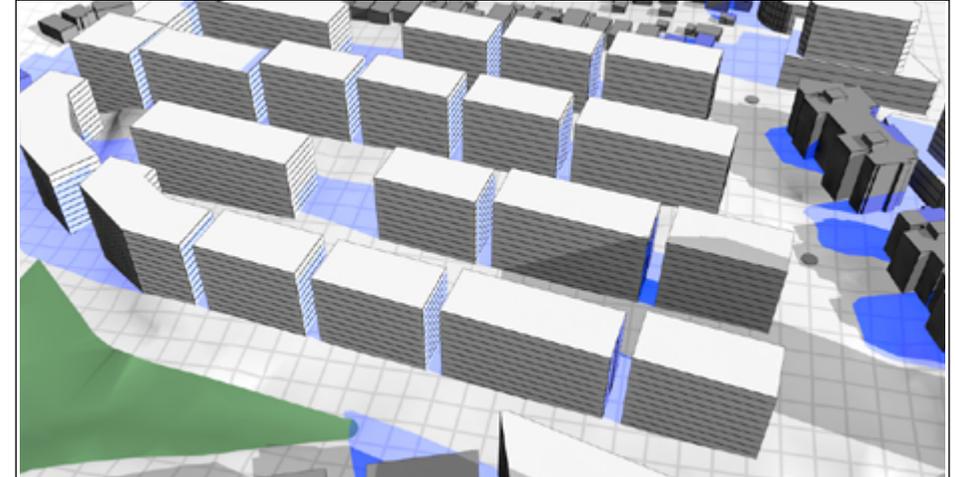


FIG A38
Shadow intervals 10 storeys perspective view 1, 11:00 am

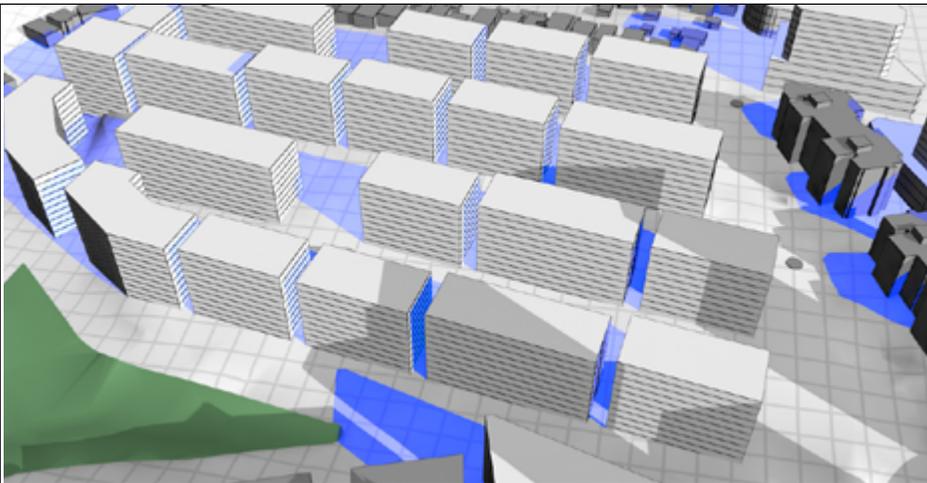


FIG A37
Shadow intervals 10 storeys perspective view 1, 10:00 am

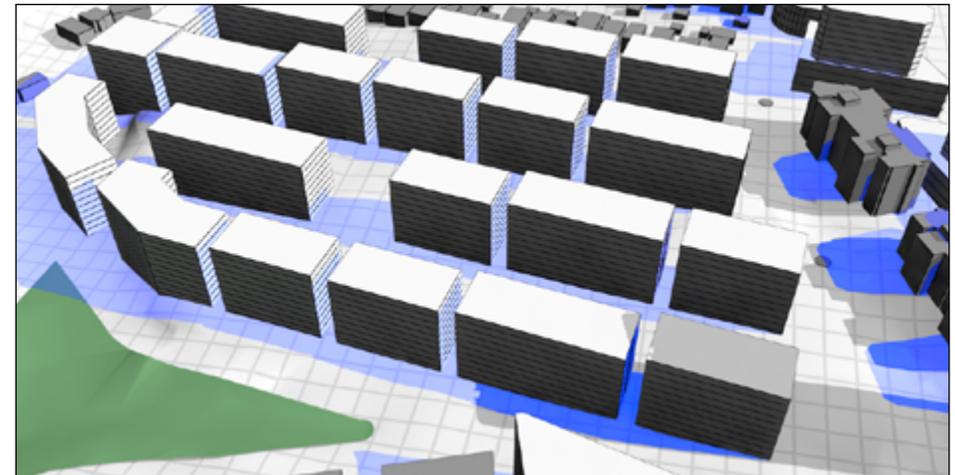


FIG A39
Shadow intervals 10 storeys perspective view 1, 12:00 noon

Note: Grey shadows are from existing /approved buildings. Blues are from proposed draft Master Plan

Solar Access to Western facades (10 Storeys)

- There is only adequate and appropriate solar access to west facing facades between 12.30pm and 2.00pm (i.e. 1 hour and 30 minutes). (See Figures A40 - A43).

This indicates that:
10 storey perimeter block development struggles to provide adequate and appropriate solar access particularly to west facing facades.

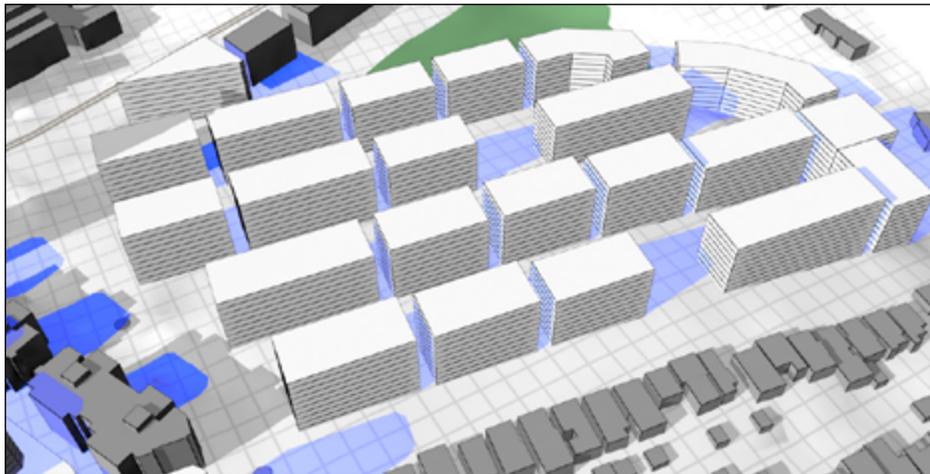


FIG A40
Shadow intervals 10 storeys perspective view 2, 12:30 pm

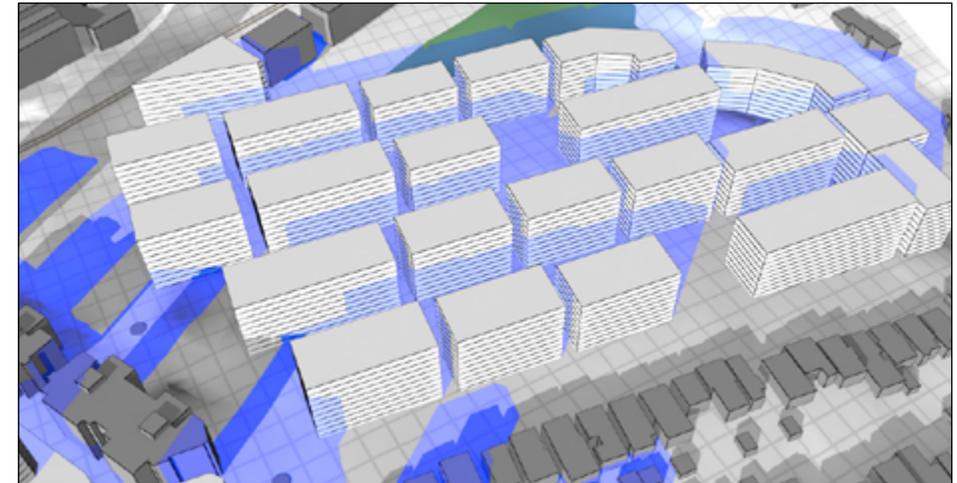


FIG A42
Shadow intervals 10 storeys perspective view 2, 2:30 pm

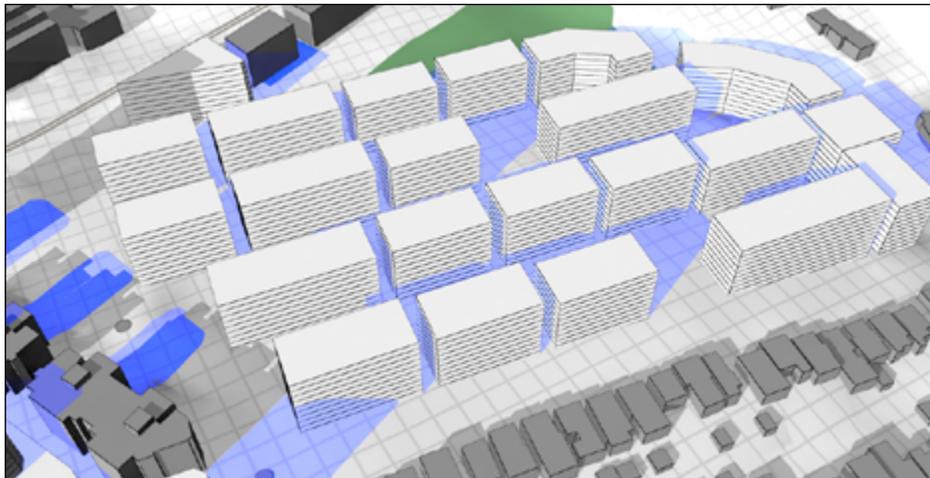


FIG A41
Shadow intervals 10 storeys perspective view 2, 1:30 pm

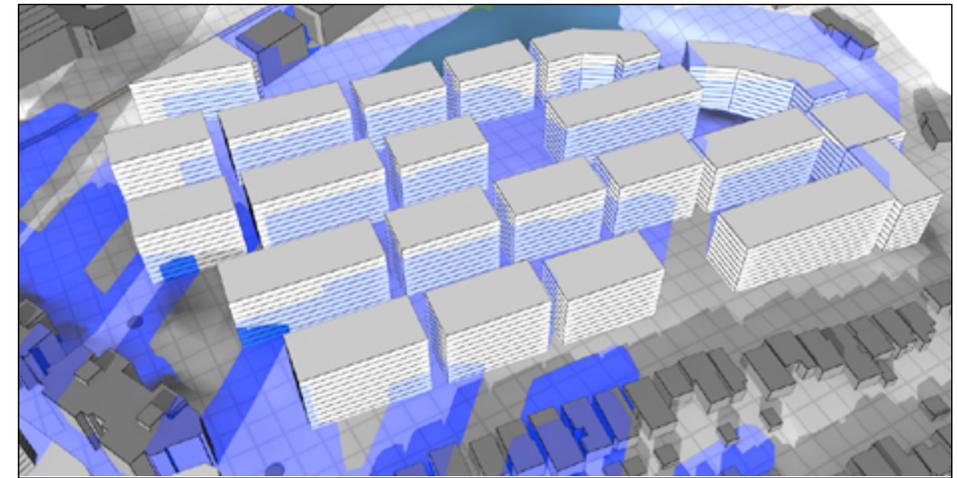


FIG A43
Shadow intervals 10 storeys perspective view 2, 3:00 pm

Note: Grey shadows are from existing /approved buildings. Blues are from proposed draft Master Plan

A3.4 3D Modelling - 12 storeys

Solar Access to Open Space / Public Domain

3-D modelling of 12 storey perimeter block development indicates the following:

- Adequate and appropriate solar access can be achieved in common/private open space and public domain areas between 10.30am and 12.30pm (Figures A44 - A46)

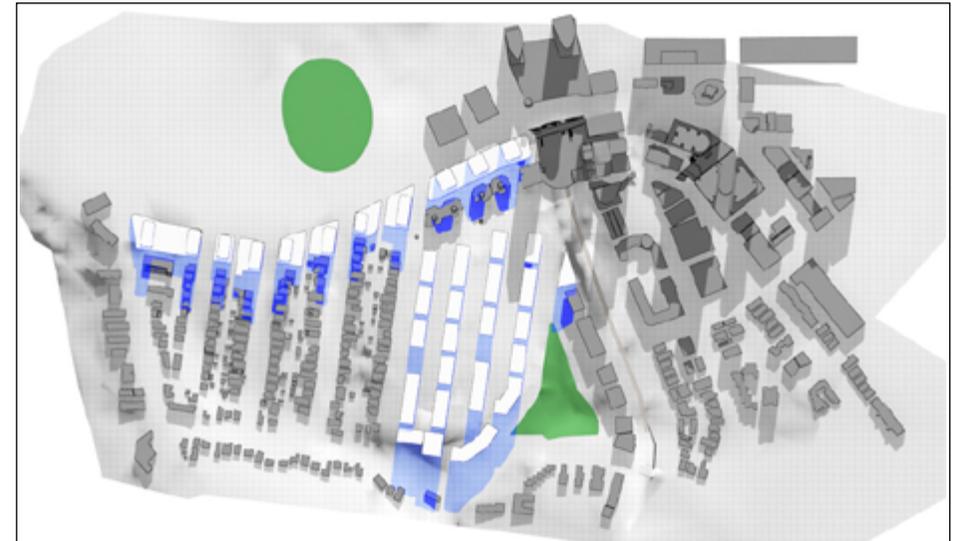


FIG A45
Shadow intervals 12 storeys plan view 11:30 am

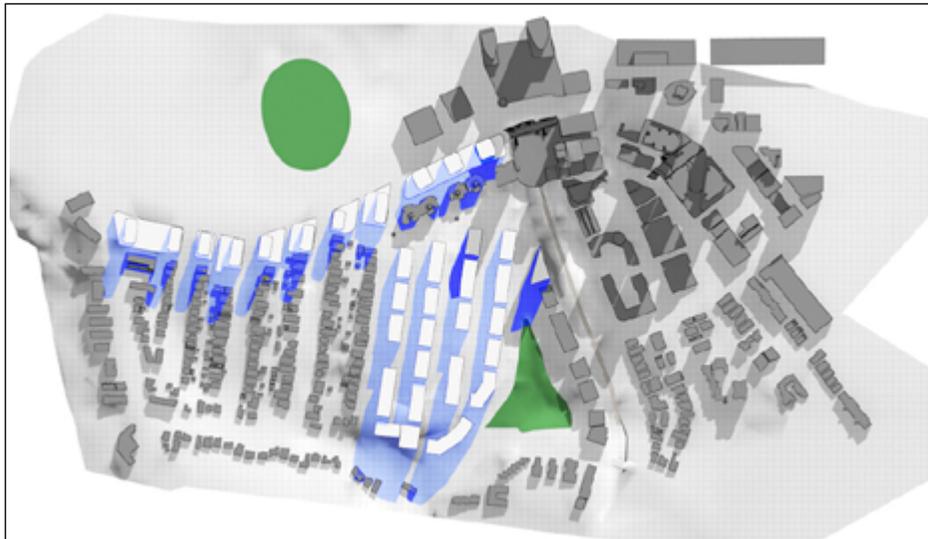


FIG A44
Shadow intervals 12 storeys plan view 10:30 am

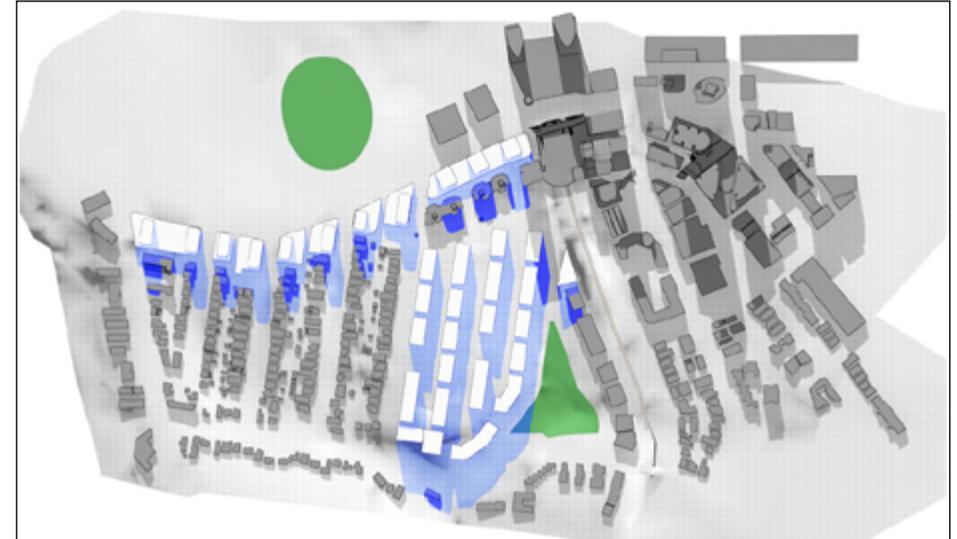


FIG A46
Shadow intervals 12 storeys plan view 12:30 pm

Note: Grey shadows are from existing /approved buildings. Blues are from proposed draft Master Plan

Solar Access to Eastern facades (12 Storeys)

- Adequate solar access can only be provided to the east facing facades between 9am and 10:30/11am. This is further impacted by shadows from existing /approved buildings in the northern part of the precinct (Figures A47 - A50).

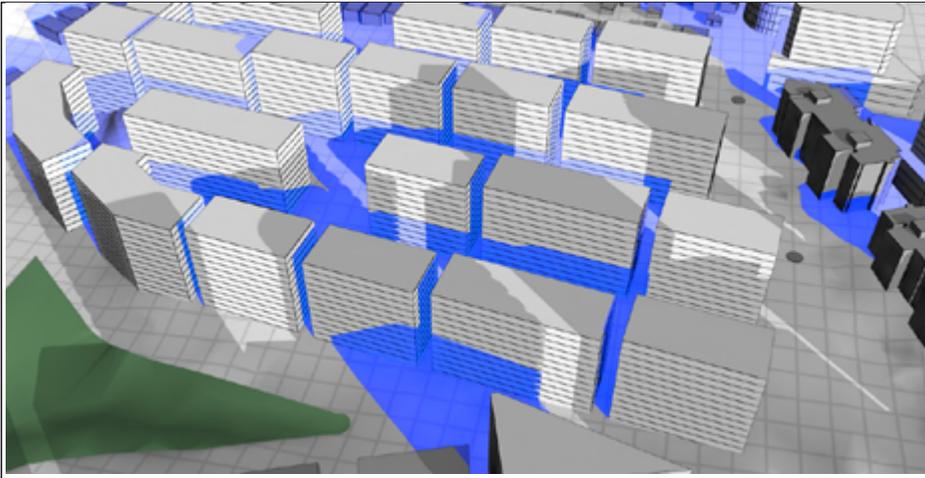


FIG A47
Shadow intervals 12 storeys perspective view 1, 9:00 am

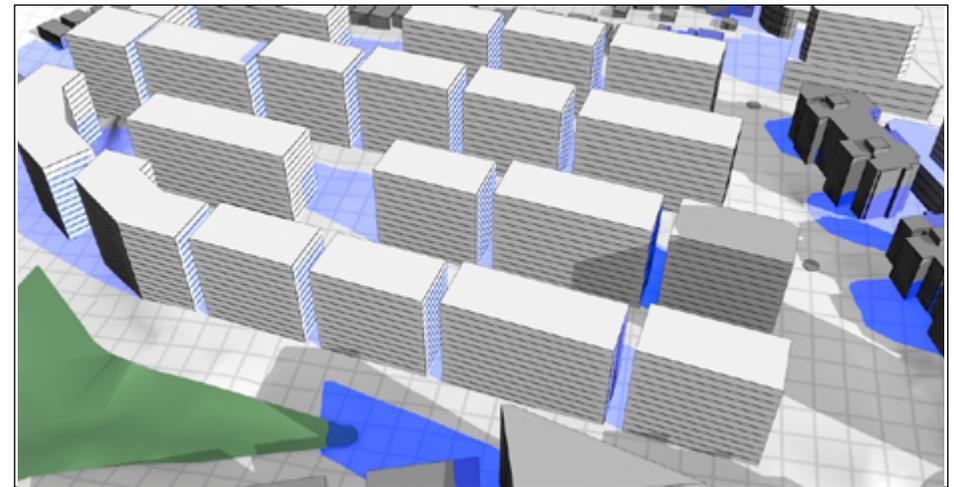


FIG A49
Shadow intervals 12 storeys perspective view 1, 10:30 am

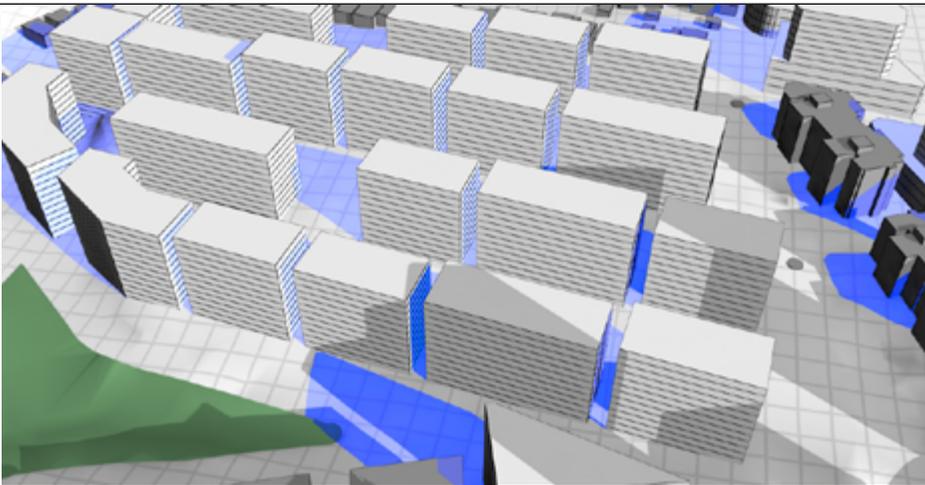


FIG A48
Shadow intervals 12 storeys perspective view 1, 10:00 am

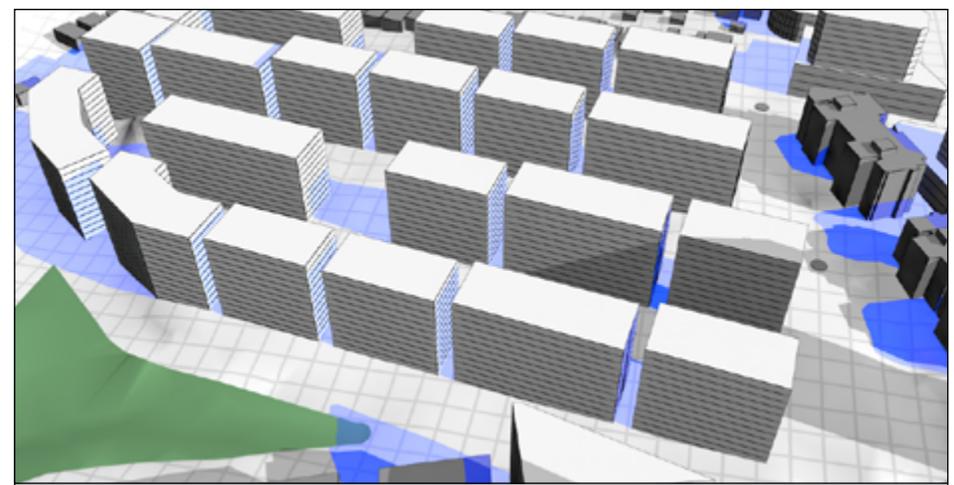


FIG A50
Shadow intervals 12 storeys perspective view 1, 11:00 am

Note: Grey shadows are from existing /approved buildings. Blues are from proposed draft Master Plan

Solar Access to Western facades (12 Storeys)

- Adequate solar access can only be provided to the west facing facades between 1:00pm and 2:30pm (See Figures A51 - A54).

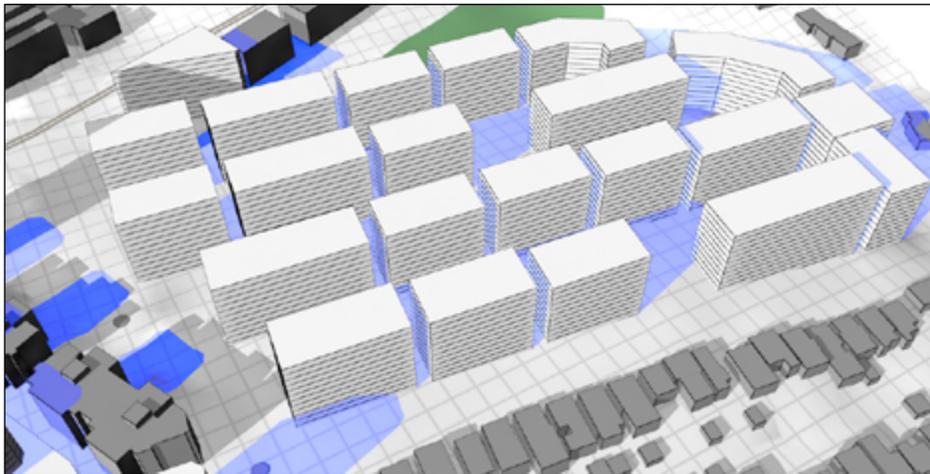


FIG A51
Shadow intervals 12 storeys perspective view 2, 1:00 pm

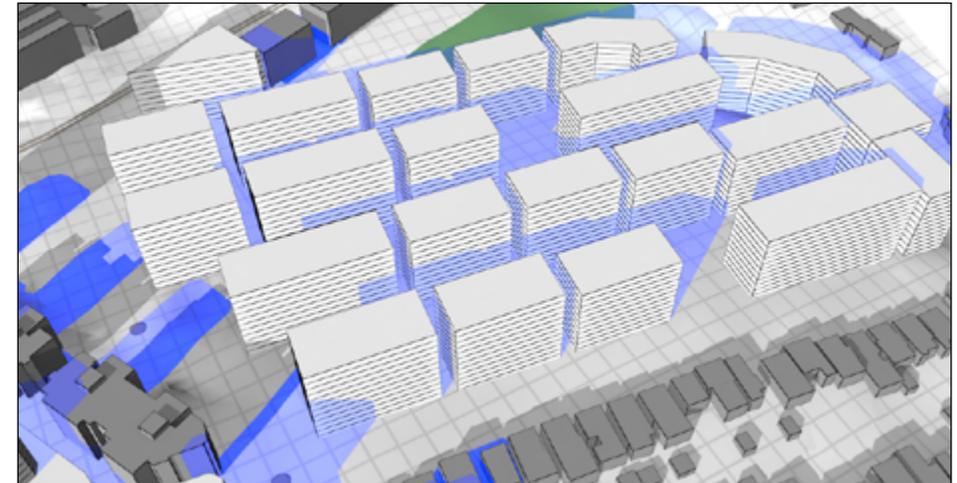


FIG A53
Shadow intervals 12 storeys perspective view 2, 2:00 pm

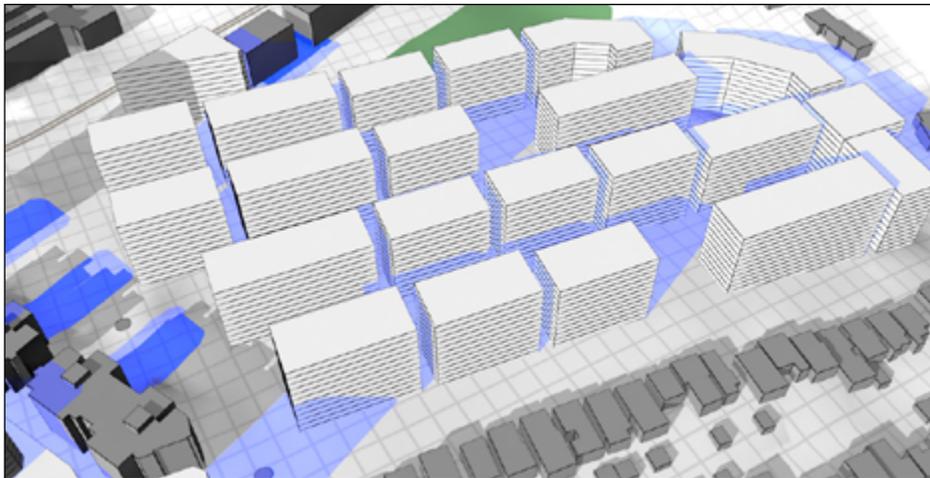


FIG A52
Shadow intervals 12 storeys perspective view 2, 1:30 pm

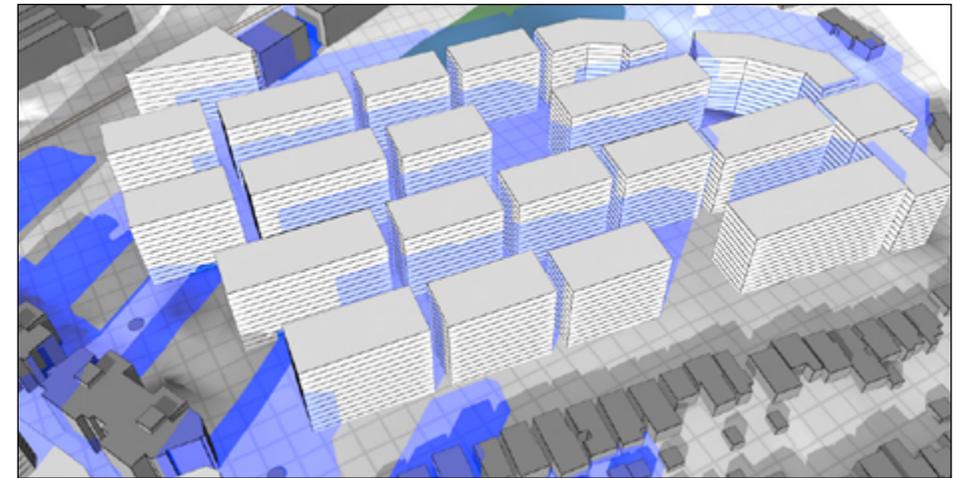


FIG A54
Shadow intervals 12 storeys perspective view 2, 2:30 pm

This indicates that:

12 Storeys perimeter block buildings over the whole sub-Precinct will not be able to readily comply with SEPP No 65 solar access guidelines.

A4

**Preferred
Option**

A4 3D Modelling of Preferred Sub-Precinct development option

Solar Access to Open Space / Public Domain

3-D modelling of the preferred Masterplan

(Figure A1) indicates the following:

- Adequate and appropriate solar access can be generally provided to public domain and common / private open space areas

between 10.30am and 12.30pm with some minor intrusion from existing/approved development (Figures A55 - A58)

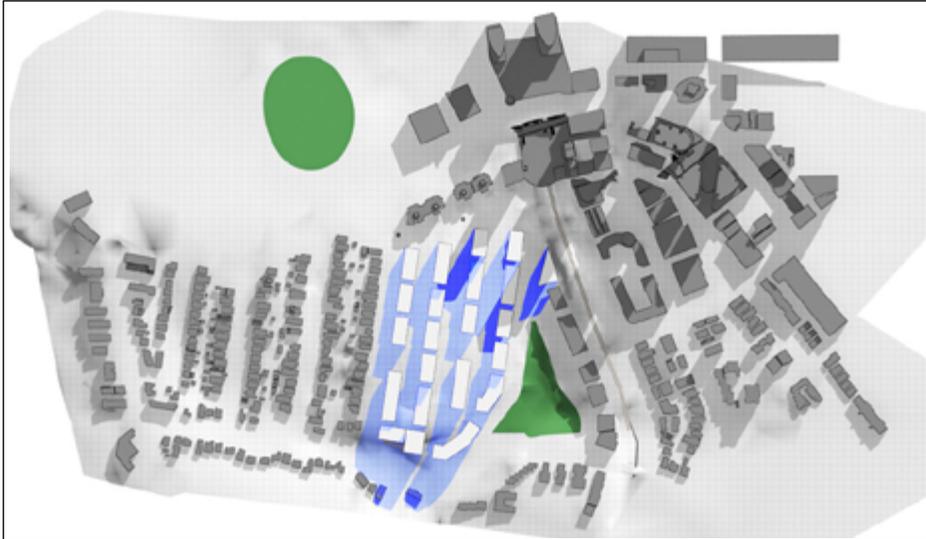


FIG A55
Plan View shadow intervals 10:00 am



FIG A57
Plan View shadow intervals 11:30 am

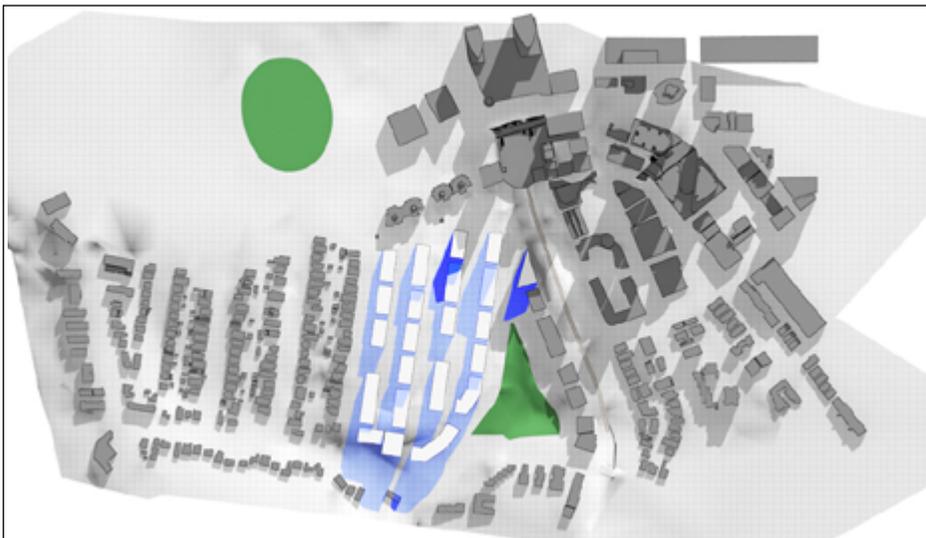


FIG A56
Plan View shadow intervals 10:30 am

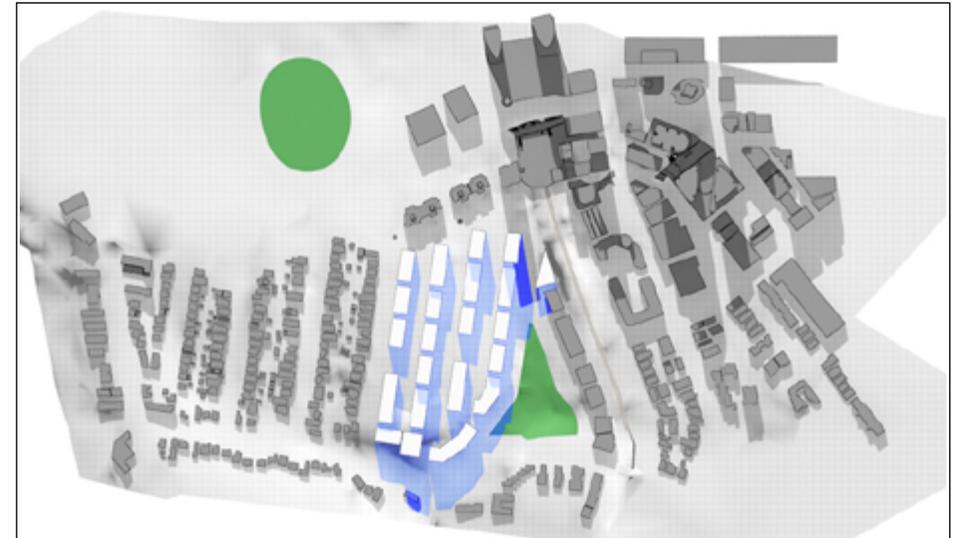


FIG A58
Plan View shadow intervals 12:30 pm

Note: Grey shadows are from existing / approved buildings. Blues are from proposed draft Master Plan

Solar Access to Eastern facades (Draft Master Plan)

- Adequate and appropriate solar access can generally be provided to the east facing facades of perimeter block preferred master plan development between 9am and 11am with some minor intrusion from existing/ approved development (Figures A59 - A61)

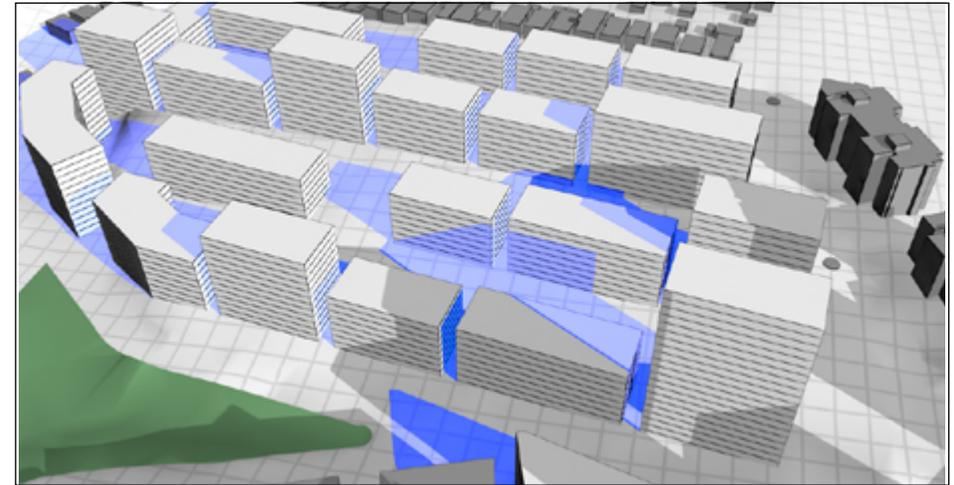


FIG A60
Perspective View 1 shadow intervals 10:00 am

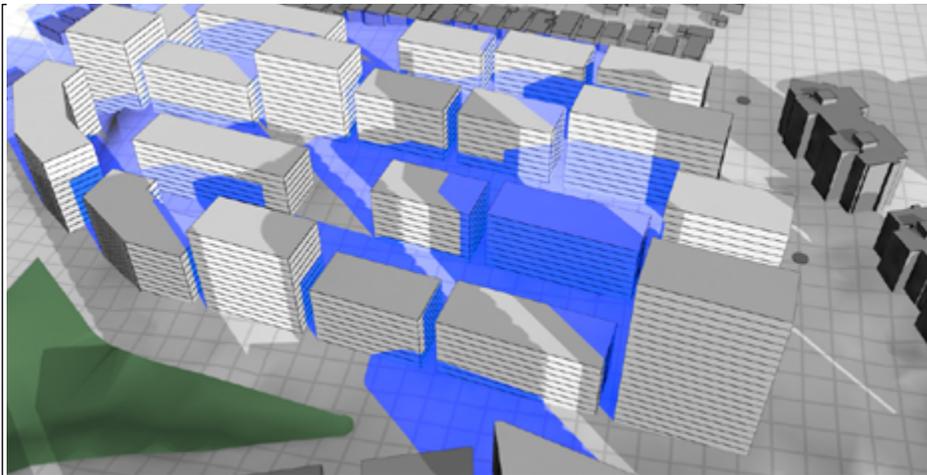


FIG A59
Perspective View 1 shadow intervals 9:00 am

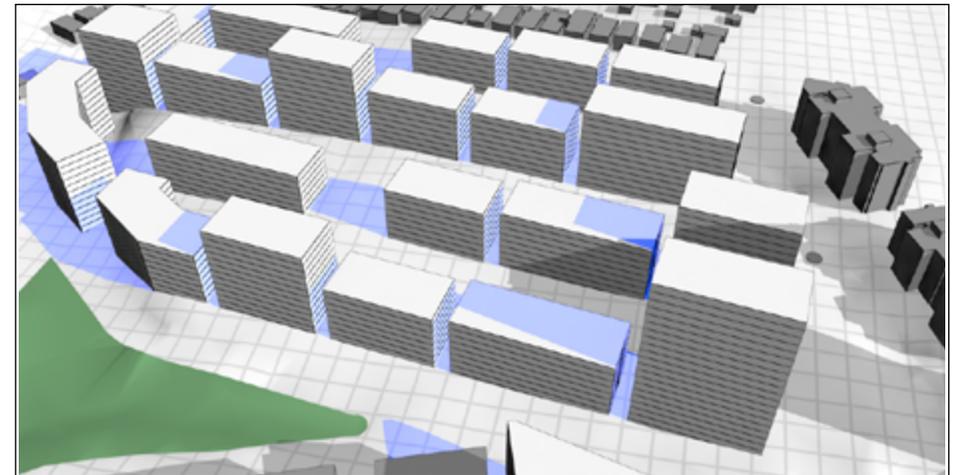


FIG A61
Perspective View 1 shadow intervals 11:00 am

Note: Grey shadows are from existing /approved buildings. Blues are from proposed draft Master Plan

Solar Access to Western facades (Draft Master Plan)

- Adequate and appropriate solar access can generally be provided to the west facing facades of perimeter block development

between 12 noon and 2pm/3pm with some localised reductions due to taller buildings.

This indicated that:

The preferred Precinct Masterplan can provide adequate and appropriate solar access to public domain and open space areas and to east and west building facades if carefully designed.

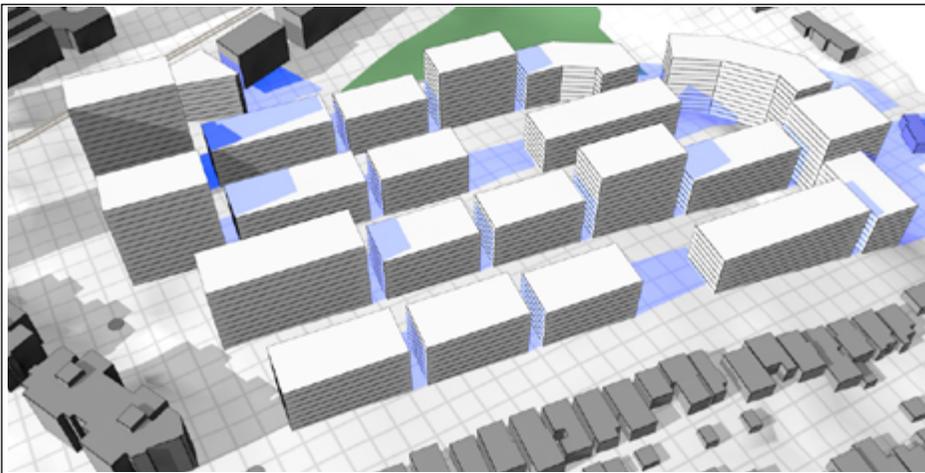


FIG A62
Perspective View 2 shadow intervals 12:00 pm

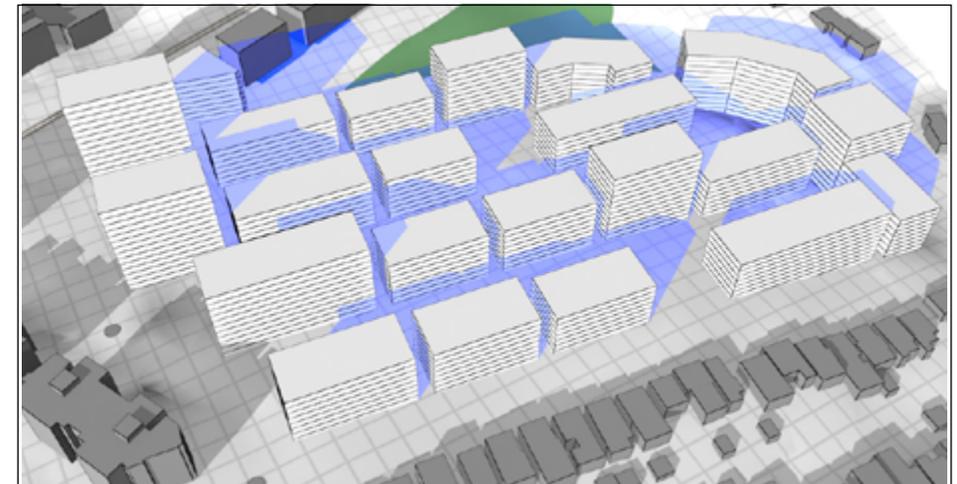


FIG A64
Perspective View 2 shadow intervals 2:00 pm

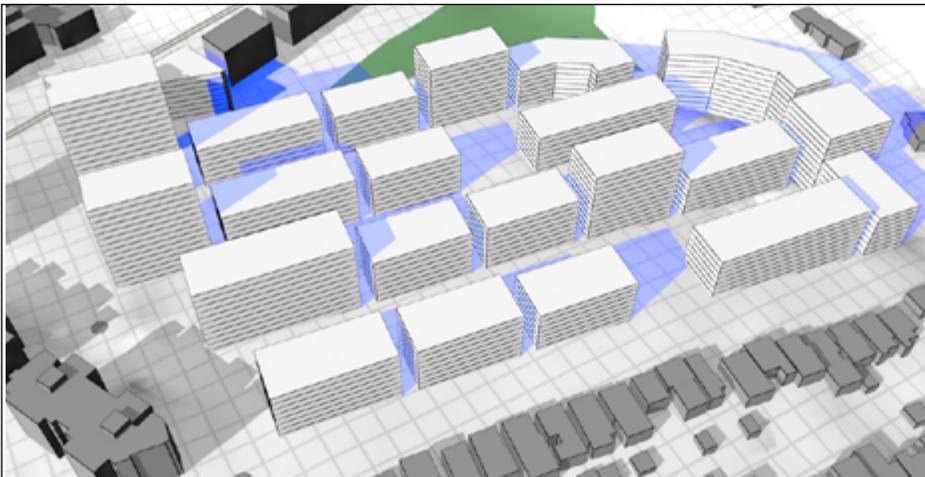


FIG A63
Perspective View 2 shadow intervals 1:00 pm

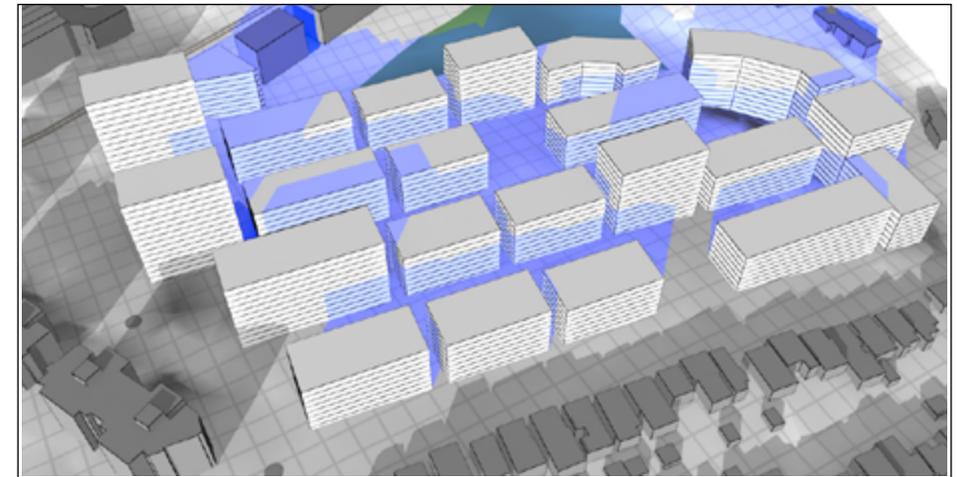


FIG A65
Perspective View 2 shadow intervals 3:00 pm

Note: Grey shadows are from existing /approved buildings. Blues are from proposed draft Master Plan

A5

Massing

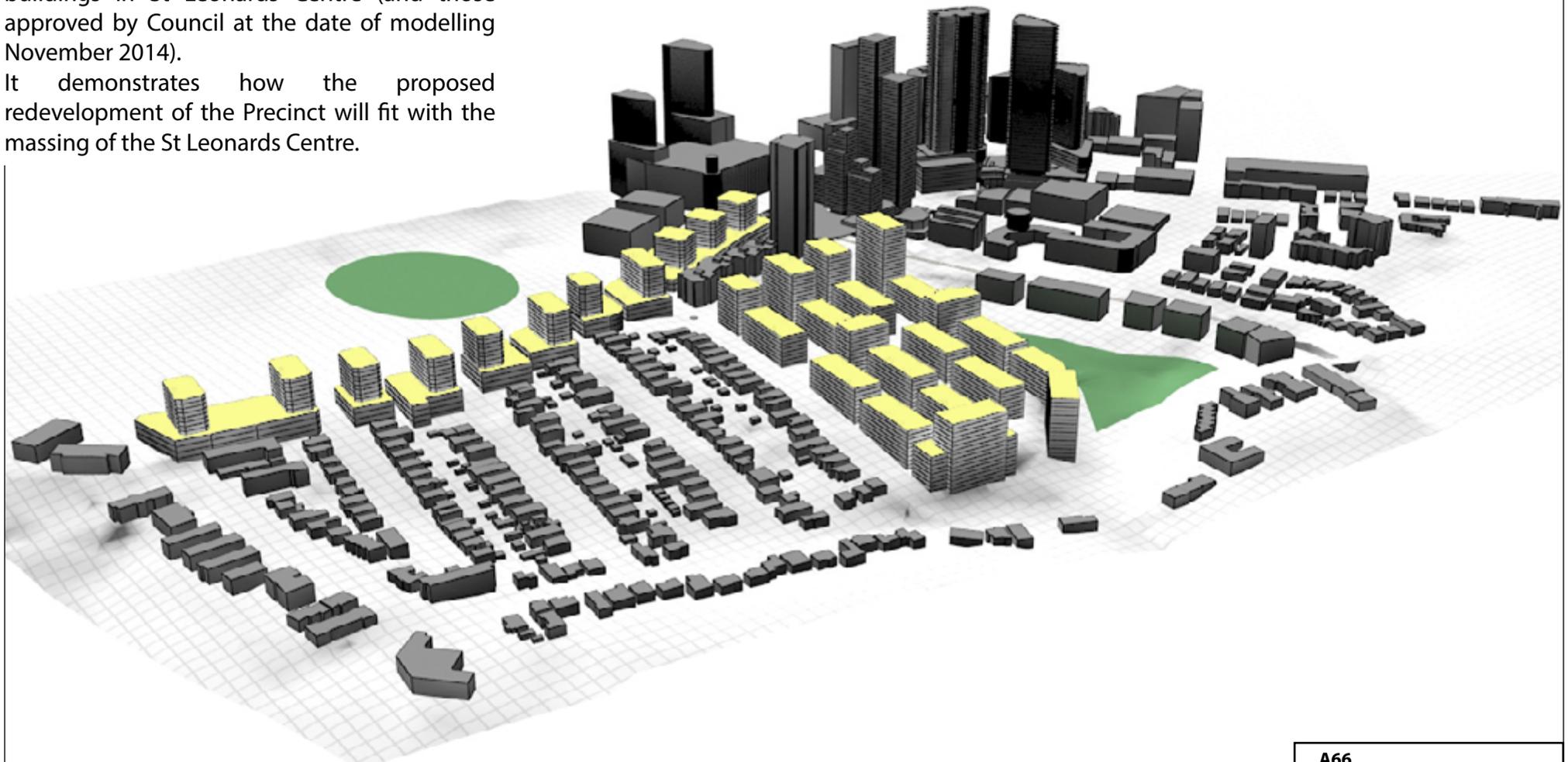
& Building Envelopes

A5 Heights and Envelopes

Heights and envelopes have been proposed based on preliminary assessments and modelled.

The 3-D model includes all major existing buildings in St Leonards Centre (and those approved by Council at the date of modelling November 2014).

It demonstrates how the proposed redevelopment of the Precinct will fit with the massing of the St Leonards Centre.



A66
Site Area 3D Model

Note: Yellow tone indicates proposed new buildings promoted by draft Master Plan

A6 Conclusion

The conclusions from the above investigations are as follows:

- Existing shadows caused by existing and approved buildings will cause some impacts on this steep south-facing sub-precinct
- Building heights for perimeter block buildings can be accommodated up to about 8 storeys and still enable adequate and appropriate solar access to public domain, common/private open space and to east and west facing building facades
- Above 8 storeys solar access and shadow impacts become problematic
- Solar access and shadow impact amelioration can generally be accommodated for the preferred Masterplan which indicates localised residential buildings of 10, 12, 15 and 20 storeys.

(Highway frontage Mixed-use buildings of 16 storeys ,12 storey residential on 4 storey commercial podium) may potentially be accommodated, but would be subject to separate shadow modelling, LEP planning proposal and consultation.

shadow impacts would be minimised with design of slender buildings and careful location.

**St Leonards South
Masterplan
Draft**

Appendix B

Demographic Information

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B Demographics

B.1 Summary

The demographics of new apartments is likely to be markedly different to that of existing single family dwellings.

A brief demographic analysis based on existing dwellings in the study area the wider St Leonards Precinct and compared with three predominantly new apartment areas of similar density in Rhodes, Wolli Creek and Zetland.

A review of demographic details from a number of areas experiencing major apartment growth indicates the following:

B.1.1 Age

Residents are predominantly adults (25-54 years) at around 60%. Children generally represent about 10% of the population; older adults generally represent 7-9% of the population. This compares with St Leonards and Sydney metro generally.

B.1.2 Ethnicity

The population of the areas analysed consistently have very high proportions of non-Australian born comprising more than half in Wolli Creek and Rhodes. Chinese born are the predominant (and most rapidly growing) ethnicity, 30-35% in Wolli Creek and Rhodes, 18% in Zetland and 11% in St Leonards.

Other ethnic groups represented include Korean, Indonesian, Indian, Japanese English, New Zealand and Hong Kong, comprising more than 10% of the local population.

B.1.3 Dwellings

Apartments represent more than 50% of dwellings in all areas investigated with 2 bedroom being the most common at about 60% of apartments. Average persons per household is 2.1-2.3.

B.1.4 Car Ownership is generally low at 1.1-1.2 cars/dwelling and less in St Leonards (0.9)

B.1.5 Conclusion

In summary for 1000 dwellings or about 2,200 persons the following could be expected:

Table B.1

Age	%	/1000 dus	@ 2000 dus
0-4	5	125	250
5-14	5	125	250
15-24	20	500	1000
25-54	60	1500	3000
55-64	5	125	250
65+	5	125	250
		2500	5000

Based on average demographics for new apartment dwellings.

(a) Age

Thus we would expect* demand for the following:

- Child care/day care x 3-5 (private)
- Primary school - 6-7 classes
- Secondary school – 5 classes
- Employment for 3000+ adults
- Seniors programs/housing for 250 plus
- Civic and civil facilities (meeting rooms, halls, library etc)

* According to social planning standards

(b) Ethnicity

It should be anticipated that 50% or more of new residents may be overseas born with a very high proportion of Chinese born.

(c) Car ownership is likely to be just around 1 car/dwelling (based on the presumption of 60% 2 bedroom apartments).

B.2 St Leonards

B.2.1 Age

In St Leonards the predominant age group are adults (25-54 years - 66%) , children(0-14 years) young adults(15-24 years) and seniors (55 years plus are evenly distributed at 10-12%.

40% of dwellings are owned or being purchased whilst 60% of dwellings are rented

Separate houses have dropped from 82% to 46%

B.2.2 Ethnicity

The proportion of Australian born is quite high at 67% (but has dropped significantly from 72% in the intercensus period)

Chinese born make up 34% of the non-Australian born and 11% of total population (up from 4.5%).

Other ethnic groups include English, Hong Kong, India and Japan.

B.2.3 Dwellings

Apartments have grown dramatically as a proportion of total dwellings from 13% in 2006 to 51% in 2011

One and two bedroom apartments are most common at about 40% each

Average persons/household is 2.3

B.2.4 Cars

Car ownership is low at 0.9 cars/dwellings.

St Leonards, NSW

General Information

Area = 0.2 sq km

Age	2006	2011
0-4 years old	22	46
5-14 years old	19	33
15-24 years old	80	90
25-54 years old	315	546
55-64 years old	32	37
65+ years old	23	75
Total	491	827

	2006	2011
Median Age	35	32

Sex	2006	2011
Males	251	422
Females	241	405



Country of birth	2006	2011
Australia	404	439
Other	35 (England); 28 (Hong Kong); 27 (New Zealand); 25 (China); 25 (Japan).	72 (China); 46 (England); 35 (Hong Kong); 32 (India); 26 (Japan).
Total (excluding Australia)	140	211
Total (including Australia)	544	650

Dwelling structure	2006	2011
Separate house	212	200
Semi-detached, row or terrace house, townhouse etc	12	12
Flat, unit or apartment	34	223
Total occupied private dwellings	258	435

Number of bedrooms	2006	2011
1 bedroom	-	161
2 bedrooms	-	166
3 bedrooms	-	74
4 or more bedrooms	-	13
Average number of bedrooms per dwelling	-	2.1
Average number of people per household	2.2	2.3

Tenure	2006	2011
Owned outright	38	64
Owned with a mortgage	62	109
Rented	155	261
Other tenure type	3	1
Median monthly mortgage repayments	\$2,244	\$2,650
Median weekly rent	\$351	\$780
Average motor vehicles per dwelling	-	0.9

Weekly income	2006	2011
\$1 - \$599	-	139
\$600 - \$999	-	109
\$1,000 - \$1,499	-	129
\$1,500 - \$1,999	-	87
\$2,000 +	-	166

Index of relative Socio-economic Advantage and Disadvantage (SEIFA 2011)	1130 ¹
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¹A lower score (below 1000) indicates that an area is relatively disadvantaged compared to an area with a higher score (above 1000).

Information for flats, units or apartments

Number of bedrooms	2006	2011
1 bedroom	-	142
2 bedrooms	-	140
3 bedrooms	-	54
4 or more bedrooms	-	2

Tenure	2006	2011
Owned outright	-	45
Owned with a mortgage	-	84
Rented	-	219
Other tenure type	-	2

B.3 Rhodes

B.3.1 Age

In Rhodes the predominant age group are adults (25-54 years – 64%) with an increase of 10% over the census period. Young adults (15-24 years) comprise 22% of the population (up from 16%). Children (0-14 years) have dropped marginally from 13% to 11%. Older adults (>55 years) have dropped from 17% to 7%.

B.3.2 Ethnicity

The proportion of overseas born to Australian born has exploded from 46% to 66% in the period 2006-2011.

Major concentrations include:

Chinese 54% of non-Australian born: 36.5% of population

Korean 25% of non-Australian born down significantly as a proportion of non-Australian born (from 44%)

English steady at 5% of the non-Australian born: 3% of population

Indian 8% of non-Australian born, a sharp increase: 6% of population

Hong Kong a small reduction from 10% to 8% of non-Australian born: a steady 2-3% of population

B.3.3 Dwellings

Apartments have increased dramatically as a percentage of total dwellings from 60% to 86% (a growth of 216%), (c.f. Sydney average of 21%).

Separate houses have dropped from 25% to 10% of total number of dwellings. (c.f. Sydney average of 59%).

Apartments are predominantly 2 bedroom (65%) and mostly rented (60%)

B.3.4 Cars

Car ownership is low at 1.2 cars/dwelling (Note: 2 bedroom dwellings comprise 60% of dwellings).

Rhodes, NSW**General Information**

Area = 1 sq km

Age	2006	2011
0-4 years old	103	379
5-14 years old	114	239
15-24 years old	259	1,253
25-54 years old	902	3,322
55-64 years old	120	267
65+ years old	170	219
Total	1,668	5,679

	2006	2011
Median Age	32	28

Sex	2006	2011
Males	818	2,810
Females	850	2,869

Country of birth	2006	2011
Australia	777	1,347
Other	158 (Republic of Korea); 78 (China); 55 (England); 37 (Hong Kong); 30 (Philippines).	1,444 (China); 650 (Republic of Korea); 219 (India); 183 (Hong Kong); 111 (England).
Total (excluding Australia)	358	2,607

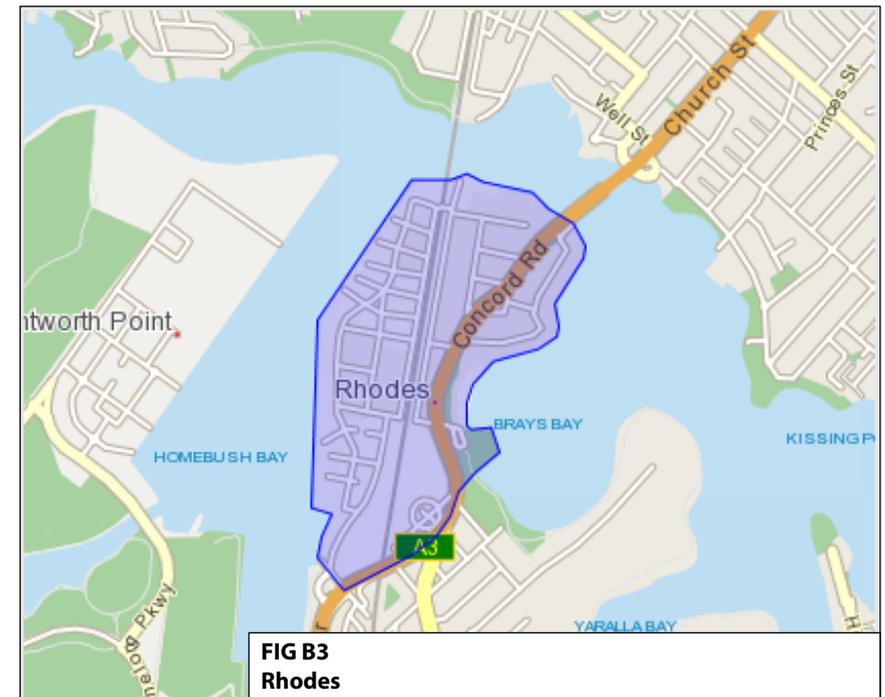


FIG B3
Rhodes

Dwelling structure	2006	2011
Separate house	166	198
Semi-detached, row or terrace house, townhouse etc	99	103
Flat, unit or apartment	413	1,838
Total occupied private dwellings	678	2,139

Number of bedrooms	2006	2011
1 bedroom	-	359
2 bedrooms	-	1,284
3 bedrooms	-	412
4 or more bedrooms	-	77
Average number of bedrooms per dwelling	-	2.1
Average number of people per household	2.4	2.3

Tenure	2006	2011
Owned outright	113	289
Owned with a mortgage	193	628
Rented	284	1,208
Other tenure type	4	10
Median monthly mortgage repayments	\$2,383	\$2,600
Median weekly rent	\$375	\$560
Average motor vehicles per dwelling	-	1.2

Weekly income	2006	2011
\$1 - \$599	-	873
\$600 - \$999	-	784
\$1,000 - \$1,499	-	713
\$1,500 - \$1,999	-	441
\$2,000 +	-	505

Index of relative Socio-economic Advantage and Disadvantage (SEIFA 2011)	1090 ¹
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¹A lower score (below 1000) indicates that an area is relatively disadvantaged compared to an area with a higher score (above 1000).

Information for flats, units or apartments

Number of bedrooms	2006	2011
1 bedroom	-	354
2 bedrooms	-	1,204
3 bedrooms	-	270
4 or more bedrooms	-	8

Tenure	2006	2011
Owned outright	-	191
Owned with a mortgage	-	529
Rented	-	1,083
Other tenure type	-	7

B.4 Wollie Creek

B.4.1 Age

The predominant age group in Wollie Creek are adults (25-54 years) at 68% of the population (up from 58% in the inter census period.

Children (0-14 years) have declined somewhat from 12 to 9.5%.

Young adults (15-25 years) have declined from 23% to 17%. Older adults (54 years+) remains steady at 7-8%.

B.4.2 Ethnicity

The proportion of overseas born to Australian born has increased significantly from 40% in 2006 to 52% in the period 2011.

Major concentrations include:

Chinese 56% of non-Australian born, up from 49% to comprise 27% Of total population

Indonesian stable at 13% of non-Australian born and 6% of population

Indian 11% of non-Australian born, not present at previous census yet only 6% of population

New Zealand steady at 10-12% of non-Australian born and about 6% of total population

Hong Kong steady at 9-11% of non-Australian born: 5% of population

B.4.3 Dwellings

Apartments have increased from 86% to 93% of total dwellings whilst separate dwellings have reduced from 12% to 5% of total dwellings. (c.f. Sydney 21% apartments and 59% separate dwellings)

Apartment numbers are inexplicably steady given the major development at Wollie Creek.

Apartments are predominantly 2 bedroom (73%) and mostly rented (60%)

B.4.4 Cars

Car ownership is a low 1.1/dwelling. Most dwellings (66%) are 2 bedroom.

Wolli Creek, NSW

General Information

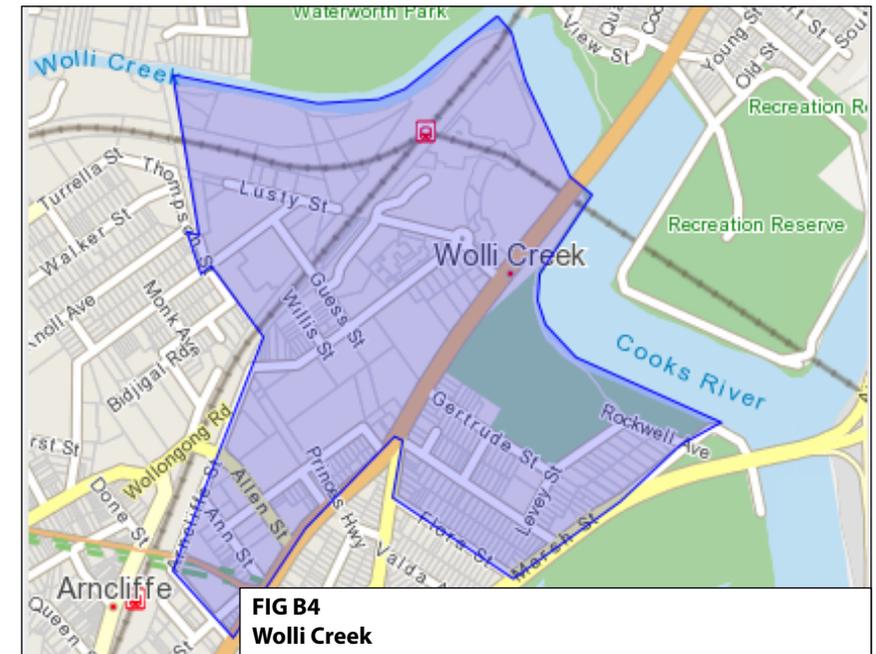
Area = 0.9 sq km

Age	2006	2011
0-4 years old	150	171
5-14 years old	169	96
15-24 years old	621	478
25-54 years old	1,524	1,860
55-64 years old	108	145
65+ years old	79	77
Total	2,651	2,827

	2006	2011
Median Age	28	29

Sex	2006	2011
Males	1,419	1,501
Females	1,232	1,329

Country of birth	2006	2011
Australia	987	822
Other	322 (China); 116 (Lebanon); 82 (New Zealand); 71 (Hong Kong); 71 (Indonesia).	502 (China); 112 (Indonesia); 97 (India); 93 (New Zealand); 85 (Hong Kong).
Total (excluding Australia)	662	889



Dwelling structure	2006	2011
Separate house	143	67
Semi-detached, row or terrace house, townhouse etc	12	8
Flat, unit or apartment	996	1,070
Total occupied private dwellings	1,151	1,145

Number of bedrooms	2006	2011
1 bedroom	-	229
2 bedrooms	-	742
3 bedrooms	-	128
4 or more bedrooms	-	21
Average number of bedrooms per dwelling	-	1.9
Average number of people per household	2.3	2.3

Tenure	2006	2011
Owned outright	101	111
Owned with a mortgage	258	388
Rented	653	620
Other tenure type	0	4
Median monthly mortgage repayments	\$2,090	\$2,400
Median weekly rent	\$340	\$500
Average motor vehicles per dwelling	-	1.1

Weekly income	2006	2011
\$1 - \$599	-	667
\$600 - \$999	-	528
\$1,000 - \$1,499	-	506
\$1,500 - \$1,999	-	266
\$2,000 +	-	187

Index of relative Socio-economic Advantage and Disadvantage (SEIFA 2011)	990 ¹
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¹A lower score (below 1000) indicates that an area is relatively disadvantaged compared to an area with a higher score (above 1000).

Information for flats, units or apartments

Number of bedrooms	2006	2011
1 bedroom	-	233
2 bedrooms	-	725
3 bedrooms	-	96
4 or more bedrooms	-	3

Tenure	2006	2011
Owned outright	-	84
Owned with a mortgage	-	361
Rented	-	601
Other tenure type	-	0

B.5 Zetland

B.5.1 Age

The predominant age group in Zetland are adults (25-54 years) at 64%, a marginal increase over the census period.

Young adults (15-24 years) are stable at 16-18%. Children (0-14 years) are stable at 10%. Older adults (54 years plus) have increased slightly from 7-9%.

B.5.2 Ethnicity

The proportion of overseas born remains fairly steady at 32-35%.

The proportion of overseas born to Australian born has exploded from 46% to 93% in the period 2006-2011.

Major concentrations include:

Chinese 53% up from 36% of non-Australian born: 18% of population (up from 11%)

English down from 20% to 13% of non-Australian born: only 5% of the overall population

Indonesian are down marginally from 15% to 12% and just under 5% of the population

New Zealanders are stable at 11% of non-Australian born and about 5% of the

population

Koreans are up to 35% of non-Australian born down but only 3% of the population

B.5.3 Dwellings

Apartments are far and away the most common dwelling form (80% up from 76.6%, c.f. Sydney 21%)

The number of dwellings has increased sharply by 35%. Two bedroom dwellings are the most common at 60% (1 bedroom = 21% and 3 bedroom 16%) and 51% are rented.

B.5.4 Cars

Car ownership is low at 1.2 cars/dwellings (60% of dwellings are 2 bedroom).

Zetland, NSW**General Information**

Area = 0.8 sq km

Age	2006	2011
0-4 years old	127	222
5-14 years old	118	173
15-24 years old	469	623
25-54 years old	1,691	2,432
55-64 years old	143	236
65+ years old	67	129
Total	2,615	3,815

	2006	2011
Median Age	31	31

Sex	2006	2011
Males	1,416	1,990
Females	1,198	1,822

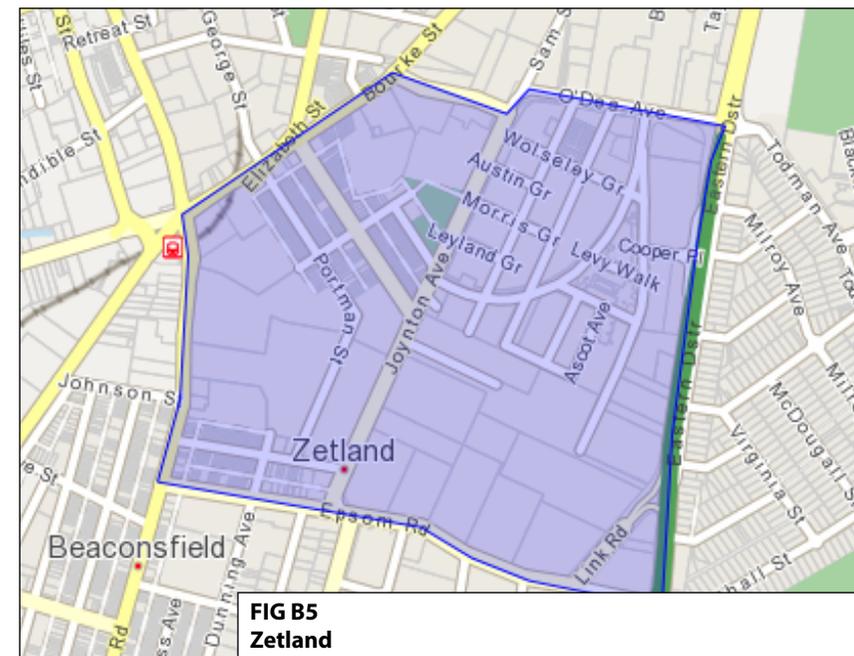


FIG B5
Zetland

Country of birth	2006	2011
Australia	1,181	1,648
Other	197 (China); 112 (England); 91 (Hong Kong); 84 (Indonesia); 61 (New Zealand).	463 (China); 116 (England); 104 (Indonesia); 104 (New Zealand); 83 (Republic of Korea).
Total (excluding Australia)	545	870

Dwelling structure	2006	2011
Separate house	7	76
Semi-detached, row or terrace house, townhouse etc	278	242
Flat, unit or apartment	935	1,329
Total occupied private dwellings	1,220	1,647

Number of bedrooms	2006	2011
1 bedroom	-	346
2 bedrooms	-	961
3 bedrooms	-	265
4 or more bedrooms	-	51
Average number of bedrooms per dwelling	-	2.0
Average number of people per household	2.2	2.1

Tenure	2006	2011
Owned outright	132	217
Owned with a mortgage	356	608
Rented	567	809
Other tenure type	6	3
Median monthly mortgage repayments	\$2,300	\$2,557
Median weekly rent	\$410	\$565
Average motor vehicles per dwelling	-	1.2

Weekly income	2006	2011
\$1 - \$599	-	558
\$600 - \$999	-	479
\$1,000 - \$1,499	-	665
\$1,500 - \$1,999	-	458
\$2,000 +	-	469

Index of relative Socio-economic Advantage and Disadvantage (SEIFA 2011)	986 ¹
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¹A lower score (below 1000) indicates that an area is relatively disadvantaged compared to an area with a higher score (above 1000).

Information for flats, units or apartments

Number of bedrooms	2006	2011
1 bedroom	-	352
2 bedrooms	-	834
3 bedrooms	-	135
4 or more bedrooms	-	9

Tenure	2006	2011
Owned outright	-	142
Owned with a mortgage	-	494
Rented	-	677
Other tenure type	-	3