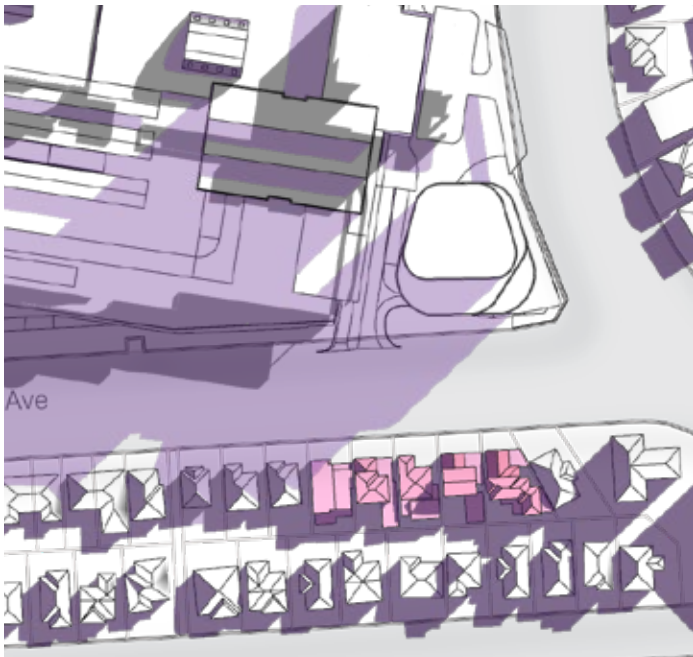
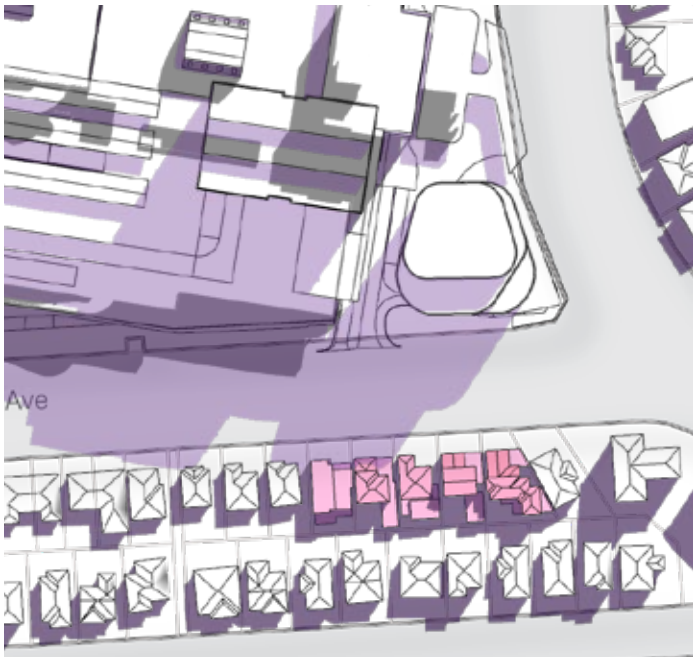


Overshadowing Assessment

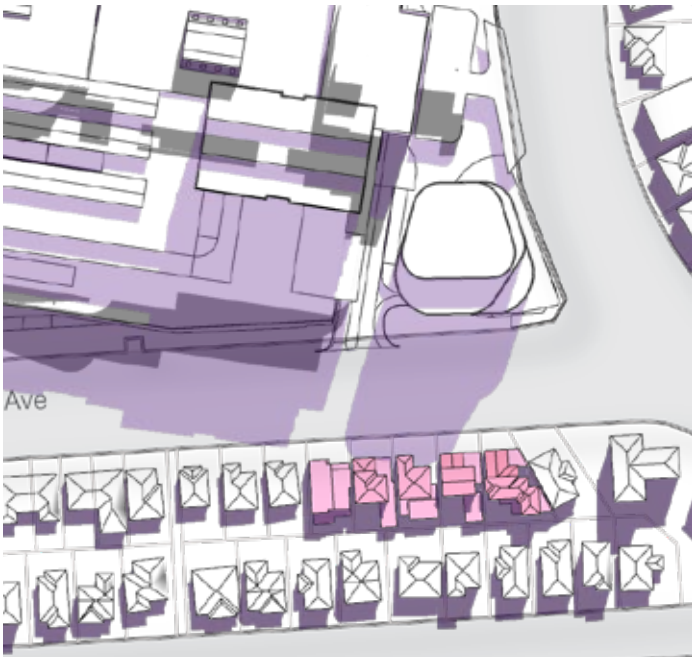
Further analysis undertaken beyond the equinox times demonstrates that all properties can achieve a minimum of 2 hours solar access to 100% of the front yards and northern facade of the 5 properties in question from approximately the 3rd of August to the 10th of May. Outside of this period, the overshadowing impact is still reasonable with at least 1 hour of solar access to 50% of the front yards as demonstrated in the overshadowing studies on the previous pages.



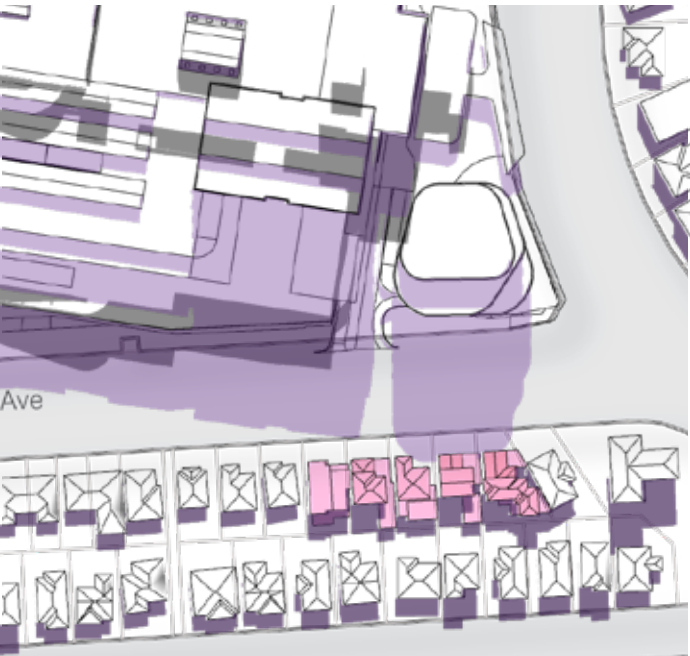
Shadow plan at 9am (03 August)



Shadow plan at 10am (03 August)



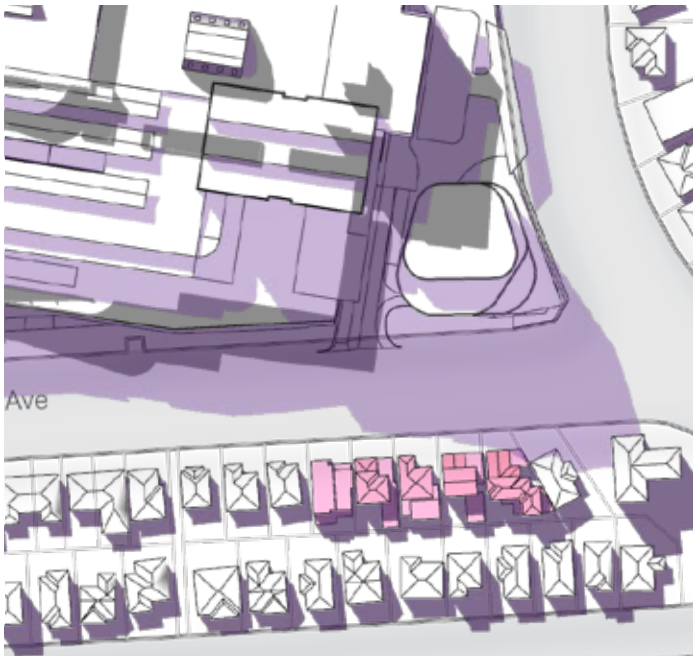
Shadow plan at 11am (03 August)



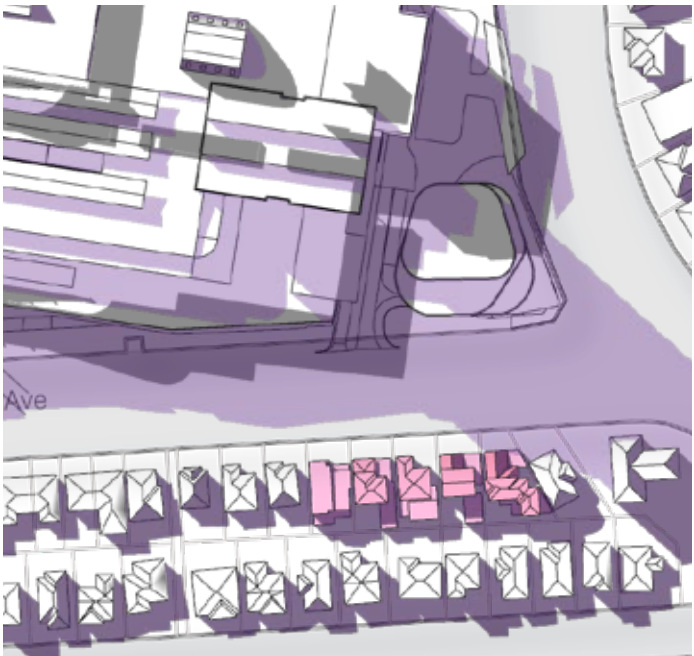
Shadow plan at 12pm (03 August)



Shadow plan at 1pm (03 August)



Shadow plan at 2pm (03 August)



Shadow plan at 3pm (03 August)

Legend

Additional shadow area of the proposal

Shadow cast by both existing buildings and new proposal

Properties not currently complying with DCP 4A, 4.3 C1, analysed in further detail

Overshadowing Assessment

Summary of overshadowing assessment

Due to the detailed and thorough nature of the overshadowing assessment, this section of the report is quite long. A summary of key findings is therefore provided below and in the table adjacent.

The study indicates that during the winter solstice the proposed towers cast long shadows that are relatively fast moving and affect the surrounding residential areas for relatively short periods of time. The greatest impact on residential dwellings is seen in the area immediately to the south of Wentworth Avenue. There are 5 houses on Wentworth Avenue (Numbers 244, 246, 248, 250, 252). More detailed analysis of these 5 dwellings found that:

- There is no additional overshadowing to primary private open space at the rear of the 5 properties. (per Section 4A.4.3, Clause C3.)
- A desktop study revealed that it can be reasonably assumed that the living areas of the 5 houses in question are located at the rear/ southern side of each property and so do not require the minimum 2 hours of solar access on 21 June to their front façades. (per 4A, 4.3, clause C1)
- Notwithstanding the location of living areas for the 5 dwellings, the proposal ensures a minimum of 1 hour solar access to at least 50% of the front-yards in mid winter between the times of 9am to 3pm.
- The proposal also ensures a minimum of 1 hour solar access to the front building façades.
- Between the equinox times (from the 21st September to 21st March), the proposed development does not create any additional overshadowing impact
- Before and after the equinox, from approximately the 3rd August to the 10th May, all 5 properties achieve a minimum of 2 hours solar access to 100% of the front yards and northern facade.

Overshadowing Assessment

	Control	244 Wentworth Ave	246 Wentworth Ave	248 Wentworth Ave	250 Wentworth Ave	252 Wentworth Ave	Compliance
Existing solar access to living areas and primary Private Open Space	4A, 4.3 Solar Access Section C1 ..2 hours of solar access between 9am and 3pm on 21 June to windows in living areas.. and to 50% of the primary private open space areas.	Less than two hours existing sunlight to living areas and primary private open space, therefore refer to 4A,4.3,C3.					Self-shadowed under existing conditions
Primary Private Open Space	4A, 4.3 Solar Access Section C3 Where the primary private open space ...currently receives less than the required amount of sunlight on 21 June, the proposed development must not further reduce the amount of solar access to the private open space.	No additional overshadowing					Complies
Front yards- minimum sunlight achieved	Additional testing and control proposed by the proponent. Min. 1hr sunlight to 50% of front yard on 21 June	1hr, 55min	1hr, 3min	1hr, 15min	1hr, 40min	2hrs, 25min	Complies with proposed control
North elevation- minimum sunlight achieved	Additional testing and control proposed by the proponent Min. 1hr sunlight to north elevation on 21 June	1hr, 30min	1hr approx.	1hr, 5min	1hr, 30min	2hrs	Complies with proposed control
Spring Equinox (similar at Autumn)	4A, 4.3 Solar Access Section C5 Where a neighbouring development currently receives less than the required amount of sunlight (on 21 June) the amount of sunlight available on the 21 March or the 21 September will be assessed and form a merit based assessment of the Development Application.	No additional overshadowing to properties					Satisfies merit based assessment
Between 03 August and 10-May	Additional merit based testing undertaken by the proponent	Minimum 2hrs to 100% of front yards and north elevations achieved					Satisfies merit based assessment





7 Conclusion & Recommendations

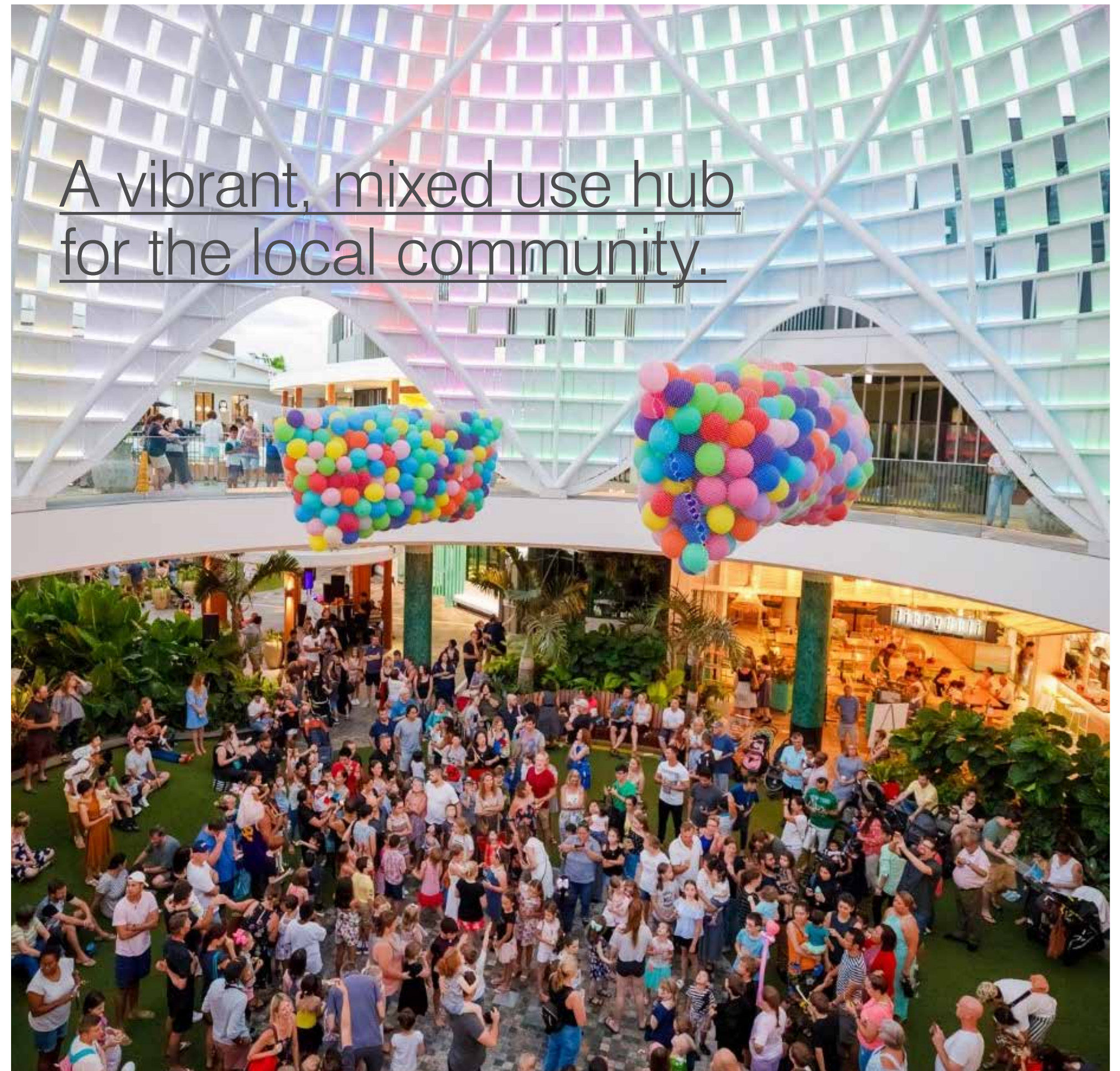
7.1 Conclusion

Identified as a Strategic Centre within the Eastern City District Plan, the opportunity exists to directly contribute to the priorities set out in the Plan by expanding the offer provided at Westfield Eastgardens beyond a traditional internalised retail mall, to a vibrant, mixed use hub for the local community.

With an improved arrival experience, and better connections to various modes of travel including bus, taxi, ride-share and pedestrian links, the centre will be more easily accessible to the local community for all demographics and ages.









With the potential to provide an additional 900 – 1,100 new retail jobs (full-time and part-time) and some 980-1,225 new commercial office jobs, the redevelopment of Westfield Eastgardens will play a significant role in strengthening the local economy and meeting the higher jobs target of 9000 for the Eastgardens-Maroubra Junction Strategic Centre.

The master plan illustrated within this updated planning proposal presents a re-imagined scheme that directly responds to the comments from consultation with Bayside Council and Council's independent urban design assessment.



The community gathering under "the urchin" at Westfield Chermiside

Key benefits of the revised scheme include:

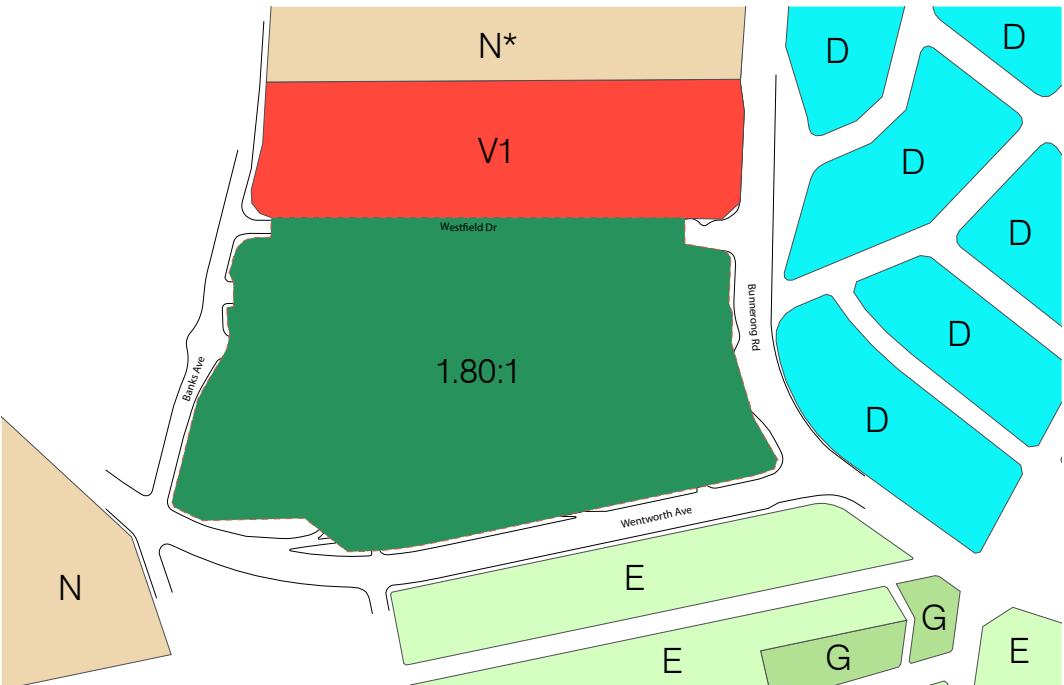
-  01
Exciting new publicly accessible civic plaza at the front door to the centre, defined by active edges and integrated with an upgraded bus terminus
-  02
Achievement of a comfortable scaled street wall height along Bunnerong Road with taller built form set back off the street onto the existing retail podium
-  03
Greater connections and interface with the community, through an enhanced arrival experience and externalisation of the retail offer at each end
-  04
Expansion of the offer beyond retail to include new commercial, entertainment, education, medical, and services for the community
-  05
Adequately sized A-grade commercial floorplates that will be unique in the strategic centre and respond to market demands
-  06
Defined location and shape of the proposed 59m commercial tower to significantly reduce overshadowing and visual impacts
-  07
Enhanced identity and presence through the addition of an iconic, landmark mixed-use building at the corner of Bunnerong Road and Wentworth Avenue, together with an integrated landscape experience throughout the whole centre, inside and out
-  08
Provision for future mixed use development in the north-eastern corner of the site that contributes to the realisation of the holistic master plan vision for the whole centre.

7.2 Recommendations

It is recommended that the FSR and height controls applicable to the site be revised as outlined in the adjacent diagrams.

For detailed controls including built form, open space setbacks, refer to the draft site specific DCP for the site.

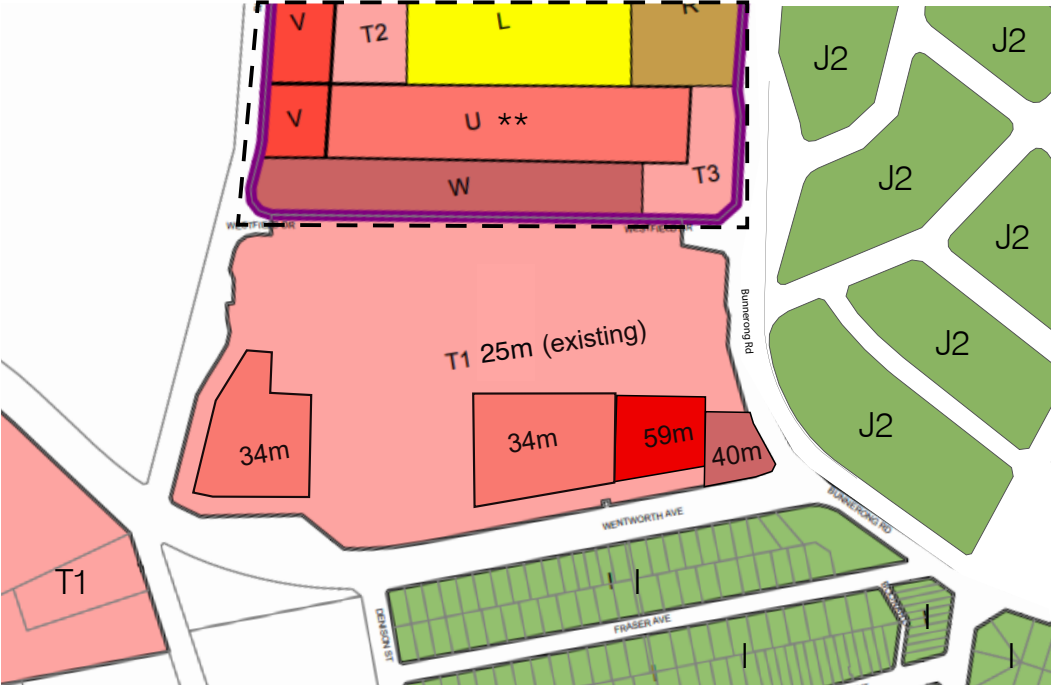
Proposed LEP amendments



Proposed FSR

Maximum Floor Space Ratio (n:1)

D	0.5
E	0.55
G	0.65
N	1
1.80:1	1.85
V1	3



Proposed Height of Buildings

Maximum Building Height (m)

I	8.5	V	39
J2	9.5	W	44
L	11	34m	34
T1	25	40m	40
T2	28	59m	59
U	32		

[-] Refer to Appendix B for the amended approved heights

For the maximum floorplate area within the 59m height zone refer to draft DCP

Note:

*FSR for Stage 2 Meriton site redevelopment has now been approved through Council to be 2:1 (awaiting gazettal)

**LEP maximum building heights for the Stage 1 Meriton site are less than the approved building heights as per the NSW Land and Environment Court Proceedings No. 20730/14, Dated 7/8/15 (refer to Appendix B)

This page intentionally left blank

A Appendix

Assessment of revised proposal against
Bayside Council's independent review of
previous planning proposal

Assessment against key opportunities raised in independent review

The proposed revised master plan has successfully addressed the issues identified in the independent review commissioned by Council with a well considered proposal that contributes to the local amenity and the economy of the strategic centre.

The adjacent table summarises the points of concern raised in the independent review and how they have been responded to in the revised proposal.

Assessment of Master Plan against independent review

Key issue	Independent review comment	Master Plan response	Document reference
Planning Justification			
– Justification for additional height and FSR	– The scale of the towers is driven by the additional FSR sought and insufficient planning justification is provided to explain the need for this additional yield.	– The proposal meets the strategic priorities set out in the Eastern City District Plan by maximising employment and services for a growing population within the Eastgardens-Maroubra Junction Strategic Centre. – Proposed height and increased FSR is focused around a transport interchange. – Relates to the future built form scale of the Meriton residential development, while distinguishing the proposal at Westfield Eastgardens as a clear mixed use town centre with a variety of building types, uses and scales, distinct from the Meriton site.	– Section 2.1 Strategic Context – Section 4.3 Evolution of Design
– Justification for location of proposed tower	– Analysis not provided that determines that the location of the 70 metre tower is appropriate. – The developable areas nominated in the Urban Context Report appear to be based on structural and logistical feasibility considerations rather than driven by improvements to existing built form or streetscape outcomes, contextual relationships and associated amenity impacts. – No investigation of lower built forms distributed around the site (as an alternative to a taller tower) have been provided to improve overshadowing or streetscape improvements.	– Locations needs to be linked to the Bunerrong Road activity corridor and an active ground plane; have direct access to public transport; meet the ground at a logical location to provide both a separate address point and prominent commercial address for each building from street level; work with existing retail planning and the established east-west mall axis and skylights; and utilise available undeveloped land where possible. The Eastern plaza is a suitable location to best meet the above requirements. – Located at this eastern front door, careful placement of the proposed tower ensures generous setbacks from the street boundary are achieved to mitigate visual and overshadowing impacts. – Distributing towers around the site would result in cores penetrating multideck parking or retail shops, would reduce the critical mass required for a commercial precinct, and would be commercially unfeasible due to the disruption to tenancies within the operational centre, and construction cost of multiple lift cores and plants for several smaller towers.	– Section 4.3 Evolution of Design – Chapter 6, Testing and Assessment

Key issue	Independent review comment	Master Plan response	Document reference
Interface responses and connectivity			
<ul style="list-style-type: none">Active street frontages and quality of streetscapes	<ul style="list-style-type: none">Provision of a transport hub has not resulted in investigation of a street-based design outcome to the centre other than to Bunnerong Road.Corner activation nominated but this is dislocated from the mall entries.Street activation limited to east and west only.	<ul style="list-style-type: none">An active publicly accessible pedestrian plaza and upgraded transport interchange at the eastern end, together with the revitalisation of the western end of the centre, provides the opportunity to re-focus activity from a central internalised mall to active hubs at each end.Corner activation purposely separated to create an activated public plaza, and to give a separate identity to the office building that is distinct from the retail mall. The tower will not feel dislocated from retail, but will be an important part of activating the public plaza.While the current functions of Westfield Drive and Wentworth Ave are operationally important and need to be retained, the quality of both streetscapes will be improved (including new public art, lighting, landscaping, pedestrian paths and traffic calming measures along Westfield Drive and strengthened landscape buffering and improved pedestrian crossings along Wentworth Avenue).The extensive perimeter of the site, and existing centre layout cannot support a continuous active pedestrian edge. It is therefore preferable to focus activity around the eastern and western ends with urban, walkable precincts with street-based interfaces.	<ul style="list-style-type: none">Section 4.2 Urban Design PrinciplesSection 5.6 Westfield Drive interface / activation strategy
<ul style="list-style-type: none">Internalised	<ul style="list-style-type: none">The indicative scheme does not adopt town centre principles of externalising areas of activation around the site or of increased walkability or genuine site permeability.	<ul style="list-style-type: none">Proposal for western facade to externalise tenancies via outdoor terraces and for eastern entry to be centred around a new external plaza and active retail frontages. These proposed upgrades will re-focus activity from a central internalised mall to active hubs at each end.Proposed new buildings have entries and active frontages to Bunnerong Road.	<ul style="list-style-type: none">Section 5.2 The Master Plan - West PrecinctSection 5.3 The Master Plan - East Precinct

Key issue	Independent review comment	Master Plan response	Document reference
<ul style="list-style-type: none">– Car oriented design	<ul style="list-style-type: none">– The increase in internalised retail is likely to increase car use and discourage street based revitalisation.– An expansion of carparking is also proposed, contrary to the contemporary direction of new centres across NSW and District Plans, promoting walkability to reduce car dependencies.	<ul style="list-style-type: none">– New pedestrian focused plaza at the eastern end incorporates a re-developed bus terminus, which will add more capacity for public transport and significantly improve the passenger experience. New opportunities introduced for on-demand transport (ride-share, taxi), and defined pathways for pedestrian access.– New east and west address points for pedestrian access.– Upgrades to the Westfield Drive public domain will facilitate and promote walking connections with the Meriton site to the north.– New car parking is mainly to replace existing parking that is relocated for the retail development. Actual parking provision will be modelled at DA stage for assessment by Council.	<ul style="list-style-type: none">– Section 5.2 The Master Plan - West Precinct– Section 5.3 The Master Plan - East Precinct
<ul style="list-style-type: none">– Loss of vegetation buffer	<ul style="list-style-type: none">– Concerned that the proposal does not sufficiently secure tree retention and there seems to be some inconsistencies in the landscaped setbacks nominated for the north eastern part of the site.– Lack of landscape strategies for the northern and western edges of the site.	<ul style="list-style-type: none">– Vegetation buffer retained and expanded along Bunnerong Road and Wentworth Avenue into the new pedestrian plaza.– Vision for western end of the site is to create an “Urban Oasis” where landscape will be the focus of the precinct with vertically landscaped terraces and interactive green spaces from ground to roof-top.– New landscaping proposed along Westfield Drive to improve the amenity and comfort of the street while providing a buffer against the loading docks.	<ul style="list-style-type: none">– Section 4.2 Urban Design Principles– Section 5.1 The Master Plan– Section 5.6 Westfield Drive interface / activation strategy
<ul style="list-style-type: none">– Pedestrian connection from Meriton site to the north	<ul style="list-style-type: none">– The proposal delivers no substantial improvements to the northern interface which will continue to be dominated by vehicular access ramps and loading, providing a poor outcome to the residential areas to the north and directing pedestrian movement out only to the main road.	<ul style="list-style-type: none">– Proposed that pedestrian movements be separated from loading areas.– A variety of options for circulating are proposed to suit individual pedestrian needs.– Traffic calming strategies to improve safety for pedestrians.– New landscaping, public art and lighting is proposed to improve the amenity of the street.	<ul style="list-style-type: none">– Section 5.6 Westfield Drive interface / activation strategy

Key issue	Independent review comment	Master Plan response	Document reference
Height of Buildings			
<ul style="list-style-type: none">Relationship to surrounding context	<ul style="list-style-type: none">70 metre height not clearly justified.Lack of scale transition between proposed tower and adjacent context.Against Meriton height strategy - the maximum building height proposed for the indicative scheme appears to exceed the height of the approved developments to the north.	<ul style="list-style-type: none">The previously proposed 70m tall commercial tower has been reduced in height to 59m (less than the maximum height approved for the Meriton residential development) and is set back from the street edge above the retail podium, deeper into the site.The master plan broadly adopts the Meriton height strategy with a lower street wall fronting Bunnerong Road with a proposed height of 22m transitioning up 40m storeys at the south-east corner. Taller built form is set back to align with the taller built form under construction on the Meriton site. The proposed low-scale street wall along Bunnerong Road improves the interface with and transition to surrounding low density residential.	<ul style="list-style-type: none">Section 4.3 Evolution of Design
<ul style="list-style-type: none">Lack of justification for “Gateway” location	<ul style="list-style-type: none">Concern for location of previous proposed (March 2018 planning proposal) for 70m tower at “gateway” location on corner of Bunnerong Road and Wentworth Avenue.	<ul style="list-style-type: none">The previously proposed 70m tall commercial tower has been reduced in height to 59m and is now set back from the street deeper into the site. In its place a 40m tall commercial building is proposed for the prominent corner of Bunnerong Road and Wentworth Avenue. It is envisaged that this building would be a landmark sculptural building, set within the existing landscape buffer.	<ul style="list-style-type: none">Section 4.3 Evolution of Design
<ul style="list-style-type: none">Urban form options	<ul style="list-style-type: none">The maximum building height and massing distribution should be generated from a detailed study of the urban form outcomes across the elongated centre and ensuring minimal overshadowing.	<ul style="list-style-type: none">A number of options were tested that considered overshadowing and view impacts, site planning and commercial feasibility.The preferred option that is the subject of this planning proposal has a maximum height that meets DCP compliance by: 1) achieves a minimum of 2 hours of solar access between 9am and 3pm on 21 June to 50% of the primary private open areas of adjoining properties; 2) where this is not currently achieved, creates no additional overshadowing to the primary private open space of these properties; 3) achieves minimum 1 hour to >50% of the front yards on 21 June between 9am and 3pm to those properties that currently receives less than the required amount of sunlight to primary private open space.	<ul style="list-style-type: none">Section 1.3 Options TestedChapter 6, Testing and Assessment

Key issue	Independent review comment	Master Plan response	Document reference
<ul style="list-style-type: none">– Lack of GFA distribution breakdown	<ul style="list-style-type: none">– The applicant should provide a detailed breakdown of the expected GFA distribution across the site to allow Council to determine whether the indicative massing scheme is consistent with the capacity of the proposed uplift.	<ul style="list-style-type: none">– The revised planning proposal proposes no change in zoning from the current B3 Commercial Core land zoning. The increased FSR is anticipated to be allocated as 27,300sqm commercial and 37,500sqm of retail. The design and land-use will be developed as the project progresses, and in response to market demand. A future stage development will include flexible buildings which may accommodate commercial, hotel, build-to-rent and/or student accommodation uses in order to complete the master plan for the eastern end of the site.– A proposed GFA breakdown based on the reference scheme is provided in Appendix C.	<ul style="list-style-type: none">– Section 5.1 The Master Plan– Appendix C - GFA breakdown
<ul style="list-style-type: none">– Inappropriate primary and secondary setbacks	<ul style="list-style-type: none">– Upper level setbacks are insufficient and should be increased to Bunnerong Road to provide a more balanced streetscape and a human scale environment.	<ul style="list-style-type: none">– Setbacks have been revised from the previous planning proposal. An 8 storey street wall height at the corner of Bunnerong Road and Wentworth Avenue provides a transition with surrounding streetscapes and the 59m tower is set back behind the street wall and from the podium edge (with a minimum 35m setback from the southern boundary)	<ul style="list-style-type: none">– Section 5.1 The Master Plan– Section 5.5 Architectural Character, Materials and Finishes
<ul style="list-style-type: none">– Future planning stage	<ul style="list-style-type: none">– The intention for the “Future Planning Stage” is unclear as it is also nominated for building height increase to 34 metres.	<ul style="list-style-type: none">– The future planning stage in the north-east corner of the site is not subject to a request for additional height as part of this planning proposal. Indicative future built form for this location has been included in order to illustrate the complete master plan vision for the precinct and help guide Council's LEP review process.– The intention is for these indicative built form envelopes to form part of a future planning scheme that will explore additional land use options for the site that further diversify the mixed use centre offering and support the strategic priorities of the precinct.– A Stage 1 plan of Level 2 is provided on page 50 of this report to illustrate how the proposed master plan can be staged and allow for the future development to be realised at a later stage.	<ul style="list-style-type: none">– Section 1.1 Project Background– Section 1.2 Key Objectives– Section 5.3 The Master Plan - East Precinct

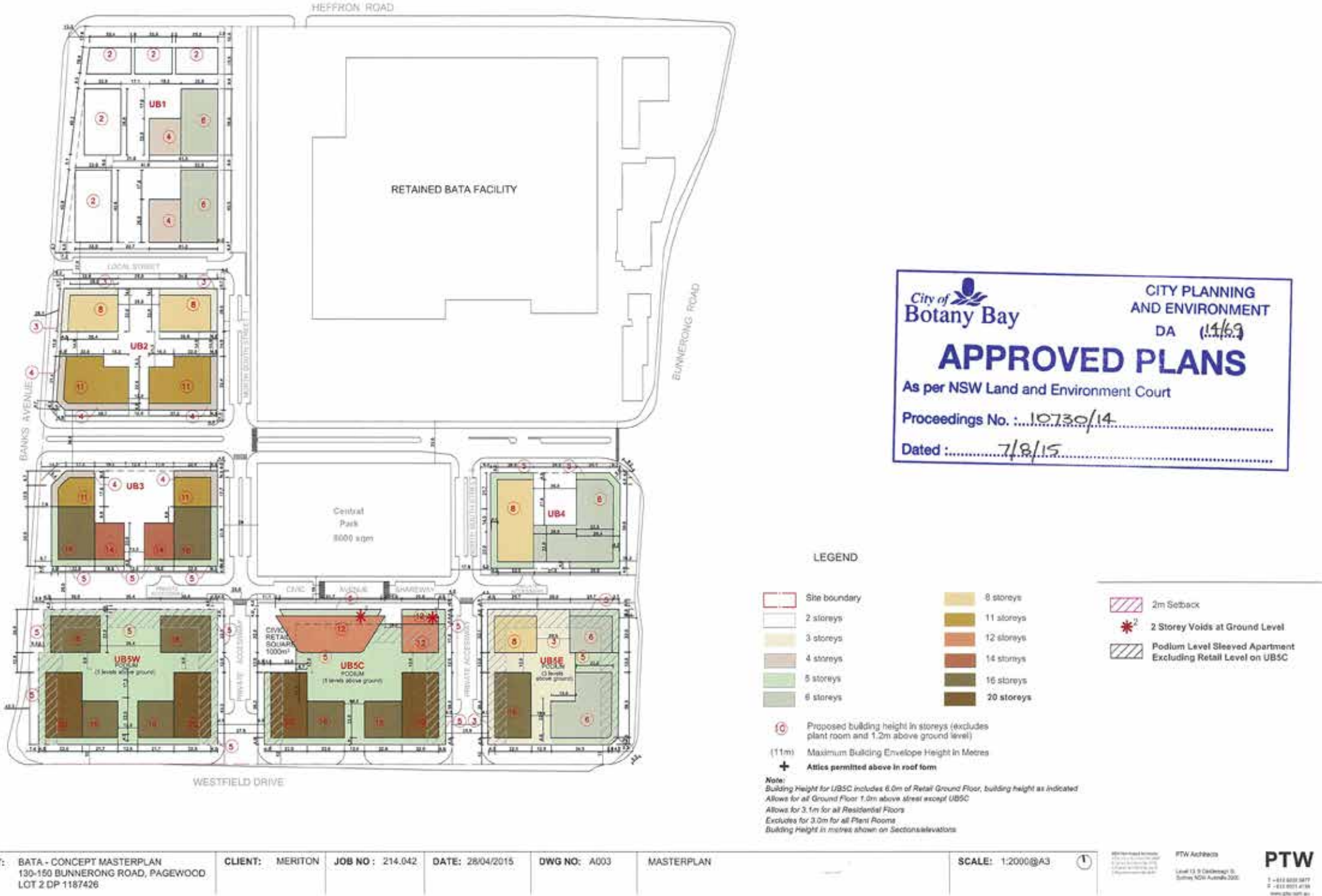
Key issue	Independent review comment	Master Plan response	Document reference
Amenity			
– Potential view impacts	– Potential view impacts (in particular precinct vistas) was raised as a concern for the previously submitted planning proposal (submitted March 2018).	– It is considered that the proposed built form will form part of a cluster related to the adjacent Meriton site. The skyline will highlight a hub of density around the mixed use and transport nodes, with a transition to a lower street wall height along the perimeter street interfaces.	– Chapter 6, Testing and Assessment
– Overshadowing impacts	– Overshadowing of the low density residential areas to the south by the 70 metre tower is considered unacceptable.	<div>– The height has been reduced and the tower placement amended so that the proposal can comply with the Dwelling Houses DCP for overshadowing impacts, such that a minimum of 50% of the primary private open space of adjoining properties receive a minimum of 2 hours of solar access between 9am and 3pm, except for dwellings that already self-shadow. For these dwellings, the development does not create additional overshadowing to the area of primary private open space.</div> <div>– Additional overshadowing controls, beyond those required by the DCP have been proposed in the supporting DCP to ensure reasonable solar access to front yards and northern elevations of dwellings to the south of Wentworth Avenue. Recommendations for these controls are discussed in the overshadowing section in Chapter 6.</div> <div>– This change to height and overshadowing impact is now considered reasonable and acceptable in the context of a strategic centre.</div>	– Chapter 6, Testing and Assessment
Accuracy of Documentation			
	– Detailed sections not provided showing accurate topography	– Additional ground level RLs have been added to the section drawings.	– Section 5.3 The Master Plan - East Precinct
	– Inaccuracies in the view analysis (various)	– The view analysis and model used has been checked and inaccuracies fixed for built form in the Stage 1 approved Meriton residential development site.	– Chapter 6, Testing and Assessment
	– Heights shown in the 3D indicative massing are not consistent with the approved BATA Masterplan. Some buildings appear to be shown 4 storeys higher than the approved Masterplan.	– The Stage 1 approved Meriton residential development site in the Architectus model has been amended to match the approved master plan included in Appendix B of this report.	– Chapter 6, Testing and Assessment

B Appendix

Council Approved Concept Master Plan for 130-150 Bunnerong Road, Pagewood

Appendix B

Council Approved Concept Master Plan for 130-150 Bunnerong Road, Pagewood



This page intentionally left blank

C Appendix

Indicative GFA distribution breakdown
as per the concept reference scheme

Concept reference scheme indicative
GFA distribution breakdown per level

Note: Areas provided are indicative only, based on concept reference scheme and subject to change through the detailed design phase and commercial requirements.

Description			Incremental GFA	Efficiency	Incremental GLA
Retail					
Incremental retail			37,500	n/a	27,500
Commercial					
Tower A					
Level 16 - plant level			-	n/a	-
Level 15 - tiered part level			760	86%	650
Level 14			1,360	90%	1,220
Level 13			1,360	90%	1,220
Level 12			1,360	90%	1,220
Level 11			1,360	90%	1,220
Level 10			1,360	90%	1,220
Level 9			1,360	90%	1,220
Level 8			1,360	90%	1,220
Level 7			1,360	90%	1,220
Level 6 - connected to Level 6 of existing Tower C			1,360	90%	1,220
Sub-total Tower A			13,000	89%	11,630
Tower B					
Level 10 - setback part level			800	84%	675
Level 9 - setback part level			800	84%	675
Level 8			1,050	88%	920
Level 7			1,050	88%	920
Level 6			1,050	88%	920
Level 5			1,050	88%	920
Level 4			1,150	87%	1,000
Level 3			1,150	87%	1,000
Level 2			1,150	87%	1,000
Level 1			1,100	86%	950
Basement			650	85%	550
Sub-total Tower B			11,000	87%	9,530
Tower C					
Enlargement of existing Level 6 (plus connection to Tower A shown separately)			540	90%	485
Enlargement of existing Level 5			920	85%	785
Enlargement of existing Level 4			920	85%	785
Enlargement of existing Level 3			920	85%	785
Sub-total Tower C			3,300	86%	2,840
Incremental Commerical			27,300	88%	24,000
Incremental retail and commercial reference scheme			64,800	80%	51,500

This page intentionally left blank

architectus™