ITEM 4. **DEVELOPMENT APPLICATION: HAROLD PARK - 10 MAXWELL ROAD - 72 AND 74 ROSS STREET - 1A AND 1B THE CRESCENT - FOREST LODGE**

FILE NO: **D/2011/1298**

SUMMARY

Date of Submission:	17 August 2011. Amended plans and documentation submitted up until 28 June 2012.
Applicant:	Mirvac
Architect:	Hassell, Mirvac Design, ASPECT
Developer:	Mirvac
Site:	Harold Park (10 Maxwell Rd, 72 and 74 Ross St, 1A and 1B The Crescent, Forest Lodge).
Summary:	Stage 1 Development Application for the redevelopment of Harold Park. The proposal includes residential building envelopes ranging from 3 to 8 storeys (approximately 1,250 dwellings); 7,553m^2 non-residential floor space (mainly in Tram Sheds); dedication of 3.8ha of public open space; bulk excavation and infrastructure works; new intersection and road widening; re-alignment of Ross Street; car parking for Tram Sheds precinct; landscaping and subdivision.
Summary Recommendation:	The development application is recommended for approval, subject to conditions.
Development Controls:	(i) Sydney Local Environmental Plan (Harold Park) 2011 (ii) Sydney Development Control Plan (Harold Park) 2011 (iii) Heritage Development Control Plan 2006 (iv) Access Development Control Plan 2004 (v) Child Care Centres Development Control Plan 2005 (vi) Contaminated Land Development Control Plan 2004 (vii) Notification of Planning and Development Applications Development Control Plan 2005

Attachments:

A - Conditions of Consent - Harold Park - Stage 1

B - Selected Architectural Drawings

C - Selected Public Domain Plans

D - Photomontages

E - Shadow Diagrams

F - Summary of Submissions

G - Harold Park Paramics Modelling report

RECOMMENDATION:

It is resolved that consent be granted subject to the conditions of consent found at **Attachment A** to the subject report.

BACKGROUND

The Site and Surrounding Development

1. The site is known as 'Harold Park' and is located in Forest Lodge, approximately 2.5km from the Sydney CBD. The site was formerly used for harness racing. The Rozelle Tram Depot also operated on the site from 1904 to the 1960s and the heritage listed Tram Sheds remain on the site. The site was previously owned by the NSW Harness Racing Club and is now owned by Mirvac.

2. The site has an area of approximately 10.63ha and is surrounded by the suburbs of Glebe, Forest Lodge and Annandale, generally comprising late 19th and early 20th century residential development, with small scale commercial and retail uses and some remnant industrial uses to the north.

3. Approximately 13ha of public parkland, comprising Federal, Jubilee and Bicentennial Parks, is located to the north of the site as is Jubilee light rail station. The Johnston's Creek stormwater channel, The Crescent and Minogue Crescent and Nelson St are to the west of the site. Maxwell Road and the cliff face are to the east, with the area atop the cliff known as the Toxteth Estate, is a conservation area under the Leichhardt LEP.

4. The site is within 1km of the Glebe and Annandale village centres, on Glebe Point Road and Booth St, respectively, and the site is also about 1km away from Sydney University, the Royal Prince Alfred Hospital and Broadway shopping centre.

5. Except for heritage listed items and the former administration building which is now being used as a marketing suite, all structures on the site have now been demolished.

6. Site location plans and photos are provided below.

Figure 1 - Site location plan.

Figure 2 - Harold Park. The paceway, grandstand and other ancillary buildings have now been demolished.

Figure 3 - Looking across the site (northwest) towards The Crescent in the distance.

Figure 4 - Looking east on Wigram Rd and Ross St intersection. A median is proposed on Wigram Rd.

Figure 5 - Looking east on Wigram Road from Minogue Crescent. The site is on the left and the Centennial Apartments (115 Wigram Rd) is on the right. The Harold Park Hotel is in the background on the right.

Figure 6 - Looking west to the site from Wigram Road. The heritage listed Cliff Terraces are in the background.

Figure 7 - Looking northwest at the intersection of Wigram Road and Minogue Crescent / The Crescent.

Figure 8 - Cliff Terraces on Minogue Crescent.

Figure 9 - Cliff Terraces.

Figure 10 - Views across the site from the Cliff Terraces.

Figure 11 - Minogue Crescent, looking south to Wigram Rd, with Harold Park to the left.

Figure 12 - The Minogue Crescent / The Crescent junction is the location for proposed traffic signals. The site is on the right. Looking north from the PCYC.

Figure 13 – Nelson St / The Crescent roundabout, looking south (from Nelson St).

Figure 14 – Looking northeast to Nelson St and site access from The Crescent (from roundabout),

Figure 15 – Entry to Johnston's Creek Bridge from Nelson St / Chapman Rd.

Figure 16 – Johnston's Creek Bridge. Tram Sheds in background.

Figure 17 – Looking northwest to commercial / industrial uses on Nelson St / Chapman Rd from Johnston's Creek Bridge.

Figure 18 – Looking north to viaduct / light rail from Johnston's Creek Bridge.

Figure 19 – Looking south from Johnston's Creek Bridge. The site is on the left.

Figure 20 - Tram Sheds

Figure 21 – Inside the Tram Sheds.

Figure 22 – Trams.

Figure 23 – Heritage listed former tram accessway and tram track fencing (handrail) along Johnston's Creek stormwater channel (looking east).

Figure 24 – The site from Maxwell Rd, looking southwest.

Figure 25 - Maxwell Rd, looking north towards light rail station. Harold Park is to the left and St Scholastica's College on the right.

Figure 26 – Maxwell Rd, looking south. The Maxwell Road access will require the relocation of the heritage listed water tank.

History of Development Applications Relevant to this Site

7. Development Applications (DAs) for remediation, demolition, a marketing suite and signage, associated with the redevelopment of Harold Park have been approved since July 2011.

8. The following applications for Harold Park are currently with Council:

   (a) Stage 2 DA for Precinct 1 (D/2011/1311) - 4 residential apartment buildings with a total of 296 dwellings ranging in height from 5 to 8 storeys, 296 apartments, basement parking for 256 cars and associated landscaping including a street closure park.

   (b) Stage 2 DA for Precinct 2 (D/2011/1312) - 2 residential apartment buildings (8 storeys) with a total of 169 apartments, 53m^2 retail area, basement parking for 171 cars and two pocket parks.

9. The Stage 2 DAs are targeted to be reported to the CSPC in the coming months.

PROPOSAL

10. The proposal is for the redevelopment of the former Harold Park paceway for predominantly residential uses. In detail, the application seeks consent for:

   (a) the staged development of the site across 6 residential precincts plus the Tram Sheds precinct (which will include the restoration and adaptive reuse of the Tram Sheds);

   (b) 16 building envelopes ranging in height from 3 to 8 storeys, providing about 1,250 dwellings;

   (c) FSR of 1.25:1 / Gross Floor Area (GFA) 132,914m^2;

   (d) of the total GFA, 7,553m^2 of non-residential floor space, comprising:

(i) 7,000m^2 retail / commercial in Tram Sheds;

(ii) 500m^2 for a community facility in the Tram Sheds; and

(iii) 53m^2 of retail at the ground floor of Building 2A in Precinct 2;

(e) dedication of 3.8ha of public open space;

(f) dedication of a 2,500m^2 parcel of land to be developed for affordable housing / housing for people with a disability;

(g) bulk excavation to provide new levels for the public domain;

(h) infrastructure and public domain works, including roads, new signalised intersection at The Crescent / Minogue Crescent, Ross St realignment and landscaping;

(i) landscaping of street closures at the ends of proposed roads MC03 and MC04 (street closures are located at the intersections with The Crescent and Minogue Crescent, respectively);

(j) car parking associated with the tramshed precinct; and

(k) subdivision.

11. The proposal has been amended to address concerns raised by Council. The amendments include:

(a) changes to site levels to improve connectivity and access through the future park, between the future park and Maxwell Rd and between the future park and the development;

(b) changes to levels to improve the relationship with the Tram Sheds;

(c) changes to the areas that comprise the required 3.8ha of public open space;

(d) reduction in the size and relocation of the tramshed carpark; and

(e) built form amendments, including setbacks and height.

12. The amendments are discussed in the report.

13. In addition to the dedication of 3.8ha of public open space, land for affordable housing / housing for people with a disability and land for a community facility, the Voluntary Planning Agreement (VPA) between the City and Mirvac secures an $8.25 million contribution to the City to embellish the public open space.

14. Selected plans are provided below. Further plans are provided at **Attachments B, C, D and E**.

Figure 27 – Aerial photomontage looking northwest.

Figure 28 – Aerial photomontage looking south.

Figure 29 – 3D massing plan.

Figure 30 – Proposed staging plan.

Figure 31 – The dedication of 3.8ha of public open space will form an extension of existing parklands to the north.

IMPLICATIONS OF THE PROPOSAL

Section 79C Evaluation

15. An assessment of the proposal under Section 79C of the Environmental Planning and Assessment Act 1979 has been made, including the following:

Section 79C(1)(a) Environmental Planning Instruments, DCPs and Draft Instruments

STATE ENVIRONMENTAL PLANNING POLICIES (SEPPs) and REGIONAL ENVIRONMENTAL PLANS (REPs)

16. The following SEPPs and REPs are relevant to the proposed development:

Infrastructure SEPP 2007

17. The application was referred to the Road and Maritime Services (RMS) (formerly the RTA) in accordance with the requirements of the Infrastructure SEPP. The Sydney Regional Development Advisory Committee (SRDAC) / RMS raised no objection to the proposal.

SEPP (Building Sustainability Index: BASIX) 2004

18. BASIX requires that residential developments reduce water consumption by 40 per cent and greenhouse gas emissions (energy) by 25 per cent. Each detailed Stage 2 DA for residential precincts will be required to be accompanied by BASIX certificates which confirm the buildings comply with BASIX targets.

19. The Harold Park LEP allows a floor space bonus, of up to 10,630m^2, if the proposed buildings exceed BASIX targets by not less than 25%. The Stage 1 DA seeks consent for the maximum floor space as well as the BASIX bonus. This is discussed in the Issues section.

SEPP 32 - Urban Consolidation (Redevelopment of Urban Land)

20. The proposed development is consistent with the aims and objectives of SEPP 32 and the State Government's urban consolidation initiatives. The site has been identified as urban land which has the potential for multi-unit housing and has been zoned accordingly. The site is strategically located in proximity to the Sydney CBD and is serviced by existing public infrastructure, public transport and community facilities. The proposed development will increase the availability of housing within the inner city and will assist in meeting the demand for residential flats which are close to employment, leisure and retail opportunities.

SEPP 55 - Remediation of Land

21. SEPP 55 requires the consent authority to consider whether the land is contaminated prior to granting consent for development. If the land is contaminated, the consent authority must be satisfied that the land is suitable for its intended use in its present state, or that it will be suitable after remediation.

22. The provisions of SEPP 55 are replicated in the Contaminated Land DCP 2005.

23. DA D/2011/1299 was approved on 29 June 2012 for remediation works to the site. The application was accompanied by a Remedial Action Plan (RAP) and Interim Advice from a Site Auditor. The consent requires a Site Audit Statement confirming that the site is suitable for the proposed use prior to the commencement of any other works on the site, other than those associated with remediation.

SEPP 65 - Design Quality of Residential Flat Development

24. Clause 70B of the Environmental Planning and Assessment Regulation 2000 provides that design verification required under clause 50(1A) is not required for Stage 1 development applications unless the DA contains detailed proposals for a residential flat development or part of that development.

25. Due to the conceptual nature of a Stage 1 application a detailed assessment against SEPP 65 and the Residential Flat Design Code can only be made when future development applications are submitted. Notwithstanding, the Stage 1 DA has been considered against the design quality principles. Subject to amendments, the proposed building envelopes are considered to be contextually appropriate, being consistent with adjoining street alignments and providing adequate building separation and large communal courtyard spaces for most precincts.

Residential Flat Design Code

26. Clause 30 of SEPP 65 requires consideration of the *Residential Flat Design Code* (RFDC), which provides additional detail and guidance for applying the design quality principles outlined in SEPP 65 to a specific locality.

27. A preliminary assessment against the RFDC is included Issues section.

VOLUNTARY PLANNING AGREEMENT (VPA)

28. A Voluntary Planning Agreement (VPA) between the applicant (Mirvac) and Council has been executed and secures public benefits associated with the redevelopment of the site. The requirements of the VPA are summarised in the table below.

Item Timing	**VPA Requirements Summary**	**Proposal as assessed**
Public Open Space To be dedicated to Council prior to the issue of the first Occupation Certificate.	• 3.8 hectares • Configured in accordance with the indicative Public Domain – Open Space Map • Finished surface levels in accordance with indicative Ground Levels Map • Remediated for use as public open space • Consistent with the DCP including being connected, a consolidated area, able to accommodate varying active and passive recreational uses. • Include a sports field of 1ha (min) in size • Necessary infrastructure, drainage, levels, road access, utilities etc.	The DA identifies the land to be dedicated as public open space, which is consistent with the VPA Map. Amendments to finished levels have been made to address concerns about access and relationship of the future park with the Tram Sheds. An area that will accommodate a 1ha sports field has been identified. Conditions will address infrastructure requirements.

Item Timing	VPA Requirements Summary	Proposal as assessed
Affordable Housing Land to be transferred 60 days after the registration of the first plan of subdivision.	• 1000m^2 of land for affordable housing and housing for people with a disability • Land to provide 5,000m^2 GFA • Remediated for residential use • Necessary infrastructure, drainage, levels, road access, utilities etc.	Lot 6A will be dedicated to Council for affordable housing. The site has an area of 2,500m^2 (exceeding the VPA minimum 1,000m^2) and is considered appropriately located. Plans have been provided to demonstrate that the site can yield up to 5,500sqm (which includes 500m^2 additional GFA allowed by Clause 6.7 of the LEP for such uses) in accordance with the VPA.
Community Facility Land transferred to Council on or prior to the issue of the final Occupation Certificate for the Tram Shed Building.	• 500m^2 within Tram Sheds • Remediated for community facility use • Infrastructure to enable strata subdivision	This location of area within the Tram Sheds for a community facility will be addressed when a detailed DA for the Tram Sheds is submitted.
Essential Infrastructure On or prior to the issue of the final Occupation Certificate for the relevant part of the proposed development to which the Essential Infrastructure relates.	• All works, construction and other associated development, including land dedication or easements, including infrastructure, stormwater, road construction and services	The Stage 1 DA includes infrastructure works. Appropriate conditions have been included in the recommendation to address Council's requirements.
Monetary Contribution Prior to the issue of the first Occupation Certificate	• Cash contribution of $8,250,000	Appropriate conditions will be imposed on the relevant Stage 2 DAs.

LOCAL ENVIRONMENTAL PLANS (LEPs) and DEVELOPMENT CONTROL PLANS (DCPs)

29. The *Sydney LEP (Harold Park) 2011* ("Harold Park LEP") was gazetted on 16 December 2011. The *Sydney Development Control Plan (Harold Park) 2011* ("Harold Park DCP") provides the detailed built form controls for the site and came into effect on the same day.

30. The Harold Park LEP repealed the Leichhardt LEP 2000 in so far as it applied to Harold Park. The Draft Sydney LEP 2011 does not apply to Harold Park.

31. The Stage 1 DA has been assessed against the provisions of the Harold Park LEP and DCP, which contains detailed controls on matters such as built form, heritage, traffic and parking, rather than the provisions of the Leichhardt DCP as:

    (a) due to its site specific nature, the provisions of the Harold Park DCP are more detailed and relevant to the site;

    (b) the provisions of the Harold Park DCP complement the provisions and objectives of the Harold Park LEP to a greater extent than those in the Leichhardt DCP. Accordingly, it is considered that the application of the provisions of the Leichhardt DCP to the proposal would undermine the objectives of the Harold Park LEP; and

    (c) there are inconsistencies between the provisions of the Harold Park DCP and the Leichhardt DCP. Accordingly, the provisions of the Harold Park DCP prevail to the extent of those inconsistencies;

HAROLD PARK LEP

Development Controls	Permissible under the Sydney Local Environmental Plan (Harold Park) 2011	Proposal as assessed
Zoning (Cl 2.1)	B4 – Mixed Use	The proposal is for predominantly residential uses with non-residential (retail/commercial/community) uses proposed mainly within the Tram Sheds. The proposed land uses are permissible.
Height of Buildings (Cl. 4.3)	RL 16 - RL 36 (Maximum height varies depending on building location; 10 different height zones apply)	RL 22.25 – RL 35.75 The proposal complies with the height controls of the LEP. NB: No buildings are proposed in the height zone of RL 16 (Tram Sheds precinct).

Development Controls	Permissible under the Sydney Local Environmental Plan (Harold Park) 2011	Proposal as assessed
Floor Space Ratio (Cl. 4.4)	1.15:1 Includes maximum: 0.2:1 business/office 0.1:1 retail premises	1.25:1 132,914m^2 Includes: 0.06:1 non-residential 10,630m^2 BASIX bonus
BASIX bonus (Cl. 6.6) **(Site Area = 106,334m^2)**	plus 10,630m^2	The proposal complies with the maximum GFA available for the site. Approval of GFA that includes the BASIX bonus is not supported at Stage 1. This is discussed in the Issues section.
Architectural Roof Features (Cl. 5.6)	Minor architectural roof features may exceed height limits	The proposed Stage 1 envelopes are within the maximum LEP height limits. Details of any proposed roof features will be subject to Stage 2 DAs.
Preservation of Trees or Vegetation (Cl. 5.9)	Approval required for removal of trees or vegetation.	Tree removal is proposed as part of this DA in order to facilitate the development of the site. Indicative public domain and landscaping plans have been submitted and include new tree planting across the site. Appropriate conditions are included in the recommendation including conditions on tree protection measures for trees to be retained and requirements for pre-clearance surveys to be undertaken before trees are removed to ensure the protection of wildlife.
Heritage Conservation (Cl. 5.10)	Conservation of heritage items on the site, including: • Former Rozelle Tram Depot and curtilage including Water Tank, former tram accessway and tram track fencing Johnston's Creek • Avenue of fig trees • Various trams • Paceway cutting The site is not located in a conservation area.	Except for a portion of the former tram accessway handrail (tram track fencing), all listed heritage items are proposed to be retained, conserved and/or adaptively reused. Refer to the Issues section.

Development Controls	Permissible under the Sydney Local Environmental Plan (Harold Park) 2011	Proposal as assessed
Car Parking (Cl. 6.1)	The LEP sets out the maximum number of car parking spaces permissible based on particular land uses on the site.	Car parking for the Tram Sheds is proposed as part of the DA. Refer to the Issues section. Car parking numbers for residential uses can only be assessed with Stage 2 DAs as parking numbers are determined having regard to the types of units proposed. Submissions have raised concerns about parking rates. This is discussed in the Issues section.
Acid Sulfate Soils (Cl. 6.2)	The site contains areas that are classified as being within Class 1, 2, 3, and 5.	An Acid Sulfate Soils report has been submitted with the application. Soils classified as being located within areas that require specific attention are addressed by consent conditions requiring that works comply with applicable legislation.
Flood Planning (Cl. 6.3)	Development permitted subject to flood assessment and risk management.	A Flood Study has been submitted and peer reviewed by an independent consultant. Refer to the Issues section.
Design Excellence (Cl. 6.4)	Development must display design excellence.	The proposed envelopes, subject to amendments addressed in the report, are capable of accommodating buildings being designed to achieve design excellence. The Stage 2 DAs will be required to demonstrate that individual buildings provide acceptable levels of visual and architectural diversity.

HAROLD PARK DCP

Matter to be Considered	Complies	Comment
Desired Future Character (Section 2)		
Consistent with Government Architect's Office Urban Design Study (GAO UDS)	✓	**Complies.** The proposed layout and built form is consistent with the GAO UDS and the provisions of the DCP including open spaces, coherency of streets and connections, heritage protection and accessibility.

Matter to be Considered	Complies	Comment
Local Infrastructure (Section 3)		
Ground Levels and Excavation 3.1	✓	**Able to comply.** Amendments have been made to address concerns regarding the originally proposed site levels, particularly the levels of the public open space. The amended site levels generally fulfil objectives of accessibility, consistent gradients, usable open spaces and overland flow paths. While generally levels are supported, amendments are recommended to ensure compliance with DCP objectives about building's relationship with street levels. Refer to the Issues section.
Public Domain 3.2	✓	**Complies**. The Stage 1 identifies the 3.8ha of land to be dedicated as public open space to Council in accordance with the VPA. The public open space configuration was amended to address concerns about function and generally complies with the DCP. Refer to Issues section.
Street Network and Access 3.3	✓	**Able to comply.** A clear and coherent system of local streets and access ways has been proposed which is consistent with the Preferred Access and Street Layout Plan within the DCP. The RMS raise no objections to the Stage 1 DA. The DA was subject to a peer review by an independent traffic consultant. This is discussed in the Issues section.
Staging 3.4	✓	**Complies.** A staging plan has been submitted, including a staged subdivision plan. Subject to conditions, the development can be carried out to ensure construction impacts are mitigated as much as possible on the existing activities of neighbouring sites. Conditions on the staged delivery of Essential Infrastructure associated with the public domain and the dedication of public open space are included in the recommendation.

Matter to be Considered	Complies	Comment
Heritage (Section 4)		
Harold Park Paceway 4.1	✓	**Able to comply.** An Interpretation Strategy has been submitted and is considered to be generally in accordance with the Heritage Conservation & interpretation Guidelines - *Harold Park Paceway Map.* Conditions are included to require that future DAs address interpretation for incorporation into the relevant Precincts. DA D/2011/277 approved the demolition of the paceway, grandstand and related structures. An archival recording of the site was submitted prior to demolition in accordance with the conditions of that DA.
Former Rozelle Tram Depot 4.2	✓	**Able to comply.** Conservation works and the adaptive reuse of the Tram Sheds are subject to a future DA. Mirvac proposes that the adaptive reuse and refurbishment to the Tram Sheds will be delivered on practical completion of the fourth residential precinct. A condition has been imposed accordingly. A Conservation Management Plan (CMP) will be required with that DA. Refer to the Issues section.
Building Use, Form and Design (Section 5)		
Land Uses 5.1	✓	**Complies.** All but 53m^2 of proposed non-residential GFA is located in the Tram Sheds, in accordance with the DCP. A small retail space is proposed at the southern end of the site, at the ground floor of Building 2A in Precinct 2.
Centres and Hierarchy and Retail Uses 5.2	✓	**Complies.** The proposal includes 7,500m^2 of non-residential uses in the Tram Sheds, including 500m^2 for a community facility. Depending on the size of any retail component, an Economic Impact Assessment may be required with the future DA for the use of the Tram Sheds. This will be addressed when that DA is submitted.
Building Form and Layout 5.3	✓✖	**Generally complies/Able to comply.** The proposed envelopes are generally consistent with the DCP, address the street and are arranged in coherent blocks. Issues relating to height and setbacks are discussed in the Issues section.

Matter to be Considered	Complies	Comment
Application of NSW Residential Flat Design Code (RFDC) 5.4	✓✖	**Generally complies/Able to comply.** A detailed assessment against the RFDC will be made with future Stage 2 DAs. Refer to the Issues section.
Building Typology, Design and Dwelling Mix 5.5	✓	**Able to comply.** Dwelling mix, typology and design will be assessed with Stage 2 DAs.
Safety and Design 5.6	✓	**Able to comply.** Security, lighting and the detailed design of private spaces will be assessed with Stage 2 DAs. In relation to public open space, these matters will be considered by Council in its design of the park which will be the subject of a separate DA.
Sun Access 5.7	✓✖	**Generally complies.** A detailed assessment of solar access for proposed dwellings will be made with Stage 2 DAs. Shadow diagrams submitted show that the proposed development will generally overshadow itself. Overshadowing from the proposed envelopes on neighbouring properties is minor and complies with the controls. Refer to the Issues section.
Reflectivity and Acoustic Privacy 5.8 & 5.9	✓	**Able to comply.** To be addressed at Stage 2 DAs.
Building Facades, Entrances and Articulation 5.10	✓	**Able to comply.** The proposed building envelopes have frontages to surrounding streets, the public domain and internal open spaces. The design of buildings fronting Minogue Crescent, The Crescent and new open spaces will be required to provide an address to those frontages, be of high quality and emphasise entries. The assessment of entrances, facades, materials, and the form and design of individual elements will be the subject of Stage 2 DAs. Conditions have been included to ensure that buildings with frontage to The Crescent / Minogue Crescent provide entries from those roads.
Active Frontages 5.11	✓	**Able to comply.** The detailed assessment of building frontages and street/public domain activation will be the subject of Stage 2 DAs.

Matter to be Considered	Complies	Comment
Landscaping, Private Open Space, Common Open Space and Deep Soil 5.12, 5.13, 5.14 & 5.15	✓	**Generally Complies/Able to comply.** The Stage 1 plans include locations for deep soil planting / common open space across the site. Approximately 5,379m^2 is proposed for communal landscaped areas and courtyards between the building envelopes. Of that, 61% has been identified as locations for deep soil planting. Landscaping and private open space for all residential buildings will be assessed in Stage 2 DAs.
Green Roofs 5.16	✓	**Able to comply.** A Green Roof Strategy has been submitted which identifies future locations for green roofs. The DCP encourages unroofed communal open space and the provision of green roofs provides increased opportunities for open space for residents. A detailed assessment of green roofs will be made in Stage 2 DAs. A condition has been recommended.
Tree Management 5.18	✓	**Able to comply.** Future trees planted on the site will be in accordance with Council's Street Tree Masterplan. Trees to be retained are subject to Council Register of Significant Trees and any Tree Preservation Orders. Trees proposed for removal as part of Stage 1 works have been assessed by Council's Tree Unit as acceptable for removal. Appropriate conditions are included in the recommendation.
Environmental Management (Section 6)		
Ecologically Sustainable Development 6.1	✓	**Able to comply.** Compliance with the requirements of BASIX will be assessed at Stage 2. The proposal also includes rainwater harvesting, green roofs on future buildings, water sensitive urban design (WSUD) elements such as bioswales and raingardens.
Waste Facilities and Minimisation 6.2	✓	**Generally Complies.** The proposed development is generally compliant with Council's requirements for waste management. Details regarding location and storage of waste, recycling and recyclable electronic goods and liquid waste etc on the site will be assessed with Stage 2 DAs.
Stormwater and Water Sensitive Urban Design 6.3	✓	**Able to comply.** A flood study has been submitted and has been the subject of a peer review. Refer to the Issues section.

Matter to be Considered	Complies	Comment
Vehicle and Bicycle Facilities (Section 7)		
Parking, visitor, service and motorcycle parking, Car share spaces, accessible parking, bicycle parking and parking design and access.	✓	**Able to comply.** An assessment of parking will be made with Stage 2 DAs. It is noted that submissions have raised concern with Council's parking controls. This is discussed in the Issues section.
Social Sustainability (Section 8)		
Social Sustainability	✓	**Complies.** A Social Sustainability Plan was submitted which addresses social and environmental aspects of the development, including improved accessibility to existing residents to parks, bus stops, cycleways and light rail as a result of the development. The Plan also addresses the suitability of the land proposed to be dedicated for affordable or seniors housing (as required by the VPA). The affordable housing site is discussed in the Issues section. Mirvac has also provided details on its commitment to work with the Master Builders Association, Glebe PCYC and the CFMEU to facilitate training and act as host employer in association with the Master Builders Aboriginal Apprentice Program and coordinate training and employment opportunities for people seeking assistance.

OTHER DCPs

Heritage Development Control Plan 2006

32. The site contains heritage items but is not located in a conservation area. This is discussed later in the report.

33. Generally to the east, south and west, the site adjoins conservation areas. To the east, above the cliff, is the Toxteth Estate, generally characterised by larger and freestanding homes. To the south, are predominantly 1 and 2 storey terraces and to the southwest, elevated above Minogue Crescent are the heritage listed Cliff Terraces (see **Figures 6 to 10**).

34. The preparation of the planning controls for the site took into account the heritage character of the area and controls such as height and setbacks that would ensure the development was compatible with the surrounding area were adopted accordingly. The Stage 1 DA proposes building envelopes that generally comply with the planning controls and this is discussed in the Issues section of the report. Subject to compliance with recommended conditions relating to built form and the appropriate design of future buildings, the redevelopment of Harold Park should not detract from the character of surrounding areas.

Child Care Centres Development Control Plan 2005

35. One of the objectives of the DCP is to encourage the provision of child care in new commercial and residential developments based on the need created by the proposed development. The DCP seeks to ensure that the provision of child care centres is considered during the Stage 1 DA process. An analysis of the needs of residents and workers in relation to child care centres is recommended to be undertaken to establish the demand for child care services. Where there is a significant and viable demand, a child care centre should be accommodated in the early stages of the development.

36. The proposal is likely to create about 1,250 households and 7,000m^2 of commercial/retail space. Based on these figures, the DCP suggests demand for 80 child care places is likely to be generated. The DCP regards a minimum viable size for a child care centre as 30 places.

37. The applicant does not consider that the Child Care Centre DCP is applicable to the assessment of the DA because:

    (a) the purpose of the Child Care DCP is to prescribe the physical requirements and design standards for child care centres where they are required to be provided either as a result of the operation of the Section 94 Plan or under a VPA; and

    (b) as the VPA does not require the provision of a child care centre and excludes the application of Section 94 contributions the Child Care Centre DCP is not applicable.

38. The views of the applicant have been considered. In relation to the applicability of the DCP, the applicant's submission is not agreed. The DCP applies to Stage 1 DAs and to Harold Park. The objectives of the DCP relevant to this DA relate to considering the need to incorporate a child care centre in a development that generates a need. However, it is considered that the provisions of the Child Care Centre DCP should not be imposed on the basis of:

    (a) the community facility required to be provided under the VPA does not preclude the use of that facility for a publicly operated centre. This would be subject to DA approval and on the basis that Council determines that this would be a suitable (and the best) use for that space;

    (b) under the terms of the VPA, all Section 94 contributions are excluded for the purpose of the development, including those that would normally have been required for the provision of child care facilities within the LGA.

Access Development Control Plan 2004

39. Amendments have been made to the proposed site levels to improve equitable access across the site. Appropriate conditions are recommended to require future DAs comply with the DCP and the relevant standard for accessible development.

Contaminated Land Development Control Plan 2004

40. Refer above under the heading *SEPP 55 - Remediation of Land*.

ISSUES

41. The issues identified in the above instruments/policies as non-complying or requiring further discussion in the abovementioned tables are discussed in detail below:

Affordable Housing

42. The VPA requires that 1,000m^2 of land be dedicated for affordable housing and housing for people with a disability and that the site yield 5,000m^2 GFA.

43. Building / Site 6A is proposed to be dedicated for affordable housing. The site is 2,500m^2, which is more than double the VPA requirement of 1,000m^2.

44. Plans have been provided to demonstrate that the proposed envelope can yield up to 5,500m^2 GFA. This includes the 5,000m^2 GFA required under the VPA as well as an additional 500m^2 GFA available under Clause 6.7 of the Harold Park LEP for land that is developed for affordable housing.

45. The submitted plans show the GFA can be achieved within the height and built form controls that apply to Building 6A and are based on complying building envelopes. The plans were reviewed by Council's Urban Designer and are acceptable.

46. It is noted that amended plans submitted later for Building 6A show that an additional storey over the maximum is proposed at Wigram Rd. This is discussed further in the report. As discussed above, plans that show the development yield of the affordable housing site are based on complying building envelopes.

47. The site is considered appropriate as:

    (a) it is closest to Glebe Point Road and Forest Lodge villages;

    (b) it is close to bus stops for the 370 and 433. It is also the closest site to the 470 bus stop on Ross St further south and more buses further south on Parramatta Rd. Future at grade access to the light rail will be available through the future park, however, given this access will be provided in the longer term, the site's location provides the best access to existing public transport options;

    (c) it is directly opposite the future park; and

    (d) easy access is provided via Ross St to Forest Lodge primary school, the RPA and Sydney University.

48. The City's Social Planning Coordinator supports the site selected for affordable housing.

Floor Space Ratio

49. The DA proposes a FSR of 1.25:1 and a GFA of 132,914m^2, which includes the bonus 10,630m^2 GFA available to the site under the LEP if each building exceeds BASIX targets by at least 25%.

50. The DCP requires the Stage 1 DA to identify how the permitted GFA is to be distributed across the site including the BASIX bonus floor space to be claimed for each building. The intent of the DCP provision is to ensure that the BASIX bonus GFA is apportioned across the site and not exhausted before the last of the buildings is developed. If the bonus GFA is exhausted before then there is no longer an incentive for buildings to exceed BASIX targets.

51. The table below sets out the proposed GFA across the site and shows the percentage of the total residential GFA that is proposed within each precinct.

Precinct	Residential (m^2) - (not including development subject to 6.6(1)(c)	Retail (m^2)	Development subject to (6.6)(1)(c)	Total (m^2)	Proportion of total Residential GFA (%)	Proportion of total Precinct GFA that could be considered as BASIX bonus (m^2)
1	28,712	-		28,712	23%	2,435
2	18,226	53		18,279	15%	1,550
3	32,253	-		32,253	26%	2,735
4	14,452	-		14,452	12%	1,225
5	18,952	-		18,952	15%	1,605
6	7,766	-	5,000	12,766	10%	1,080
Tram Sheds	-	7,500		7,500		
Total	**120,361**	**7,553**	**5,000**	**132,914**	**100%**	**10,630**

52. The proportion of the total proposed GFA that could be considered as the BASIX bonus "pool" is shown in the last column of the table above. While this could be used to guide the assessment of future DAs on the proportion of bonus GFA that could be considered for each precinct, approving a total GFA is not appropriate at Stage 1. The BASIX bonus GFA can only be "awarded" at the detailed Stage 2 DA stage when BASIX certificates for each building, and evidence that BASIX targets have been exceeded, are submitted. Appropriate conditions are recommended.

Residential Flat Design Code (RFDC)

Building Depth

53. The Residential Flat Design Code (RFDC) recommends apartment buildings have a maximum building depth of 18 metres, glass line to glass line (excluding balconies).

54. The proposed building envelopes generally have a building depth of 22m, inclusive of the balcony areas. Future DAs for residential buildings will be required to demonstrate compliance with amenity, solar access and cross ventilation to apartments and the requirements of the RFDC. As the proposed building depths include balconies, future DAs will be expected to comply with the RFDC. Building envelopes approved under this application are subject to conditions that they are inclusive of balconies, bay windows, shading devices and the like.

Building Separation

55. For buildings between 5 and 8 storeys the RFDC recommends the following separation between buildings:

	Separation Recommended
Between non-habitable rooms	9m
Between habitable rooms/balconies and non-habitable rooms	13m
Between habitable rooms/balconies	18m

56. Being a Stage 1 DA, the location of habitable rooms and balconies are unknown and therefore only a preliminary assessment of compliance with rules of thumb can be undertaken. **Figure 32** below shows the distances between the proposed building envelopes.

Figure 32 – Compliance with RFDC building separation.

57. The DA generally proposes complying separation between buildings. Where reduced separation is indicated, it is generally not much less than RFDC rules of thumb, assuming that these locations are between non-habitable rooms. In the case of building separation between the acute angles of Buildings 5B and 6B, in order to address privacy and other RFDC objectives, future DAs will likely need to reduce the building envelope. As an assessment of privacy and other RFDC objectives can only be made with a detailed DA, variations to building separation requirements are not supported at Stage 1. Appropriate conditions are recommended.

Solar Access

58. The RFDC recommends that at least 70% of apartments receive a minimum of 2 hours of sunlight during the winter solstice. The Harold Park DCP requires that apartments receive 2 hours onto at least $1m^2$ of living rooms windows and to at least 50% of the required minimum area of private open space.

59. The proposed site layout generally follows the indicative layouts set out in the DCP, with most building's longer axis having a north-west orientation. The proposed layout is considered the most rational way to develop the site as it responds to the layout of roads and footprints of blocks in the Toxteth Estate to the east and to the west.

60. Future Stage 2 DAs will be required to address solar access and demonstrate that apartments will receive an acceptable level of solar access.

61. The overshadowing of the proposed building envelopes on neighbouring developments complies with the maximum allowed under the Harold Park DCP. Where overshadowing occurs to neighbouring development, it is only on June 21 and is limited to morning overshadowing to the northwest (across The Crescent/Minogue Crescent) and afternoon shadows to the southwest (across Wigram Road). These properties will still receive the minimum 3 hours between 9am and 3pm on 21 June and therefore the proposal complies with the DCP.

Open Space

62. The RFDC recommends that communal open space is 25%-30% of the site area. The communal open space as a percentage for each precinct is as follows:

    (a) Precinct 1 - 21% of precinct area

    (b) Precinct 2 - 0%

    (c) Precinct 3 - 21% of precinct area

    (d) Precinct 4 - 11.6% of precinct area

    (e) Precinct 5 - 11% of the precinct area

    (f) Precinct 6 - 8.7% of the precinct area.

63. Overall this represents 14% ($5,379m^2$) of the developable area as communal open space, as shown in the Stage 1 DA plans.

64. It is noted that Buildings 2A, 2B, 4A and 4B and 6A do not nominate areas for communal open space / deep soil planting on the submitted plans. This is considered generally acceptable when considered on a precinct-by-precinct basis and given the 3.8ha of public open space to be delivered as part of the development. Opportunities for common open space will be addressed with Stage 2 DAs, including rooftop open space areas.

Building 6A

65. For Building 6A, which is to be developed for affordable housing, an area for communal open space / deep soil at the rear (west) could be provided, however would require amendments to the building envelope to achieve the minimum dimension of 10m for deep soil areas (proposed envelope is 5m from the boundary). While Building 6A does not have immediate frontage to the future park, it is directly across the road. The provision of adequate open space areas will be dealt with when a Stage 2 DA for Building 6A is submitted.

Unit Mix and Residential Amenity

66. Due to the conceptual nature of the Stage 1 DA, a detailed assessment of the proposal relating to unit mix and residential amenity is not possible. It is recommended that a condition be imposed requiring the future detailed DAs to comply with SEPP 65, the Residential Flat Design Code, and the Harold Park DCP.

Built Form

Height

67. All proposed buildings comply with the maximum RL building height under the LEP.

68. The DCP includes height controls on maximum number of storeys, maximum overall height and street frontage height (metres).

69. The height controls were determined at the rezoning stage having regard to the compatibility with the scale and character of the surrounding area. Consideration was also given to meeting housing targets and the public benefits to be provided as part of the redevelopment. The height controls have been designed so that future buildings are equivalent to the height of buildings above the surrounding cliffs. The relevant DCP diagram is shown below at **Figure 33**.

Figure 33 – From the DCP and shows that in principle, the height of buildings is equivalent to the height of surrounding development.

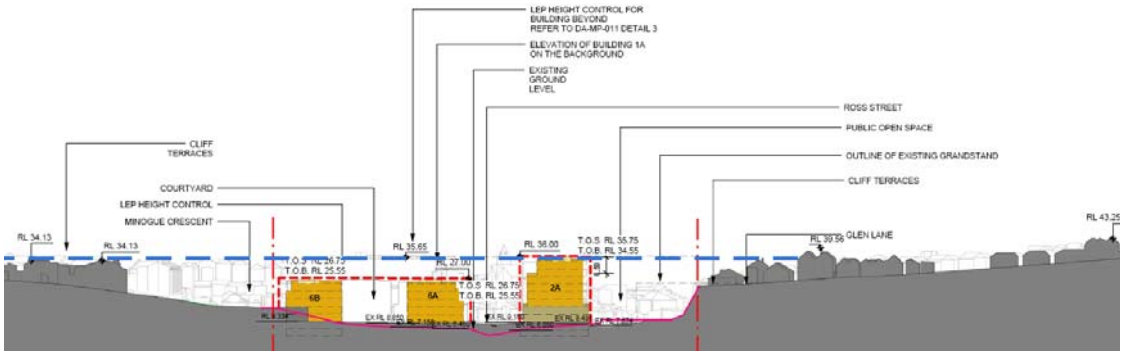

Figure 34 – Proposed site section showing the proposed building's relationship with surrounding properties.

70. Submissions have raised concern about the height of proposed buildings, in particular the relationship between future buildings with nearby cliffs. **Figure 35** below was included in a submission to demonstrate that future buildings would be higher than the eastern cliff. The predominant ridge line has been added to the figure below and shows, like **Figure 34** above, that buildings are consistent with the height of existing development. The buildings will be higher than surrounding cliffs. The controls were designed to require that buildings be consistent with the height of existing buildings near the cliff not that the buildings sit below the base of the cliff.

Figure 35 – Image submitted by residents to show building's relationship with cliff. The predominant ridge line has been added.

71. The DCP says that a variety of building heights should be achieved with a maximum height of 8 storeys. No buildings proposed exceed 8 storeys and a variety in heights will be achieved through compliance with the height controls as the controls require lower buildings around the site edges.

72. Some variations to DCP height controls are proposed. These are discussed below.

Building 1C

73. Building 1C straddles two different height controls – most of the building is located in an 8 storey zone but the northwest corner is in a 5 storey zone.

74. Building 1C is proposed to be 8 storeys with a 6 storey street frontage height. This means that the proposal exceeds the 5 storey height control by 1 storey in one portion of the site, as shown at **Figures 36 and Figure 37.** It is noted that Building 1C was amended to delete 2 storeys at this location as the original DA proposed 8 storeys.

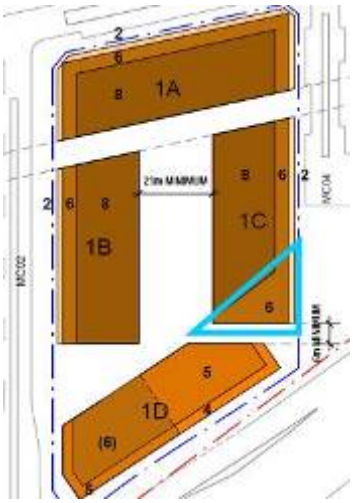

Figure 36 – The proposed building height in storeys. Two height controls apply. The Building 1C proposes 6 storeys in the 5 storey zone, shown boxed.

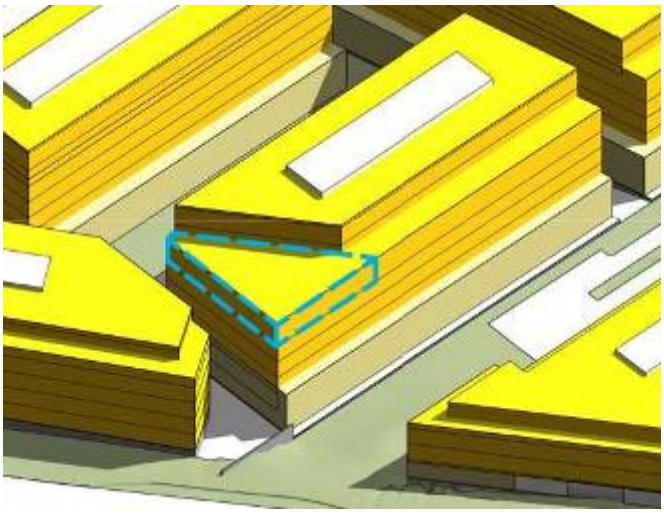

Figure 37 – 3D massing showing the portion of Building 1C. The hatched area shows the portion of the building which exceeds the height control by 1 storey.

75. Building 1C is an 8 storey building with levels 7 and 8 set back above the 6 storey street frontage height, as required by the DCP. The southwest corner is proposed to be 6 instead of 5 storeys. To comply with the controls, it is recommended that this element be amended to comply.

Building 1D

76. Building 1D straddles two height controls - 5 and 6 storeys to Minogue Crescent. The building responds to the different controls as shown in **Figure 36** above. Owing to the fall of the land, an additional storey has been gained to the courtyard, as shown at **Figure 38** below.

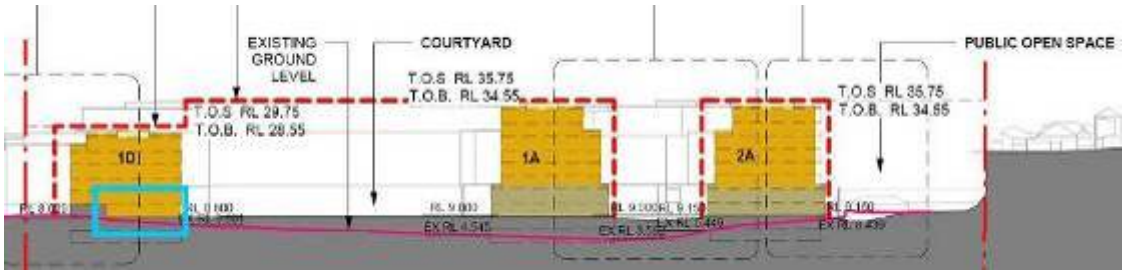

Figure 38 – Section through Precinct 1, looking north.

77. Subject to demonstration of adequate amenity and solar access to future dwellings and compliance with FSR and other planning controls, an additional storey to the courtyard could be considered with a detailed Stage 2 DA. This would also be subject to a building which has an acceptable relationship between ground levels and Minogue Crescent. The ground floor is proposed to be 2.5m above the street level which is not acceptable (discussed later under the heading *Building's relationship with street*). Conditions are included to address both these issues.

Building 3D

78. The DCP control for Building 3D is 6 storeys / 19.5m. Plans indicated that about half of the building is shown to be 7 storeys / 22.5m, exceeding the control by 1 storey / 3m. Refer **Figure 39** below.

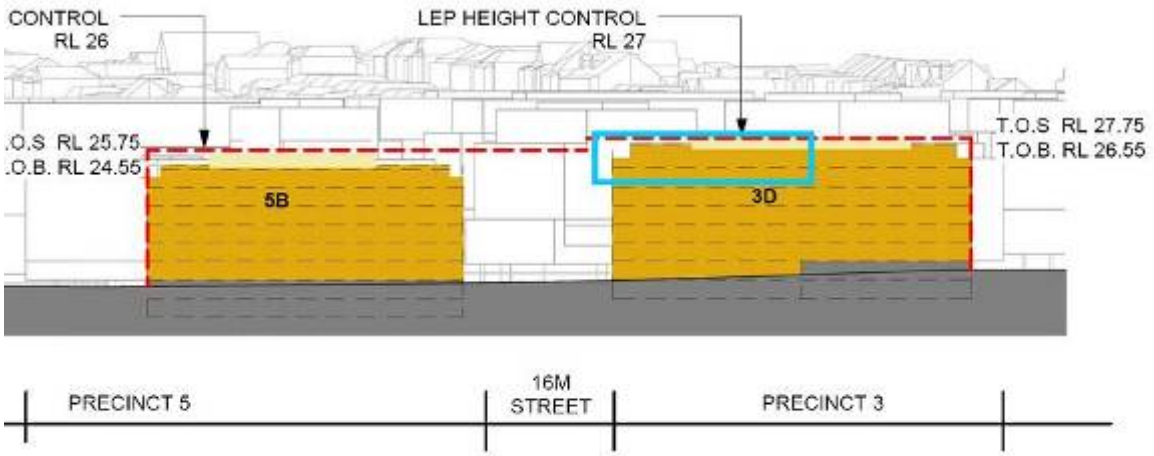

Figure 39 – Western elevation (from The Crescent / Minogue Crescent) of Building 3D with the additional storey shown boxed.

79. It is noted that there is a discrepancy across the submitted plans with others showing that the proposed number of storeys for Building 3D is 6. In response to Council's request for clarification, the applicant advised 6 storeys is proposed. However, given that plans still indicate otherwise, Building 3D has been assessed as shown in **Figure 39** above.

80. Building 3D complies with the LEP height control of RL 27 to the top of building, but it does not comply in part with the maximum allowed number of storeys or maximum height in metres. The intent of the height controls is that buildings along the western and southern edge of the site present as lower scale buildings. This is achieved through compliance with the maximum number of storeys and stepping buildings with the topography along The Crescent. A condition is recommended requiring that Building 3D comply with the height controls.

81. The 6 storey portion of the building complies with the height in metres controls when measured from ground level however ground level is 2.5m above Minogue Crescent. Refer to **Figure 40** below. The exposed basement can also be seen in elevation in **Figure 39** above.

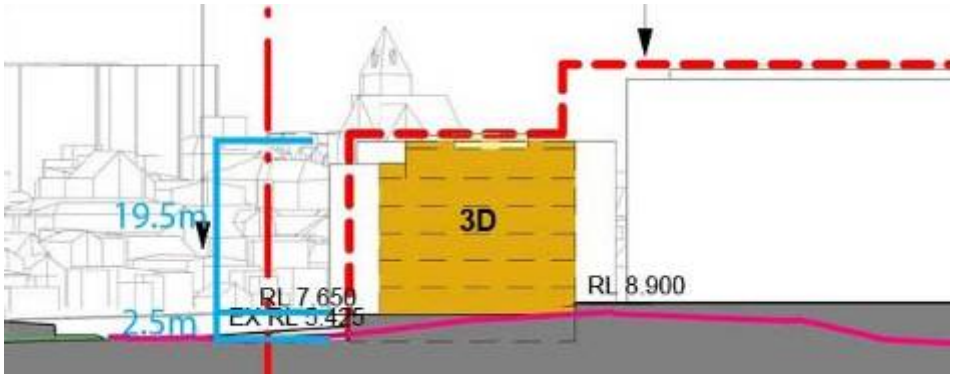

Figure 40 – Section through Building 3D at the portion where the ground level sits 2.5m above The Crescent.

82. The appearance of the building from The Crescent is higher than required as a result of the location of the ground floor and the building not responding to topography. This is not supported and appropriate conditions are recommended.

Building 5A

83. The DCP control for Building 5A is 8 storeys / 25.5m. The building complies with the 8 storey controls but its overall height is about 28.5m, exceeding the height in metres control by 3m. Refer to **Figure 41**.

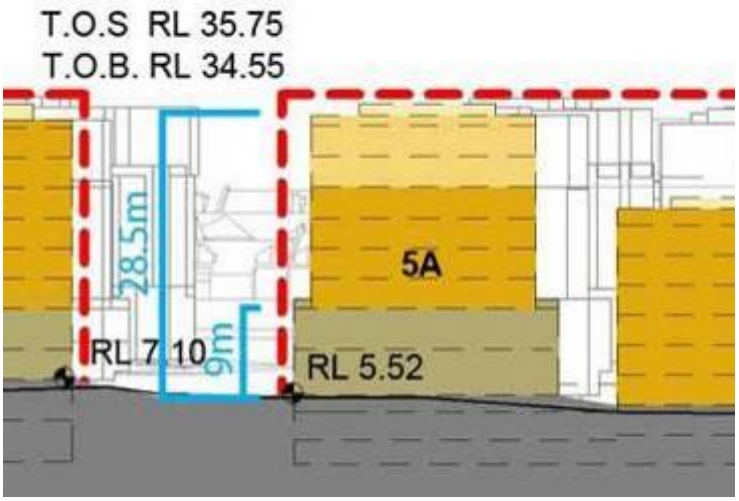

Figure 41 – Building 5A exceeds the height control by 3m. Compliance can be achieved in part by reducing the floor to floor heights of the lower levels.

84. A condition is recommended to require compliance with the height control.

Precinct 6

85. Building 6A straddles two different height controls. At the southern end (Wigram Rd) the control is 3 storeys / 10.5m. At the northern end, being the corner of MC01/Ross St and MC04 the control is 5 storeys / 16.5m.

86. Building 6B straddles three different height controls. Along Wigram Rd and at the corner of Minogue Crescent, the height control is 3 storeys / 10.5m. Along Minogue Crescent the height control is 4 storeys / 13.5m. At its elevation to proposed road MC04 the height control is 5 storeys / 16.5m.

87. Refer to **Figure 42.**

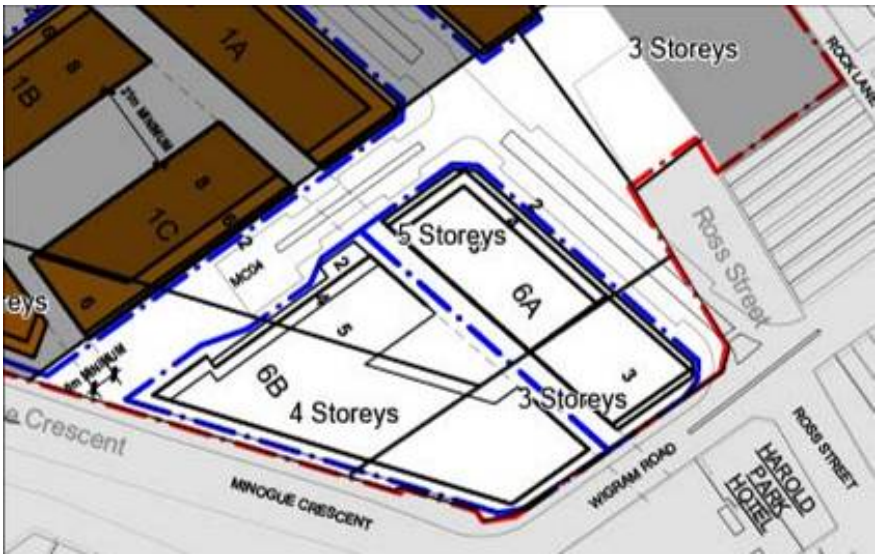

Figure 42 – Proposed building envelopes and number of storeys in Precinct 6 with the DCP height in storeys control overlayed.

88. While the submitted storeys plan shows that Building 6A complies with the controls, the elevation plan (**Figure 43**) shows that the building presents as 4 storeys at Wigram Rd (over the maximum 3 storeys). While this may be a drafting error, to remove any doubt, an increase to the maximum number of storeys to Wigram Rd is not supported.

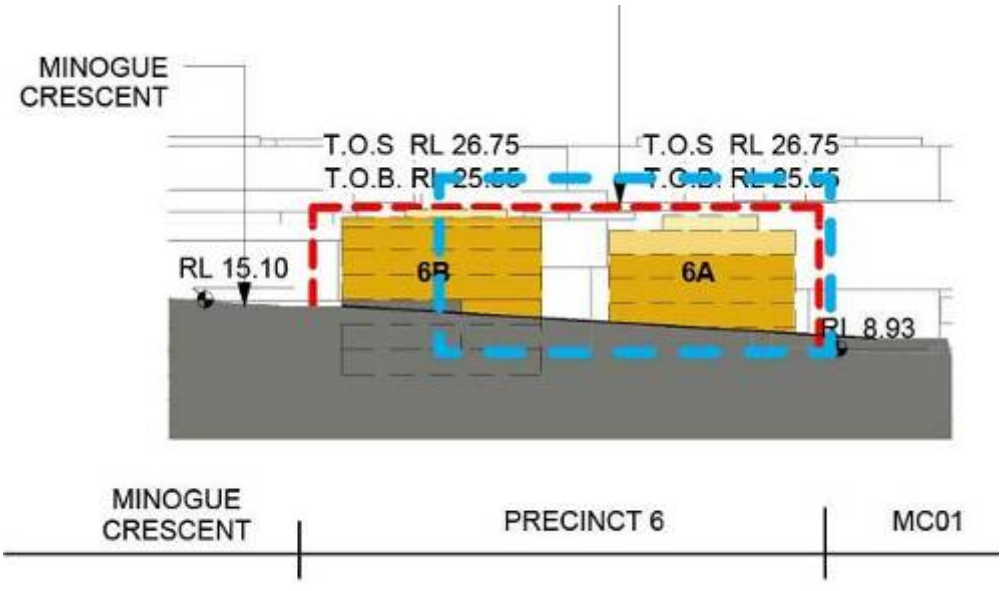

Figure 43 – Wigram Rd elevation of Precinct 6. Four storeys are shown at Wigram Rd. The DCP maximum is 3 storeys.

89. A portion of Building 6B is also proposed to be 4 storeys at Wigram Rd. This is a result of the slope of Wigram Rd which falls away to the east and results in the gain of 1 storey.

90. As discussed above in relation to Building 3D, the intent of the height controls is that buildings step down along the western and southern edges of the site and present as lower scale buildings that are compatible with the surrounding built form. In this location, surrounding buildings are generally 2 to 3 storeys.

91. To preserve the low scale character at the southern end of the site, buildings along Wigram Rd should present as 3 storey buildings. This also complies with DCP objectives that the development transition from higher buildings in the centre of the site to lower scale buildings on the perimeter. It is recommended that conditions require that Buildings 6A and 6B comply with the maximum storey height control at Wigram Rd and step down in height with the topography as required.

Building 6A

92. It is noted that the 3 storey portion of Building 6A is not required to provide upper level setbacks. The proposed setbacks are on the basis of the delivery of a terrace typology at the lower floors. As Building 6A will be developed by a housing provider and not the applicant, a different type of building may be proposed. Conditions are included in the recommendation to clarify setback requirements for Building 6A.

Building 6B

93. As a result of the site's topography, Building 6B is proposed to be 4-5 storeys at the courtyard. Refer to **Figure 44** below. The proposed number of storeys to Minogue Crescent (between 3 and 4) complies with the DCP (see **Figure 45)**.

Figure 44 - Section through Precinct 6, looking north. Two additional storeys are proposed to the courtyard on Building 6B.

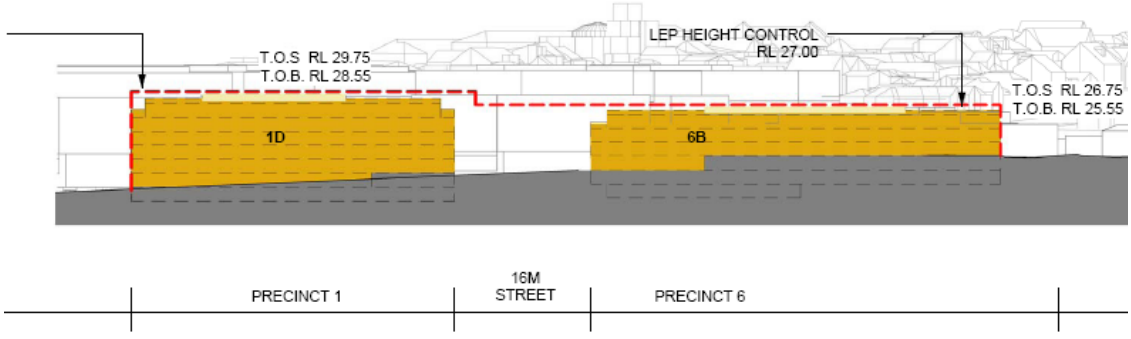

Figure 45 – Minogue Crescent elevation of Buildings 1D and 6B.

94. While the additional part storeys resulting from the topography will not be visible from the public domain / Minogue Crescent, additional storeys cannot be supported at Stage 1 but, subject to demonstration of adequate amenity and solar access to future dwellings and compliance with FSR and other planning controls, may be considered acceptable with a detailed DA at Stage 2.

95. It is noted that the DCP requires 4 storey buildings to provide upper level setbacks. This means that above the 3rd floor, a setback of 3m is required. At this stage, no upper level setbacks are proposed along Minogue Crescent for Building 6B. This is discussed below under *Setbacks*.

Setbacks

96. The Harold Park DCP requires that buildings be set back 3m from the property boundary. Upper level setbacks are determined having regard to the overall height of the building. An assessment of setbacks is below.

Ground level

97. It is proposed across most of the site to reduce the required setback at the ground and first floors from 3m to 1.25m. This reduced setback relates to the introduction of a "terrace typology" at ground level with the apartment building above. This is intended to provide a pedestrian scale to the development at street level and respond to the terrace and older built form character of surrounding streets. **Figure 46** compares the DCP with the proposed setbacks at street level

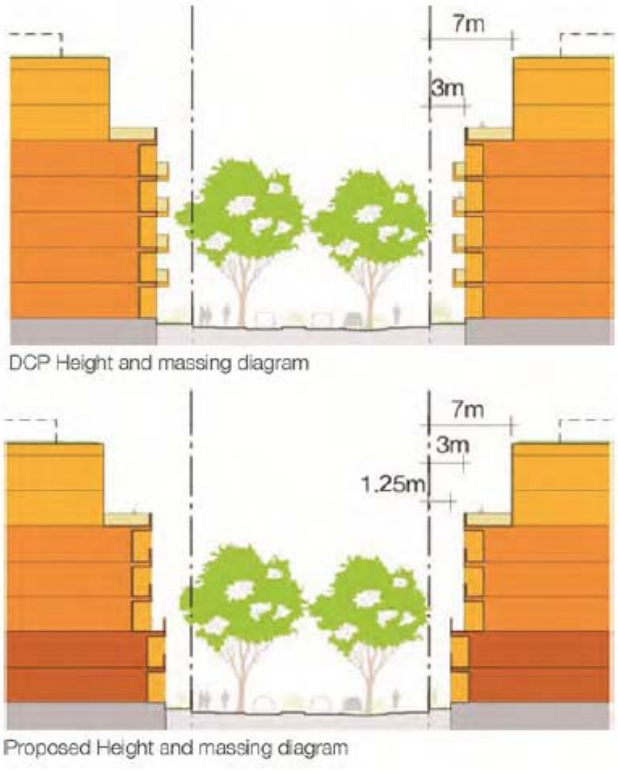

Figure 46 – The image below shows the reduced setbacks at the ground and first floors (1.25m instead of 3m) to create a terrace form at street level.

98. The locations where the reduced setback of 1.25m is proposed is shown below at **Figure 47.**

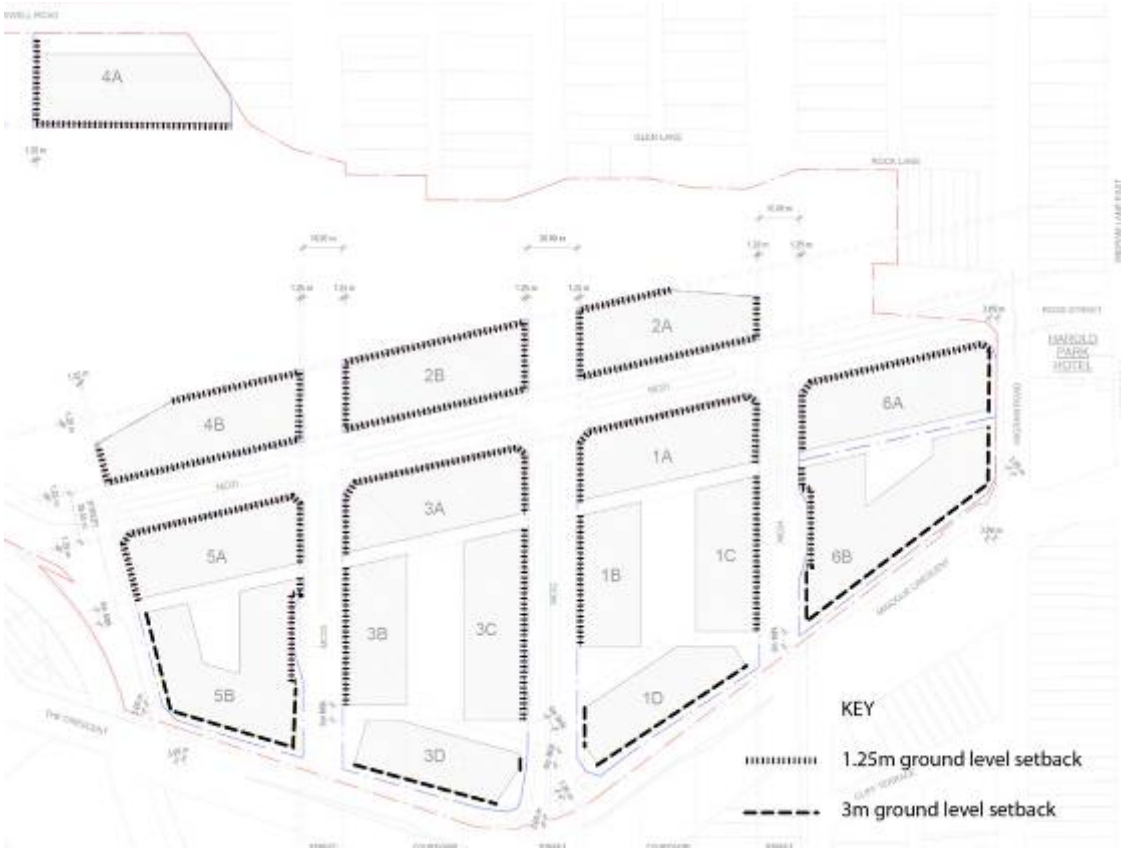

Figure 47 – Proposed lower level setbacks

99. With the exception of Building 4A (discussed below), reduced setbacks in the locations shown in **Figure 47** are supported. It is considered that the introduction of this building typology is considered to have streetscape merit, will provide a human scale to the development, is complementary to the character of the area and will create opportunities for interesting architecture.

100. It is noted that the variation is only supported if a terrace built form is proposed at the lower levels. Where a typical apartment design or the like is proposed, a 3m setback will be required. Appropriate conditions are recommended.

101. Variations to setback controls are not supported for Building 4A as:

    (a) the building envelope is located in close proximity to the Tram Sheds, the most significant heritage item on the site;

    (b) the future building will have no real street address as a result of its elevation to Maxwell Road being below the cliff. This means that the building's principal frontages are to public open space. Adjacent to Building 4A's western frontage will be the main pedestrian and bike access from the site to the light rail. Encroachments into the required setback zones would:

        (i) potentially result in privacy and amenity impacts to future residents;

        (ii) not allow sufficient separation between the private development and the public park; and

        (iii) erode park user's sense of public ownership of the park.

102. It is recommended that a condition be imposed requiring that Building 4A be set back 3m from the property boundaries.

103. It is noted that, unlike Building 4A, a reduced setback to the public open space boundary is supported for Buildings 2A, 2B and 4B. These buildings are considered different to 4A because they also have frontage to a public road. The terrace typology is not appropriate on Building 4A having regard to its landscape setting. It does not have a street frontage therefore a reduction in setbacks is not supported.

104. The location of Buildings 2A, 2B and 4B is also considered less sensitive than 4A, when considering the issues outlined above. Potential concerns about the privatisation of space along the frontages of these parkside buildings can be more readily addressed through Council's future design of the park, including through the location of pedestrian and cycle pathways adjacent to the property boundary. The future levels in front (to the west) of Building 4A and the available width of area for the future provision of bike and pedestrian pathways in that location does not provide as much design flexibility as is available in front of Buildings 2A, 2B and 4B.

105. It is also noted that the splayed elevations of buildings 2A and 4B propose nil setbacks. Refer above to **Figure 47**. This is considered acceptable as a setback in these locations is of less value as the splay narrows the buildings which in turn increases the width of the future park in these locations.

Mid level

106. The DCP does not anticipate "mid level" setbacks, only primary (lower level) and secondary (upper level) setbacks. As a result of the introduction of a terrace typology and associated reduced setbacks at the ground and first floors, a three-tiered hierarchy of building setback controls has evolved on most buildings over 4 storeys.

107. **Figure 48** below shows the proposed setbacks from the property boundary for a typical 8 storey building, as follows:

    (a) Lower level - 1.25m

    (b) Mid level - 3m

    (c) Upper level - 7m

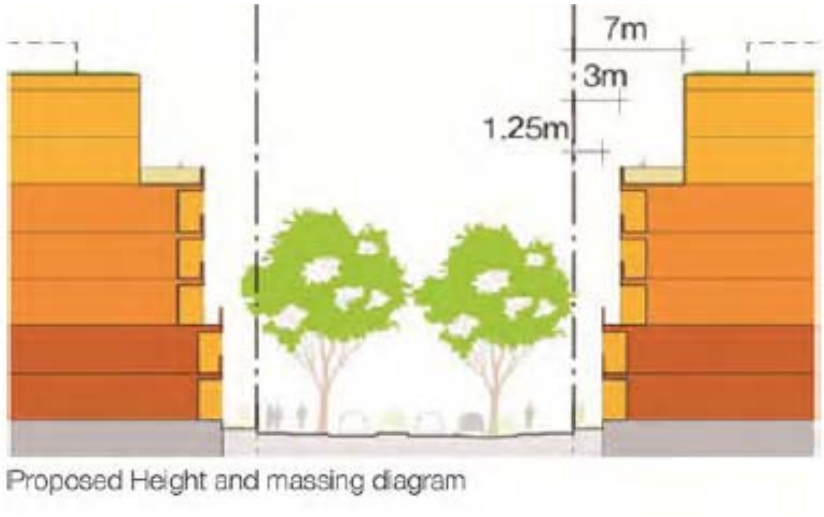

Figure 48 – The proposed 8 storey buildings will generally have 3 setback points from the boundary.

108. As shown in **Figure 48** above, the only non-compliance typically occurs at the ground and first floor, which is supported. However, proposed variations to the mid level setback controls are proposed to the parkside buildings (2A, 2B and 4B). Along some elevations, these buildings are proposed to maintain the 1.25m lower level setback and not be set back 3m, as shown below in **Figures 49** and **50.**

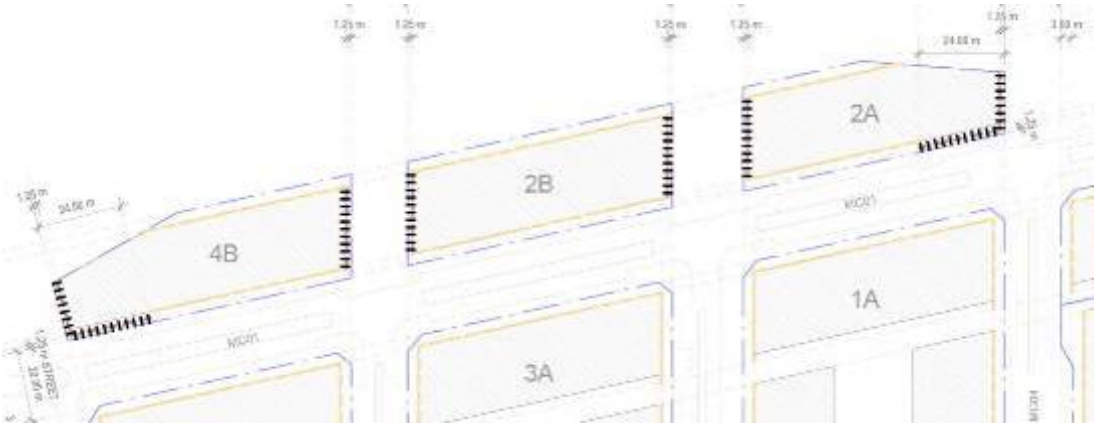

Figure 49 – The hatching shows where buildings are proposed to maintain the 1.25m lower level setback only and not be set back 3m.

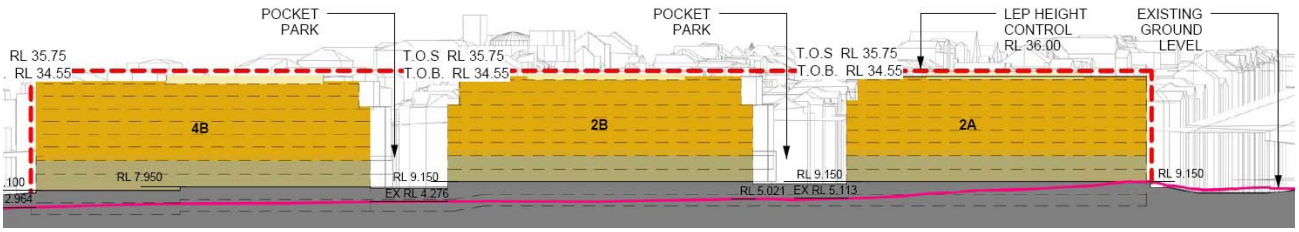

Figure 50 – Section (looking east to the future park) showing proposed building envelopes.

109. The lesser setbacks between the buildings may be supported subject to the appropriate design of these elevations and compliance with upper level setbacks, where required. Refer to discussion below under the heading “Upper level”.

110. Reduced setbacks at the north and west of Building 4B and to the south and west of 2A are not supported. It is noted that the original plans proposed complying 3m setbacks in most of these locations. In light of the reduced setbacks between the buildings (to the 'pocket parks'), it is considered that further encroachments into the setback zones have the potential to diminish the overall effectiveness of the mid level setbacks proposed along the rest of the building's frontages and the reduction in bulk that is achieved by those setbacks. Reduced setbacks may be considered with Stage 2 DAs when the precise footprint and design of the buildings is known and the extent of any proposed variation can be determined. Appropriate conditions are recommended.

Upper level

111. The proposed upper level setbacks across the site comply with the DCP, except for variations to the upper level setbacks proposed for the parkside buildings (2A, 2B and 4B) and on Building 5A and 6B.

Parkside Buildings

112. For 8 storey buildings, the DCP requires that levels 7 and 8 are set back 4m from the street frontage height. This would typically mean that a 7m setback from the property boundary.

113. **Figure 51** shows the proposed upper level setbacks for the parkside buildings. No upper level setbacks (levels 7 and 8) are proposed and the 1.25m lower level setbacks are proposed to be maintained in the locations shown circled, as follows:

    (a) Building 2A - north and west elevations

    (b) Building 2B - north elevation

    (c) Building 4B - west elevation

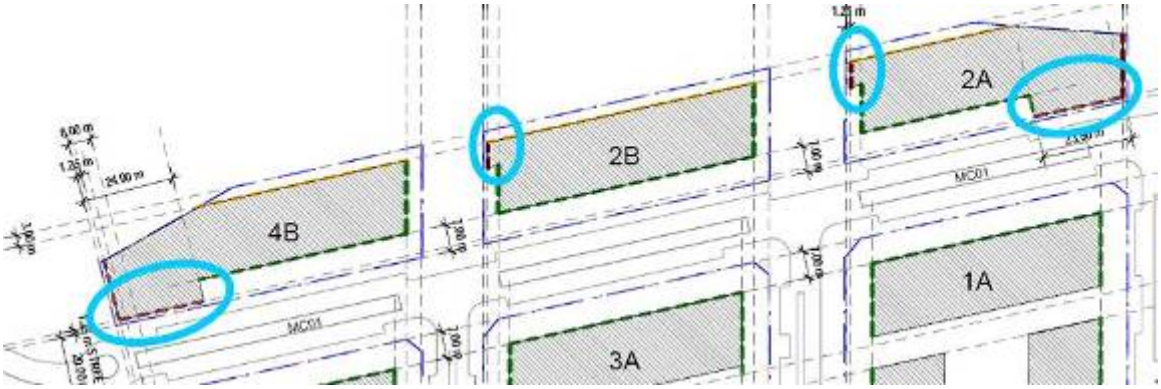

Figure 51 – Proposed upper level setbacks with areas on non-compliances circled.

114. It is noted that the DCP does not require upper level setbacks on buildings that have frontage to public open space with a width greater than 25m. While this means that upper level setbacks are not required to the north of Building 4B or to the south of Building 2A, mid level setbacks are still required. This was discussed under the heading *Mid level* setbacks above.

115. In support of reduced upper level setbacks, the applicant argues that the Government Architect's Urban Design Study (GA UDS) did not envisage upper level setbacks in these locations. The applicant considers the encroachments important to maintain strong building elements at these locations to provide a solid grounding of the buildings in the public domain.

116. The GA UDS, among other studies and work by Council officers, informed the preparation of planning controls for the site. The applicable controls however are the Harold Park LEP and DCP. While the GA UDS did not identify upper level setbacks in these locations it did identify that these buildings should be located 3m from the property boundary. The DA does not propose 3m setbacks but 1.25m setbacks.

117. The upper level / secondary setbacks that are required for these buildings in accordance with the DCP are as follows:

    (a) 4m from the street frontage height (which is set back 1.25m from the boundary) for the northern elevations of Buildings 2A and 2B (or 5.25m from the property boundary); and

    (b) 4m from the street frontage height (which is set back 3m from the boundary) for the western elevations of Buildings 2A and 4B (or 7m from the property boundary).

118. Put simply, complying setbacks would mean the areas shown circled above on **Figure 51** would not 'pop-out'.

119. The northern 'pop-out' sections of Buildings 2A and 2B are not supported as these buildings already propose a reduced setback on the lower levels. Upper level setbacks are required to provide an appropriate transition in scale, reduce the apparent height and bulk of the buildings and open up views to the sky for pedestrians approaching the park. The open spaces between these buildings will be key entrances into the future park and they should feel as open and welcoming as possible.

120. The western 'pop-out' sections of Buildings 2A and 4B are not supported for the same reasons that reduced mid level setbacks are not supported on these buildings, discussed above. Upper level setbacks are important to reduce the apparent height and mass of the buildings. In this case, the proposed building envelopes are large – around 75m x 22m – and rely in part on the setbacks to reduce their scale.

121. Compliance will generally require minor amendments to maintain the proposed upper level setbacks for the entire width of the elevations and not include 'pop-outs' as proposed. It is noted however that the proposed upper level setbacks at the side/shorter elevations of Buildings 2A, 2B and 4B are less than required (2.75m instead of 5.25m). This is as a result of a misinterpretation of the setback controls. The applicant has measured the upper level setback from the boundary and not the primary building line / street frontage height. Appropriate conditions are recommended.

122. It is noted that while it is premature to support the proposed variations at Stage 1, minor encroachments that provide visual interest, assist in modulating and articulating the building and that meet the objectives of the controls can be considered with Stage 2 DAs.

Building 5A

123. Building 5A also proposes a setback variation. As this building is an 8 storey building, a 7m upper level setback is required (measured from the boundary or 4m measured from the street frontage height). A 6m setback is proposed.

124. The 1m variation is supported as the setback is consistent with the upper level setback proposed for Building 5B to the west. See **Figure 52**. A lesser setback of 6m (compared to 7m) applies to Building 5B as it is a 6 storey building and it is acceptable that Building 5A provide the same setback.

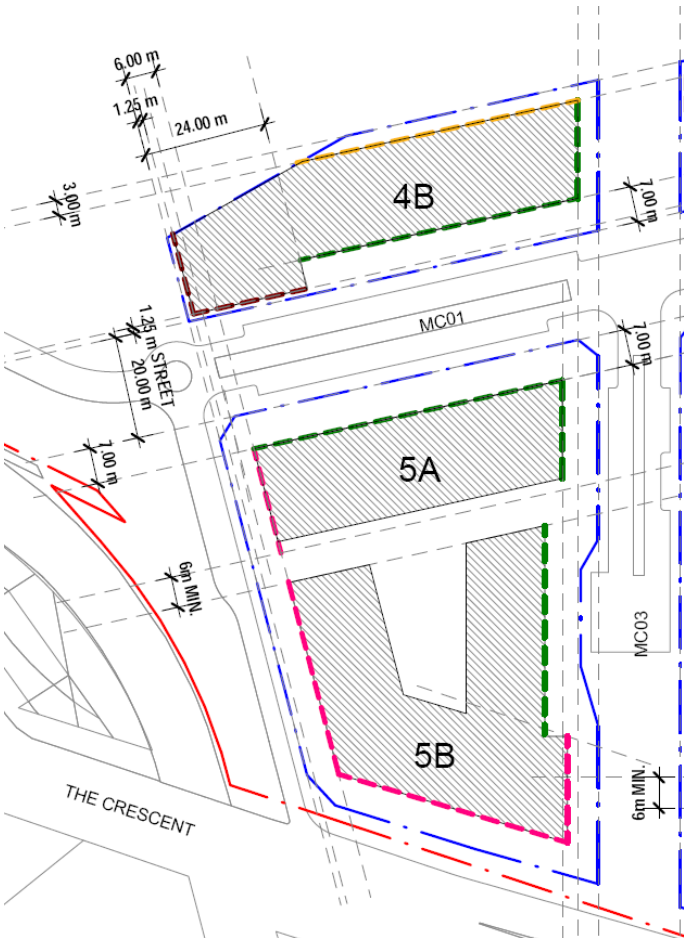

Figure 52 – Proposed upper level setbacks for Buildings 5A and 5B.

Building 6B

125. The maximum height of Building 6B along Minogue Crescent is 3 to 4 storeys. The DCP requires 4 storey buildings to have a 3 storey street frontage. This requires the 4th storey to be set back 3m.

126. At Minogue Crescent, Building 6B is 3 to 4 storeys and complies with the height control, however no upper level setback is proposed. Refer to **Figure 53**.

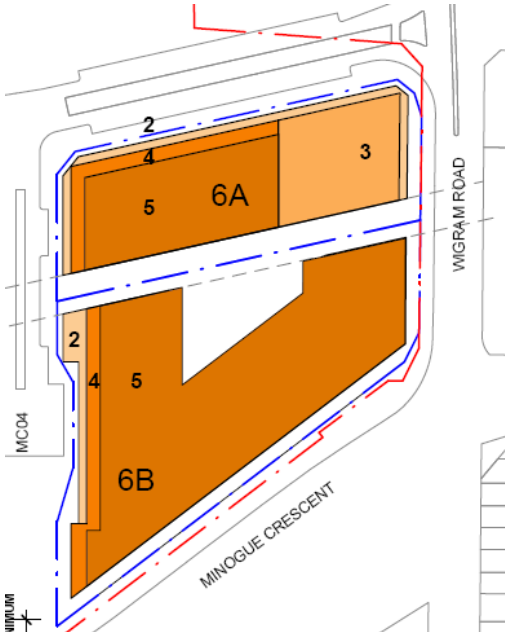

Figure 53 – Building levels plan shows no upper level setbacks along Minogue Crescent for Building 6B.

127. As discussed previously, objectives of the DCP in relation to height seek to ensure that the scale of the development reduces along the western and southern edges of the site to respond to the scale and character of the surrounding area. In addition to overall height, this is achieved by setting upper floors back.

128. Variations to the required upper level setbacks in this location should only be the subject of a detailed Stage 2 DA. Appropriate conditions are included in the recommendation.

Building's relationship with street

Ground levels

129. The DCP requires that ground levels be as close as possible to the adjacent public domain. The ground level of the area between the boundary and the building's ground level setback is not to be greater than 1m above the ground level of the adjacent public domain.

130. Submitted plans indicate that the ground level of a number of proposed building envelopes are potentially more than 1m above the level of the adjacent public domain, including at Buildings 1D, 3D, 4B, 5A, 5B and 6B.

131. It is considered that this issue can be dealt with at Stage 2 and a condition is recommended to require that future buildings comply with the DCP requirement.

Building entries

132. Buildings D, 3D and 6B have no building entries from Minogue Crescent and The Crescent. This does not contribute to the activation of the streetscape or create a legible 'front door' to the buildings.

133. Conditions are recommended to consider the benefits of entry lobbies from Minogue Crescent and The Crescent, as shown in **Figure 54** below.

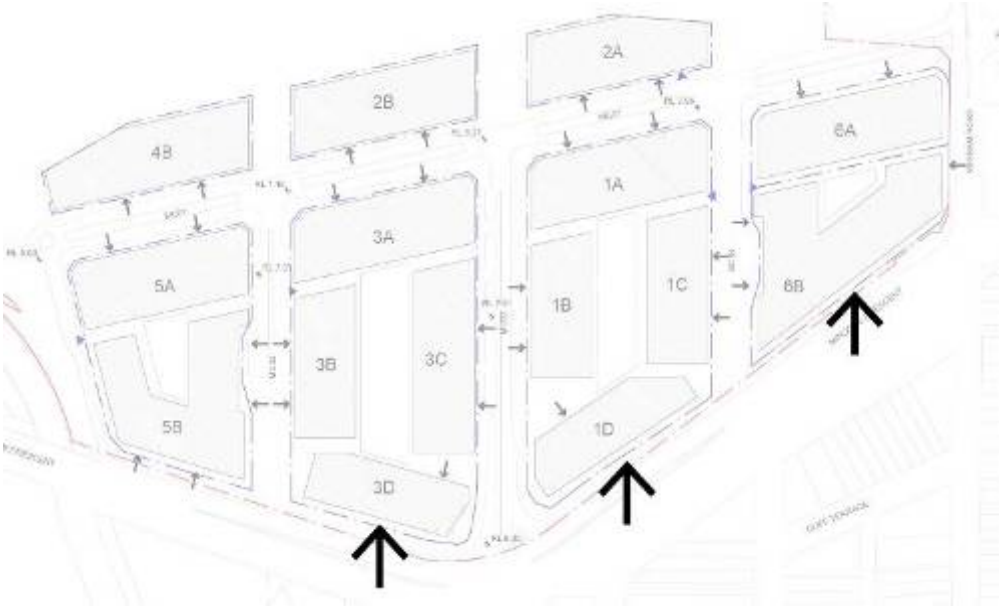

Figure 54 – Building entries to be considered off The Crescent / Minogue Crescent.

Precinct 6 driveways

134. Precinct 6 is comprised of 2 sites – Site 6A, identified for affordable housing and Site 6B. Plans show 2 driveway crossings side by side. This reduces pedestrian amenity, street parking and opportunities for landscaping. While these lots will be in separate ownership and may be developed at different times, it is considered appropriate that when the first DA for Precinct 6 is submitted, opportunities for a shared driveway are investigated. A condition has been recommended.

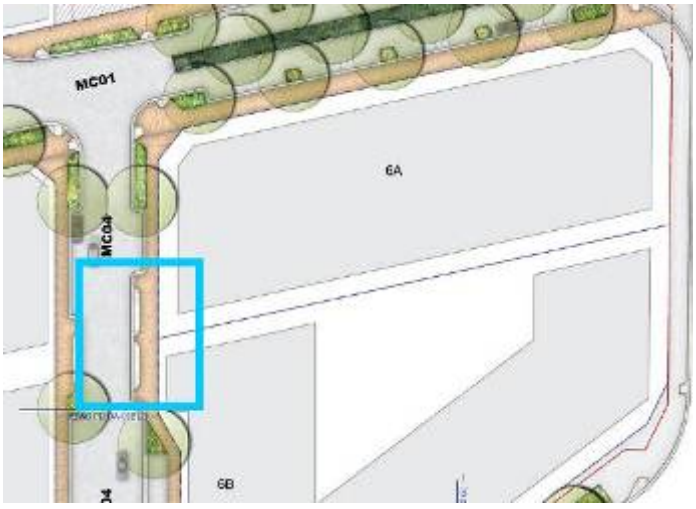

Figure 55 – Proposed driveway crossings for Precinct 6.

Traffic

135. The proposed road layout and vehicle access entries comply with the DCP and are consistent with the layouts in the Government Architect's Urban Design Study.

136. As identified in the traffic studies undertaken at the rezoning stage, the development is predicted to increase traffic in the area. The controls were adopted after consideration of those impacts and, on balance it was determined that the proposal was appropriate having regard to the future density, restricted car parking controls and the public benefits that would be delivered.

Rezoning stage

137. Council engaged traffic consultants Arup to undertake a traffic study in the preparation of the planning controls for Harold Park. The traffic study, including an addendum to the study with an updated traffic analysis, assessed the potential impact of the Harold Park development on the road network.

138. The study analysed the effect of the development at eight intersections (including the new signalised intersection into the site from The Crescent) over the AM, PM and weekend peak periods. The study used conservative assumptions, including a dwelling mix that generated a higher number of car spaces and trip generation rates that were not moderated for potentially higher public transport use (which is projected for Harold Park).

139. In a traffic analysis the performance of an intersection is ranked by its Level of Service (LOS) with LOS A being the best and LOS F the worst. The Traffic Study advised that, when considering an intersection analysis, LOS C or better is generally desirable; however, it may be reasonable for an intersection to operate at LOS D in peak hour.

140. The intersections included in the analysis are shown at **Figure 56**. Note the new intersection servicing the site (located between intersections 3 and 4 at **Figure 56**) is not shown, but is forecasted to operate at a satisfactory to good level (LOS B and C).

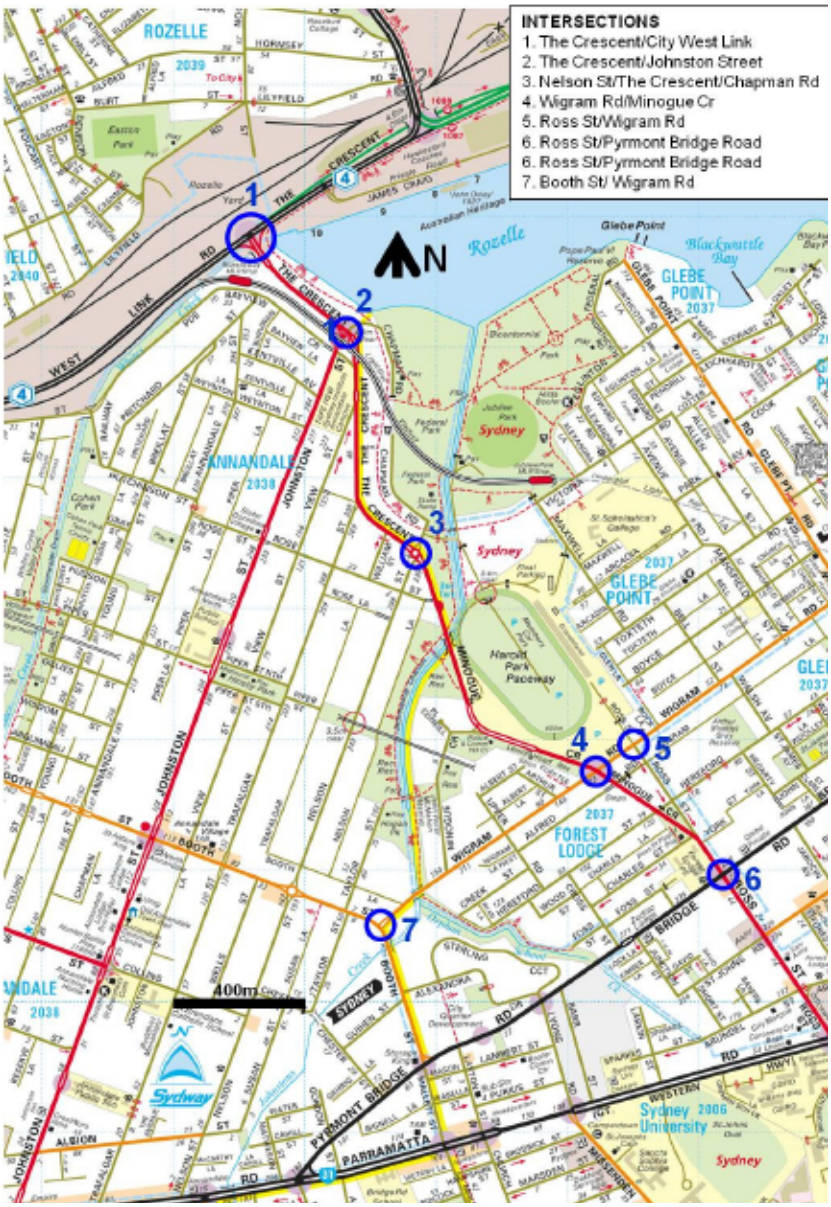

Figure 56 – Intersections analysed.

141. In summary, the development is predicted to cause:

(a) the City West Link Road/The Crescent intersection to operate at LOS D (from LOS C) in the PM peak. See 1 at **Figure 56**;

(b) the Johnston St/The Crescent intersection will continue to operate at LOS F, only in the PM peak. See 2 at **Figure 56**; and

(c) the City West Link Road/The Crescent and the Johnston St/The Crescent intersections to operate at LOS C (from LOS B) in the AM peak and Saturday lunchtime peak. See 1 and 2 at **Figure 56**; and

(d) the Minogue Crescent/Wigram Road intersection to operate at LOS B (from LOS A) at the PM peak and Saturday lunchtime peak. See 4 at **Figure 56.**

142. The development will increase congestion at some intersections, mainly at the PM peak.

143. The need for a micro-simulation model was considered at the rezoning stage. Arup undertook a SIDRA (traffic modelling software) intersection analysis that included reporting on the maximum peak hour traffic queue lengths at specific intersections and the potential affect on the traffic operation of adjoining intersections. Arup considered the SIDRA analysis to provide a reasonable level of understanding of the future traffic implications of Harold Park for the surrounding road network and that micro-simulation modelling was not required.

144. The RMS has also considered the need for a micro-simulation model. The Crescent/Minogue Crescent, the main road affected by the Harold Park development and from which the site will mainly be accessed, is a State road controlled by the RMS. The RMS advised that it could not justify requesting a micro-simulation model as the main vehicular access to/from the development is via one linear corridor being The Crescent. Therefore the traffic impact of the proposed development could be modelled using SCATES and/or SIDRA modelling software.

Stage 1 DA

145. A traffic study, prepared by Halcrow, was submitted with the Stage 1 DA.

146. SIDRA modelling was carried out by Halcrow and, while minor adjustments have been made to the predicted LOS levels at two intersections, - two go from LOS A to LOS B and one from LOS C to LOS B - the traffic study shows that most traffic generated by Harold Park would use The Crescent/Minogue Crescent to access the wider road network and that there would be little impact on the operation of intersections immediately fronting the site.

147. The City requested Mirvac to undertake further traffic analysis, in particular a sensitivity analysis to see what impact a 10% increase in traffic generated by the redevelopment would have on the local road network. The results of the analysis showed that a 10% increase in trip generation rates would have little impact on the operation of intersections immediately fronting the site.

148. As part of the assessment of the Stage 1 DA for Harold Park, the City engaged a traffic consultant (GTA) to undertake an independent review of traffic impacts associated with the redevelopment of the site.

149. A summary of GTA's findings and recommendations is below:

    (a) A corridor micro-simulation should model be developed to better understand how the intersections along The Crescent and Minogue Crescent between City West Link and Bridge Road would operate;

    (b) A Green Travel Plan is required to be developed to identify known methods to encourage sustainable transport options; and

    (c) Design changes to footpath treatments, for example, to improve sustainable transport priority and safety.

150. A micro-simulation traffic model enables modelling of a number of linked intersections. The traffic modelling that has been completed to date looks at the operation of independent intersections and how they will affect surrounding intersections.

151. GTA Consultants confirmed the traffic generation rates used by previous consultants (Arup and Halcrow) are conservative and therefore satisfactory.

152. It is noted that many submissions received raise concerns over traffic and some requested that a micro-simulation model be carried out. While modelling has been undertaken, it has not included developments such as the Super Yacht Marina and Cruise Passenger Terminal, White Bay redevelopment, One Central Park (CUB) or Balmain Leagues, as was suggested in some submissions. As identified in all traffic studies, the main road impacted by the development is The Crescent / Minogue Crescent linear corridor.

153. While specific developments surrounding the site have not been individually accounted for in the modelling, growth in surrounding areas is captured into broader modelling done by the RMS. These developments are then accounted for in the background growth rates that the RMS provide, which is then used for future base model validation. Future base models are more accurate when using the RMS growth rates from their strategic model and this has been done for Harold Park. Were a much wider model to be developed, it would require a more coarse approach to allow the model to process with reliability. This would reduce the ability to assess the potential local impacts of the development accurately.

Micro-simulation modelling

154. On the advice of GTA, Council engaged an independent traffic consultant (Bitzios Consulting) to undertake a corridor micro-simulation model. In addition to providing more detail about the nature of the traffic impacts of the development on The Crescent / Minogue Crescent corridor, potential improvements to the road network were also investigated.

155. The GTA Independent Transport Peer Review highlighted the PM Peak hour as a critical hour for The Crescent corridor. As a result, the PM Peak period (being worst case) has been used for the micro-simulation model.

156. The results of the micro-simulation modelling are summarised as follows:

    (a) the existing road network is constrained by competing priorities (such as the City West Link operation and providing amenity for local residents);

    (b) the existing road network has little scope to increase capacity without major land acquisition and significant construction works; and

    (c) the peak hour travel time performance of the road network in the future (without the Harold Park development) will gradually decline due to natural traffic growth.

157. The Harold Park development traffic increases travel times along The Crescent, between City West Link and Bridge Road, by less than thirty seconds for northbound traffic and less than one minute for southbound traffic.

158. The traffic studies that have been completed to date by Arup, Halcrow and GTA estimated queue lengths associated with the development of Harold Park. The micro-simulation model confirmed the queuing estimates contained within previous studies were correct.

159. The following improvements were investigated as part of micro-simulation:

    (a) Option 2 - The removal of the link road connecting the tramshed and the residential development;

    (b) Option 3 - A double right hand turn from The Crescent into Johnston Street, which removed a lane northbound to accommodate the double turn;

    (c) Option 4A - Option 3 + Traffic signal coordination along the northern section of the corridor;

    (d) Option 4B - Option 2 + Traffic signal coordination along the northern section of the corridor;

    (e) Option 5 - Removing the road connecting the development to Chapman Road; and

    (f) Option 6 - Installing traffic signals at the intersection of The Crescent and Chapman Road.

160. The results for the base case (without Harold Park) in 2019 showed an increase in travel time along the corridor of less than thirty seconds for northbound traffic and less than one minute for southbound traffic.

161. The results from the options improvements above varied significantly. Options 2, 3, 4A and 4B showed unreliable results, indicating these options were not viable and are likely to have unacceptable impacts. Options 5 and 6 showed the most effective solutions to improve traffic flows and queuing within the corridor. If Option 5 or Option 6 were implemented, the Harold Park development traffic would increase the travel time along The Crescent corridor by approximately five seconds for northbound traffic and less than one minute and thirty seconds for southbound traffic. It is considered that the increase in travel time, if Option 5 or Option 6 were implemented, is acceptable.

162. Options 5 and 6 are summarised below:

    (a) Option 5 - Preventing access from the development to Chapman Road (except for servicing vehicles). As a result, all traffic accessing the site must enter through the main entrance at the intersection of Minogue Crescent and The Crescent.

    (b) Option 6 - Installing traffic signals at the intersection of The Crescent and Chapman Road, would allow people from the entire site access to the northern section of Harold Park. This may induce short-cut routes through the site, however would allow full access to the site and also provide a safe pedestrian crossing at the intersection of The Crescent and Chapman Road.

163. One of the options is to be implemented in the future development of the site. Conditions are included that require a detailed Traffic Impact Assessment (TIA) with the DA for the adaptive reuse of the Tram Sheds. The TIA would adopt either Option 5 or Option 6. The TIA must assess vehicle and pedestrian access to and from the site, including an estimate of the proposed user base and location (split into mode of transport use) for the Tram Sheds use.

164. It is noted that improvements to The Crescent / Minogue Crescent will require the approval of the RMS as The Crescent is a RMS controlled road.

Public Transport

165. Harold Park is 3km to the CBD, close to light rail and buses, has a mixed use zoning and non-residential uses are proposed within the Tram Sheds. Taking this into account, Arup forecast that car journeys to work from Harold Park could be as little as 20-25% (compared to 40% for Forest Lodge).

166. With future public transport improvements, new pedestrian and cyclist connections to public transport stops through the Harold Park site, the redevelopment also has the potential to reduce car trips outside the site.

167. Significant public transport investment relevant to Harold Park has commenced since the rezoning stage and LEP gazettal, including projects not confirmed at the time of Arup's studies. Successful delivery of these projects is likely to increase public transport mode share and reduce pressure on the road network, particularly in the peak. Some include:

    (a) Inner West Light Rail extension. The Inner West Extension extends the existing line to Dulwich Hill, with multiple intermediate stops, including Leichhardt and Lewisham. This project is currently under construction and expected to be operational in early 2014. The route is likely to improve the viability of public transport for journeys to destinations on the Inner West and Bankstown train lines, such as work trips to Strathfield, Burwood, Bankstown and Parramatta. Assuming a construction period of about seven years for completion of Harold Park, the light rail extension should be in place before most of the proposed buildings are occupied.

    (b) Bus improvements. Bus capacity in Glebe, Forest Lodge and Annandale has been increased significantly in the past two years. Last year, articulated buses were introduced on the 470 route, which is now the single most frequent bus route in Sydney, with typical frequencies of every 2.5 min in the peak. The closest 470 bus stop is about 300m from the site. Bus planners at Transport for NSW have confirmed there is scope to increase the 433 frequency in line with demand. There are three 433 stops along the site's frontage on Minogue Crescent / The Crescent. Harold Park has unusually good access to a large number of destinations. The site is also serviced by the 370 which provides direct access to Newtown, Green Square and Coogee, while the 433 also provides access to Rozelle and Balmain.

(c) Sydney Light Rail Program. The State Government announced that it would begin construction this term on the expansion of the light rail network to Circular Quay and/or Anzac Parade. It has committed $103 million to investigate feasibility this year. Given Harold Park's proximity to light rail, any extension to the network will further improve the competitiveness of public transport for Harold Park (and Glebe, Forest Lodge and Annandale) residents with destinations in central Sydney or the Anzac Parade corridor. For that reason, the medium term reliance on private vehicles in areas in the light rail catchment is likely to decline, at least for peak hour journeys, reducing congestion on arterial roads in Glebe and Forest Lodge. Should the Sydney University light rail route be constructed on Broadway and Parramatta Rd, there also may be fewer student vehicle trips on surrounding arterial road network.

(d) Minister's Media Release. On 28 March 2012, the Minister for Planning and Infrastructure announced that he would work with the Transport Minister to ensure that public transport capacity in the vicinity of Harold Park is increased as the development proceeds and new residents move in to Harold Park.

Green Travel Plan

168. A Green Travel Plan (GTP) is a package of measures aimed at promoting and encouraging sustainable travel and reducing reliance on private cars. GTPs are used to encourage those sustainable travel choices by outlining all available transport options available to a specific area.

169. GTPs work particularly well in medium to high density urban areas where public and active transport provide competitive alternates to using a private motor vehicle. The GTP will allow people to make an informed decision on what mode of transport to take considering time, cost and ease. A GTP is an essential component required to reduce private motor vehicle use by residents, employees and visitors.

170. A GTP has been developed for the site to encourage the use of sustainable transport options. The GTP includes essential information on public transport, active transport and car share for the residents and employees of Harold Park. The GTP to be implemented includes:

(a) walking and cycling routes and times to major nearby destinations;

(b) bus services that for various destinations with travel times;

(c) light Rail location and travel times;

(d) car share locations within walking distance of the site;

(e) provision of "My Zone Quarterly" public transport tickets for the initial occupation of the dwellings;

(f) provision of half early membership to a car club / car share; and

(g) provision of a half yearly newsletter to residents to promote local travel initatives.

Transport Impacts versus Public Benefits

171. Introducing approximately 1,250 new dwellings will result in increased traffic. However, the impacts are not considered detrimental and are reasonable given the provision of public benefits such as open space, the need to increase housing supply and the opportunities afforded by the close proximately to the City Centre (within walking and cycling distance to the City Centre and excellent access public transport) which is likely to reduce car trips on the site.

172. It is considered that subject to investigating and adopting traffic improvements identified through the micro-simulation modelling, as required, the traffic associated with the development is acceptable.

Traffic Operational Matters

Nelson St access

173. The DCP requires that the Nelson St / Johnston's Creek Bridge entry to the Tram Sheds be a secondary access.

174. The proposed entry from Nelson St provides access to the Tram Sheds car parking and loading areas. Access to the residential areas of the development is provided from the car park via a private "link" road. See **Figure 57.**

Figure 57 – Site plan showing Johnston's Creek Bridge entry and "link" road.

175. The "link" road is required so that the Nelson St access is the secondary access into the site, however removal of the "link" road would result in the following benefits:

(a) improve pedestrian and cyclist connections through the public open space;

(b) maximise the area of contiguous open space;

(c) reduce the number of roads (and potential conflicts) to be negotiated by pedestrians and cyclists; and

(d) prevent short-cut routing at congested times.

176. The deletion of the road was considered as part of the micro-simulation modelling (Option 2). It was found that the deletion of the road would potentially result in queuing back into Johnston St as a result of the right of way priorities that operate at the roundabout, favouring vehicles coming into and out of the site.

177. As discussed above, traffic measures to mitigate impacts are to be adopted in the future development of the site. Conditions are recommended.

Johnston's Creek Bridge

178. The existing Johnson's Creek Bridge, which will provide vehicle access to the Tram Sheds site, is not wide enough for regular two-way traffic movements and pedestrian and cycle access. This means that in the future the bridge would need to be widened/reconstructed to allow two-way vehicles and a footpath, or a secondary pedestrian and cycle only bridge would need to be constructed. This would be at no cost to Council as the need to upgrade the bridge is a consequence of the proposed development.

179. Alternatively, if the "link" road remains, the Johnson's Creek access could be restricted to delivery and waste collection vehicles only (segregating vehicle traffic in accordance with Option 5 from micro-simulation modelling improvements). This would be done by a physical separation in the car park and would require all other traffic using the private "link" road. The bridge would be used as a single lane bridge with a footway/shared path. This would comply with DCP objectives about the access being secondary and short-cuts would be prevented.

180. Conditions have been recommended.

New Signalised Intersection at MC02

181. Proposed road MC02 is a signalised intersection connecting the site with The Crescent / Minogue Crescent. Mirvac propose to deliver the actual road MC02 as part of Precinct 1, but the signalised intersection as part of the delivery of Precinct 3.

182. Council's Traffic Operations Unit consider that the signals should be delivered with Precinct 1, at the same time new MC02 is proposed to be delivered, for the following reasons:

(a) it provides all vehicles (including construction traffic) direct access onto the State Road network, reducing vehicle movements on local roads;

(b) improves pedestrian safety and connectivity across The Crescent / Minogue Crescent;

(c) improves cyclist safety and connectivity from the outset;

(d) removes the need to provide a temporary vehicle turn area at the end of road MC02;

(e) encourages sustainable travel behaviour from the outset. This is relevant to residents of Precinct 1 who may be unwilling to change established travel patterns when the signals are implemented and continue to rely on the Wigram Road entry which is the only site access until the signals are installed; and

(f) prevents the obstruction to the overland flow path along road MC02.

183. In response to the City's request that the signals be delivered earlier, Mirvac advised:

(a) modelling shows signals are not warranted until completion of the third residential precinct;

(b) RMS need to approve design;

(c) major services, including a telecommunications tower, need to be relocated first; and

(d) instead propose that the delivery of the signals be advanced from Precinct 3 to 12 months following the occupation of Precinct 1.

184. Council's Traffic Operations Unit does not consider that the proposed advancement of the signals is sufficient as it does not address the issues identified above. Notwithstanding, conditions of consent have been provided for inclusion in the recommendation in relation to advancing the delivery of signals as proposed by Mirvac.

185. If signals are not provided with Precinct 1, Council's Traffic Operations Unit recommends that a temporary (private) road connection for construction traffic be investigated as part of the Precinct 1 DA. This would relieve the volume of construction traffic over Johnston's Creek Bridge and Wigram Road, reducing traffic and amenity impacts on those roads and improving pedestrian safety. The connection would be a left in/left out arrangement from The Crescent and gated to ensure it was used for construction vehicles only. An appropriate condition has been included in the recommendation.

186. In relation to design, it is noted that the RMS and Mirvac agreed to the concept design of the traffic signals prior to the lodgement of the Stage 1 DA, therefore the City has not assessed the signal design.

Wigram Rd / Ross St Median

187. A median is required at the realigned intersection of Ross Street and Wigram Road to prevent turns from Ross St onto Wigram Rd. This is to reduce traffic impacts to local streets and prevent 'rat runs' from the Harold Park site crossing Wigram Road and travelling south on Ross St.

188. The median has been redesigned to include a pedestrian refuge to improve pedestrian and cyclist safety and provide safe access to the new park from the south. Refer to **Figure 58**.

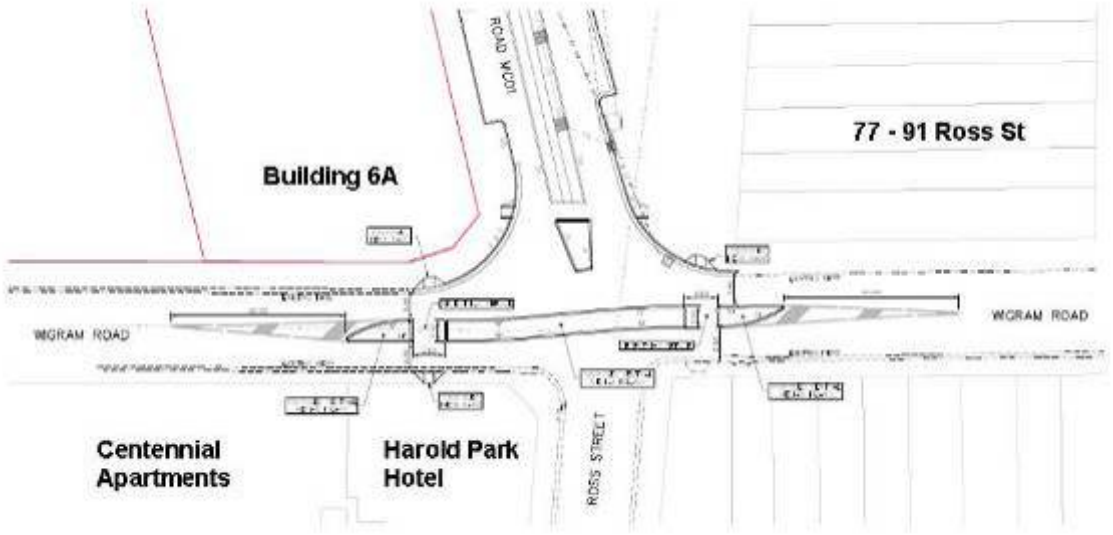

Figure 58 – Proposed median with pedestrian refuge.

189. The City supports the proposed median as shown in **Figure 58** which restricts all movements at the intersection to left turns only. The median provides refuge for pedestrians and cyclists, improves safety for road users and enforces an existing timed right turn movement ban. The median does however result in some residents to the south of Wigram Road needing to use an alternative route to get to their homes.

190. Residents of 115 Wigram Road (Centennial Apartments) have raised concerns about the impact of the proposed median on vehicle access to their property. In response to those concerns, an alternative design was developed by Mirvac which enables right-hand turns into Ross St. Refer to **Figure 59**.

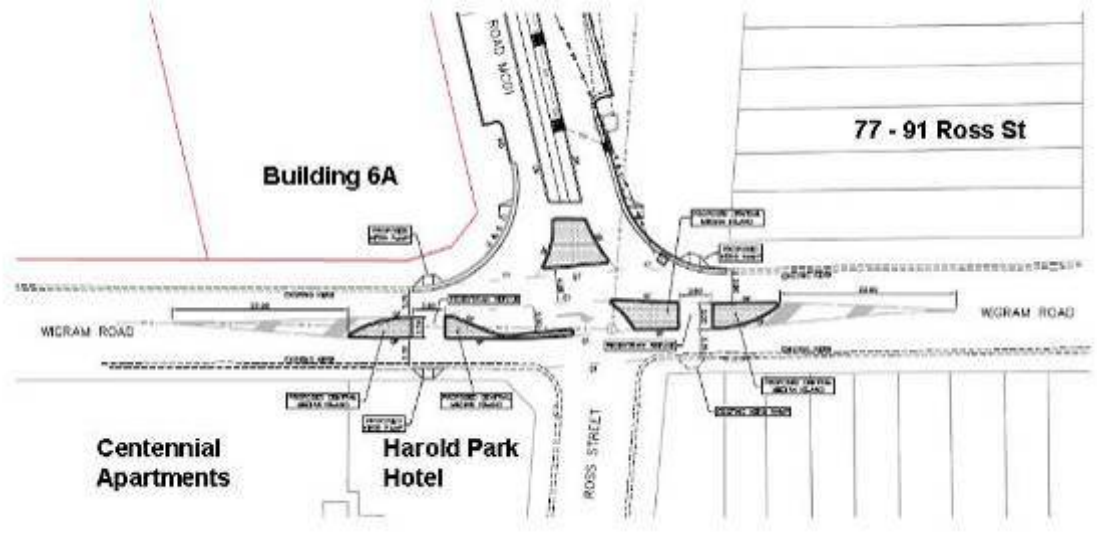

Figure 59 – Alternative median design which allows right hand turns into Ross St.

191. The alternative design is not supported for the following reasons:

    (a) the design would allow a right turn movement, which is a movement that is currently prohibited (and will continue to be) during the weekday AM peak (6.30am – 9.30am);

(b) given the current ban identified in (b) above, the provision of a turning facility will create confusion over the restriction on the movement resulting in potential safety issues;

(c) potential for vehicles waiting to turn right, to queue beyond the length of the bay and into the Wigram Road eastbound traffic lane.

192. The alternative access that residents of 115 Wigram Road will need to use as a result of the median is shown below at **Figure 60**.

Figure 60 – The solid arrow shows the existing route. The dotted arrow shows the alternative route that will be required as a result of the median.

193. The median is required for traffic, pedestrian and cyclist safety and to reduce traffic movements from the development into local streets. While there will changes to existing traffic arrangements, on balance, the public benefit of the median is considered to outweigh the inconvenience that will be experienced by a relatively small number of residents.

194. It is noted that the impact of the median on residents was considered by the independent traffic consultant that peer reviewed the DA. The consultant acknowledged the impact but considered that over the entire area, the benefits of less vehicles using Ross St outweigh the costs of the change. The consultant also noted that 42 vehicles currently perform an illegal turn from Wigram Road to Ross St during the AM peak hour. The median would prevent those illegal movements.

195. A condition is recommended to address median design, construction, and consultation, including with the STA as Wigram Road is on a bus route.

Median timing

196. It is proposed to install the median along with the signals 12 months after residents move into Precinct 1. It is the preference of Council's Traffic Operations Unit that the median be delivered in tandem with the signals at Precinct 1. This would ensure that all traffic movement to and from Harold Park is not restricted to left in/left out movements on Wigram Road for the first 12 months of occupation (when the signals are proposed to be delivered). It is also noted that the independent consultant GTA recommended that the median and signals be installed together.

197. If the delivery of signals is not possible with Precinct 1 (discussed above), it is still considered necessary that the median be delivered with Precinct 1 to:

    (a) improve pedestrian safety and connectivity across Wigram Road;

    (b) improve driver sight lines for vehicles exiting Ross Street; and

    (c) encourage sustainable travel behaviour from the outset.

198. Conditions are included in the recommendation.

Glebe Point Road / Wigram Road intersection

199. The intersection of Glebe Point Road and Wigram Road will be subject to additional traffic flows as a result of the Harold Park development.

Figure 61 – Glebe Point Road / Wigram Rd intersection.

200. A number of traffic treatments to address the additional traffic at this intersection were reviewed, including by the independent traffic consultant. All potential mitigation measures investigated have consequential impacts which are not considered feasible or desirable. These are summarised in the table below.

Traffic Treatment	**Issue**
Traffic Signals	• Loss of parking on Glebe Point Road • Traffic volume does not meet the RMS warrants/requirements for installation of signals • Would attract additional traffic to use the intersection potentially increasing traffic impacts on Wigram Rd

Traffic Treatment	Issue
Roundabout	• Land acquisition required, including park and private property (196 Glebe Point Road) – reducing the size of the park is not desirable and acquiring private property is not possible • Removal of existing pedestrian crossings would reduce pedestrian safety at the intersection • Safety of cyclists would be compromised • As the intersection is on a bus route, a larger roundabout than normal may be required resulting in further encroachment into the park and potential further loss of parking on Wigram Rd and Glebe Point Road
Additional Lane to enable dedicated right turn lane from Wigram Rd to Glebe Point Road	• Land acquisition required, including park and/or private property (196 Glebe Point Road) – reducing the size of the park is not desirable and acquiring private property is not possible

201. The provision of an additional traffic lane is the most suitable solution for this intersection however would require encroachment of an extra lane of traffic into the existing park for road widening. This is not desirable.

202. As none of the upgrade options are feasible at this time, in the short term it is proposed to monitor the changes in traffic at this intersection as the different stages of the development are occupied.

Loading and Waste Collection

203. One of the objectives of the Harold Park DCP is that the collection and disposal of waste from within developments is healthy, efficient and minimises disruption to amenity.

204. Council's Code for Waste Minimisation in New Developments states that, for multi-unit residential buildings, it is preferable that waste collection is from inside the building as this reduces noise impacts to surrounding residents.

205. It is proposed to service the site via on-street loading zones. No off-street loading or waste collection is proposed. The indicative loading zone plan shows that approximately 27% of all potential kerb side parking spaces are proposed to be dedicated as loading zones.

206. In response to the City's request that basement / on-site loading and waste collection be provided, the applicant advised:

    (a) the Harold Park DCP does not prescribe off street loading;

    (b) garbage collection and removalists reflect minor and infrequent movements that do not justify the impacts of loading entries on the urban design of buildings and streetscapes, having regard to the required clearances and turning areas required within basements;

    (c) basement loading would have an adverse impact on the internal communal courtyards, resident amenity and overall character of each precinct;

(d) the length of basement ramps and zones required for vehicle manoeuvrability to accommodate truck grades would result in a significant reduction in the size of deep soil zones; and

(e) recent residential projects with the LGA have not been required to provide off street collection or loading and street garbage collection and loading is common practice in the LGA.

207. On balance, it has been determined that the streetscape, urban design and private open space impacts caused by the required basement loading entries and internal areas loading outweigh traffic issues.

208. To address issues from the reliance on street loading, the independent traffic consultant suggested that a system for booking the on-street loading spaces be implemented, which is supported by Mirvac. This however is not legal or practical. These spaces form part of the public road and as such are available for use by anyone who complies with the restrictions, operating on a "first come, first served" basis, as with all kerb side parking.

209. It is noted that while on street loading and waste collection is generally acceptable on this site, it is not supported for Building 4A. This building has no direct road frontage as it sits below the Maxwell Road level. Access to Building 4A will be off Maxwell Road via a shared zone that will be the main access for pedestrians and cyclists from the site to the light rail. Pedestrians have priority on a shared zone. Refer to **Figure 62** below.

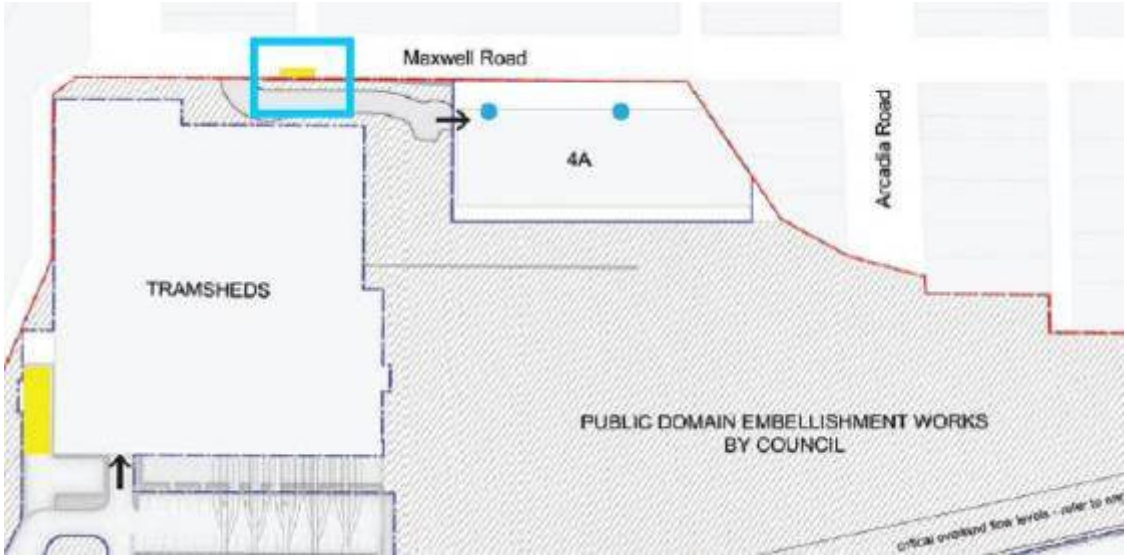

Figure 62 – The proposed loading area on Maxwell Road to service Building 4A is shown boxed.

210. Unlike loading from Maxwell Road, reliance on the new road network for loading does not impact on existing residents. The high demand for parking in the area has been raised in many submissions and a dedicated loading zone/s on Maxwell Road to service a residential building would reduce existing parking.

211. The potential impacts from the reliance on Maxwell Road for loading and waste collection are considered unacceptable as:

(a) in addition to a reduction in parking to accommodate the loading zone/s, there will be increased demand for parking from other loading vehicles as there is no other means of access to the site;

(b) it would create potential conflict with other Maxwell Road users including St Scholastica's school buses in the AM and PM peak periods;

(c) it would potentially impede pedestrian and cyclists movements when all the waste bins have to be wheeled up and down the shared zone on collection days or when residents move in or out the building.

212. As the eastern (Maxwell Road) side of the future building will not be directly visible from Maxwell Rd, the urban design and streetscape concerns that were a matter for consideration for the rest of the site are not relevant to Building 4A.

213. The future servicing of this building will need to be accommodated at the rear and/or with the basement, including the ability for truck turning. Appropriate conditions are included in the recommendation.

Turning Areas on MC03 and MC04

214. To ensure Council's waste vehicles can perform three-point-turns, turning areas have been provided at the ends of roads MC03 and MC04. The proposed design is shown below at **Figure 63**. It is noted that the balance of the drawings do not reflect the rounded turning circle design as this is an amended design provided to address concerns about streetscape impacts and parking.

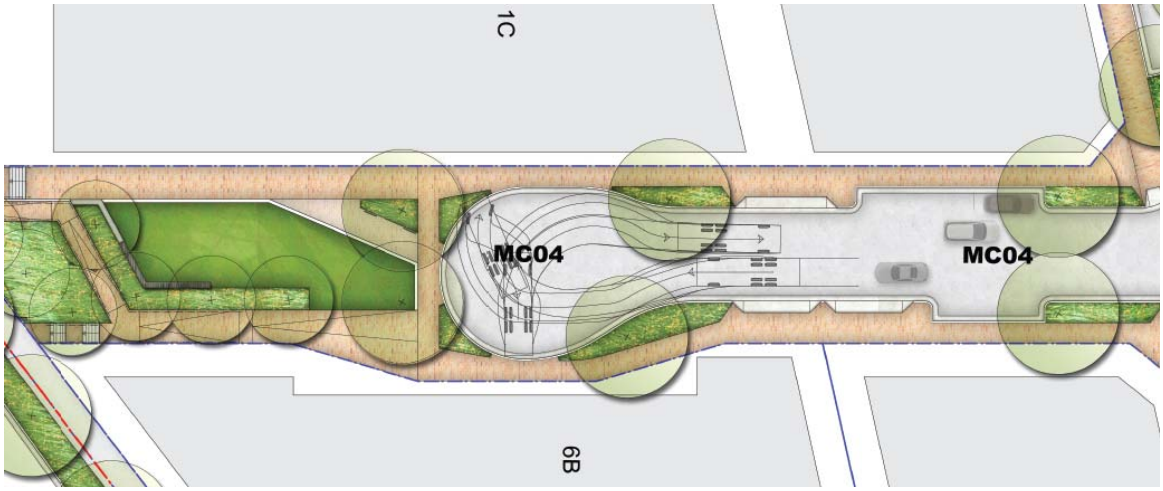

Figure 63 – Turning circle at end of road MC04.

215. The same treatment is proposed to MC03 which is supported subject to the turning area being replicating and not mirroring MC04. This will ensure that swept paths are efficient and less of the public domain is impacted reducing streetscape impacts.

Typical Street Sections

216. Mirvac proposed indicative typical street sections generally in accordance with the Harold Park DCP. Following an assessment of the proposed street sections by Council officers, a number of operational issues became apparent, including access to street parking which did not meet Australian Standards, general functioning of the streets and ineffective raingardens.

217. Conditions are recommended to address the issues to ensure that the best use is made of the new public domain and the safety of all road users is maintained.

218. Proposed road MC05 includes a two-way portion at the eastern end near its intersection with proposed road MC01. The appropriateness of this arrangement can only be assessed when a DA for Precinct 5 is submitted that provides information on driveway location, parking numbers and basement design. As these details are unknown, traffic safety matters can not be adequately assessed as part of Stage 1. Appropriate conditions are included in the recommendation.

Parking

219. The parking controls for Harold Park aim to balance the need for parking with the public transport available and potential traffic impacts. The parking rates in the LEP are maximum rates and reflect the values of Sustainable Sydney 2030, which aim to reduce the economic and environmental impacts of car use and encourage the use of sustainable transport.

Car Share

220. The Harold Park DCP requires at least 1 car share space per 90 dwellings. Based on approximately 1,250 apartments, this equates to a minimum 14 car share spaces.

221. The proposal indicates a total of three car share spaces being considered on-street. The balance will be required to be provided within the basements of the proposed buildings. This will be assessed with Stage 2 DAs and appropriate conditions have been included in the recommendation.

Ross Street parking

222. Concerns have been raised from residents on Ross St, north of Wigram Road, about the loss of parking. The residents are concerned that no provision has been made for parking to be provided for their homes following the proposed realignment of Ross Street. These homes will have open space in front of their homes as a result of the realignment of Ross St, which will be shifted west. Refer to **Figure 64.** It is noted that these homes do not have on-site parking.

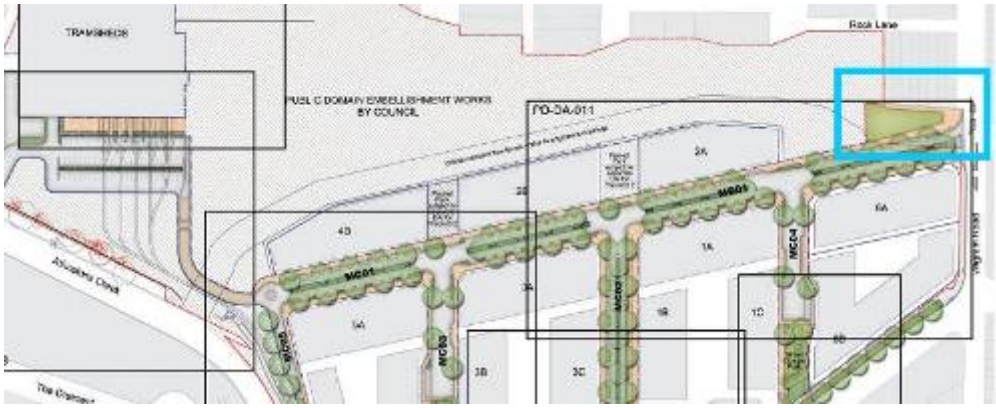

Figure 64 – Park to be created in front of Ross St homes as a result of the relocation of Ross St shown boxed.

223. To address their concerns about loss of parking and the distance that they would be required to park following the realignment of Ross St, the residents seek the inclusion of a car park in the new public open space to be created in front of their homes. Refer to **Figure 65**.

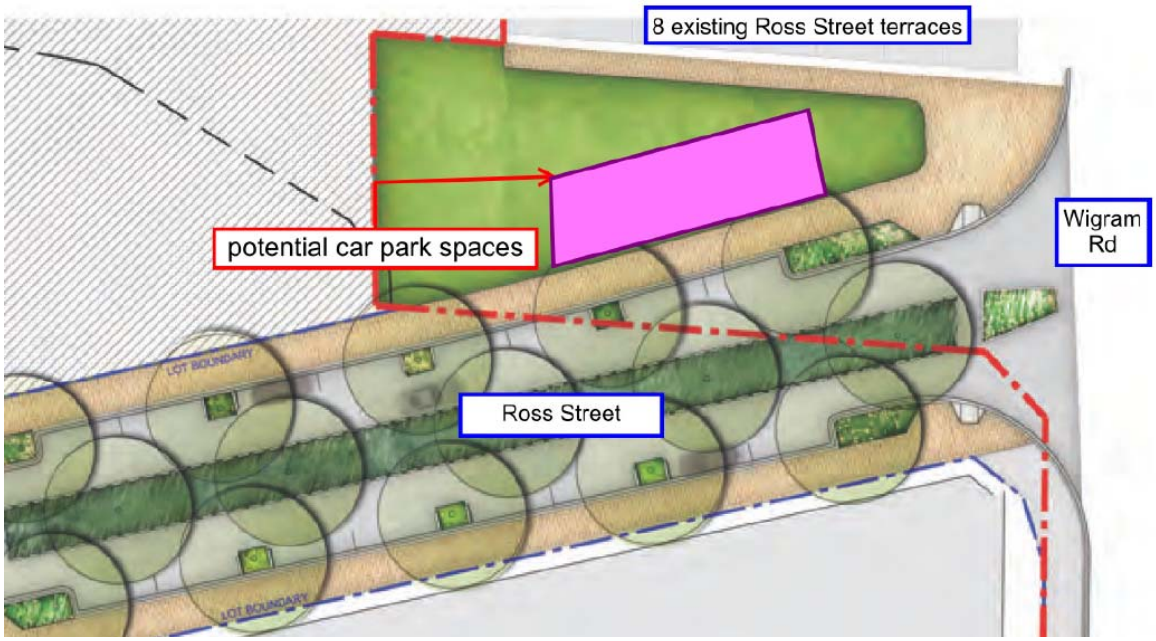

Figure 65 – Proposed landscape plan edited by Ross St residents to show the location for parking proposed for their homes.

224. In response to the issues raised:

(a) Indicative locations for on-street parking spaces are shown on the drawings submitted with the Stage 1 DA. Eight (8) spaces are shown in front of the 77-91 Ross St terraces (4 on each side of the road). These can be seen above at **Figure 65**, located between the road planters.

(b) The distance between the property boundaries of the Ross St homes and the on-street parking spaces is between about 10m and 35m.

(c) It is the City's intention to introduce parking restrictions on the newly aligned Ross St and to maintain the number of existing spaces close to the Ross St terraces. The parking restrictions would mean that the Ross St terraces would have unrestricted access to those spaces through Council's parking permit scheme. Any other residents in the area that are eligible for a parking permit would also have unrestricted access to those spaces. As such, Council cannot guarantee that those 8 spaces would always be available to the Ross St terraces. This is the same as the current parking arrangement.

(d) Harold Park residents would not be eligible for parking permits and would be subject to on-street parking restrictions.

(e) While it is the City's intention to introduce these parking arrangements, any changes must first be endorsed by the Traffic Committee before they can be implemented. This will be part of the parking plan requirements covered by conditions. The intention is that all parking restrictions be in place prior to new roads opening.

Public Domain

Public Open Space

225. The DCP and VPA require that at least 3.8ha of public open space be provided with the redevelopment of Harold Park. The new park is to form an extension of Jubilee, Federal and Bicentennial Parks to the north and be designed so that it can accommodate a range of passive and active recreation opportunities.

226. The land for public open space is to be dedicated to Council prior to the first occupation certificate being issued for a residential building. The design of the public open space will be part of the Masterplan for the Johnston's Creek Parklands that is currently being prepared.

227. The configuration of the public open space to be dedicated to Council has been amended to address concerns about the proposed open space. The original and amended proposals are below at **Figures 66** and **67**, respectively. The changes are supported and are shown clouded at **Figure 67** and are summarised in the table below as follows:

Cloud No.	Change
1	The street closure parks have been excluded from the 3.8ha
2	The tramshed parking has been relocated and reduced in size.
3	The footprint of Building 4A has been reduced

Figure 66 - Original Proposal. The public open space that makes up the 3.8ha is shown in shaded/green.

Figure 67 – Amended Proposal.

Pocket parks

228. It is noted that the 'pocket parks' between Buildings 2A and 2B and 2B and 4B are included in the 3.8ha quantum however will be owned by Mirvac / future owner's corporation of the buildings. This is because basement carparks are located beneath the 'pocket parks'. Conditions requiring easements for public access are included in the recommendation.

229. The design and delivery of these parks will be done by the applicant and will be subject to the Stage 2 DAs for the Precinct 2.

Ground Levels and Excavation

230. Following concerns raised by the City about original proposed site levels, amendments were made to re-grade the site. **Figure 68** below shows the original levels and identifies the locations where changes have been made (main changes summarised in the table below). **Figure 69** shows the amended levels.

Cloud Number	Change
1	Level access is now provided from the southern end of the site, through the public open space and up towards the future connection to Maxwell Road. The levels in the original proposal towards Maxwell Road did not enable level access
2	The severity of the embankment around the Tram Sheds has been reduced.
3	The amount of fill proposed to be placed around the base of the cliff has been reduced providing a wider area of useable public open space
4	The northern end of the site has been reduced by about 1m

Cloud Number	Change
5	Road MC03 has been graded to reduce the 5m level difference with The Crescent. A section showing the original proposal, which relied only on stairs and provided no access for people with disabilities is at **Figures 72** and **74.** The amended proposal is shown at **Figures 73** and **75.**

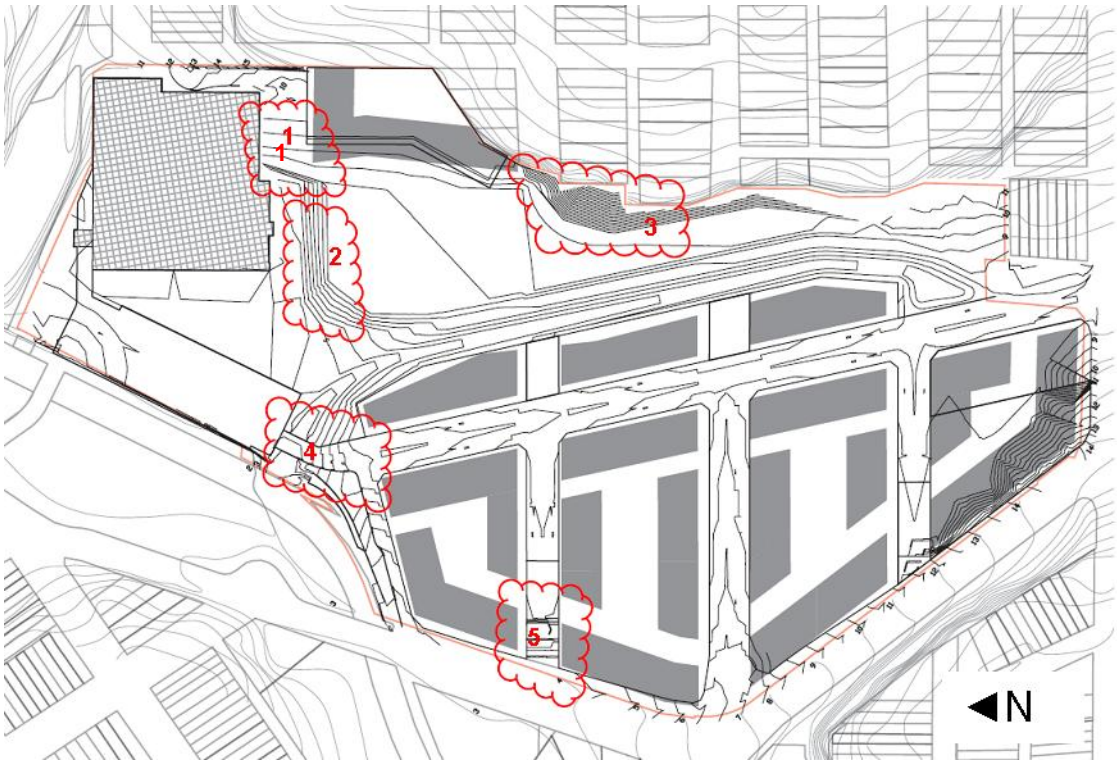

Figure 68 – Original proposed levels. The main areas where levels have been reduced are shown clouded.

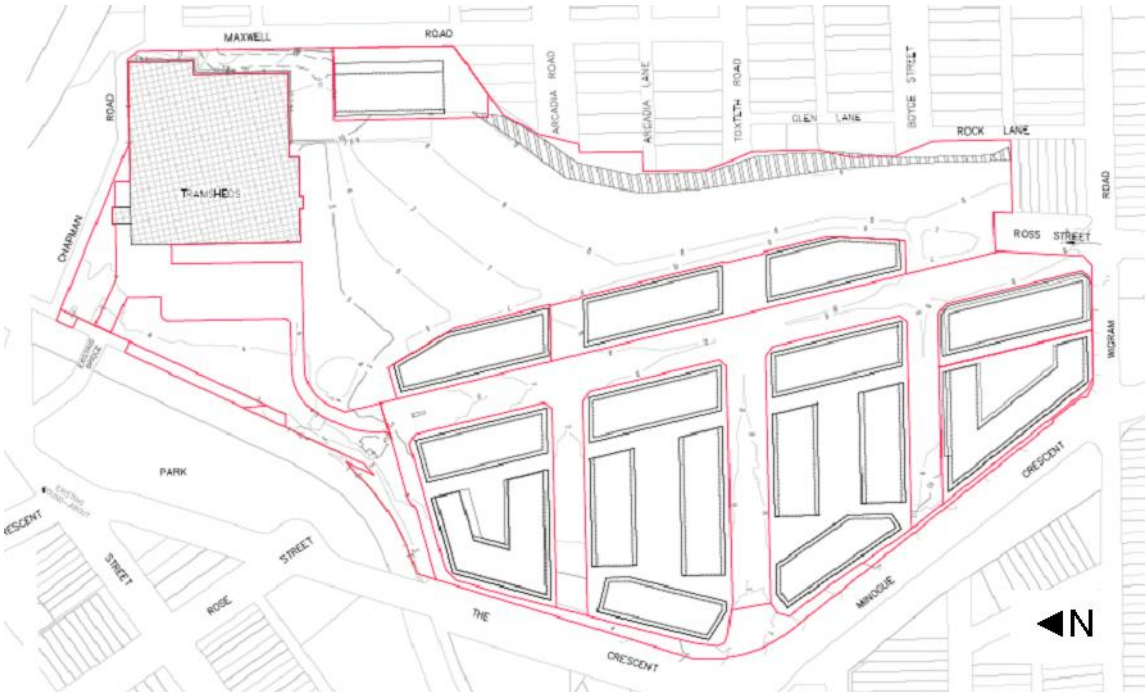

Figure 69 – Amended levels.

Tramsheds

231. Significant improvements have been made to the levels around the Tram Sheds as shown on **Figures 70** and **71** below.

Figure 70 – Original levels which encroached on the Tram Shed's curtilage and disrupted views to and from the Tram Sheds.

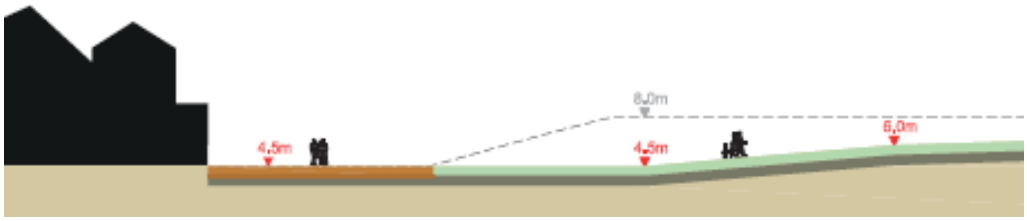

Figure 71 – Amended levels improve the site's relationship with the Tram Sheds.

232. Significant improvements to site levels have been made particularly around the Tram Sheds. The levels now provide an adequate level curtilage around the Tram Sheds to ensure that visibility to and from the Tram Sheds is maximised.

233. The amended levels now ensure that all areas of the site have been graded to provide equitable access.

Street closure parks

234. The ends of streets MC03 and MC04 have been designed to prevent traffic movements from the site into The Crescent / Minogue Crescent, in accordance with the DCP. These spaces have been designed as street closure parks.

235. The designs of the street closure parks have been amended to address access, streetscape and grading issues. The original and proposed designs for the ends of MC03 and MC04 are below.

MC03

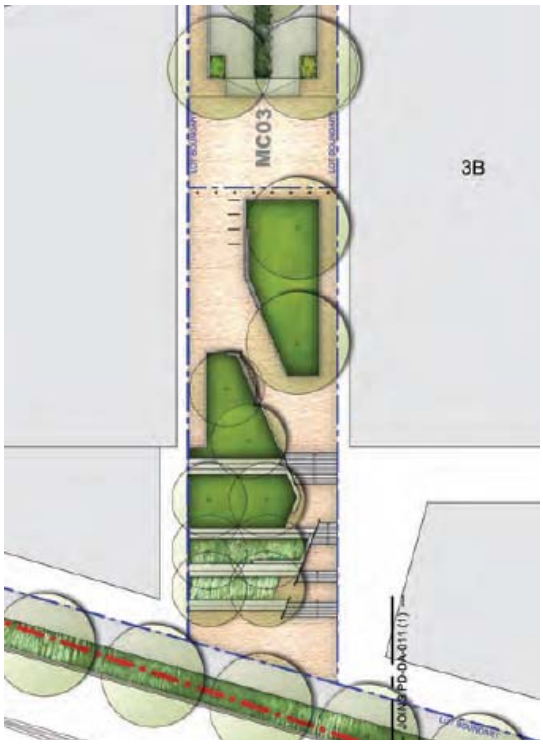

Figure 72 – The original street closure design for MC03.

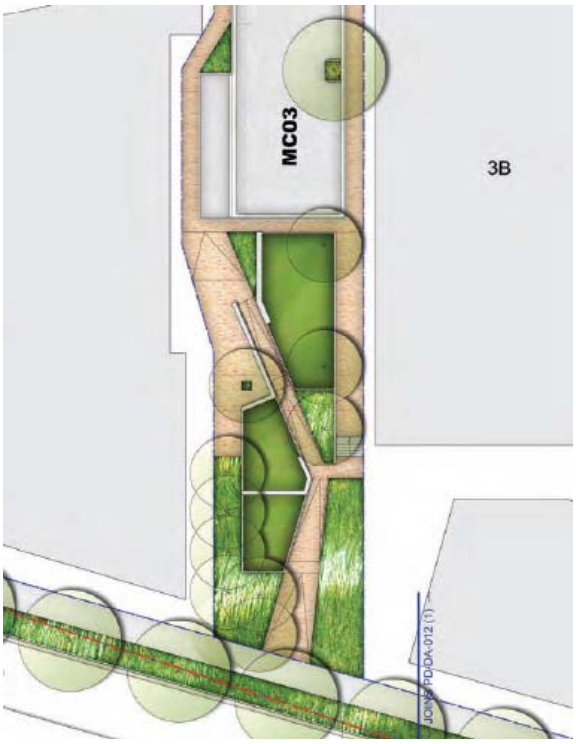

Figure 73 – The amended street closure design for MC03.

Figure 74 – The original proposed connection between The Crescent and MC03. No accessible paths were proposed, only stairs.

Figure 75 – The amended and accessible connection between The Crescent and MC03.

MC04

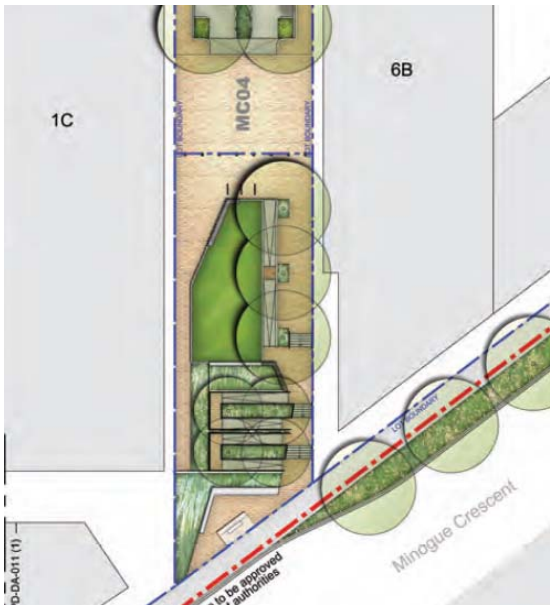

Figure 76 - The original street closure design for MC04.

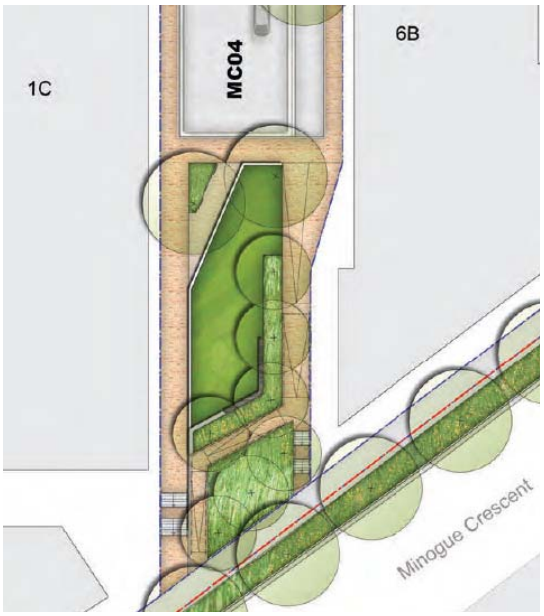

Figure 77 - The amended street closure design for MC04.

Figure 78 – The original street closure treatment.

Figure 79 – Amended street closure park at the end of MC04.

236. The amendments have reduced the amount of stairs and provided level access to MC03 which was previously inaccessible to wheelchairs or prams. The amendments are considered an improvement and are supported.

Heritage

237. There are several heritage items on the site including the Tram Sheds, trams, water tank and the former tram access way. Except for a small portion of the handrail (discussed below), all listed heritage items are proposed to be retained, conserved and/or adaptively reused.

Tram Sheds and Tram

238. The Tram Sheds will be preserved and the redevelopment of the site will enable public access to the Tram Sheds. The proposed site levels will ensure their prominence in the future park and that views to and from the Tram Sheds are maximised.

239. Conservation works to the Tram Sheds will be undertaken at the same time as the adaptive reuse. This will be the subject of a future DA to be submitted. Mirvac have indicated that the refurbishment of the Tram Sheds will be complete prior on practical completion of Precinct 4. Appropriate conditions have been recommended. Interim risk management measures have been implemented to ensure the structural stability of the Tram Sheds.

240. One of the heritage listed trams is required to be retained on site and conserved in accordance with the DCP. A tram is proposed to be retained and it will be incorporated into the future adaptive reuse of the Tram Sheds.

241. Interpretation Strategies have been submitted for the former Tram Depot and its curtilage and for the Paceway Precinct. Future works will include an interpretative garden in accordance with the DCP. Appropriate conditions have been included in relation to future interpretative works.

Tramshed Parking

242. The amended proposal includes a car park adjacent to the Tram Sheds to service the proposed non-residential uses proposed in the Tram Sheds. The location of the car park is shown at **Figure 67** above.

243. The location of the car park has been amended since the original DA was lodged. In response to concerns raised about the location and size of the car park, the car park was relocated to be closer to the Tram Sheds and reduced in size from 147 spaces to 78 spaces. The balance of the spaces (69) is proposed inside the 1909 tramshed. This is discussed further below.

244. The DCP allows at grade tramshed parking. Alternative locations for the car park were also investigated by the applicant, in accordance with the DCP, including locating the carpark underground.

245. Alternative at grade locations were constrained by design and access inefficiencies, heritage considerations, including the existing heritage listed fig trees to the north of the Tram Sheds.

246. Providing basement parking under the Tram Sheds was deemed unsuitable as:

    (a) the risks associated with excavating and constructing a basement car park will severely jeopardise the structural integrity of the heritage building, particularly the masonry façade parapets;

(b) the useable area created as a result of excavation exclusion areas due to zones of influence of the existing foundations would be inefficient for a typical basement car park configuration;

(c) the cost and program implications of providing basement carparking would jeopardise the feasibility of the refurbishment and adaptive reuse; and

(d) fire rating of the steel columns within the building would be required. These columns are graded as being of high significance, and the enclosing of these columns in a fire rated cladding would be an adverse heritage impact.

247. The location of the proposed car park is supported. The new location improves future pedestrian and cyclist connections with existing parkland to the north.

Parking in Tram Sheds

248. Parking is also proposed to be located within the Tram Sheds, consistent with the DCP which allows basement parking in the 1909 shed. The proposal does not include excavation but a ramp down to the existing lower level of the tramshed. Sections through the 1909 tramshed from the DCP and a comparison with the proposed indicative parking are shown below at **Figures 80 and 81**.

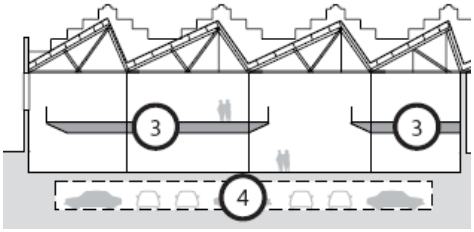

Figure 80 – Section from DCP showing potential location of basement car parking (at 4).

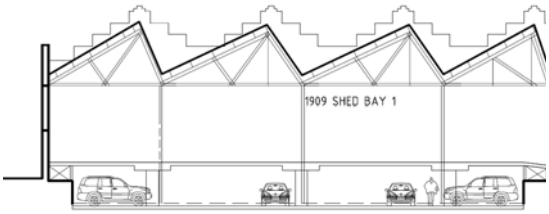

Figure 81 – Proposed section with parking.

249. The provision of car parking within the Tram Sheds is supported in principle and would be subject to the detailed DA for the adaptive reuse of the Tram Sheds to enable a full assessment of potential heritage impacts.

250. It is noted that car parking within the Tram Sheds will potentially result in less intervention than if mezzanines were proposed. Mezzanines are not proposed and this will allow the spatial qualities of tramshed to be better maintained.

Quantum

251. Consent is sought for 147 car spaces, being the maximum based on retail rates. However, the proposal is The DA proposes “non-residential floor space” in the Tram Sheds. This covers a wide range of permissible uses, which have different car parking controls under the LEP. It is therefore not appropriate to approve a specific number until an assessment can be made against the controls. A condition is recommended.

<u>Water Tank</u>

252. The water tank that sits adjacent to Maxwell Road will be relocated to accommodate the future shared zone and access to Building 4A (see **Figure 26** below).

253. The precise future location of the water tank will be determined in conjunction with the Council's future embellishment of the future public open space and the determination of the DA for the Tram Sheds adaptive reuse. Appropriate conditions have been included to address removal, storage, conservation and future rebuilding of the water tank.

Former tram access way and tram track fencing (handrail)

254. The remediation DA (D/2011/1299) approved the realignment of the Lille Bridge culvert. The location where the new outlet connects with the Johnston's Creek stormwater canal will require the removal of approximately 7.5m of total length of the 70m heritage-listed former accessway and fencing (constructed of sandstone retaining wall and handrails built from former tram tracks). The handrail is shown at **Figure 23**. The remediation DA required that the outlet connection be relocated to ensure no removal of the handrail would be required. Further details have since been submitted in relation to the outlet connection and this is being considered as part of that DA.

Views

255. Submissions have raised concerns over the loss of views to heritage items on the cliff (Toxteth Estate) and to and from the Cliff terraces. The Toxteth Estate and Cliff Terraces are shown on **Figures 6** to **10.**

256. The proposed building envelopes comply with the maximum LEP controls and conditions are recommended to address non-compliances with the DCP height controls, as discussed in the Issues section of this report.

257. Existing public views are largely maintained and in some cases extended due to the alignment of the proposed streets. There will be some encroachments on some private views, however this is generally considered acceptable where building's comply with the planning controls.

258. Views from Cliff Terraces were considered in the heritage study as part of the rezoning process. The views from these properties are shown at **Figure 10** above. The views to the city skyline are unlikely to be affected by the proposal as lower level buildings are proposed in the location where views are enjoyed. Views to the Cliff Terraces will be maintained from the public domain. Further assessment of potential view loss will be the subject of future detailed DAs.

Stormwater and Flooding Management

259. Harold Park is located fully within the Johnston's Creek Catchment. The proposed development will be serviced by pit and pipe stormwater drainage system which is designed to cater for a minimum of 1 in 5 year storm event. Higher flows will be transported by an overland flow system through the internal road network to a new overland trunk stormwater system around the development and discharging onto Johnston's Creek.

260. The proposed stormwater system includes the principles of Water Sensitive Urban Design (WSUD) incorporating Gross Pollutant Traps (GPT), road bio-swales, carpark bio-swales, and street tree/rain gardens.

261. A flood study was submitted with the DA and was peer reviewed by an independent consultant engaged by Council. The review found that the development generally complies with flooding design requirements. The review identified that the flood study indicated minor off-site impact (2cm flood impact outside the site).

262. Since then, further details have been submitted from the applicant's flooding consultant, Cardno, which provided further details on off-site impacts. Cardno advise that the 2cm increase of water flows are contained within the road reserve and 150mm kerb such that there is no water overtopping the kerb. Therefore there is no adverse impact on properties outside Harold Park and the development complies with DCP flooding requirements and the NSW Floodplain Development Manual 2005.

263. Council's Senior Drainage Engineer has reviewed Cardno's explanation and is satisfied that the 2cm increase in flood levels within road carriageway is not significant where the depth of water is less than 150mm and that the development does not result in adverse impacts.

264. The independent consultant found that the development is being held to the highest possible standard in regard to Water Sensitive Urban Design (WSUD), stormwater and flooding considerations. For example, the development:

    (a) incorporates climate change predictions for sea level rise and rainfall increase which is conservative;

    (b) has been designed in order to cope with all upstream flow as well as any runoff derived from the more immediate local catchment;

    (c) drainage is significantly upgraded from the status quo. For example the Lillie Bridge culvert will go from being an ~ 5 year ARI capacity to a 20 year ARI capacity; and

    (d) stormwater systems exceed design criteria as of the DCP of 5 year ARI. Instead the development as currently proposed caters for events up the largest possible, i.e. the PMF.

Construction Impacts

Traffic

265. In relation to traffic associated with remediation and works proposed under this DA, a Traffic Management Plan (TMP) and Construction and Environmental Management Plan (CEMP) sets out the measures that will be implemented to minimise traffic safety and amenity impacts and include:

266. Most trucks (vehicles over 4.5 tonnes) will access and egress the site via Nelson St / The Crescent. This access is considered to be the most appropriate entry point for trucks having regard to the narrowness of Wigram Road, the dense residential character of Ross St and Wigram Rd and the sight distances exiting Ross St, which are compromised to some degree by existing street trees.

267. Trucks must turn right out of Ross St onto Wigram Rd and must not use Wigram Road east of Ross St or west of Minogue Crescent. This will prevent construction trucks travelling on Wigram Road to Glebe Point Road and on Wigram Road towards Annandale minimising safety and amenity impacts on narrow residential streets.

268. Staff/contractor parking will be provided on-site minimising on-street parking impacts.

Noise and Vibration Generation and Working Hours

269. The works will include the use of "Highly Intrusive Appliances" as defined in the City's *Code of Practice for Construction Hours/Noise 1992*. A Noise and Vibration Management Plan was submitted with the application and indicates that some exceedances of noise controls will occur as a result of the machinery required to be used.

270. In order to mitigate noise impacts as far as is practicable, the proposal will be required to comply with the following requirements:

    (a) Council's standard construction hours which are between 7.30am and 5.30pm Monday to Friday and between 7.30am and 3.30pm Saturday;

    (b) heavier equipment can only be used between 9am and 3.30pm with a 1 hour respite period provided at midday, Monday to Friday. On Saturdays, heavier equipment can only be used between 9am and 1pm;

    (c) most truck movements to and from the site will be from Nelson St;

    (d) the hotline set up (9080 8588) is to be maintained for surrounding residents to call if they have enquiries or noise concerns and the like; and

    (e) vibration impacts are to be monitored during works to measure vibration and the steps to be in the event that vibration levels exceed acceptable levels.

Air Pollution

271. The CEMP includes measures to be implemented to prevent dust and dirt impacts, a complaint handling procedure and a hotline number for residents. Conditions of consent have been included in relation to covering of loads, vehicle cleansing and air emissions and to reduce impacts as much as possible. Conditions also require soil stabilisation on completion of earthworks, such as mulching or grassing type treatments, to assist in control of potential airborne dust and dirt impacts.

Water Pollution

272. Appropriate conditions are recommended in relation to soil and erosion management to ensure that run-off is contained on-site and does not enter the adjoining stormwater channel or Council's stormwater drains. It is noted that the proposal is integrated development with the NSW Office of Water and an activity approval for dewatering will be required.

Section 79C(1)(b) Other Impacts of the Development

273. The proposed development will not result in any additional impacts other than those already identified and discussed above.

BCA Matters

274. Future development will be capable of satisfying the requirements of the BCA.

Section 79C(1)(c) Suitability of the site for the development

275. The suitability of the site for urban renewal was determined at the rezoning stage. Except as noted throughout this report, the proposal generally complies with the provisions and objectives of the LEP and DCP. Where variations are proposed they are either capable of support, having had regard to their potential impacts, or are required to be amended by consent conditions and/or addressed with future detailed DAs.

Section 79C(1)(e) Public Interest

276. Subject to consent conditions to address issues discussed in this report, the proposal is considered to be in the public interest. The public benefits of the redevelopment of Harold Park include a new regional park and a monetary contribution for embellishment and land for affordable housing and a community facility.

POLICY IMPLICATIONS

277. Not applicable to this report.

FINANCIAL IMPLICATIONS/SECTION 94 CONTRIBUTIONS

Section 94 Contributions

278. In accordance with the VPA, the development is not subject to a Section 94 Contribution.

PUBLIC CONSULTATION

Section 79C(1)(d)

Notification and Advertising

279. Adjoining and nearby owners and occupiers of buildings were notified of the proposal and invited to comment. In addition, notices were placed on the site and the proposal was advertised in the daily press in accordance with the provisions of the City of Sydney Notification of Planning and Development Applications Development Control Plan 2005.

280. The Stage 1 DA, along with DAs for remediation and Stage 2 DAs for Precincts 1 and 2 were exhibited concurrently between August and October 2011. Given the scale of the development, the exhibition period was extended by 2 weeks (the DAs were notified for 7 weeks in total) and the notification radius extended from 75m required by the DCP to 200m. Over 1,800 residents were notified (including residents in Leichhardt Council).

281. Since the exhibition period, 224 submissions have been received.

282. For ease of reading, the issues raised in the submissions are addressed in **Attachment E**. It is noted that many of the issues raised have been addressed throughout this report,

EXTERNAL REFERRALS

Sydney Water

283. Conditions recommended by Sydney Water have been included in the recommendation.

RMS / Sydney Regional Development Advisory Committee

284. The Sydney Traffic Committee was notified of the proposed development and raised no objection.

Augrid (formerly Energy Australia)

285. Ausgrid was notified of the proposed development and advised that substations would be required.

INTEGRATED DEVELOPMENT

286. Dewatering will be required as a result of proposed excavation for basement levels. The NSW Office of Water has provided General Terms of Approval in association with the remediation DA recently approved. A condition relating to dewatering is included in the recommendation addressing future water license requirements.

INTERNAL REFERRALS

287. The application was referred to Council's:

(a) Specialist Surveyor;

(b) Specialist Health Surveyor;

(c) Heritage Architect;

(d) Urban Designer;

(e) Building Services Unit;

(f) City Projects;

(g) Public Art Coordinator;

(h) Properties Unit;

(i) Public Domain Unit;

(j) Stormwater Engineer;

(k) Design Strategy Unit;

(l) Transport Strategy Unit; and

(m) Transport and Access Unit.

288. Concerns raised about aspects of the development have been addressed throughout this report. Conditions recommended for inclusion have been incorporated into the conditions.

RELEVANT LEGISLATION

289. The Environmental Planning and Assessment Act 1979.

CONCLUSION

290. The proposal generally complies with the Harold Park LEP and DCP. Proposed variations have been discussed throughout the report and conditions are recommended to require design modifications, where required.

291. The proposal will deliver public benefits including the dedication of 3.8ha of land for public open space. The future park will extend existing open space from the north into the south of the area, maximising access to open space for the wider community, especially for residents to the south and west. The proposal will provide an increase in the residential housing available in the area, including the dedication of 2,500m^2 of land for affordable housing.

292. The proposal is supported, subject to conditions as discussed in the report.

GRAHAM JAHN
Director City Planning, Development and Transport

(Silvia Correia, Senior Planner)