

Block 1, Central Park Foster + Partners

**DoP&E Response Report
Central Park Block 1
State Significant
Development Application
SSD14_6554**

Frasers Property Australia
(Central Park JV No.2)
Central Park Precinct •
January 2015 A-SK-0921

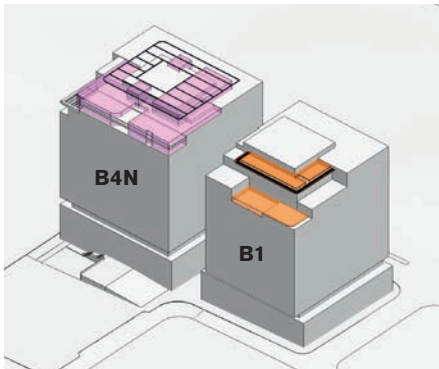


Contents

1. Introduction



2. Concept Masterplan and Massing



3. Suitability of final building form and layout.



4. Amenity of Building



5 Achieving Design Excellence



2.1	SEPP 65 Building Separation Comparison Masterplan Envelope MOD 09 Proposed Masterplan Envelope MOD 10
2.2	Masterplan Envelop Revisions
2.3	Actual Building Separation Dimensions
2.4	Summary of revisions of permissible 3D massing to top of building
2.5	Shadow and Solar Access
2.6	Comparison of Approved PA Scheme to Current SSDA Proposal
2.7	Gateway to CBD of Sydney
2.8	Summary of Concept Masterplan Variations

3.1	3-Slot/4-Slot Comparison
3.2	Location of Habitable Rooms
3.3	Location of Bedrooms
3.4	Apartment Depth
3.5	Lift Configuration
3.6	Apartment Typology and Mix
3.7	Core
3.8	Corridor Length/Travel Distance
3.9	Natural Daylight Penetration to Circulation Corridors
3.10	Private Amenity to 1-bed plus study/store
3.11	Private Amenity to Eastern 2-bed/Dual Keys
3.12	Private Amenity to Corner 2-bed/Dual Keys

4.1	Amenity Cross Ventilation
4.2	Revised Private Amenity Balcony/Loggia Location
4.3	Private Amenity Balcony/Loggia Depth
4.4	Private Amenity Balcony and Loggia Type
4.5	Revised Communal Amenity Level 02 - Pool Area
4.6	Revised Communal Amenity Level 16 - Roof Terrace

5.1	Design Compliance
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This document has been prepared in response to the letter dated 31st October 2014, by the City of Sydney relating to the proposed State Significant Development Application SSD 6554 for the construction of a mixed use development at Block 1, Central Park and the subsequent letter dated 27th November 2014, by the Department of Planning and the Environment. The proposed scheme sets out to develop a eighteen storey residential apartment building with ground floor retail tenancies on the Block 1 site. This document looks to address the main design issues raised by the Department of Planning and Environment which are summarised as follows:-

1. The visual bulk of Block 1 and the Department's concern that the building presents a visual bulk and scale that is similar to a commercial building and as such is inappropriate for a residential flat building.
2. The Concept Plan building envelope is incapable of being fully realised for residential development. The form and bulk of "filling the envelope" with residential apartments results in unacceptable non-compliance with amenity standards for apartment design.
3. The suitability of the proposed floorplate size for residential use.
4. The provision of the internal amenity for Block 1, specifically the issues of solar access, private open space and a single central core configuration.
5. The proposal does not achieve design excellence.
6. Are there any significant changes necessary to the development to achieve an acceptable outcome.

The intent of this document is to look at each of the design issues raised by the Department of Planning and Environment in detail, and demonstrate why the design presented does achieve design excellence. We also note that revisions to the building design have been made to improve the apartment amenity, whilst also recognising the constraints imposed on any building design by this site.

This document should be read in conjunction with the full response as prepared by JBA to the SSD 6554 submission for Block 1.

Concept Masterplan and Massing

Suitability of Concept Plan building envelope for residential use.

This section of the report looks to address the issue raised by the Department of Planning & Environment contesting the overall massing of the building and its suitability for residential use.

This chapter looks at the impact on the Concept Masterplan of changing the use of Block 1 from residential/commercial use in the Approved Concept Masterplan to Block 1's proposed new use of residential which the current S75W MOD 10 of the Concept Masterplan now seeks to amend. It describes the advantages of the new building massing design to the surrounding urban spaces and streets in comparison to the current approved design.

This chapter addresses the following aspects of the revisions to the Approved Concept Masterplan:-

- Changes to the proposed building use and its impact on the Concept Masterplan.
- Changes to the proposed building use and its impact on the permissible 3D Massing Envelope of the individual Blocks.

Approved Current building separation

Block 1 and Block 4N up to 12.0m (4 storeys)

Building separation as required by SEPP65
between non-habitable room and non-
habitable room: 6.0m

Block 1 and Block 4N between 12.0m and 25.0m (5 to 8 storeys)

Building separation as required by SEPP65
between non-habitable room and non-
habitable room: 9.0m

Block 1 and Block 2 up to 12.0m (4 storeys)

Building separation as required by SEPP65
between habitable room and habitable room:
12.0m

Block 1 and Block 2 above 25.0m (9 storeys and above)

Building separation as required by SEPP65
between habitable room and non-habitable
room: 18.0m

Current Block 1 SSDA design achieves 22.0m



SEPP65 Building Separation Comparison
Proposed Masterplan Envelope MOD10

Revised building separation accounting for change in use

The revised MOD 10 S75W for the Concept Masterplan now proposes Block 1 and Block 4N as two separate buildings which are not linked at the upper level. The separation is also due to the change in use of Block 1 from residential/commercial to residential though Block 4N remains as residential/commercial in use. This revision in use is also reflected in the 3D massing of the schemes as demonstrated later in this chapter.

Block 1 and Block 4N up to 12.0m (4 storeys)

Building separation as required by SEPP65 between habitable room and habitable room: 9.0m

S75W revision in MOD 10 design achieves 13.5m

Proposed Block 1 MOD 10 design achieves 14.3m

Block 1 and Block 4N between 12.0m and 25.0m (5 to 8 storeys)

Building separation as required by SEPP65 between habitable room and non-habitable room: 13.0m

S75W revision in MOD 10 design achieves 18.0m

Proposed Block 1 MOD 10 design achieves 20.0m

Block 1 and Block 2 up to 12.0m (4 storeys)

Building separation as required by SEPP65 between habitable room and habitable room: 12.0m

S75W revision in MOD 10 design achieves 22.0m

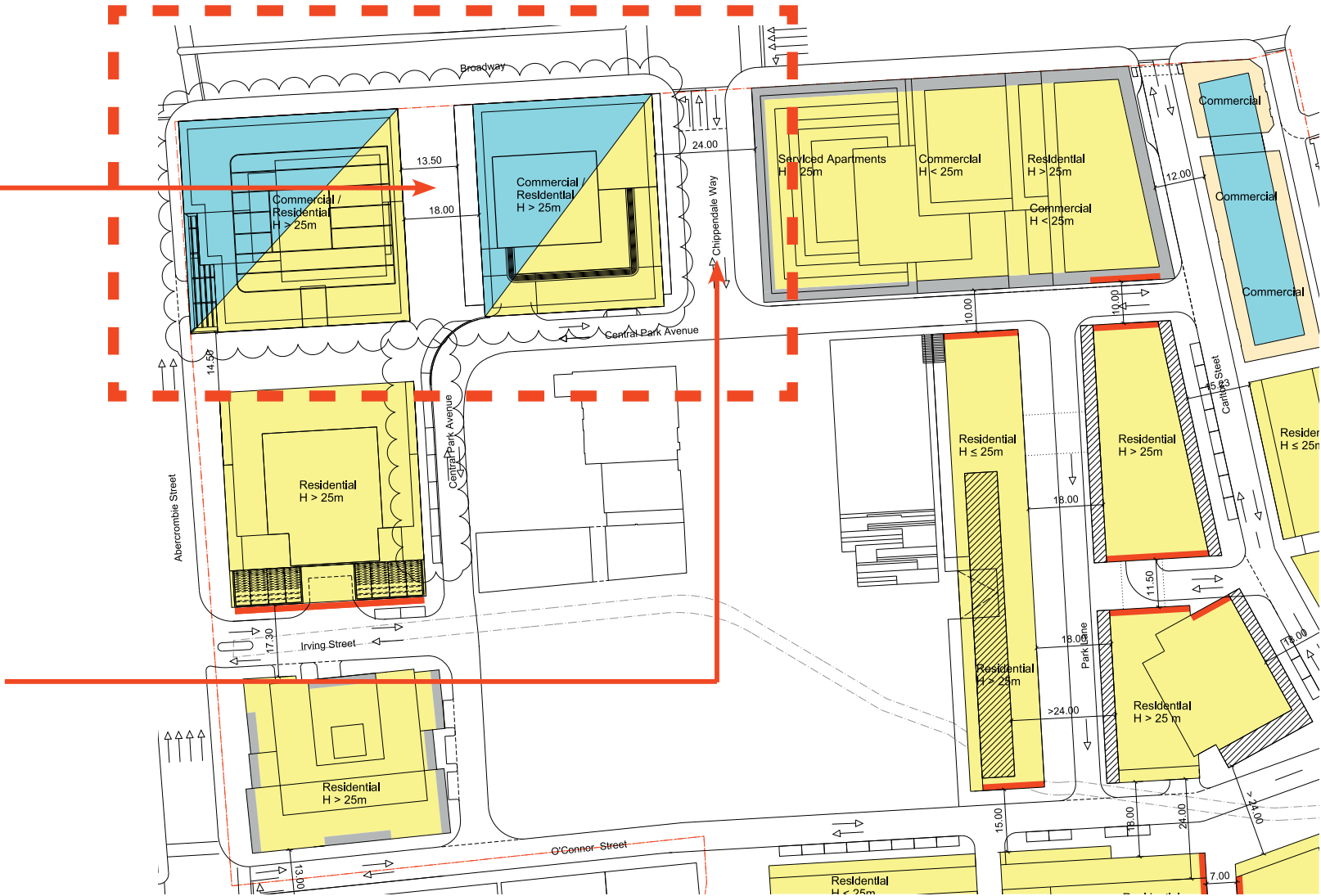
Proposed Block 1 MOD 10 design achieves 27.5m

Block 1 and Block 2 above 25.0m (9 storeys and above)

Building separation as required by SEPP65 between habitable room and habitable room: 24.0m

S75W revision in MOD 10 design achieves 24.0m

Proposed Block 1 MOD 10 design achieves 27.5m

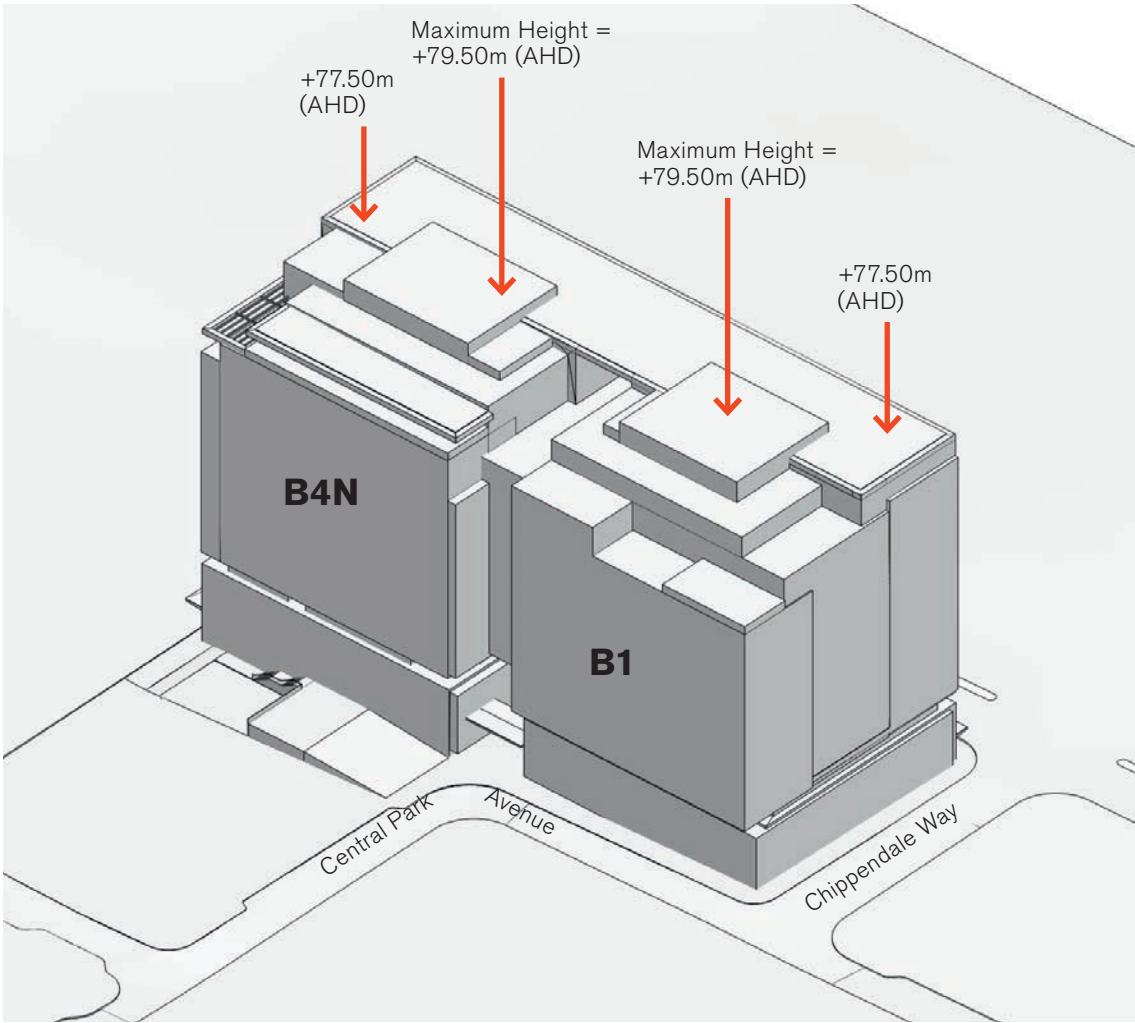


Extracted from revised MOD 10 S75W Concept Masterplan submission.

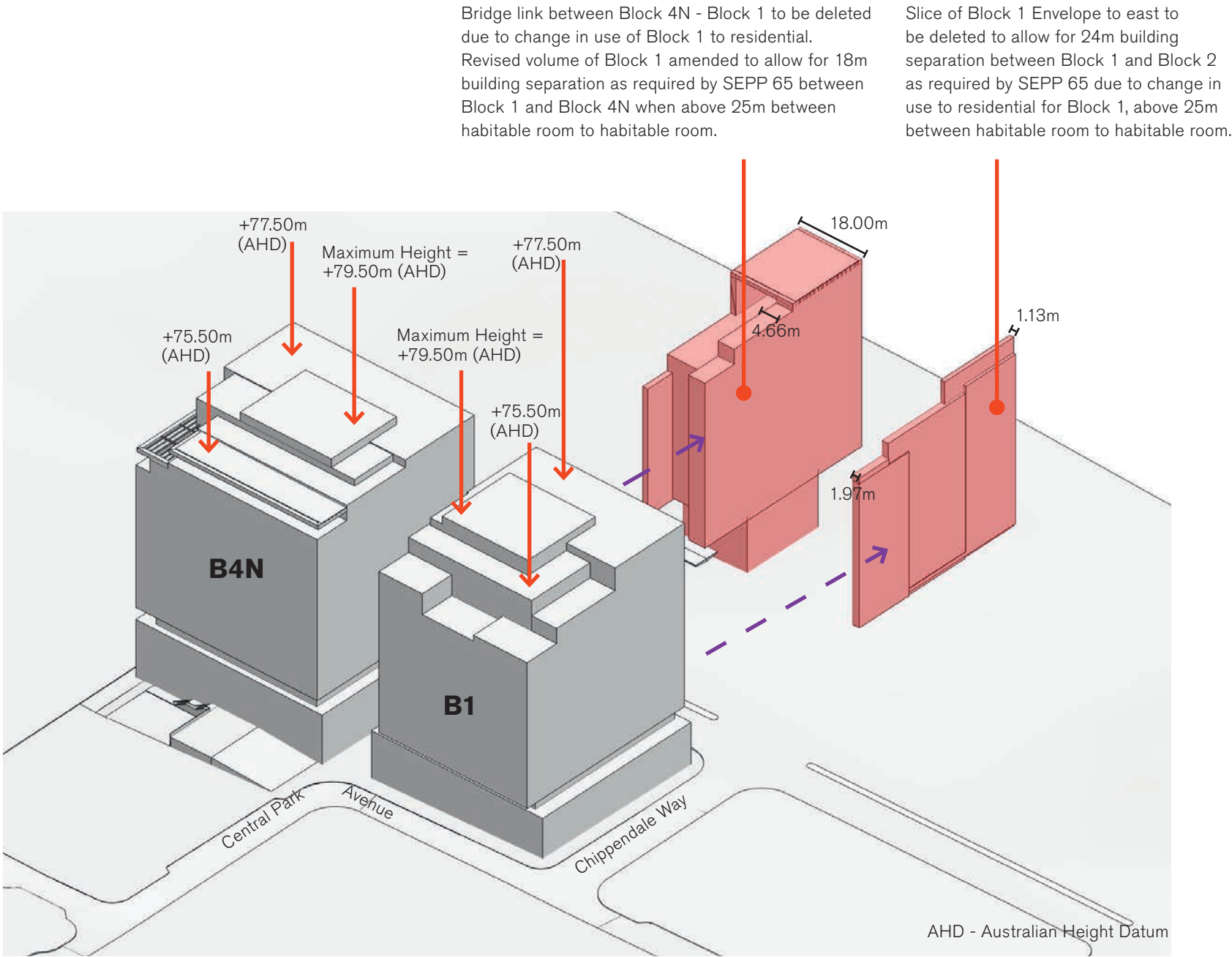
Masterplan Envelope Revisions

Revisions in permissable 3D massing as shown in the Approved Concept Masterplan MOD09 to the proposed Concept Masterplan MOD10, as a result of change in use

MOD9 - Approved Concept Masterplan Envelope

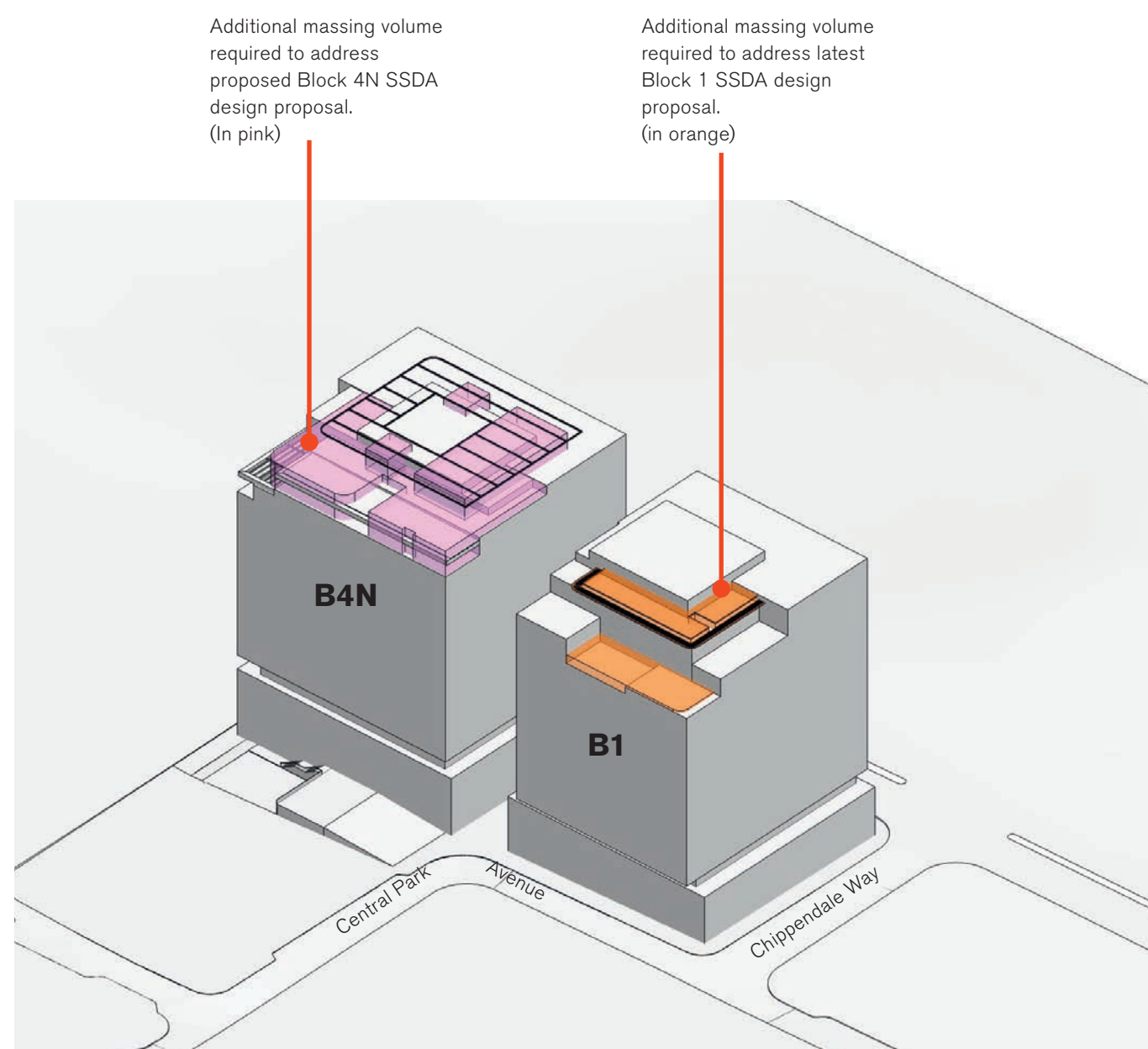


01 - MOD9 Concept Masterplan Envelope

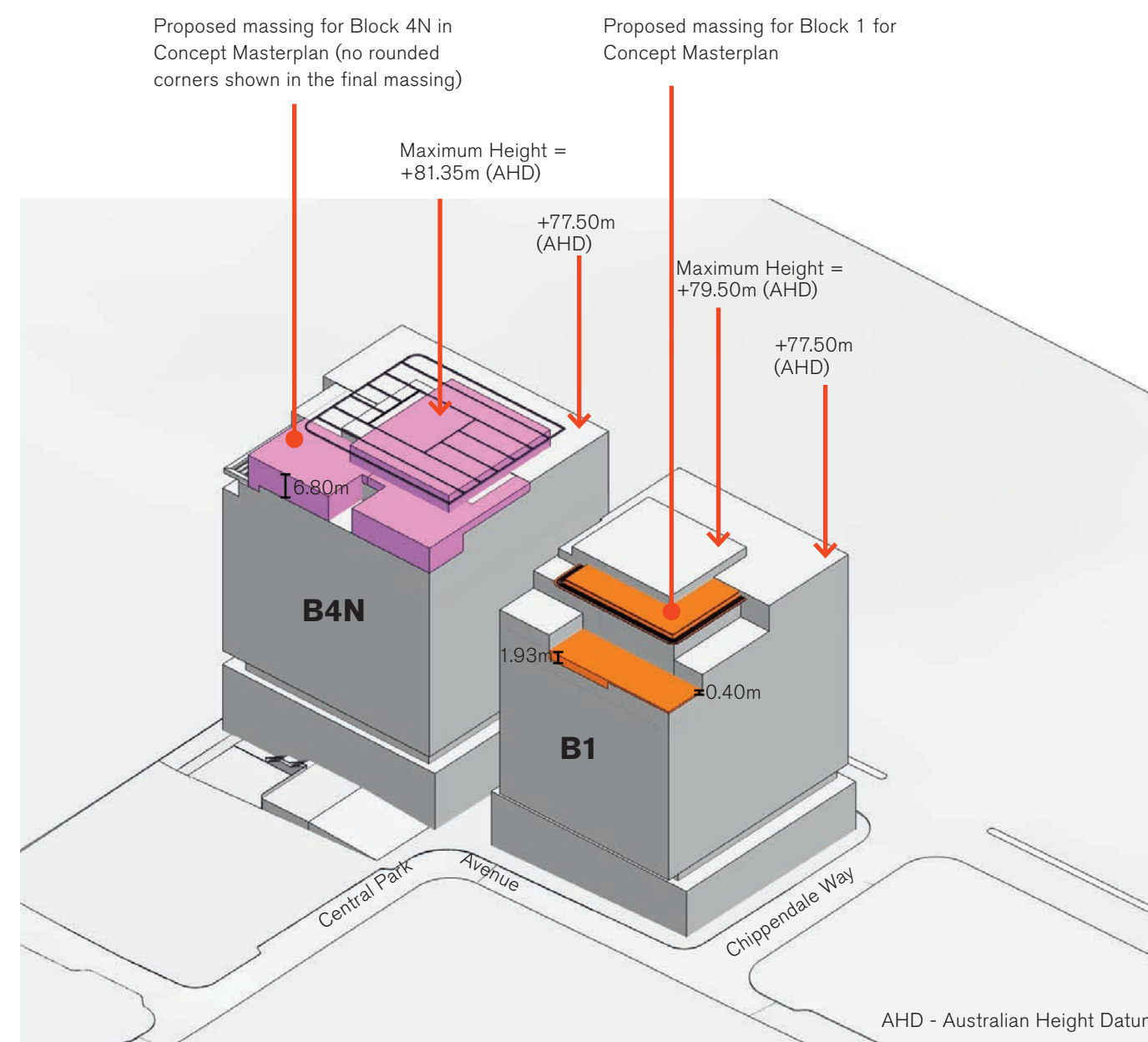


02 - Massing that will be deleted from the envelope in the proposed Concept masterplan MOD 10

MOD10 - Proposed Concept Masterplan Envelope



03 - Massing to be added to address latest SSD Application for Block 1 and Block 4N

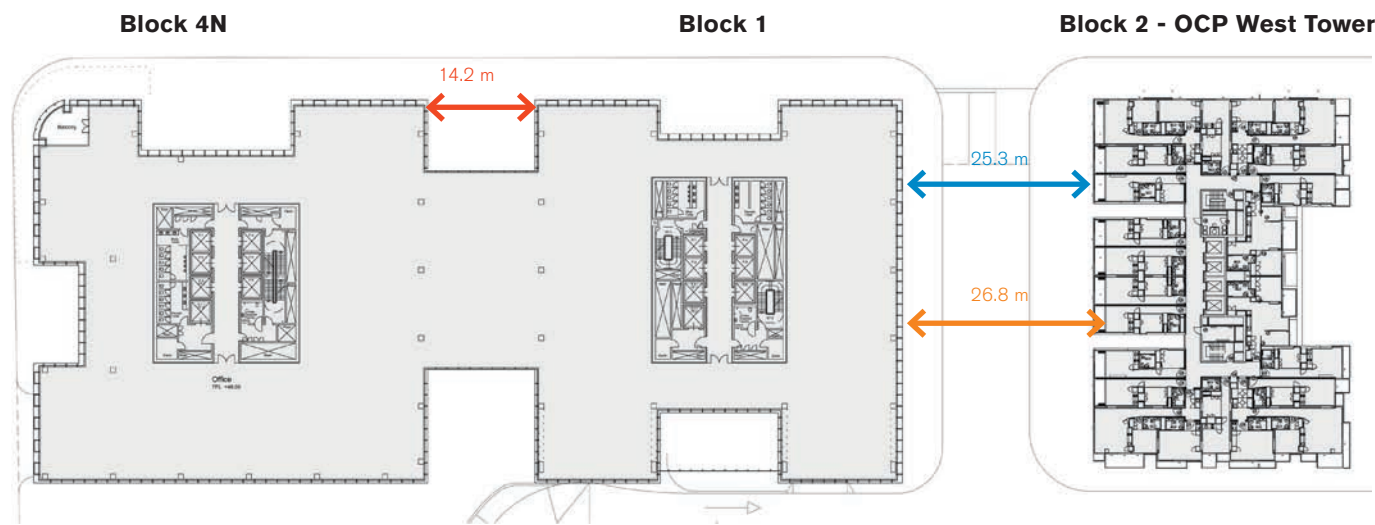
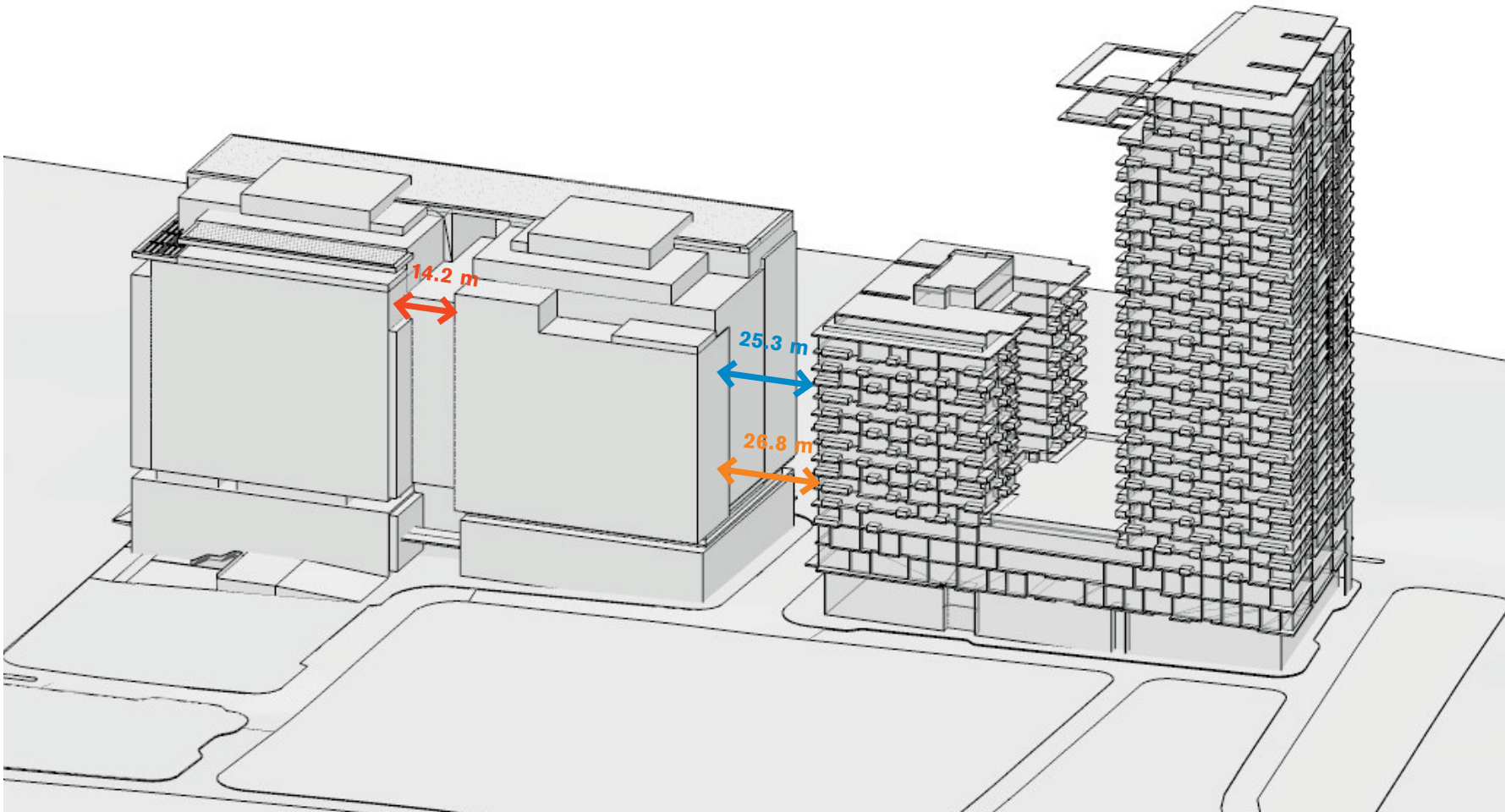


04 - FUTURE MOD10 Concept Masterplan Envelope consistent with concurrent Block 1 SSDA
(This model has been used for revised shadow and solar access studies)

Actual Building Separation Dimensions

Approved Commercial Scheme for Block 1 and Block 4N adjacent to the constructed Block 2 Scheme

The diagrams on these pages highlight the actual building separation distances achieved in the designs for Block 1 with both Block 4N and Block 2 in relation to the consented scheme for the site and the proposed scheme submitted under the current SSDA for Block 1.

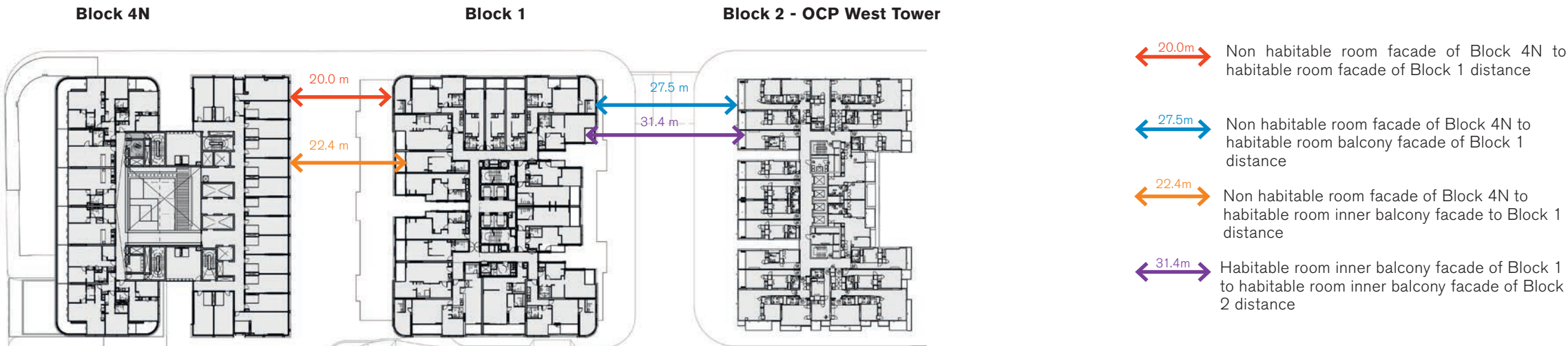
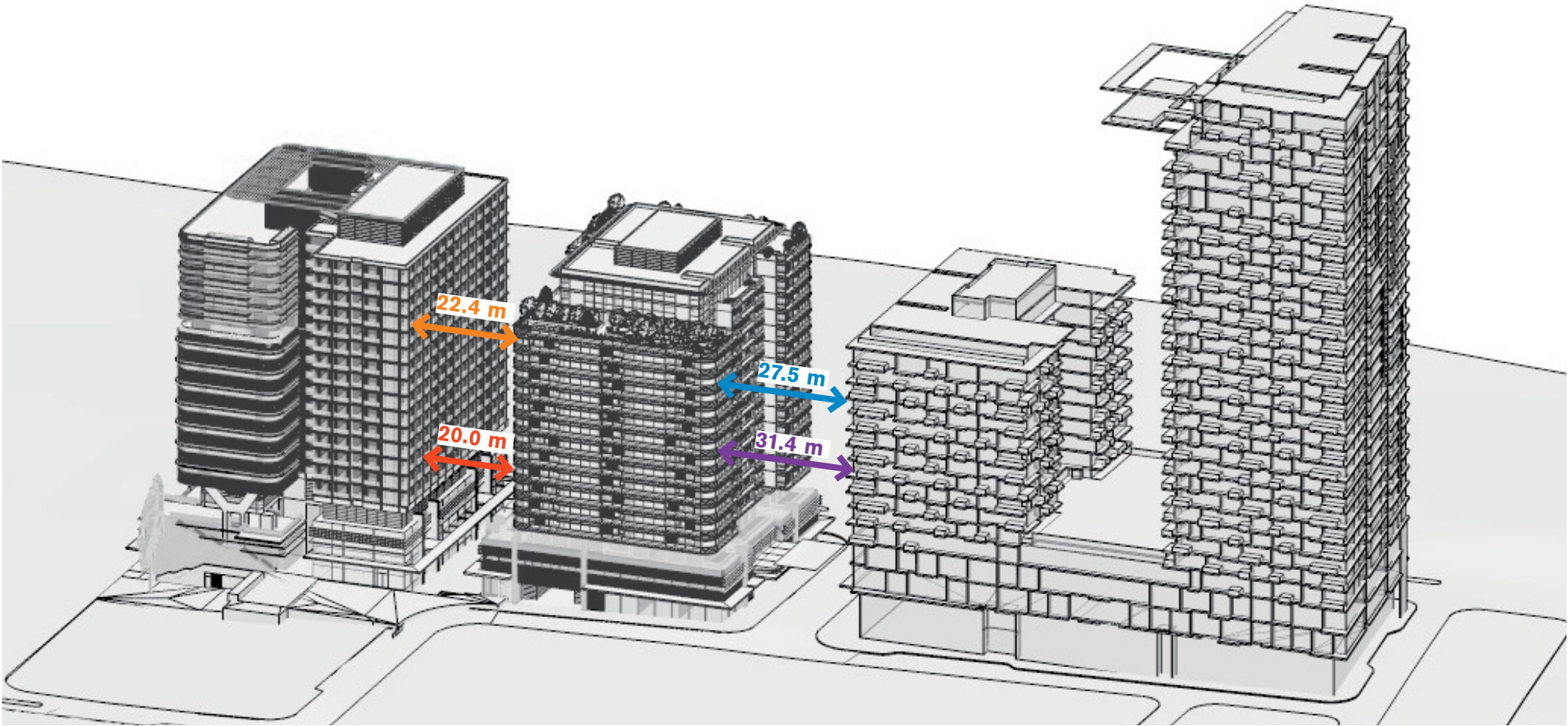


- 14.2m Non habitable room facade of Block 4N to non habitable room facade of Block 1 distance
- 25.3m Non habitable room facade of Block 1 to habitable room balcony of Block 2 distance
- 26.8m Non habitable room facade of Block 1 to habitable room inner balcony facade of Block 2 distance

Building separation distances on a typical upper floor plan of consented scheme for Block 1 and Block 4N in context with constructed Block 2.

Actual Building Separation Dimensions

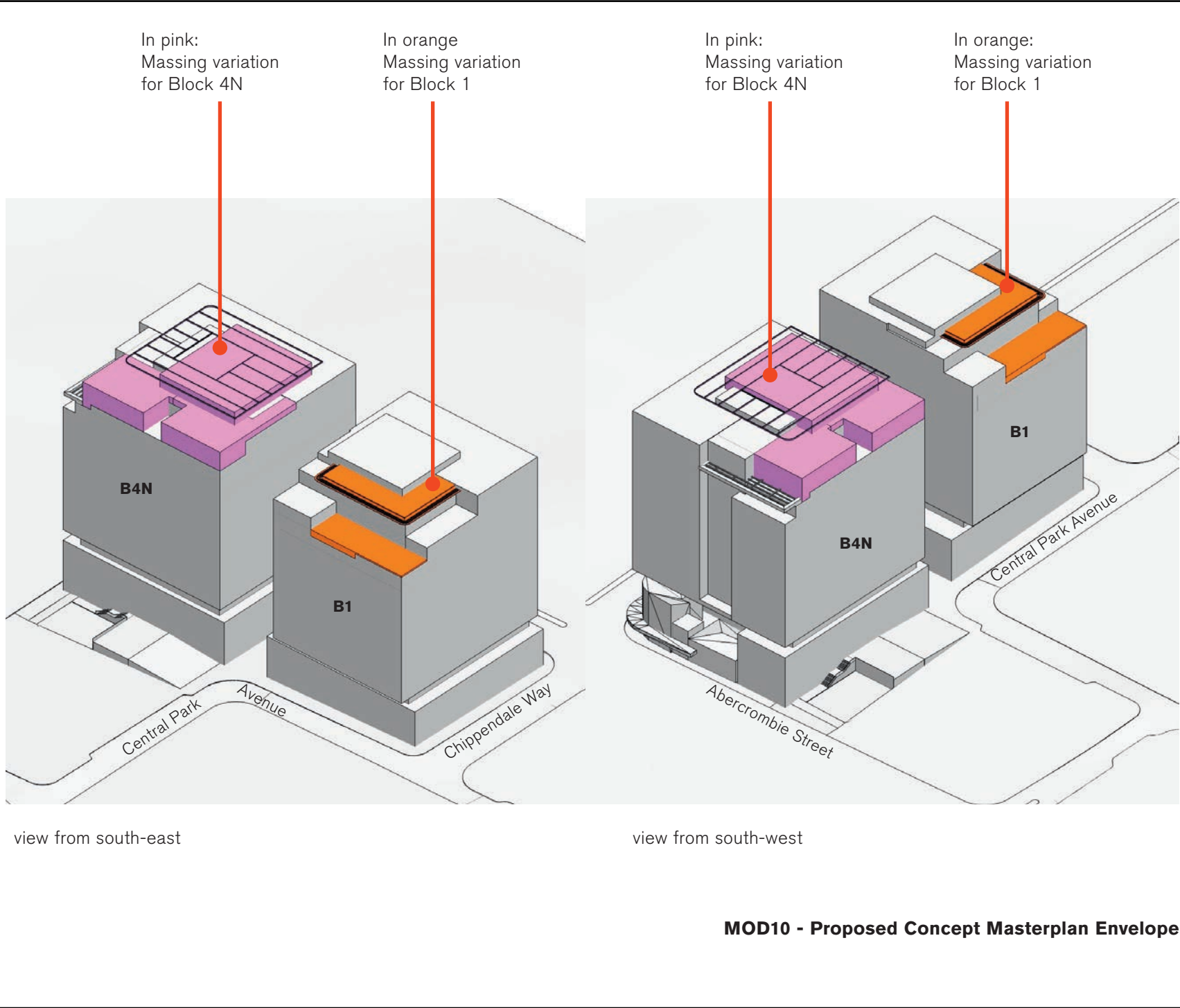
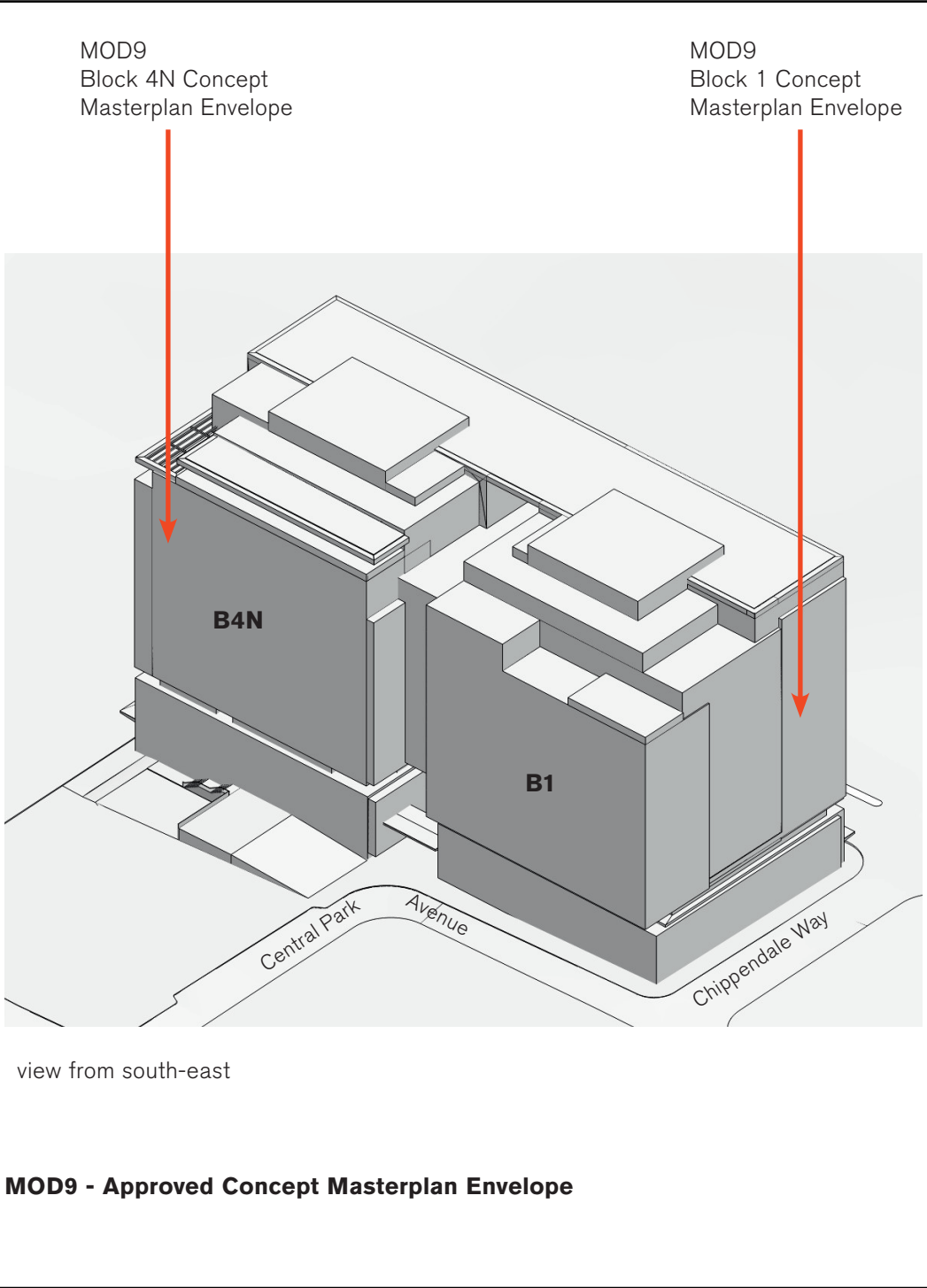
Proposed Residential Block 1 Scheme adjacent to the proposed Mixed-use Block 4N Scheme and the constructed Block 2 Scheme



Building separation distances on a typical upper floor plan of proposed Block 1 in context with constructed Block 2 and proposed Block 4N schemes.

Summary of revisions of permissible 3D massing to top of building
Comparison of Approved Concept Masterplan and Proposed Concept Masterplan

The diagrams below highlight the variation in the 3D massing of the top of Block 1 and Block 4N of the proposed S75W MOD 10 Concept Masterplan. This revised massing has been amended to provide the greatest flexibility in the final design of Block 1 and Block4N without any adverse affect on solar access or shadows in comparison to Approved Concept Masterplan.



Shadow and Solar Access
Comparison of Approved Concept Masterplan and Proposed Concept Masterplan

The original proposal of the Approved Concept Masterplan indicated Block 1 being developed with Block 4N as a commercial scheme linked at the upper levels with large commercial bridge floorplates.

The S75W of the proposed Concept Masterplan MOD 10 now indicates Block 1 and Block 4N as two separate buildings which are not linked at the upper levels with bridges. This is due to the change in use for Block 1 from its current residential/commercial assignment to its new use of residential. Block 4N will remain assigned as residential/commercial in use.

This change in use has also had an effect on the permissible 3D massing proposed for Block 1 and Block 4N within the proposed Concept Masterplan MOD 10 as shown in the previous and opposite pages. This change has had a positive effect on the solar access within the Concept Masterplan; and notably midday direct sunlight from the north since the revised massing and the deletion of all bridges provides a net improvement on the amount of sunlight now able to enter the precinct.

The change in massing has also led to a reduction in the extent of shadows now being cast by both Block 1 and Block 4N on the rest of the precinct and the surrounding buildings and neighbourhoods. The added massing does not result in additional over-shadowing to the park.

The diagrams on this page highlight these benefits on the Concept Masterplan as a result in changing the building use of Block 1 at midday on the 21st of June and the 21st March.



21st June at 12.00



21st March at 12.00

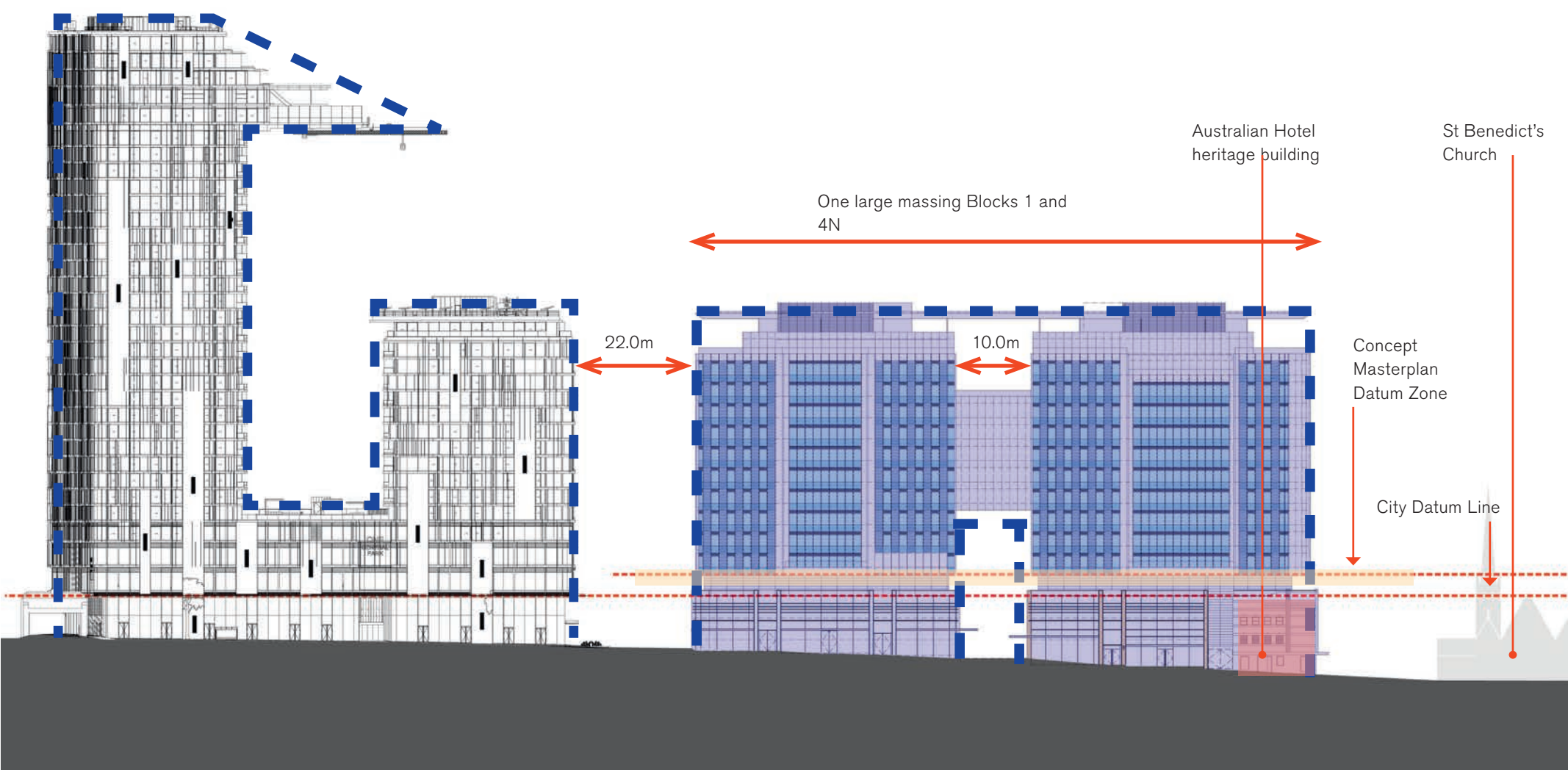
— Shadow Line of Concept Plan Envelope (MOD 09)

■ Additional Sunlight to masterplan in comparison to (MOD 09) application

Additional Direct Sunlight in Streets:
Shadow and solar comparisons extracted from revised MOD 10 S75W Concept Masterplan submission.

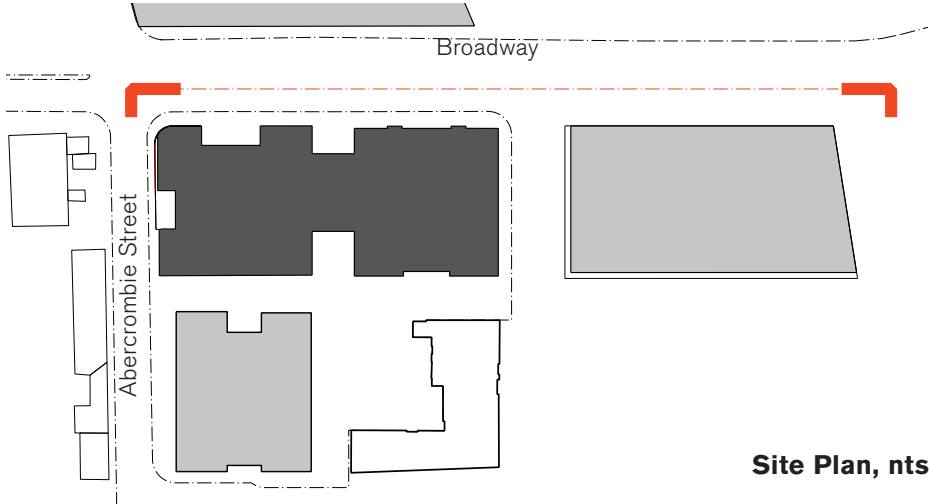
The diagrams on the next two pages provide a comparison of the Central Park development along the Broadway elevations between the previously approved commercial development for Block 1 and Block 4N and the new revised schemes. The elevation has been extended to show the two proposed scheme within the context of OCP, Block 2 (now known as the OCP West Tower) and St. Benedict's Church. For ease of comparison, both elevations show the outline of the 3D massing from the Approved Concept Masterplan.

The elevation on this page highlights the continuous massing of the approved commercial scheme where link bridges connect Block 1 and Block 4N at the upper levels. In this instance, the building separation between the blocks above and below the bridge links are a lot closer due to the commercial nature of the scheme. However the fundamental concept of the Approved Concept Masterplan of introducing a podium to re-enforce the street is maintained. The proposal look to maximise the permitted building massing and in the case of Block 4N cantilevers over the Heritage Buildings.



Approved PA Elevation along Broadway, nts

Approved Concept Plan

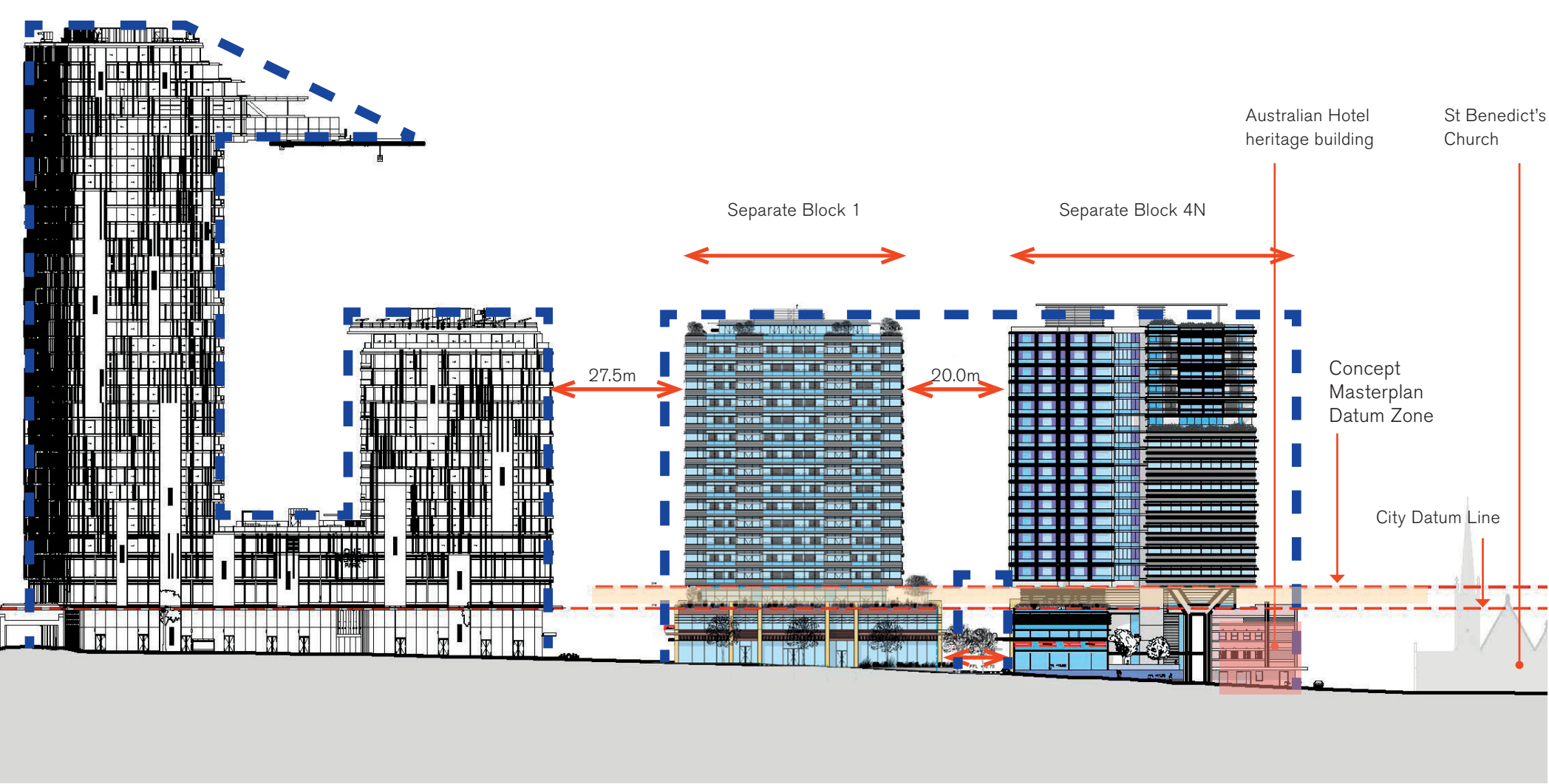


Streetscape - Proposed Block 1 and Block 4N SSDA

The elevation on this page illustrates how the revised schemes proposed for Block 1 and for Block 4N as a result of the change in use and design will look within the same context. The most apparent change is the amount of area of the elevation which has been deleted and the positive influence of the building separation on the revised massing of Block 1 as a residential scheme from the approved commercial development. This results in improved solar access to the building and to the precinct and Chippendale Green beyond. These improved openings between the blocks also provide an added benefit to the surrounding environs to both blocks since there are less shadows being cast. The revision of the overall massing into two separate blocks allows for a more articulated streetscape to Broadway

The Podium “datum zone” previously set by the Approved Concept Masterplan and the approved building PA is maintained to ensure the visual continuity along the street between the new buildings and existing heritage buildings.

The “city datum zone” also ensures that the Facade along the Podium is kept to a human scale, with the facades set back to form a “neck” to address the heritage buildings and reduce the height impact of the massing above. The engagement with the heritage buildings is further reinforced by the incorporation of new street awnings that respond to and extend the awning of the Australian Hotel.



Revised Elevation along Broadway, nts



Site Plan, nts

The original approved commercial scheme for Central Park essentially is for a large commercial but relatively low building that is designed as a single block spread over three individual sites (Block 1, Block 4N and Block 4S).

A fundamental design move of the original Concept Masterplan was the idea of introducing a new larger urban open space as part of the masterplan proposals. To achieve this ambition, it required the density along the perimeter of the site to be increased. This approach provides the space for the new urban park, which has become to be known as Chippendale Green. This led to the strategic massing also along Broadway within the Concept Masterplan which is seen as forming a gateway into the CBD of Sydney. This has been subsequently realised in the construction of Block 2 (OCP West Tower) and which the concurrent designs for Block 1 and Block 4N now look to fulfil.

The Concept Masterplan also looked to define the relationship and form of the building massing in relation to the existing Australian Hotel and adjacent heritage buildings on the site; on the corner of Broadway and Abercrombie Street. The concept adopted was that the building mass at the upper levels will be separated vertically through the introduction of a “city datum zone,” a horizontal recess or “neck” in the massing that responds directly to the height / proportion of the heritage buildings in terms of their elevation. This forms a continuous recess that divorces the lower street level elements of the building mass at street from the main mass of the building floor plate above.

It was notable that the approved commercial design proposed to locate very significant and wide floor plate links between the building blocks. These occurred over the pedestrian walkway links that occur at street level, between Block 1 and Block 4N as well as between Block 4N and Block 4S. Effectively the design as approved did not have full height streets between the blocks at all, but more pedestrian routes at these levels. The treatment of the elevation of the building massing is further articulated in this design to break-up this singular mass, however the elevation cladding treatment is consistent between the blocks, such that the building could still be read as a single building block in terms of use. This would be particularly apparent at night with the building lights on.



Building Massing: Visualisation of approved commercial scheme for Block 1, Block 4N and Block 4S

Proposed Scheme for Block 1 and Block 4N with Approved Block 4S

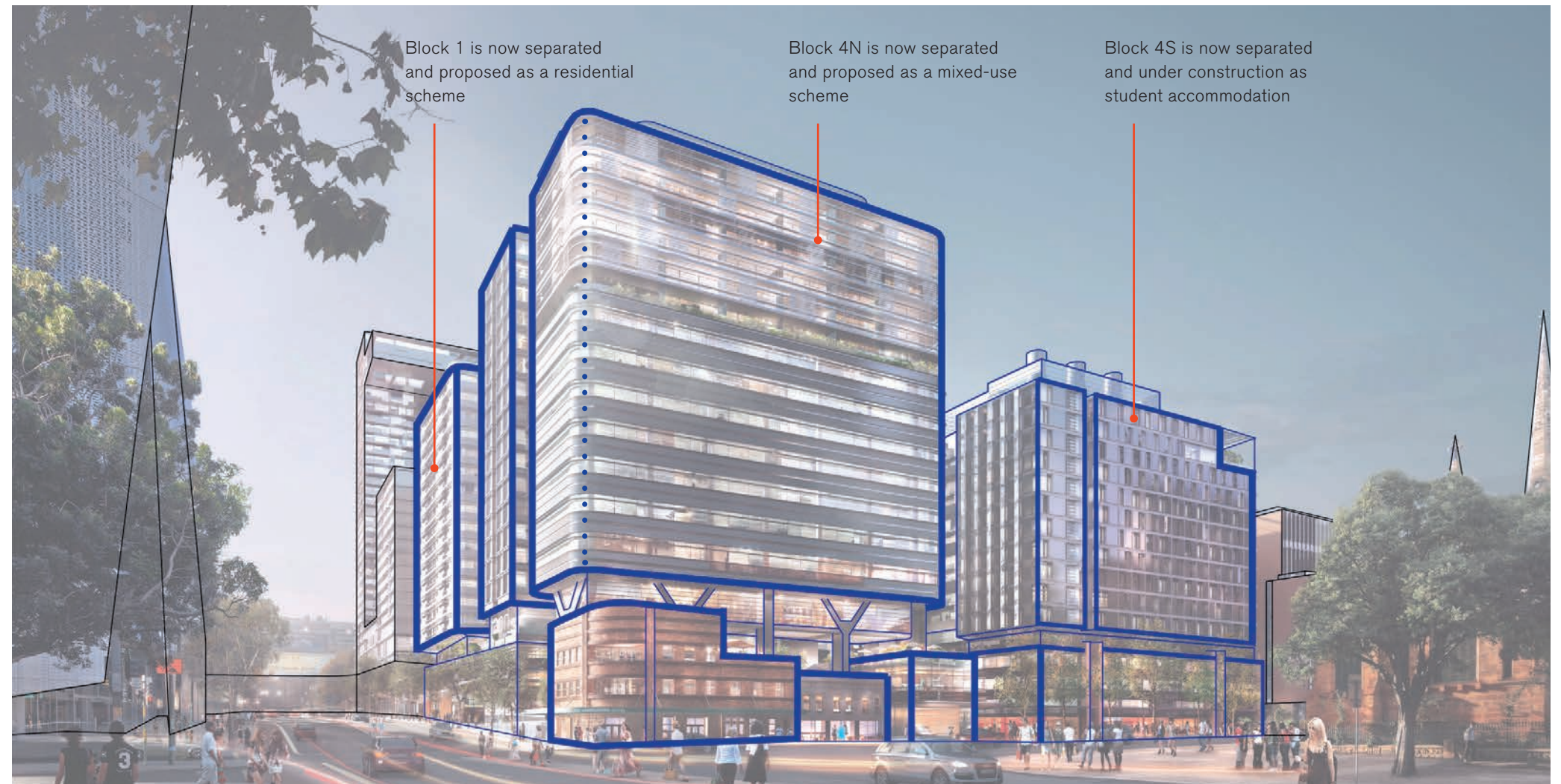
The proposed design as submitted in the SSDA for Block 1 (and in the concurrent SSDA for Block 4N) highlights the revised thinking to this part of Central Park and the importance breaking up the previous singular commercial mass once proposed. The subsequent revisions of the Concept Masterplan to the current Approved Concept Masterplan acknowledges the need for improving the permeability from Broadway (and Abercrombie Street in the case of Block 4S) at not only at street level but also in the building massing above, particularly for the benefit of improving the solar access to the precinct.

The buildings are now designed as three separate architectural buildings above the horizontal "city datum zone" recess. This evolving design is proposing that the articulation and development of the façade for Block 1 will also be reflected in the design development of Block 4N façade maintaining its "link" while a very different character to the adjacent Block 4S (student accommodation).

The building massing is further broken up on Broadway through the exploitation of the change in use being now proposed for Block 1 of residential instead of the previous commercial. This is re-enforced through the separation of the building blocks of Block 1 and Block 4N into different buildings, with the introduction of a full height pedestrian street between these blocks and removing all elevated link bridges.

Our current proposals are for the massing articulation of Block 4N to be rounded at all corners above the Heritage Buildings and broken up in terms of the treatment of the elevation and the façade character to reflect the mixed-use nature of the brief and the scheme.

The street level building facade concept remains the same in terms of the massing, character and materials responding to the Heritage Buildings' architectural design.



Building Massing: Visualisation of proposed schemes for Block 1, Block 4N and Block 4S



In comparison between the Agreed Concept Masterplan and the revisions to the brief for Block 1 and Block 4N the changes incorporated into the current S75W of the MOD10 Concept Masterplan have led to a series of positive improvements:-

- Increased building separation in accordance to the aims of SEPP 65 due to the revision of Block 1 to residential use.
- Overall massing for Block 1 has reduced due to revised building use and deletion of link bridges between buildings resulting in improved solar access to the precinct.
- Reduced mass of Block 1 results in an overall net reduction in shadows cast on Chippendale Green and the surrounding environs.
- The overall elevation along Broadway is more fragmented as a result of the revised brief for Block 1 and 4N.
- The revised schemes for Block 1 and Block 4N maintain the principal of the Agreed Concept Masterplan to form “gateway” building blocks on Broadway into the higher density CBD of Sydney. This also helps to define the northern edge of the Central Park development.
- The revised massing maintains the fundamental principal of acknowledging and re-enforcing the streetscape along adjoining thoroughfares through the introduction of a podium and horizontal “city datum line” or “neck.” The datums used to set the height of these elements are influenced by the heritage buildings located at the intersection of Broadway and Abercrombie Street.
- The proposed massing for Block 1 is consistent in overall dimensions with other residential massing proposed throughout the Concept Masterplan. The following chapters demonstrate that the proposed SSDA design for Block 1 is within this Concept Masterplan massing envelope.

In response to the questions raised with regards to solar access of the building: We have relooked at this issue in detail and contest that there is a complex series of considerations that effect the building massing design decisions in addition to solar access levels.

The overshadowing of any building form on Block 1 is ultimately a specific site constraint caused by existing buildings surrounding the site. Specifically these being the large buildings that include UTS FEIT Building to the North West, and the UTS Library tower in addition to the OCP buildings to the North East and East. Additionally the future building on Block 4N will cast shadows across the Block 1 site cutting out low angle setting sun from the West. These overshadowing constraints are typical for many CBD residential sites in Sydney and other major global cities around the world.

We have looked at the issue of massing form and the corresponding solar access to East and West facades as a function of building width (increased distance to adjacent buildings to the West and East). Our solar studies demonstrate that there is little gain in terms of increase solar access to the East and West facades as a result of reduction of the overall building width. A reduction of the building width could however potentially remove apartments that have low solar access (for example Low West side on the North Elevation permanently overshadowed by the UTS FEIT building and on the South side where there is very little solar access due to the South facing aspect). Deleting these South facing apartments will of course improve the relative percentage compliance figures, however it would be at the cost of other important amenity considerations for these apartments. Critical ones of which include ambient noise and views. Many other important amenity considerations exist that need to be considered for this

situation. Achievement of amenity on this site required consideration of a number of factors and design issues, many of which are interdependent; for example:

- Significant, and compliant area of internal and external communal open space (including spa, pool, gym, BBQ, seating and landscaping etc),
- Well designed, efficient, and unique apartments.
- Close proximity to employment, transport, educational institutions, shopping and convenience retailing
- Availability to a large number of car share vehicles on site.

Solar access has to be balanced with the position and amenity of the location of apartments on site. The main advantage of apartments that are located on the South side of the building is that they are on the quietest side of the site, and also have the best views on the site from the immediate foreground being the Brewery Yard Building and Chippendale Green, to Sydney airport and Botany Bay in the distance.

In summary following our analysis, we have not pursued reducing the building width further due to the relatively minor incremental improvements for the solar access of the apartments against the loss of GFA and impact on the total massing on the site. It must also be noted that an important consideration of the Concept Master Plan massing established for the site is to create a series of building forms along Broadway of approximately similar scale and proportioned building ‘Blocks’. This approach also ultimately provides greater density on the North side of the site to allow for a bigger area of the park to be created and to step down the building massing to the South side of the overall masterplan toward the existing Chippendale scale buildings.

Opposite: Overall site visualisation showing proposed building massing for Block 1 and Block 4N

This section of the report looks to address the issues raised by the City of Sydney and the Department of Planning and the Environment with regards achieving “Design Excellence” in the design of the overall building layout and form.

As noted in the City of Sydney letter dated the 31st October 2014 and the subsequent letter from the Department of Planning and Environment dated 27th November 2014, a 4-slot scheme has been considered as an alternative layout for a typical floor to the proposed 3-slot layout. This chapter looks to highlight the positives and negatives between the two layouts. A separate numerical study report (A-SK-1071) has also been prepared to further analyse the two layouts in relation to specific RFDC and SEPP 65 criteria requested by the City of Sydney on the 12th January 2015.

The studies on the following pages look to compare the proposed scheme for Block 1 against other similar sized schemes in the City of Sydney and the development, including two which have been commended for their award-winning designs. The projects which Block 1 has been compared with are:-

Regents Place Tower A (101 Bathurst Street, Sydney)

OCP West Tower (Block 2, Central Park, Sydney)

the Connor Building (Block 8, Central Park, Sydney)

The diagrams on these pages look to compare the proposed 3-slot design for a typical floorplate of the SSDA for Block 1 against the alternative 4-slot scheme. The comparison looks to clarify that there is no significant benefit of reverting to a 4-slot layout in the design of a typical floor above the current proposal.

The following are a list of positives of the 3-slot layout to a typical floor:-

- + Naturally lit lift lobby where you wait.
- + Improved cross ventilation of general circulation.

Block 1, 3 - Slot Scheme



Block 1, 4 - Slot Scheme

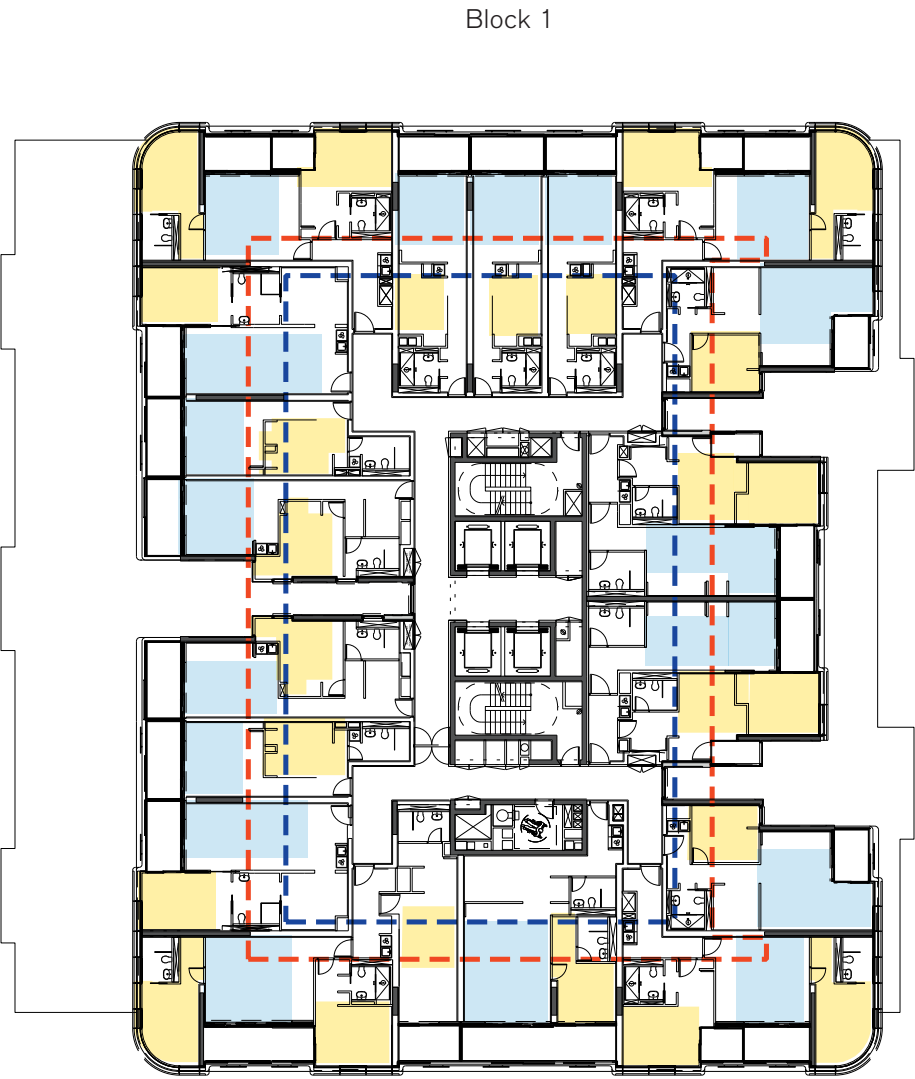
The following are a list of negatives of the 4-slot layout to a typical floor:-

- Lift and lobby is not naturally daylit.
- Extent of general circulation corridors natural lit is less.
- No improvement in corridor length reduction.
- No improvement in amenity with regard to bedroom distribution
- No sizeable improvement in amenity with relation to cross ventilation.
- No sizeable improvement in amenity with relation to solar access.



The design development of Block 1 consciously looked to locate the habitable rooms within 6.00m (in the case of the main living rooms) and 8.00m (in the case of bedrooms) of the façade. When compared to the majority of the other apartment buildings used in this comparison, the proposed design for Block 1 looks very favourable with all apartments having habitable rooms within the 8.00m offset and the overall depth of the building footprint quite shallow.

In addition, the variety and mix of apartment types within the development help to contribute with a favourable distribution of these space within the typical floorplates. The mix allows for very deep apartment layouts to be avoided and the concentric rings of clustering living rooms towards the façade and bedrooms deeper within the typical floorplate being avoided, and minimised.



15 Bedrooms with view to edge.