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Coffs Harbour City Council

Coffs Harbour CBD
Built Form Study - Testing of LEP Controls

17029 | June 2018

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Coffs Harbour CBD | Built Form Study - Testing of LEP Controls

Cover Image: View along Harbour Drive looking southeast

Revision	Date	Description	By	Chk	App
01	18/05/2018	Final Draft	DA		DA
02	19/06/2018	Final Report	DA	EL	DA

17029 | June 2018

Prepared for:

COFFS HARBOUR CITY COUNCIL

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1.0 Scenario A

HOB Controls Only - UD Analysis

CBD Core Area

The adjoining figure illustrates Scenario A where development of five sites has been tested to the maximum height possible. Without development controls in place to guide a good urban design outcome and to protect basic urban amenity, awkward and narrow building forms would result which will impact on the amenity of pedestrians and key places within the CBD. This includes southern CBD footpaths, City Square and Brelsford Park. These important destinations and attractions would be overshadowed in the middle of the day, in mid-winter.

Figure 1: Scenario A - looking North, viewed from the South

1.0 Scenario A

HOB Controls Only - UD Analysis

CBD Core Area

Scenario A testing of the same five sites, viewed from the north, looking south.

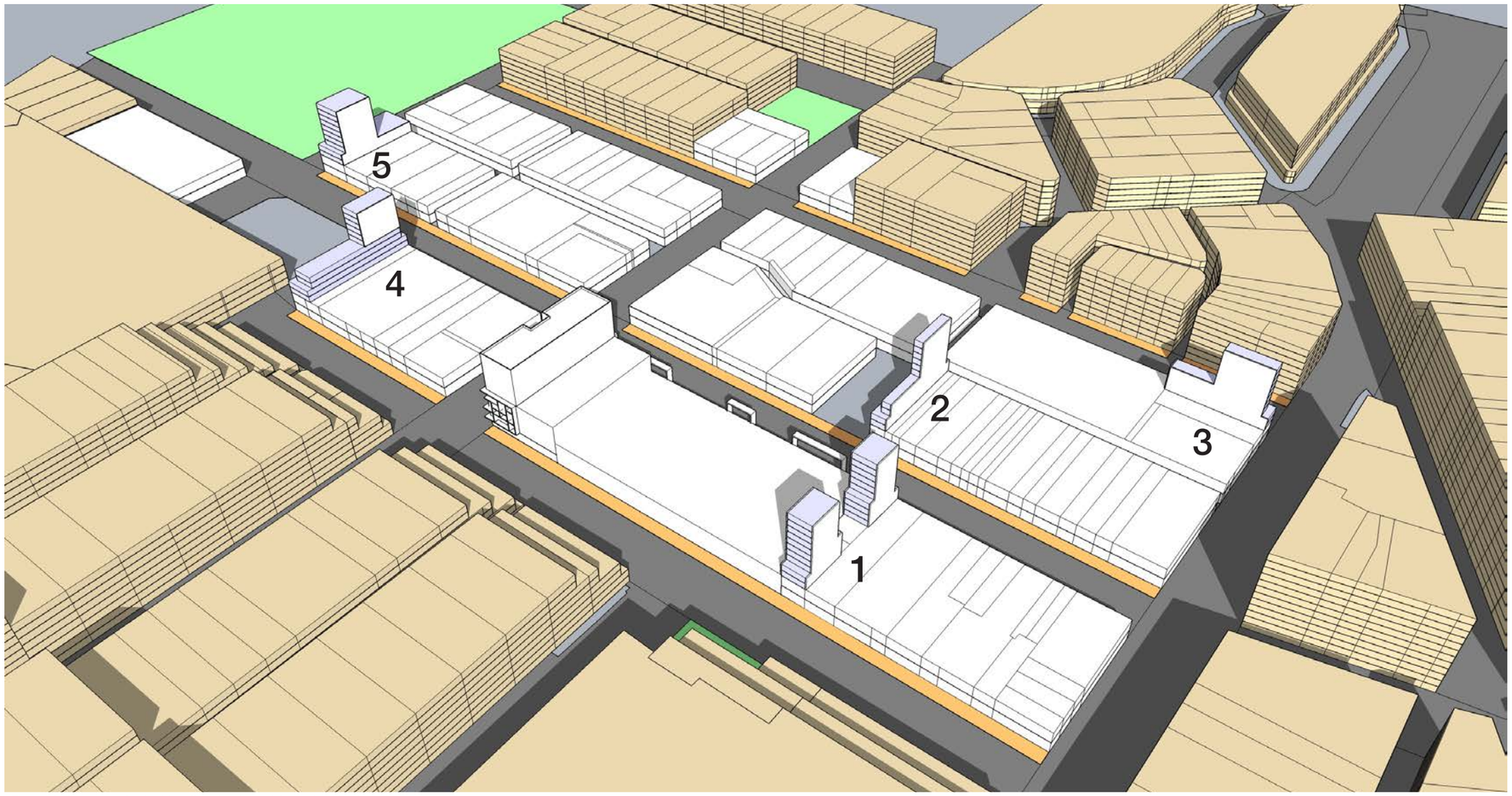

Figure 2: Scenario A - looking South, viewed from the North

1.0 Scenario A

HOB Controls Only - UD Analysis

Site 1

When the proposed LEP Height of Building (HOB) Controls are applied to Site 1, without minimum site frontage and solar access controls in place, a poor urban design outcome results.

Figure 3: Key Plan

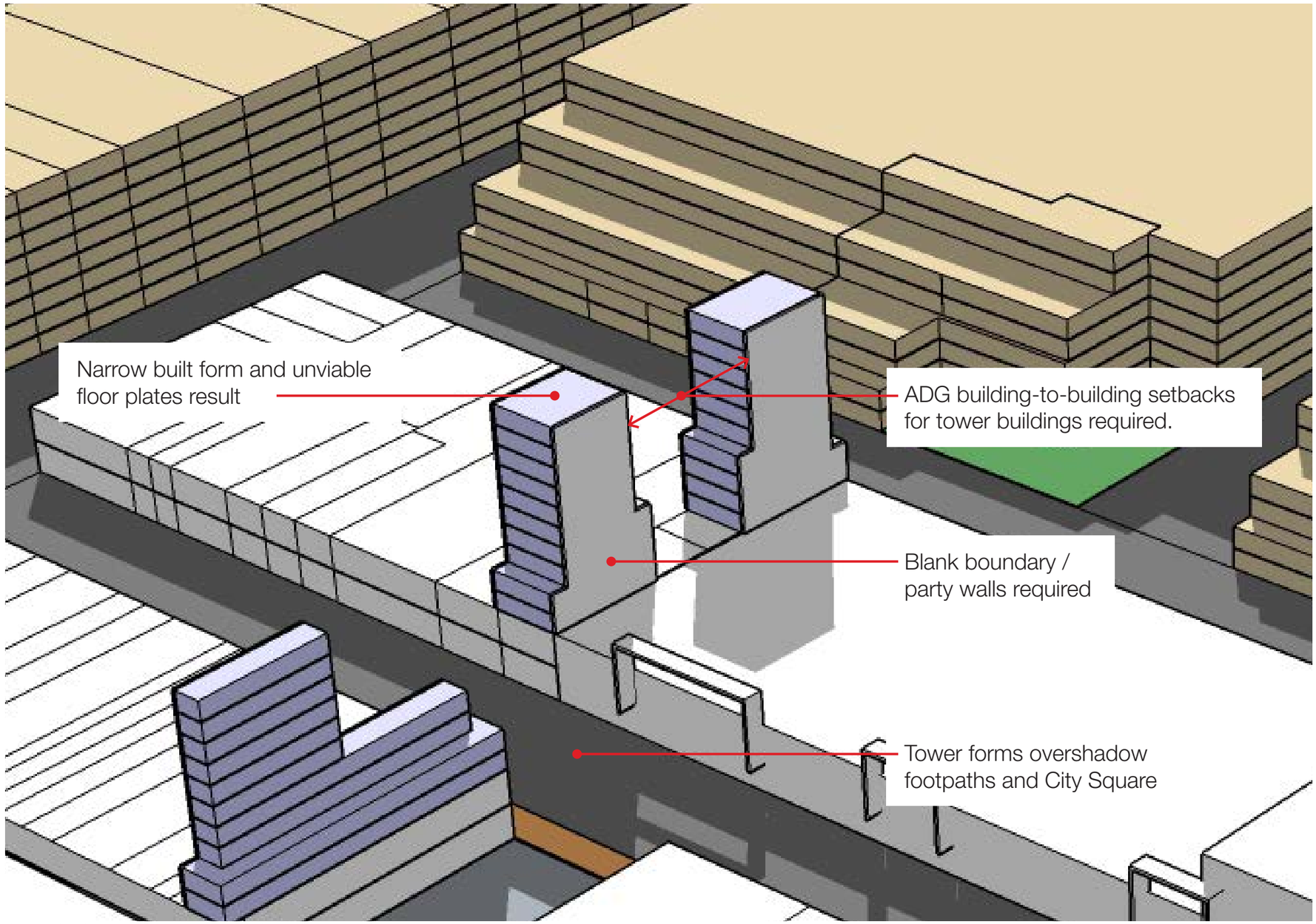

Figure 4: Site 1 - looking North, viewed from the South

1.0 Scenario A

HOB Controls Only - UD Analysis

Site 2

When the proposed LEP Height of Building (HOB) Controls are applied to Site 2, without minimum site frontage and solar access controls in place, a poor urban design outcome results.

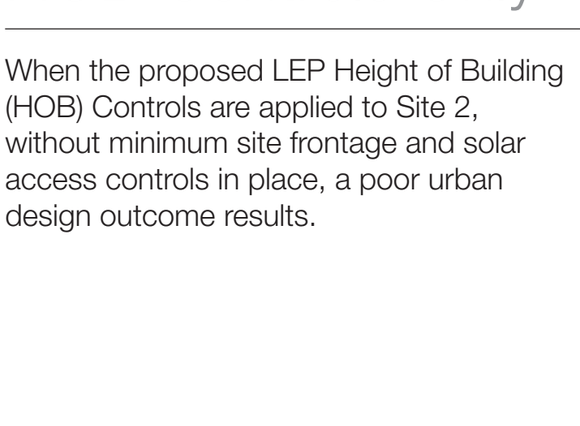

Figure 5: Key Plan

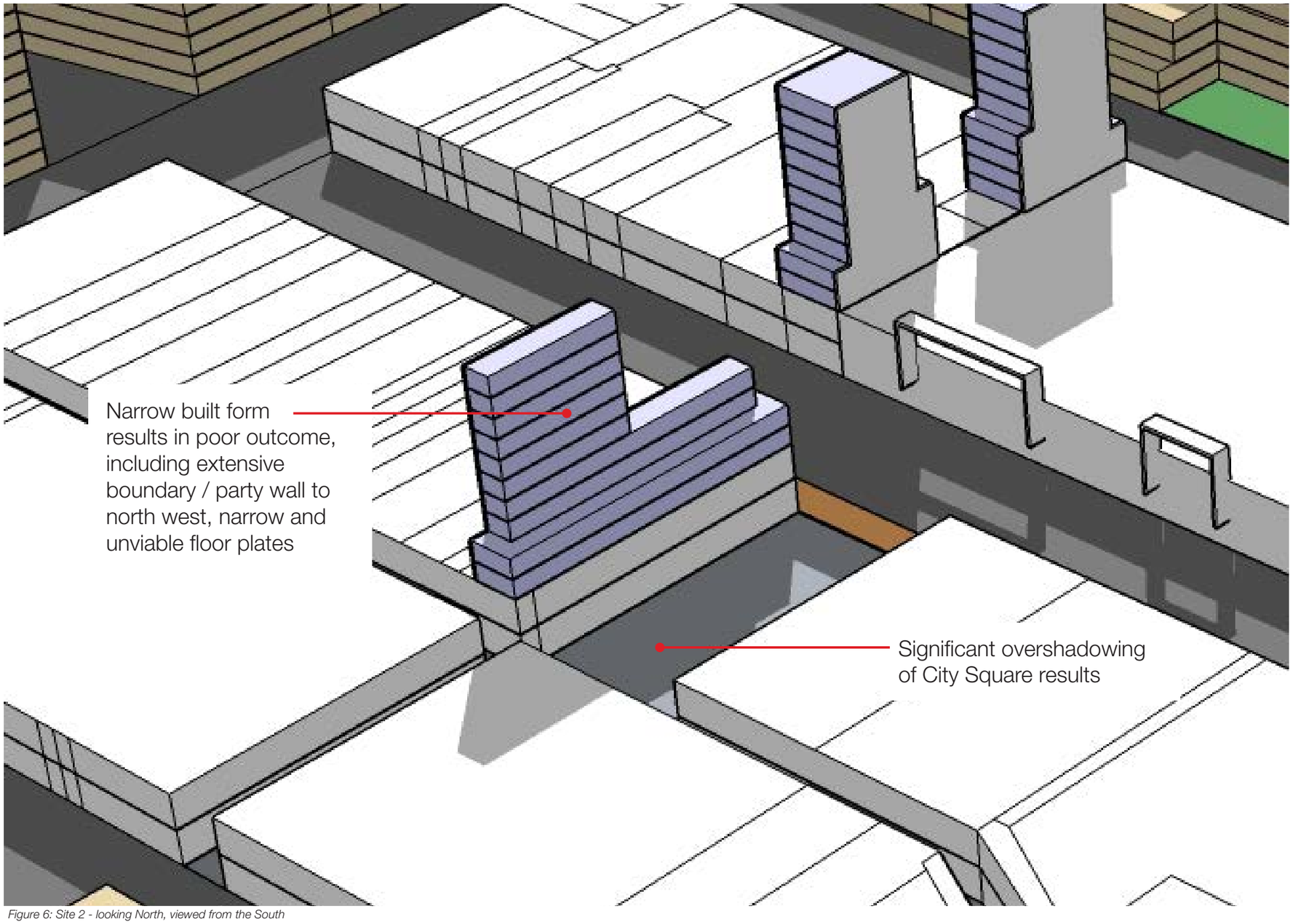

Figure 6: Site 2 - looking North, viewed from the South

1.0 Scenario A

HOB Controls Only - UD Analysis

Site 3

When the proposed LEP Height of Building (HOB) Controls are applied to Site 3, without minimum site frontage and solar access controls in place, a poor urban design outcome results.

Figure 7: Key Plan

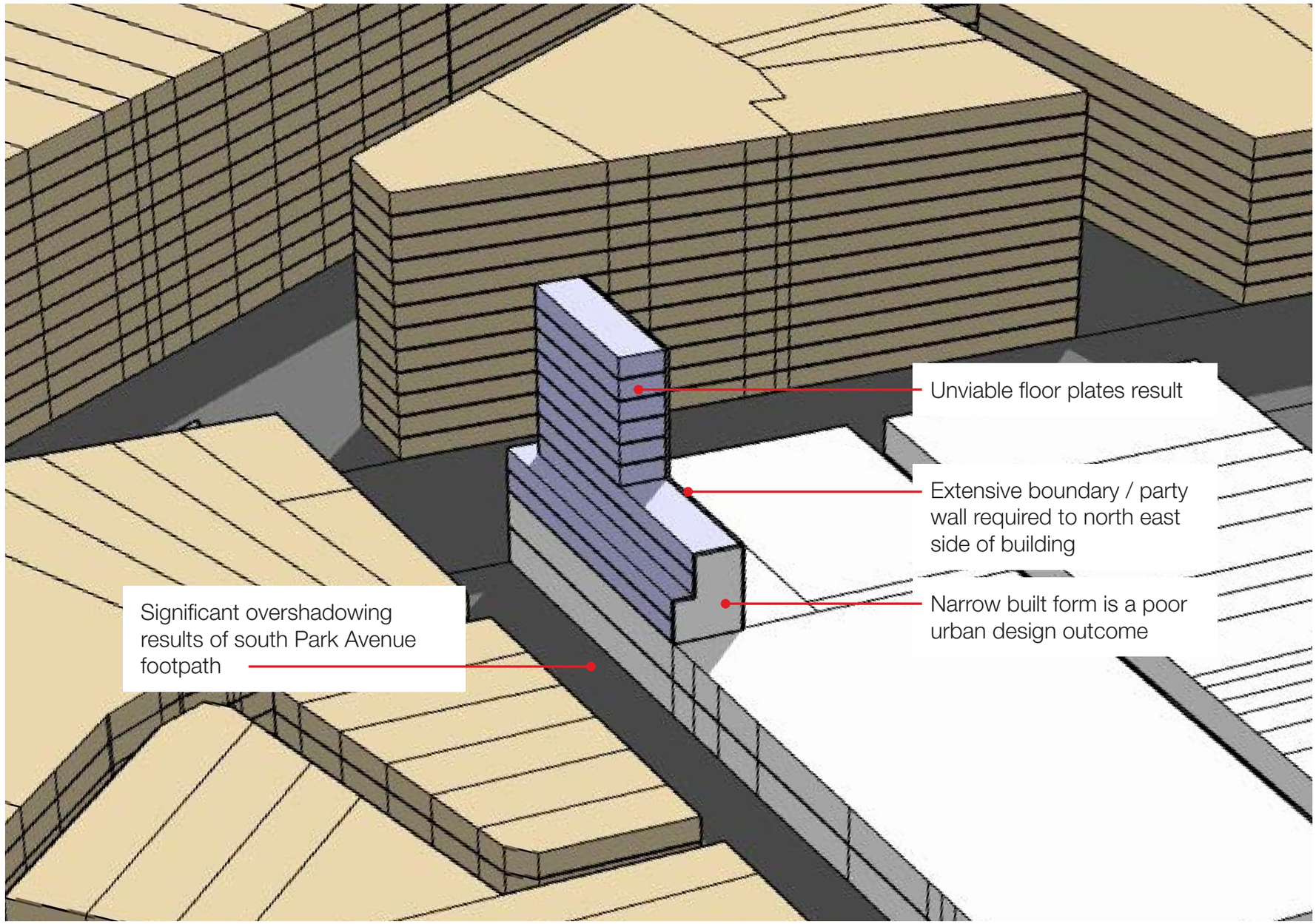

Figure 8: Site 3 - looking North, viewed from the South

1.0 Scenario A

HOB Controls Only - UD Analysis

Site 4

When the proposed LEP Height of Building (HOB) Controls are applied to Site 4, without minimum site frontage and solar access controls in place, a poor urban design outcome results.

Figure 9: Key Plan

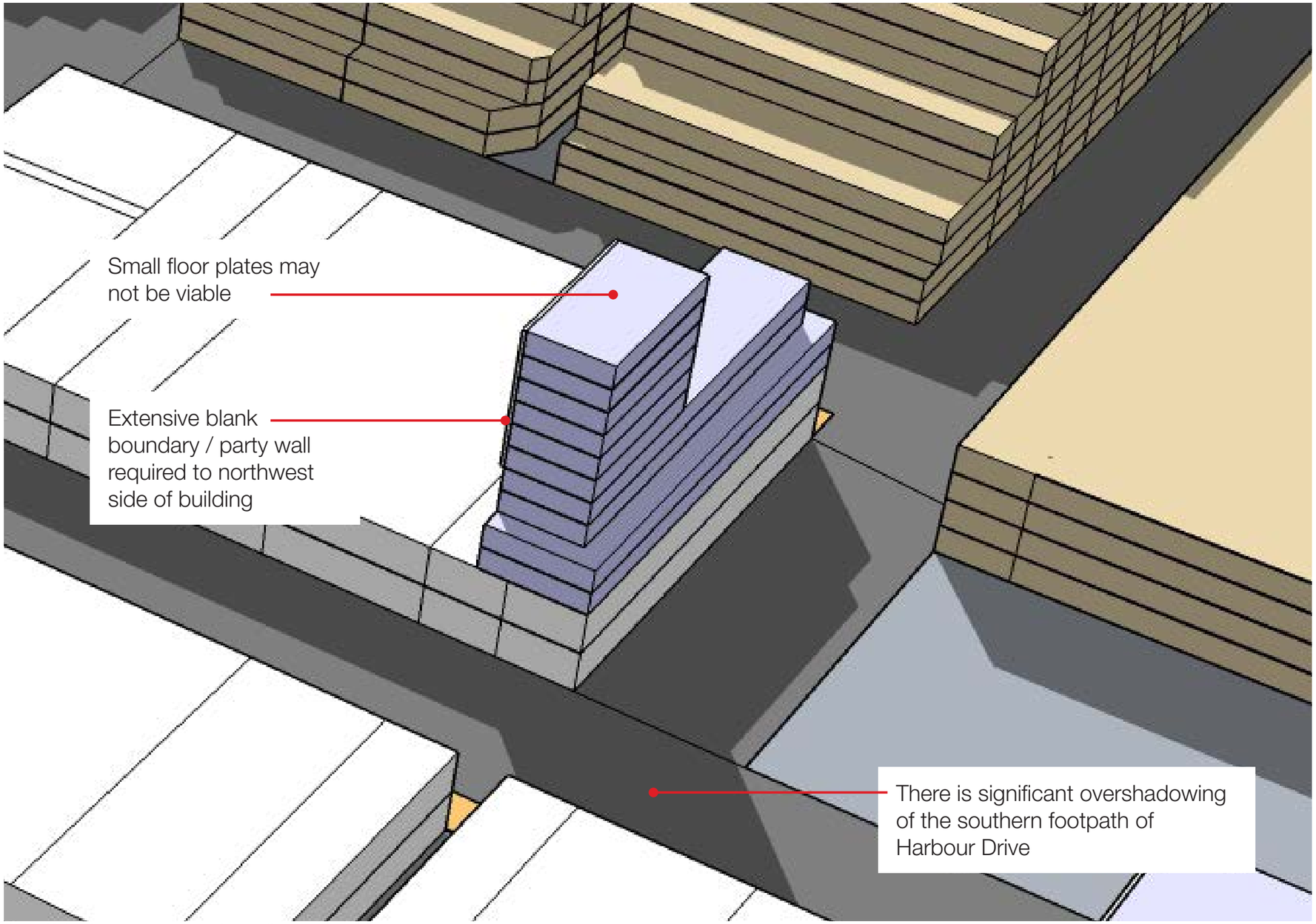

Figure 10: Site 4 - looking North, viewed from the South

1.0 Scenario A

HOB Controls Only - UD Analysis

Site 5

When the proposed LEP Height of Building (HOB) Controls are applied to Site 5, without minimum site frontage and solar access controls in place, a poor urban design outcome results.

Figure 11: Key Plan

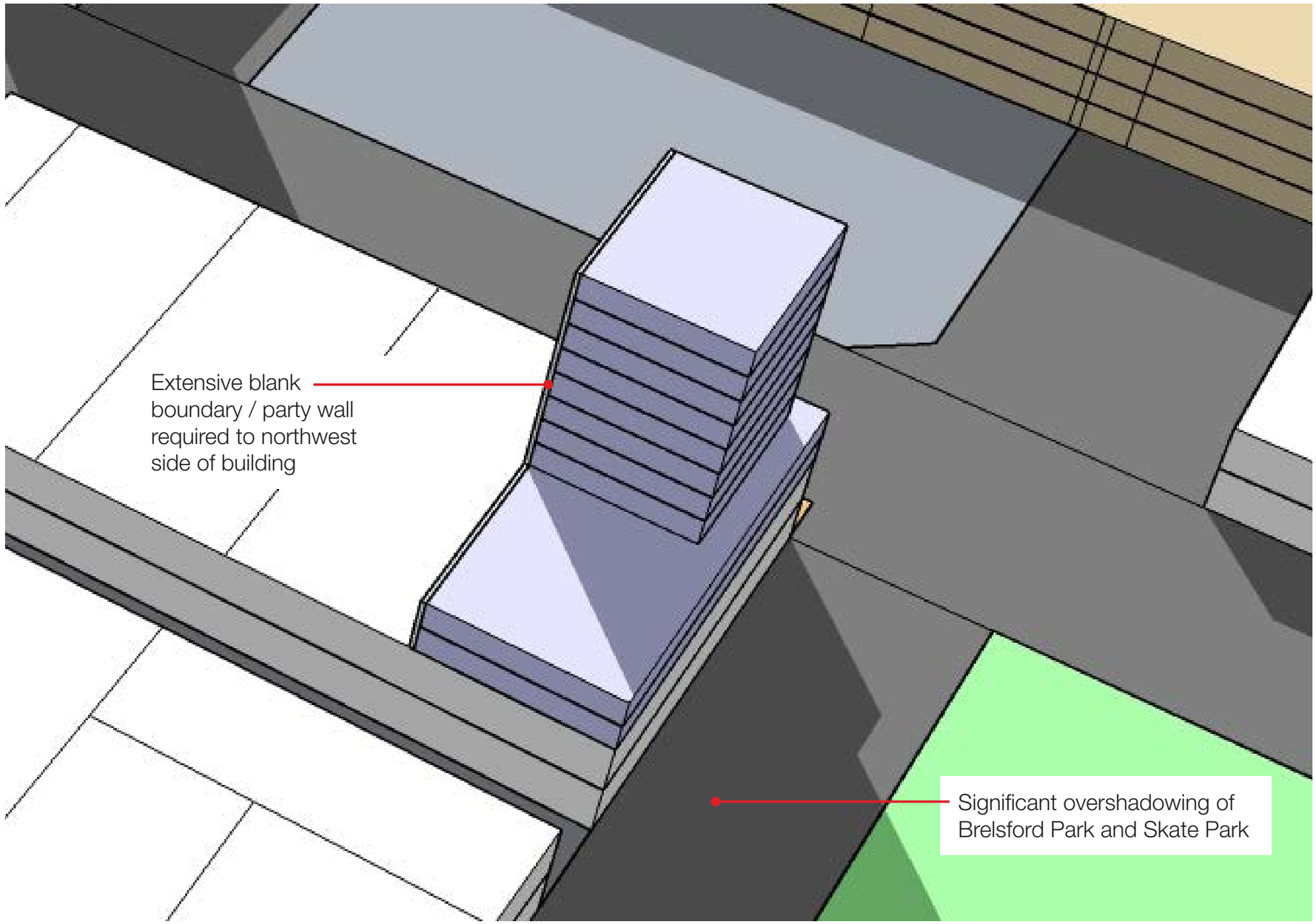

Figure 12: Site 5 - looking North, viewed from the South

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2.0 Scenario A

Shadow Testing

CBD Core Area

June 21 | 12 noon

At the Winter Solstice, Scenario A testing of the five sites has shown that significant overshadowing of the southern footpaths, City Square and Brelsford Park would result.

Figure 13: Scenario A - 12pm

2.0 Scenario A

Shadow Testing

CBD Core Area

June 21 | 1 pm

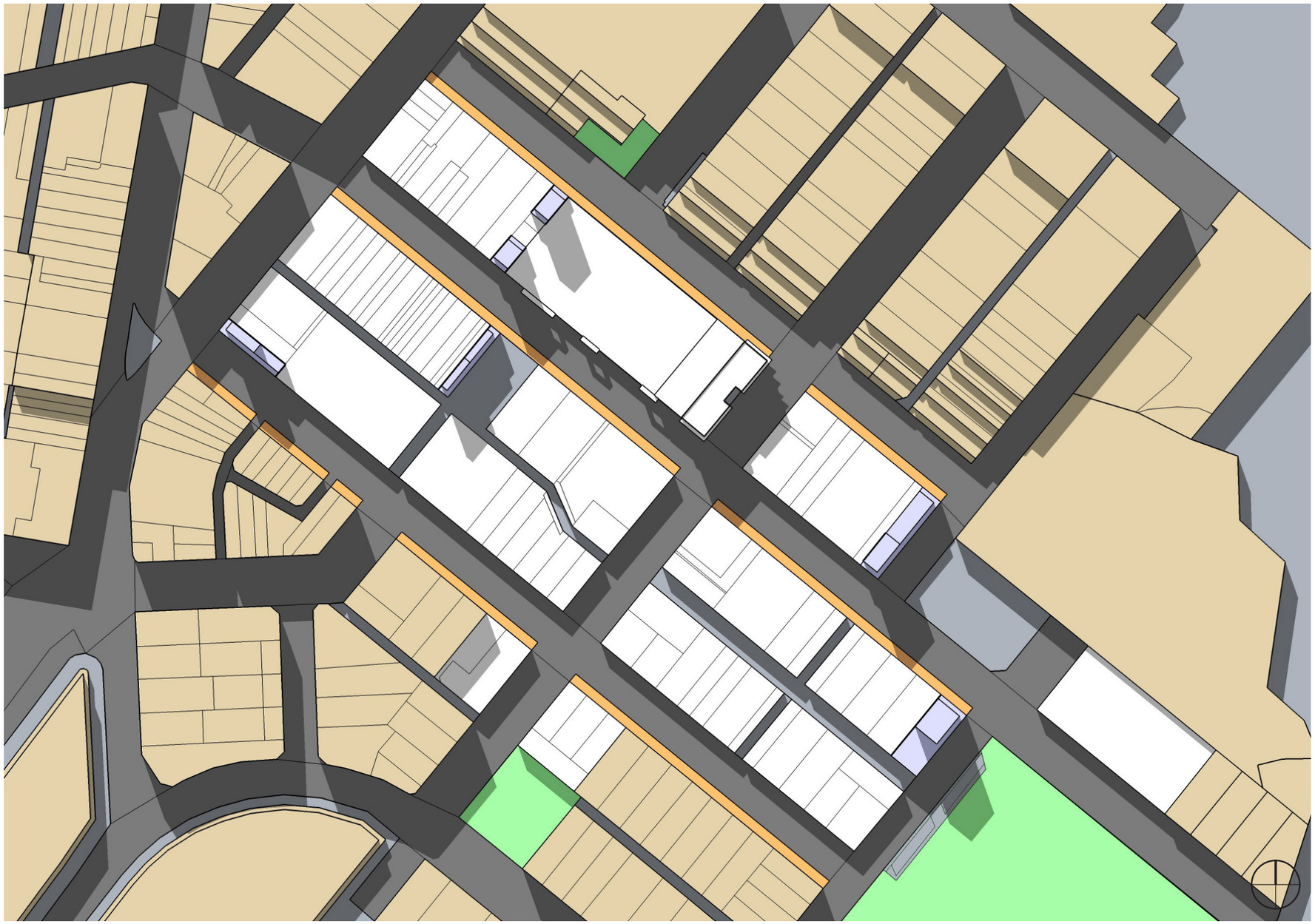

Figure 14: Scenario A - 1pm

2.0 Scenario A

Shadow Testing

CBD Core Area

June 21 | 2 pm

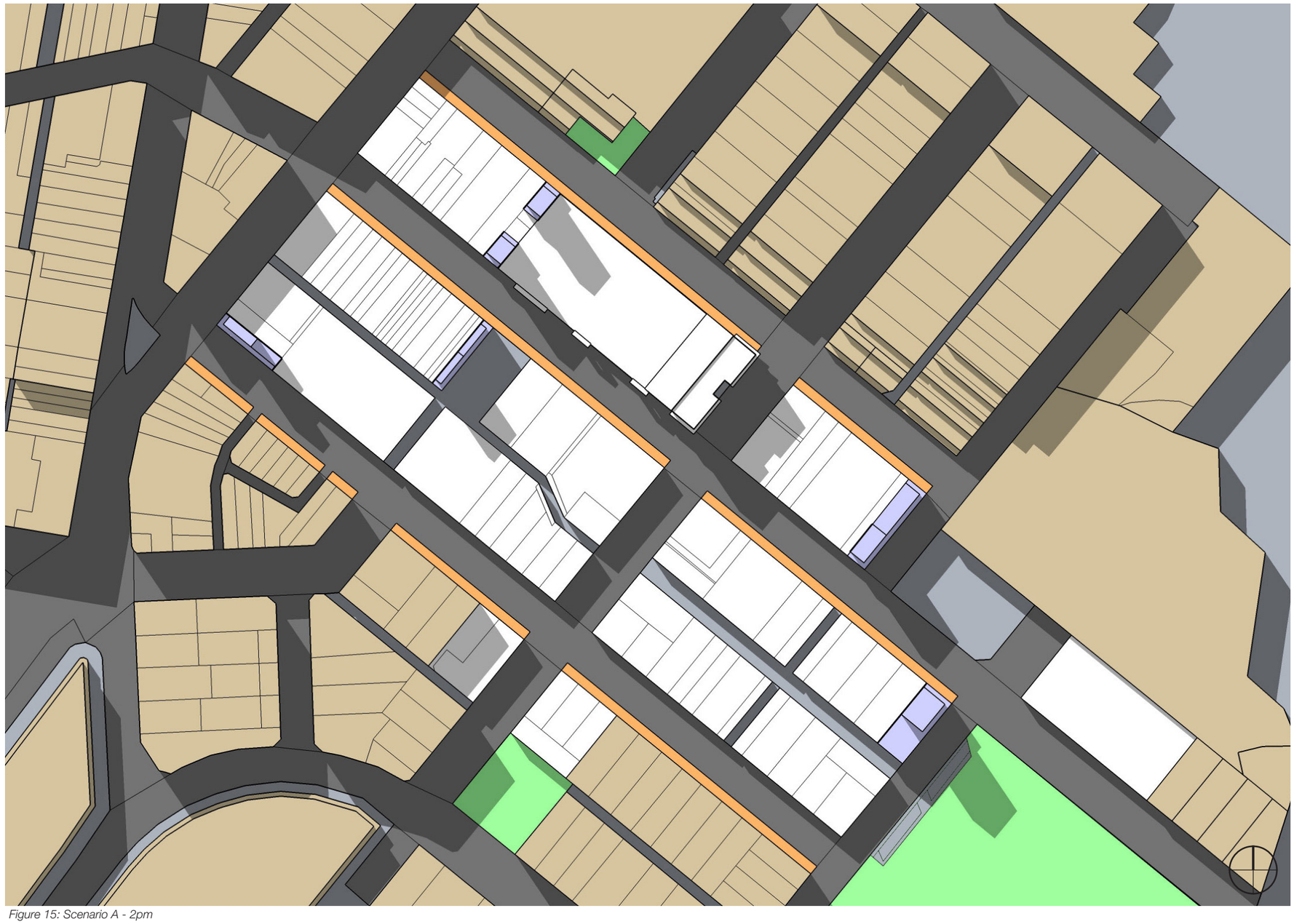

Figure 15: Scenario A - 2pm

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3.0 Scenario B

FSR, Solar + Frontage Controls - UD Analysis

CBD Core Area
30m Minimum Frontage

Site Consolidation

Scenario B tests the same five sites as Scenario A, however with all proposed LEP Controls applied. The consolidation of core CBD sites is to be encouraged. Long, narrow sites are unviable to develop with buildings of 13 storey height. Taller buildings are proposed which have a podium of 3-4 storeys with a tower building above. To achieve SEPP 65 Apartment Design Guide (ADG) building-to-building separation requirements, development parcels should be of a size where this can be easily achieved.

A minimum 30m Street Frontage rule is proposed that will ensure building towers have amenity, with access to sunlight, natural ventilation and share CBD, regional and ocean views with adjoining towers.

The adjoining figure illustrates the proposed minimum 30m site frontage dimension and the resulting consolidation of properties required to achieve a viable development parcel. Red rectangles represent the new consolidated sites.

Figure 16: Scenario B

3.0 Scenario B

FSR, Solar + Frontage Controls - UD Analysis

CBD Core Area
30m Minimum Frontage

When the proposed LEP Height of Building (HOB), Density (FSR), 30 metre minimum frontage (ie minimum consolidated site area) and Solar Access Controls are applied to the five test sites, an urban planning outcome of high quality and amenity results.

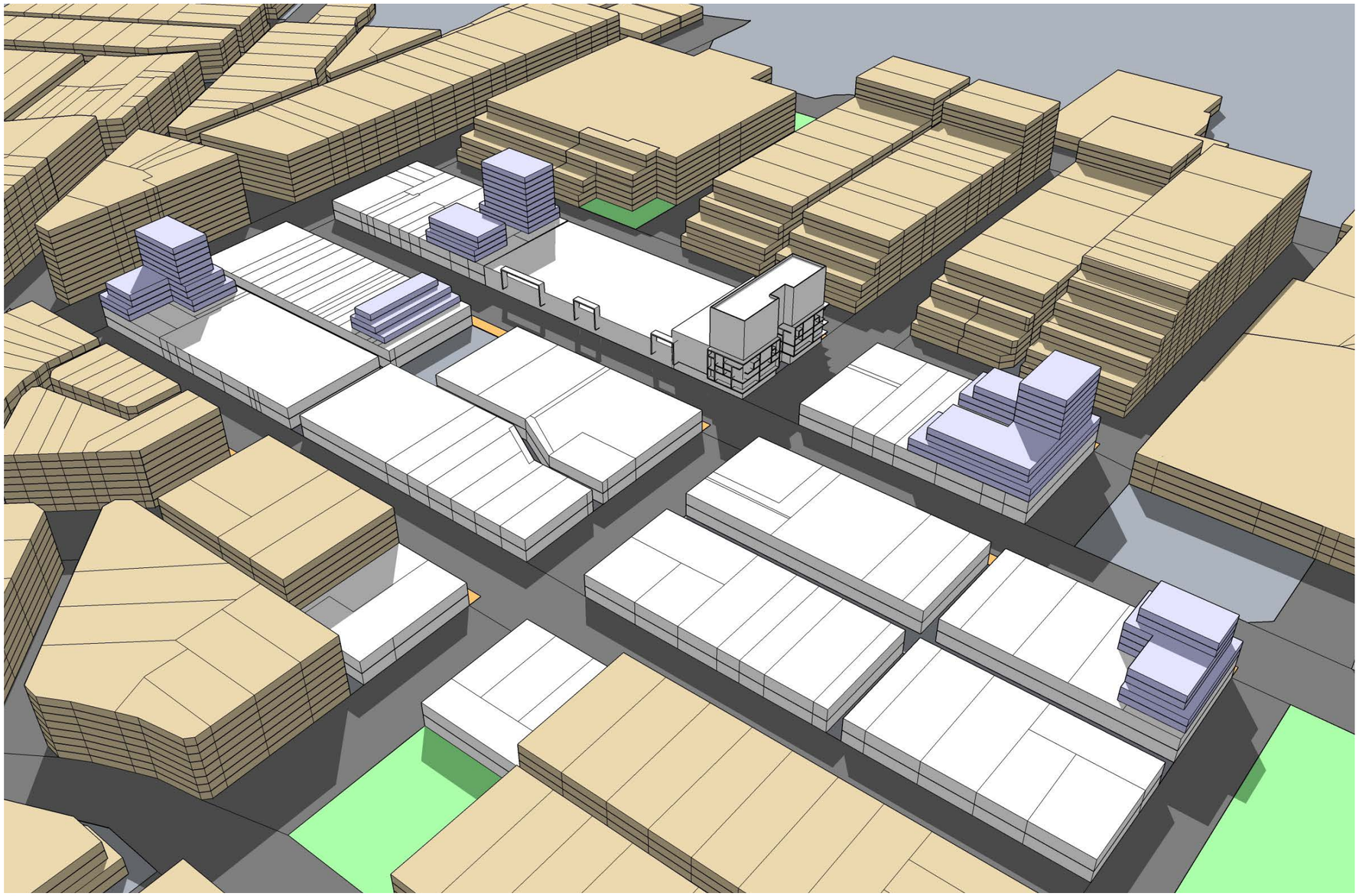

Figure 17: Scenario B - looking North, viewed from the South

3.0 Scenario B

FSR, Solar + Frontage Controls - UD Analysis

CBD Core Area
30m Minimum Frontage

Testing of the same five sites, when viewed from the north, looking south.

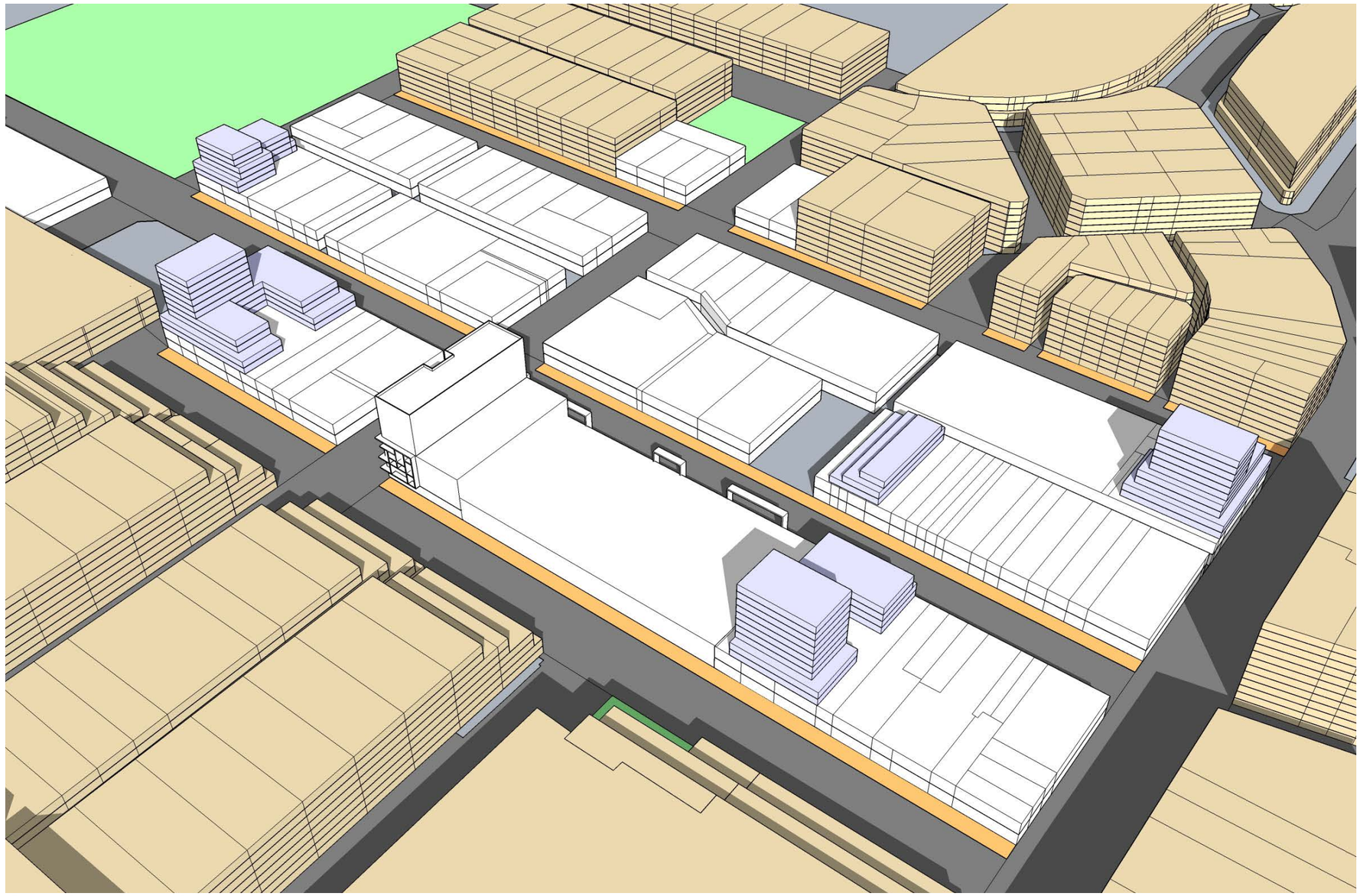

Figure 18: Scenario B - looking South, viewed from the North

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4.0 Scenario B

Shadow Testing

CBD Core Area

June 21 | 12 noon

At Winter Solstice, Scenario B testing for the five sites has shown that overshadowing of southern footpaths, City Square and Brelsford Park is avoided.

Figure 19: Scenario B - 12pm

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4.0 Scenario B

Shadow Testing

CBD Core Area

June 21 | 1 pm

Figure 20: Scenario B - 1pm

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4.0 Scenario B

Shadow Testing

CBD Core Area

June 21 | 2 pm

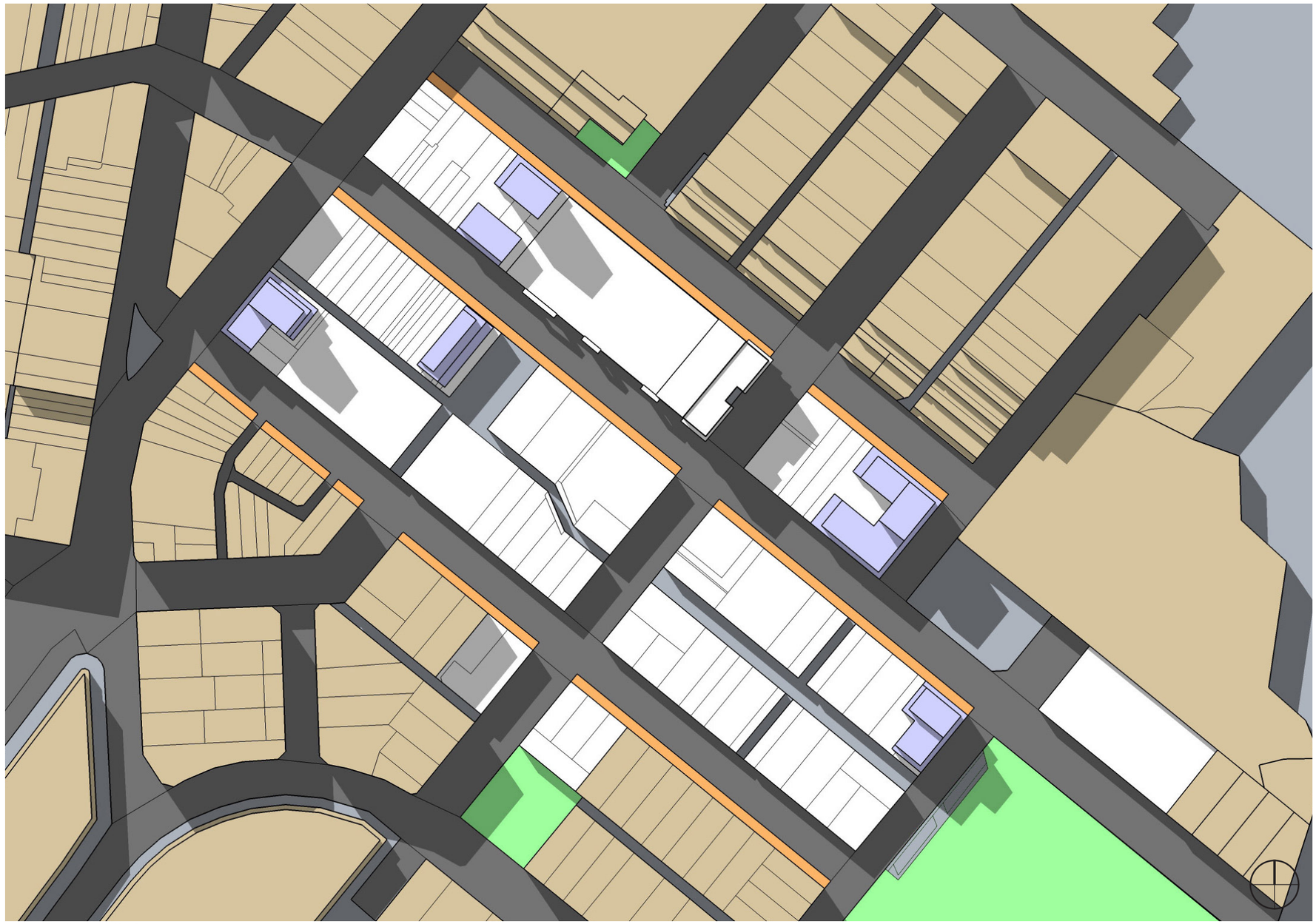

Figure 21: Scenario B - 2pm

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5.0 Scenario A + B

Yield Schedule

Scenario A - Maximum HOB applied only.

GFA & FSR

LOT No.	Site Area	Location	Level	Footprint	Storeys	LOT GBA	Residential GFA	Commercial GFA	Net Res Area	TOTAL UNITS	FSR	HOB	Proposed LEP FSR	Proposed LEP HOB	Comments
							75%	90%	85%	78 m²					
1	512 m²	Tower 1	lvl 7-12	157 m²	6	942 m²	707 m²		601 m²	8 units	7.3	42m	4.1	44m	
		Perimeter Block 1	lvl 5-6	191 m²	2	382 m²	287 m²		244 m²	3 units					
		Perimeter Block 1	lvl 3-4	225 m²	2	450 m²	338 m²		287 m²	4 units					
		Tower 2	lvl 7-12	175 m²	6	1,050 m²	788 m²		670 m²	9 units					
		Perimeter Block 2	lvl 5-6	208 m²	2	416 m²	312 m²		265 m²	3 units					
		Perimeter Block 2	lvl 3-4	241 m²	2	482 m²	362 m²		308 m²	4 units					
		Podium	lvl 1-2	512 m²	2	1,024 m²		922 m²							
2	369 m²	Tower 1	lvl 7-12	94 m²	6	564 m²	423 m²		360 m²	5 units	5.2	42m	2.5	44m	
		Perimeter Block 1	lvl 5-6	192 m²	2	384 m²	288 m²		245 m²	3 units					
		Perimeter Block 1	lvl 3-4	369 m²	2	738 m²	554 m²		471 m²	6 units					
		Podium	lvl 1-2	369 m²	2	738 m²		664 m²							
3	415 m²	Tower 1	lvl 7-12	140 m²	6	840 m²	630 m²		536 m²	7 units	5.8	42m	4.5	44m	
		Perimeter Block 1	lvl 5-6	264 m²	2	528 m²	396 m²		337 m²	4 units					
		Perimeter Block 1	lvl 3-4	415 m²	2	830 m²	623 m²		530 m²	7 units					
		Podium	lvl 1-2	415 m²	2	830 m²		747 m²							
4	1,211 m²	Tower 1	lvl 6-12	238 m²	6	1,428 m²	1,071 m²		910 m²	12 units	4.5	42m	4.5	44m	
		Perimeter Block 1	lvl 5-6	598 m²	2	1,196 m²	897 m²		762 m²	10 units					
		Perimeter Block 1	lvl 3-4	847 m²	2	1,694 m²	1,271 m²		1,080 m²	14 units					
		Podium	lvl 1-2	1,211 m²	2	2,422 m²		2,180 m²							
5	949 m²	Tower 1	lvl 5-12	369 m²	8	2,952 m²	2,214 m²		1,882 m²	24 units	5.6	42m	4.0	44m	
		Perimeter Block 1	lvl 3-4	949 m²	2	1,898 m²	1,424 m²		1,210 m²	16 units					
		Podium	lvl 1-2	949 m²	2	1,898 m²		1,708 m²							

Figure 22: Scenario A - Key Map

Scenario B - FSR and two LEP Clauses applied.

GFA & FSR

LOT No.	Site Area	Location	Level	Footprint	Storeys	LOT GBA	Residential GFA	Commercial GFA	Net Res Area	TOTAL UNITS	FSR	HOB	Proposed LEP FSR	Proposed LEP HOB	Comments
							75%	90%	85%	78 m²					
1	2,791 m²	Perimeter Block 1	lvl 5-6	650 m²	2	1,300 m²	975 m²		829 m²	11 units	4.3	42m	4.3	44m	
		Perimeter Block 1	lvl 3-4	752 m²	2	1,504 m²	1,128 m²		959 m²	12 units					
		Tower 1	lvl 5-12	600 m²	8	4,800 m²	3,600 m²		3,060 m²	39 units					
		Perimeter Block 2	lvl 3-4	790 m²	2	1,580 m²	1,185 m²		1,007 m²	13 units					
		Podium	lvl 1-2	2,791 m²	2	5,582 m²		5,024 m²							
2	1,693 m²	Perimeter Block 1	lvl 5	426 m²	1	426 m²	320 m²		272 m²	3 units	2.8	20.3m	2.8	44m	Town Square
		Perimeter Block 1	lvl 4	753 m²	1	753 m²	565 m²		480 m²	6 units					
		Perimeter Block 1	lvl 3	1,012 m²	1	1,012 m²	759 m²		645 m²	8 units					
		Podium	lvl 1-2	1,693 m²	2	3,386 m²		3,047 m²							
3	2,224 m²	Tower 1	lvl 7-11	523 m²	6	3,138 m²	2,354 m²		2,001 m²	26 units	4.5	42m	4.5	44m	
		Perimeter Block 1	lvl 5-6	1,050 m²	2	2,100 m²	1,575 m²		1,339 m²	17 units					
		Perimeter Block 1	lvl 3-4	1,430 m²	2	2,860 m²	2,145 m²		1,823 m²	23 units					
		Podium	lvl 1-2	2,224 m²	2	4,448 m²		4,003 m²							
4	3,632 m²	Tower 1	lvl 7-12	600 m²	6	3,600 m²	2,700 m²		2,295 m²	29 units	4.5	42m	4.5	44m	
		Perimeter Block 1	lvl 5-6	2,012 m²	2	4,024 m²	3,018 m²		2,565 m²	33 units					
		Perimeter Block 1	lvl 3-4	2,725 m²	2	5,450 m²	4,088 m²		3,475 m²	45 units					
		Podium	lvl 1-2	3,632 m²	2	7,264 m²		6,538 m²							
5	1,881 m²	Tower 1	lvl 7-8	462 m²	2	924 m²	693 m²		589 m²	8 units	4.0	29.6m	4.0	44m	Park
		Perimeter Block 1	lvl 5-6	984 m²	2	1,968 m²	1,476 m²		1,255 m²	16 units					
		Perimeter Block 1	lvl 3-4	1,270 m²	2	2,540 m²	1,905 m²		1,619 m²	21 units					
		Podium	lvl 1-2	1,881 m²	2	3,762 m²		3,386 m²							

Figure 23: Scenario B - Key Map

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6.0 Conclusion

This study has tested five typical development sites within the Coffs Harbour CBD core area with two scenarios:

- **Scenario A** - development of five sites tested to the maximum height possible, without other development controls applied. The resulting built form and overshadowing impacts are considerable.
- **Scenario B** - tests the same five sites as Scenario A, however all proposed LEP Controls have been applied.

Development controls should encourage site amalgamation, as this will result in a better overall city built form outcome. Increased amenity for developments will result, including improved access to natural light, ventilation and views for new CBD apartment residents.

By limiting the overshadowing of key public footpaths, squares and parks, the overall enjoyment, amenity and use of these valued public places in the winter months will be enhanced. The Coffs Harbour CBD is known for its attractive Harbour Drive 'main street' which is filled with sunlight, activity and is defined by distinctive shade sails.

An alfresco dining culture is emerging in the CBD and would be supported into the future by the proposed solar access controls illustrated in Scenario B. The current attractive ambiance is a valuable asset and drawcard for both locals and visitors to the CBD.

The proposed development controls will attract additional development and business to the centre, whilst at the same time preserve those aspects of the centre which make it attractive in the first place.

The controls protect the current CBD qualities valued by the community and visitors alike – preserving them for future generations to enjoy.