



37-53 Nancarrow Avenue, Ryde Stages 6 and 7 - Shepherds Bay

Statement of Environmental Effects

SUTHERLAND & ASSOCIATES PLANNING

ABN 14 118 321 793 ACN 144 979 564

Statement of Environmental Effects

37-53 NANCARROW AVENUE, RYDE STAGES 6 AND 7 - SHEPHERDS BAY

Demolition of Existing Buildings and Erection of 2 Residential Flat Buildings

January 2015

Prepared under instructions from Holdmark Property Group Pty Ltd

by

Aaron Sutherland B Town Planning UNSW

aaron@sutherlandplanning.com.au Tel: (02) 9894 2474 PO BOX 6332 BAULKHAM HILLS BC NSW 2153

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1.0 INTRODUCTION

On 6 March 2013, as delegate of the Minister for Planning and Infrastructure, the Planning Assessment Commission (PAC) granted approval for Concept Plan MP09_216 for a mixed use development of the site at Shepherds Bay including residential, retail, commercial and community uses. The Concept Plan provides for the following:

- Building envelopes for 12 buildings incorporating basement level parking;
- Infrastructure works to support the development;
- Publicly accessible open space and through site links; and
- Pedestrian and cycle pathways.

This Statement of Environmental Effects has been prepared in support of a Development Application made under Part 4 of the Environmental Planning and Assessment Act 1979 for the erection of 2 residential flat buildings referred to as Stages 6 and 7 of the approved Concept Plan.

The proposed development is detailed in the architectural package prepared by Turner Architects. The application is also accompanied by the following:

- Survey plan H Ramsay
- Architectural package including SEPP 65 Assessment Turner Architects
- Ventilation assessment Windtech
- Landscape & public domain plan Place Design
- Detailed Design of Public Art Black Beetle
- Civil package BG&E
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1.0 INTRODUCTION

This Statement has been prepared pursuant to section 78A of the Environmental Planning and Assessment Act 1979 and clause 50 of the Environmental Planning and Assessment Regulation 2000. The Statement provides an assessment of the development proposal having regard to the relevant legislative context, social, economic and environmental impacts, potential impacts of the works on the surrounding locality and the measures proposed within the application to mitigate such impacts.

The Statement details the proposed development's consistency with the approved Concept Plan as well as compliance against applicable environmental planning instruments and development control plans including:

- Sydney Regional Environmental Plan Sydney Harbour Catchment 2005
- State Environmental Planning Policy No. 32 Urban Consolidation (Redevelopment of Urban Land)
- State Environmental Planning Policy No.55 Remediation of Land
- State Environmental Planning Policy No.65 Design Quality of Residential Flat Development
- State Environmental Planning Policy (Building Sustainability Index: BASIX) 2004
- State Environmental Planning Policy (Infrastructure) 2007
- Ryde Local Environmental Plan 2014
- Ryde Development Control Plan 2014

Having regard to the applicable legislative framework, it is considered that the proposed development is consistent with the aims and objectives of the Concept Plan, relevant environmental planning instruments and development control plan whilst being compatible with the emerging character of the locality and minimising any potential impacts on the amenity of the adjoining properties.

2.0 SITE DESCRIPTION AND LOCATION

2.1. Locality Description

The site is known as 37-53 Nancarrow Avenue and is located within the master planned area of Shepherds Bay at the foreshore within the suburb of Ryde which resides towards the southern end of the City of Ryde's local government area. The subject site is located between Constitution Road to the north and Nancarrow Avenue to the south.

The site is currently located within a largely industrial context although the area has been undergoing urban renewal with the redevelopment of many sites in the area including Stage 1 within the Shepherds Bay precinct which spans along the southern end of Bowden Street and along Rothesay Avenue and Bay Drive and includes the block bounded by Constitution Road to the north, Bowden Street to the west and Belmore Street to the east.

The site is approximately 300 metres south east of Meadowbank Railway Station which is located at the end of Constitution Road and is approximately 470 metres north of Meadowbank Ferry Wharf. The site is not located within a heritage conservation area however it does contain a locally listed heritage item which has been approved in principle for demolition under the Concept Plan. The location of the site is illustrated in Figure 1 below.



2.2. Site Description

The site comprises seventeen allotments and is legally described as Lot 9 in DP 19585, Lot 1 in DP 122205, Lots 1-7 in DP 19585 and Lots 10-17 in DP 19585 and is known as 37-53 Nancarrow Avenue, Ryde. The site is located on the southern side of Constitution Road and the northern side of Nancarrow Avenue.

The site is referred to as Stages 6 and 7 under the Concept Plan approval.

Both Constitution Road and Nancarrow Avenue have a low point which aligns with the centre of the site and there is a fall from the eastern and western sides of the site into the centre as well as an overall fall

2.0 SITE DESCRIPTION AND LOCATION

from north to south. The site is regular in shape and has an area of 10,176 square metres. The north-eastern boundary of the site, adjoining Constitution Road, has a length of approximately 116 metres. The south western boundary adjoining Nancarrow Avenue has a length of approximately 118 metres.

The site is currently occupied by a building known as the former Automatic Totalisators Limited factory which is heritage listed and is described as being significant as a "reasonably intact factory of high quality to a design by Dennis and Odling housing the Automatic Totalizers". The site is illustrated in Figure 2 below.



Figure 2:

Site (Source: Six Maps, Department of Lands 2014)

2.3. Surrounding Development

The subject site is surrounded by a mixture of residential apartments, townhouses, light industrial or commercial development and detached housing. The context around the subject site is currently undergoing rapid transformation into a residential community with the forthcoming character defined by high quality residential flat development.

To the immediate east and west are industrial buildings of varying size and style. Further to the north-west across Bowden Street are also small industrial buildings which are likely to be redeveloped for residential flat buildings in the future. To the south of the subject site is 116-122 Bowden Street, Meadowbank which is referred to as Stages 8 and 9 in the Concept Plan and which will be redeveloped for residential flat buildings. To the north of the site across Constitution Road are single storey dwellings as well as Ann Thorn Park.

Constitution Road immediately to the north of the site is comprised a main elevated component as well as a lower southern branch which accesses the subject site and a lower northern branch to access the dwellings to the north of Constitution Road. The main component of Constitution Road is elevated to ensure that it is above the flood level caused from upstream waters, however, this causes flooding of upstream properties north of Constitution Road and also downstream when the water overtops the embankment and travels through the subject site.



Photograph 1:

View of the site from Nancarrow Avenue facing north-east (Source: Google)

Photograph 2:

View of the site from the lower branch of Constitution Road facing southwest (Source: Google)



Photograph 3:

View of the site from the Constitution Road main facing south-west (Source: Google)



Photograph 4:

View of the existing sites to the south-west across Nancarrow Avenue where Stage 8 and 9 of the Concept Plan will be constructed

Photograph 5:

View of existing industrial sites to the south-east of the site (Source: Google)





Photograph 6:

View of central raised section of Constitution Road facing north-west (Source: Google)

2.0 SITE DESCRIPTION AND LOCATION



Photograph 7:

View of single storey detached houses to the north-east adjacent to the northern lower branch of Constitution Road (Source: Google)

Photograph 8:

View of existing industrial sites to the west of the subject site as viewed from the intersection of Bowden Street and Constitution Road facing south



3.1. Major Project MP09_0216

On 6 March 2013, as delegate of the Minister for Planning and Infrastructure, the Planning Assessment Commission granted approval for Concept Plan MP09_216 for the subject site.

The Concept Plan provides for a mixed use development of the site including residential, retail, commercial and community uses comprising the following:

- Construction of attached residential flat buildings between 3 and 12 storeys in height;
- Basement car parking over four levels
- Landscaped communal open space between the two buildings
- A new landscaped publicly accessible foreshore link from Hamilton Crescent to Rothesay Avenue
- Stormwater and infrastructure/utility works

In addition, the PAC issued future environmental assessment requirements for subsequent stages of the development pursuant to section 75P(1)(a) of the Environmental Planning and Assessment Act 1979 (EP&A Act), and determined that all future stages will be subject to the provisions of Part 4 of the EP&A Act, as provided for under section 75P(1)(b).



Figure 3:

Approved Concept Plan



3.2. Major Project MP09_0216 (MOD 1)

The Concept Plan was subsequently modified on 16 October 2014 to provide the following amendments:

- amendment to Building Storeys Plan to allow for additional storeys at ground level in Stages 1 to 3;
- to expand/connect the basement building envelopes;
- revision to the construction staging;
- revised timing of the delivery of the open space to be in conjunction with Stage 3 (rather than Stage 1);
- provision of an additional storey to provide a 6 storey element to the building on the corner of Belmore Street and Constitution Road;
- flexible application of the solar access requirement of the RFDC;
- amendment of ESD measures; and
- amendments to terms of approval, future environmental assessment requirements and Statement of Commitments.

4.1. General Description

The subject development application seeks consent for the demolition of all existing structures and the erection of 2 residential flat buildings referred to as Stages 6 and 7 of the approved Concept Plan containing a total of 311 residential apartments and 422 car parking spaces.

The proposed development is consistent with the approved site layout, massing and building envelopes approved under Concept Plan MP09_0216.

The development specifically involves the following:

- Demolition of all structures including removal of all slabs;
- Excavation works;
- Construction of a 5 to 8 storey building above 2 basement levels for Stage 6 containing 202 residential apartments;
- Construction of a 5 to 8 storey building above 3 basement levels for Stage 7 containing 109 residential apartments;
- Infrastructure works including the lowering of Constitution Road, installation of a signalised intersection at Constitution Road and Bowden Street, and implementation of stormwater infrastructure through the site; and
- Landscaping works around the buildings including the creation of common open space areas and publicly accessible pedestrian and cycle through-site links.

The proposed development is detailed on the architectural plans prepared by Turner Architects.



Figure 5:

Perspective image of proposed development as viewed from Constitution Road

Design Principles 4.2.

The proposed buildings are of varying scale and typology which introduces visual interest and serves to break up the scale of the development. The ground floor plane is suitably activated, having regard to the constraints imposed due to the fall of the site, with individual entries to the ground floor apartments and multiple building lobbies. The proposed development appropriately defines the public domain, however, in a softer fashion with generous landscaped setbacks.

The proposed development provides for contemporary and attractive buildings with facade compositions which are compatible with the emerging character within the area whilst also incorporating an industrial vernacular which references the historical use of the site. The proposed development introduces a variety of building elements and utilises a visually engaging architectural language with a selection of appropriate materials and finishes. The proposed built form and composition of the new buildings respond to the emerging character of the area and therefore provides a positive contribution to the visual quality of Ryde.

Turner Architects have provided further details of the design principles in the architectural drawings, SEPP 65 Design Verification Statement and RFDC Assessment, perspective images, shadow diagrams and Schedule of External Finishes which accompany this application.

4.3. Development Statistics

Element	Stage 6	Stage 7	Total
Site Area			10,176 square metres
GFA	17,765 square metres	8,574 square metres	26,339 square metres
FSR			2.59:1
Storeys			5 to 8 storeys
Height	As per the approved 'Maximum RL Height Controls' of the Concept Plan		
Setbacks and Separation	As per the requirements of the RFDC and the approved 'Maximum RL Height Controls' of the Concept Plan		
Apartments	202	109	311
Car parking	277	145	422
Bicycle Spaces	28	15	43
Solar Access/Improved Amenity	142 (70%)	77 (70.6%)	219 (70.4%)
Natural Ventilation	128 (63%)	69 (63%)	197 (63%)
Open Space		5,495 squ	are metres (54% of site)
Deep soil 2,905 square metres (52.86% of open space			(52.86% of open space)

4.4. Apartment Mix

Apartment	Stage 6	Stage 7	Total
1 bed	75 (37%)	59 (54%)	134 (43%)
2 bed	108 (53.5%)	40 (36.5%)	148 (47.5%)
3 bed	19 (9.5%)	10 (9.5%)	29 (9.5%)
Total	202	109	311

4.5. Materials and Finishes

The proposed materials and finishes are detailed in the architectural plans provided by Turner Architects at Appendix C.

4.6. Access and Parking

Pedestrian access is provided via common lobbies at both the Constitution Road and Nancarrow Avenue frontages of each building. Individual entries are provided to ground floor apartments where possible and pedestrian access is also provided through the site to the south-east of the Stage 6 building, the northwest of the Stage 7 building and also centrally between each stage.

Vehicular access is provided via single entries at the southern end of both the Stage 6 and Stage 7 buildings. The vehicular entrance to the Stage 6 building provides access into the Lower Ground Level parking as well as two basement levels below which contain a total of 277 car parking spaces, 28 bicycle parking spaces and residential storage. The vehicular entrance to the Stage 7 building provides access into the Lower Ground Level parking as well as three basement levels below which contain a total of 145 car parking spaces, 15 bicycle parking spaces and residential storage. Four lifts provide access from the Stage 6 parking levels into the building above and two lifts provide access from the Stage 7 parking areas into the building above.

4.7. Private and Public Open Space

The proposed development provides two buildings which sit within a generously landscaped setting. A variety of communal open spaces are proposed including a central landscaped courtyard (650 square metres) at ground level accessible to both Stages whilst landscaped roof top terraces (Stage 6: 815 square metres; and Stage 7: 500 square metres) are provided on Level 5 of each building. When combined with the primary and secondary landscaped through site links, a total area of 5,495 square metres or 54% of the site is provided for passive and active uses.

The development provides a number of ground floor apartments to enjoy large landscaped private open space area with the majority of these apartments having private open space greater than 25 square metres. The balconies for upper level apartments generally have a minimum depth of 2 metres whilst the majority of apartments have balcony depths between 2.4 metres and 3 metres.

4.8. Trees

The proposal requires the removal of all of the trees on the site as well as the street trees adjacent to the site as detailed in the Arboricultural Impact Assessment and Addendum prepared by Redgum Arboricultual and Horticulture Consultants which accompanies the application. The development of the site will however involve the comprehensive landscaping of both the subject site and surrounding public

domain in a coordinated and generous fashion as illustrated in the Landscape Plan prepared by Place Design which accompanies the application.

4.9. Stormwater Infrastructure Upgrades and Public Domain Works

The proposal includes the following infrastructure upgrades and public domain works:

- Lowering of Constitution Road;
- Upgrade of the existing stormwater pit and pipe network from Ann Thorn Park to the Shepherds Bay foreshore to convey the 100 year ARI flood including the provision of a landscaped overland flowpath from Constitution Road to the foreshore through the site;
- Signalisation of Constitution Road and Bowden Street intersection;
- Upgrade of the road reserves adjacent to the development to the centre line of the carriageway, including landscaping, street trees, accessible pedestrian pathways, street lighting, cycle ways on Constitution Road and Nancarrow Avenue, and the upgrade of the longitudinal pit and pipe network along Constitution Road and Nancarrow Avenue to capture and convey the 20 year ARI flood.

4.10. Subdivision and Creation of Publicly Accessible Open Space

The proposed development includes the provision of two pedestrian links intended to be used for public access as illustrated in Figure 6 below. These include the primary central link as well as the north-western link adjacent to the Stage 7 building. The central link is also the location for the an underground stormwater pipe and overland flow path to convey the 100 year ARI flood from Constitution Road to the foreshore through the site. It is expected that a condition of consent will be imposed requiring the creation of rights of public access to the two publicly accessible through-site links as well as the drainage reserve with the relevant instrument/s to be executed prior to the issue of the occupation certificate for any building on the site.

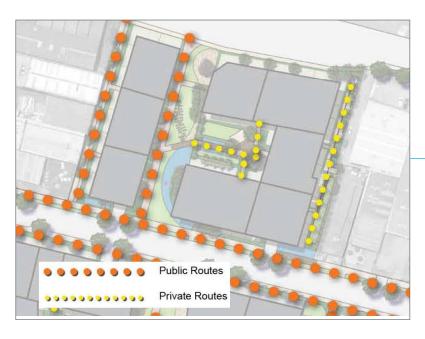


Figure 6:

The public routes intended to be provided via the creation of a right of public access are defined in the approved Concept Plan Figure 32A Rev 2

4.11. Sustainable Travel Plan

The proposal is accompanied by a Sustainable Travel Plan prepared by Road Delay Solutions which outlines the initiatives to be undertaken by Holdmark with respect to community parking and bicycle provisions to deliver best practice sustainable outcomes to effectively reduce greenhouse gas emissions through diminished dependence upon private vehicle usage. The site benefits from alternative travel modes from public transport to walking and cycling. Both commuter and recreational trips can be adequately accommodated within the current local transport network while proposed provisions for car share will allow an opportunity to reduce the dependence on the private vehicle.

4.12. Public Art

The proposal is accompanied by a Public Art Plan prepared by Black Beetle. The plan explores the opportunities, processes and integration of artworks as part of the proposed development and outlines aims and objectives of Public artwork in relation to this development, thematic framework for developing artworks, and locations and concepts for site specific works within the development. The plan initiates a documentation process which will take the identified artworks through design briefs, design development, fabrication and installation.

4.13. Ecologically Sustainable Development

The proposal is accompanied by an ESD statement prepared by Integreco which demonstrates the incorporation of ESD principles in the design, construction and ongoing operation phases of the development, in accordance with the base targets within ESD Guidelines Report prepared by Ecospecifier Consulting dated October 2010.

4.14. Traffic Study and Intersection Upgrade

The proposal is accompanied by a traffic study prepared by Road Delay Solutions which identifies that the signalisation of the intersection of Constitution Road and Bowden Streets is required and proposed as part of the development. This is also required by the Statement of Commitments. The design of the intersection is illustrated by Road Delay Solutions in the traffic study.

4.15. Heritage Interpretation Strategy

The proposal is accompanied by a Heritage Interpretation Strategy which proposes interpretive signs and boards containing a combination of photographs, drawings, images and text relating to the key messages identified for the existing Factory and the site. These boards and panels can be located in areas of greatest public wayfinding and congregation, both inside and outside as appropriate such as near to access points to the site as well as in common areas such as the large courtyard and adjacent outdoor areas. The Heritage Interpretation Strategy also outlines the salvageable items at the site which can be re-used as part of the overall heritage interpretation for the development of the site.

4.16. Cost of Construction

The cost of construction of the project is estimated at \$\$104,453,032.20 (including GST). Refer to the QS Report prepared by Altus Page Kirkland which accompanies this application.

4.17. Dwelling and Car Parking Cap

A dwelling cap of 2,005 dwellings and a car parking cap of 2,976 applies to the entire Concept Plan area. Below is an approved, proposed and forecast tally in relation to these caps:

Stage	Dwellings	Car Parking
1	246	342
2 and 3	453	605
4 and 5	511	621
6 and 7	311	422
8 and 9	422	573
А	62	413

Environmental Planning & Assessment Act 1979

5.1.1. **Consistency with Concept Plan**

Clause 3B of Schedule 6A of the Environmental Planning and Assessment Act, 1979 applies to development for which a concept plan has been approved.

Specifically, Clause 3B(2) contains the following relevant provisions to the consideration of the proposed development:

- (c) any development standard that is within the terms of the approval of the concept plan has effect,
- (d) a consent authority must not grant consent under Part 4 for the development unless it is satisfied that the development is generally consistent with the terms of the approval of the concept plan,
- (f) the provisions of any environmental planning instrument or any development control plan do not have effect to the extent to which they are inconsistent with the terms of the approval of the concept plan,

The subject development application is to facilitate development of the site under Concept Plan MP09_0216. A detailed assessment of the proposal's consistency with the Concept Plan and its Statement of Commitments is located at Appendix A.

This Development Application is generally consistent with the Concept Plan approval in that it:

- The proposed buildings are generally contained within the approved building envelopes in both plan and elevation. Any encroachments are particularly minor, are more than balanced by parts of the buildings which are well inside the envelopes and do not compromise the appropriate characterisation of the proposed development as being 'generally in accordance with' the approved envelope;
- The proposed number of apartments when combined with the other stages will not exceed the dwelling cap of 2,005 apartments under the Concept Plan;
- Where the proposed stages do not meet the rules of thumb within the Residential Flat Design Code for solar access and cross ventilation, they meet the additional amenity requirements specified under the Concept Plan;
- Basement parking levels do not exceed greater than 1 metre above finished ground level and do not extend into street setbacks;
- The proposal includes all road and stormwater infrastructure and public domain improvements as required by the Concept Plan;
- The proposal incorporates all publicly accessible through-site links as required by the Concept Plan;
- The proposal provides car and bicycle parking in accordance with the rates required under the Concept Plan;
- The proposal provides 10% of apartments as adaptable housing as required by the Concept Plan:
- The proposal incorporates a commitment to public art as required by the Concept Plan; and
- The proposal incorporates industry best practice ESD principles in the design, construction and ongoing operation phases.

5.1.2. Integrated Development

The proposal involves de-watering associated with the excavation works and is therefore 'integrated development' pursuant to Section 91 of the EP&A Act as dewatering requires the approval of the NSW Office of Water under Section 91 the Water Management Act 2000.

5.1. Environmental Planning Instruments

Control

5.1.1. Sydney Regional Environmental Plan - Sydney Harbour Catchment 2005

The Sydney Regional Environmental Plan (Sydney Harbour Catchment) 2005 provides aims and controls to protect the values of the Harbour. The Plan primarily provides planning provisions relating to the foreshore and waterways area as identified under the SREP. The subject site is included within the foreshores and waterways area and therefore such provisions apply to this proposal. The following table provides an assessment of the proposed development against the relevant provisions of the SREP.

Comment

Part 1 Preliminary - Aims	
(1) This plan has the following aims with respect to the Sydney Harbour Catchment: (a) to ensure that the catchment, foreshores, waterways and islands of Sydney Harbour are recognised, protected, enhanced and maintained: (i) as an outstanding natural asset, and (ii) as a public asset of national and heritage significance, for existing and future generations, (b) to ensure a healthy, sustainable environment on land and water, (c) to achieve a high quality and ecologically sustainable urban environment, (d) to ensure a prosperous working harbour and an effective transport corridor, (e) to encourage a culturally rich and vibrant place for people, (f) to ensure accessibility to and along Sydney Harbour and its foreshores, (g) to ensure the protection, maintenance and rehabilitation of watercourses, wetlands, riparian lands, remnant vegetation and ecological connectivity, (h) to provide a consolidated, simplified and updated legislative framework for future planning. (2) For the purpose of enabling these aims to be achieved in relation to the Foreshores and Waterways Area, this plan adopts the following principles: (a) Sydney Harbour is to be recognised as a public resource, owned by the public, to be protected for the public good, (b) the public good has precedence over the private good whenever and whatever change is proposed for Sydney Harbour or its foreshores, (c) protection of the natural assets of Sydney Harbour has precedence over all other interests.	The proposal is consistent with the aims of the SREP in that: • it will provide for a healthy, sustainable environment on the site; • it will achieve a high quality and ecologically sustainable development on the site through its high environmental performance • the proposed development does not prevent public access to the foreshore of the Parramatta River and provides publicly accessible through site links to assist in providing access towards the River foreshore.

Control Comment Part 2 - Planning Principles **Sydney Harbour Catchment** The proposal is consistent with The planning principles for land within the Sydney Harbour the planning principles set out Catchment are as follows: in this clause, as follows: (a) development is to protect and, where practicable, improve the the proposal is for the hydrological, ecological and geomorphological processes on which erection of two new the health of the catchment depends, buildings in accordance (b) the natural assets of the catchment are to be maintained and. with Water Sensitive Urban where feasible, restored for their scenic and cultural values and Design principles and will their biodiversity and geodiversity, not adversely impact on (c) decisions with respect to the development of land are to take the water quality of the account of the cumulative environmental impact of development River; and within the catchment. the subject site is located (d) action is to be taken to achieve the targets set out in Water at the boundary of the foreshore area and is Quality and River Flow Interim Environmental Objectives: Guidelines for Water Management: Sydney Harbour and Parramatta River unlikely to be readily visible Catchment (published in October 1999 by the Environment from the Parramatta River. Protection Authority), such action to be consistent with the Nonetheless, the proposal guidelines set out in Australian Water Quality Guidelines for Fresh is of a high architectural and Marine Waters (published in November 2000 by the Australian auality which will and New Zealand Environment and Conservation Council), contribute positively upon (e) development in the Sydney Harbour Catchment is to protect the appearance of the site the functioning of natural drainage systems on floodplains and if it can be viewed from the comply with the guidelines set out in the document titled Floodplain Parramatta River. Development Manual 2005 (published in April 2005 by the Department), (f) development that is visible from the waterways or foreshores is to maintain, protect and enhance the unique visual qualities of Sydney Harbour, (g) the number of publicly accessible vantage points for viewing Sydney Harbour should be increased, (h) development is to improve the water quality of urban run-off, reduce the quantity and frequency of urban run-off, prevent the risk of increased flooding and conserve water, (i) action is to be taken to achieve the objectives and targets set out in the Sydney Harbour Catchment Blueprint, as published in February 2003 by the then Department of Land and Water Conservation, development is to protect and, if practicable, rehabilitate watercourses, wetlands, riparian corridors, remnant native vegetation and ecological connectivity within the catchment, (k) development is to protect and, if practicable, rehabilitate land

from current and future urban salinity processes, and prevent or

Control	Comment
restore land degradation and reduced water quality resulting from urban salinity, (I) development is to avoid or minimise disturbance of acid sulfate soils in accordance with the Acid Sulfate Soil Manual, as published in 1988 by the Acid Sulfate Soils Management Advisory Committee.	
Foreshores and Waterways Area The planning principles for land within the Foreshores and Waterways Area are as follows: (a) development should protect, maintain and enhance the natural assets and unique environmental qualities of Sydney Harbour and its islands and foreshores, (b) public access to and along the foreshore should be increased, maintained and improved, while minimising its impact on watercourses, wetlands, riparian lands and remnant vegetation, (c) access to and from the waterways should be increased, maintained and improved for public recreational purposes (such as swimming, fishing and boating), while minimising its impact on watercourses, wetlands, riparian lands and remnant vegetation, (d) development along the foreshore and waterways should maintain, protect and enhance the unique visual qualities of Sydney Harbour and its islands and foreshores, (e) adequate provision should be made for the retention of foreshore land to meet existing and future demand for working harbour uses, (f) public access along foreshore land should be provided on land used for industrial or commercial maritime purposes where such access does not interfere with the use of the land for those purposes, (g) the use of foreshore land adjacent to land used for industrial or commercial maritime purposes should be compatible with those purposes, (h) water-based public transport (such as ferries) should be encouraged to link with land-based public transport (such as buses and trains) at appropriate public spaces along the waterfront, (i) the provision and use of public boating facilities along the waterfront should be encouraged	The proposal is consistent with the planning principles set out in this clause, as follows: • the proposal will not result in a detrimental impact to the natural assets and unique environmental quality of the foreshore due to its setback from the River; • the proposal has no impact on public access to the foreshore however it adheres to the principle of view sharing of the River; • the proposal is unlikely to be viewed from the River as it will be obscured by other buildings closer to the River, nonetheless it is of a high architectural quality which will contribute positively and enhance the appearance of the locality which can viewed from the Parramatta River.
Part 3 Foreshores and Waterways Area - Matters for Consideration	
General The matters referred to in this Division (together with any other relevant matters):	The consent authority is required to consider the matters set out in this Part.

(a) are to be taken into consideration by consent authorities before

Control	Comment
granting consent to development under Part 4 of the Act, and (b) are to be taken into consideration by public authorities and others before they carry out activities to which Part 5 of the Act applies.	
Biodiversity, ecology and environment protection The matters to be taken into consideration in relation to biodiversity, ecology and environment protection are as follows: (a) development should have a neutral or beneficial effect on the quality of water entering the waterways, (b) development should protect and enhance terrestrial and aquatic species, populations and ecological communities and, in particular, should avoid physical damage and shading of aquatic vegetation (such as seagrass, saltmarsh and algal and mangrove communities), (c) development should promote ecological connectivity between neighbouring areas of aquatic vegetation (such as seagrass, saltmarsh and algal and mangrove communities), (d) development should avoid indirect impacts on aquatic vegetation (such as changes to flow, current and wave action and changes to water quality) as a result of increased access, (e) development should protect and reinstate natural intertidal foreshore areas, natural landforms and native vegetation, (f) development should retain, rehabilitate and restore riparian land, (g) development on land adjoining wetlands should maintain and enhance the ecological integrity of the wetlands and, where possible, should provide a vegetative buffer to protect the wetlands, (h) the cumulative environmental impact of development, (i) whether sediments in the waterway adjacent to the development are contaminated, and what means will minimise their disturbance.	The proposed development will have a positive impact in relation to biodiversity, ecology and environment protection having regard to the following: • the proposed development will not adversely impact on the water quality of Parramatta River. • the site is setback from the waters edge and therefore will have no impact on aquatic life. • there is no existing terrestrial vegetation communities on the subject site.
Public access to, and use of, foreshores and waterways The matters to be taken into consideration in relation to public access to, and use of, the foreshores and waterways are as follows: (a) development should maintain and improve public access to and along the foreshore, without adversely impacting on watercourses, wetlands, riparian lands or remnant vegetation, (b) development should maintain and improve public access to and from the waterways for recreational purposes (such as swimming, fishing and boating), without adversely impacting on watercourses, wetlands, riparian lands or remnant vegetation, (c) if foreshore land made available for public access is not in public ownership, development should provide appropriate tenure and management mechanisms to safeguard public access to, and public use of, that land,	The subject site does not have direct access to the foreshore of the Parramatta River.

Control	Comment
(d) the undesirability of boardwalks as a means of access across or along land below the mean high water mark if adequate alternative public access can otherwise be provided,(e) the need to minimise disturbance of contaminated sediments.	
Maintenance of a working harbour The matters to be taken into consideration in relation to the maintenance of a working harbour are as follows: (a) foreshore sites should be retained so as to preserve the character and functions of a working harbour, in relation to both current and future demand, (b) consideration should be given to integrating facilities for maritime activities in any development, (c) in the case of development on land that adjoins land used for industrial and commercial maritime purposes, development should be compatible with the use of the adjoining land for those purposes, (d) in the case of development for industrial and commercial maritime purposes, development should provide and maintain public access to and along the foreshore where such access does not interfere with the use of the land for those purposes.	The site is set well back from the foreshore edge and will not result in any impact to the working harbour.
Interrelationship of waterway and foreshore uses The matters to be taken into consideration in relation to the interrelationship of waterway and foreshore uses are as follows: (a) development should promote equitable use of the waterway, including use by passive recreation craft, (b) development on foreshore land should minimise any adverse impact on the use of the waterway, including the use of the waterway for commercial and recreational uses, (c) development on foreshore land should minimise excessive congestion of traffic in the waterways or along the foreshore, (d) water-dependent land uses should have priority over other uses, (e) development should avoid conflict between the various uses in the waterways and along the foreshores.	The site is set well back from the foreshore edge and has no impact to the equitable use of the waterway.

Control **Comment** Foreshore and waterways scenic quality The proposal is unlikely to The matters to be taken into consideration in relation to the be viewed from the River as maintenance, protection and enhancement of the scenic quality of it will be obscured by other foreshores and waterways are as follows: buildings closer to the River, (a) the scale, form, design and siting of any building should be nonetheless it is of a high based on an analysis of: architectural quality which (i) the land on which it is to be erected, and will contribute positively and (ii) the adjoining land, and enhance the appearance of (iii) the likely future character of the locality, the locality which can viewed (b) development should maintain, protect and enhance the unique from the Parramatta River. visual qualities of Sydney Harbour and its islands, foreshores and tributaries, (c) the cumulative impact of water-based development should not detract from the character of the waterways and adjoining foreshores. Maintenance, protection and enhancement of views The proposal is unlikely to The matters to be taken into consideration in relation to the be viewed from the River as maintenance, protection and enhancement of views are as follows: it will be obscured by other (a) development should maintain, protect and enhance views buildings closer to the River, (including night views) to and from Sydney Harbour, nonetheless it is of a high (b) development should minimise any adverse impacts on views architectural quality which and vistas to and from public places, landmarks and heritage items, will contribute positively and (c) the cumulative impact of development on views should be enhance the appearance of minimised. the locality which can viewed from the Parramatta River. As the site is located at the rear most boundary of the foreshores area, it does not prevent reasonable views of the River.

Control	Comment
Part 3 Foreshores and Waterways Area - Special Provisions	
Requirement for master plans (1) Development consent must not be granted for the carrying out of development on a strategic foreshore site unless: (a) there is a master plan for the site, and (b) the consent authority has taken the master plan into consideration. (2) The Minister may waive compliance with the requirements of subclause (1): (a) if satisfied that preparation of a master plan is unnecessary because of: (i) the nature of the proposed development, or (ii) the fact that the proposed development will affect only a small proportion of the site, or (iii) the adequacy of other planning controls applying to the proposed development, or (b) for such other reason as the Minister considers sufficient, so long as the Minister is satisfied that the proposed development will not compromise the application of the planning principles set out in clauses 13, 14 and 15. (3) If the Minister is not the consent authority, the Minister is to notify the relevant consent authority, in writing, of a waiver of the requirements of subclause (1). (4) A master plan does not have to be prepared for the City Foreshores Area or for Garden Island, as shown on the Strategic Foreshore Sites Map, unless the Minister so directs. (5) This clause does not apply to minor development specified in Schedule 3.	Shepherds Bay within which the site is located is identified as a Strategic Foreshore Site under the terms of SREP 2005. The site is subject to the Meadowbank Employment Area – Master Plan.

5.1.2. State Environmental Planning Policy (Infrastructure) 2007

This SEPP provides a consistent planning regime for infrastructure and the provision of services across NSW, along with providing for consultation with relevant public authorities during the assessment process.

Clause 102 of the SEPP relates to the impact of road noise or vibration on residential development, which is located on land adjacent to a road with an annual average daily traffic volume of more than 40,000 vehicles. The site is not located adjacent to a road with an annual average daily traffic volume or more than 40,000 vehicles and so the acoustic criteria of the SEPP does not apply to the proposed development.

The need for a traffic report is outlined in Clause 104 (Traffic-generating development), which must address such issues as access and any parking or traffic impacts of the proposed development.

Residential Flat Building developments with more than 300 dwellings with access to any road are required to be referred to the RMS for comment. The proposal has 311 residential apartments and

so will need to be referred to the RMS for comment during the assessment process. The proposed development is accompanied by a Traffic Impact Assessment prepared by Road Delay Solutions which includes the provision of a signalisation of the intersection of Constitution Road and Bowden Street in order to ensure a satisfactory performance of the local road network following completion of the entire development approved under the Concept Plan.

5.1.3. State Environmental Planning Policy No. 32 - Urban Consolidation (Redevelopment of Urban Land)

Some of the key objectives of the policy, which apply to the site, are to promote urban consolidation; ensure that suitable urban land for multi-unit housing is made available and to provide a greater diversity of housing to meet demand generated by changing demographics and housing needs.

The proposal supports this policy in encouraging higher-density residential development in an existing urban area with good access to transport and services.

5.1.4. State Environmental Planning Policy No.55 - Remediation of Land

State Environmental Planning Policy No. 55 - Remediation of Land applies to all land and aims to provide for a State-wide planning approach to the remediation of contaminated land.

Clause 7 of SEPP 55 requires the consent authority to consider whether land is contaminated prior to granting consent to carrying out of any development on that land and if the land is contaminated, it is satisfied that the land is suitable in its current state or will be suitable after remediation for the purpose for which the development is proposed to be carried out.

Environmental Investigations have prepared an Environmental Site Assessment which accompanies this application. The Assessment included a desktop analysis as well as 23 test boreholes across the site with multi-level soil sampling undertaken for laboratory analysis for relevant analytical parameters. The results of the soil sampling reported concentrations of the screened heavy metals to be below the adopted human health based SILs for residential with minimal access to soils. In addition, the identified elevated groundwater concentrations for heavy metals are considered by Environmental Investigations to be within background fluctuations of naturally occurring levels for these heavy metals in the Sydney metropolitan groundwater catchment area and do not pose an immediate threat to human health or the environment.

Environmental Investigations concludes that the site can be made suitable for residential purposes following demolition of the buildings and further investigation of the potential areas of environmental concern being 108 Bowden Street which is currently inaccessible and the UST excavation present at 37-53 Constitution Road.

Based on the above, it is considered reasonable for a conditional consent to be issued to require the sampling and testing following demolition of the building at 108 Bowden Street, as well as the implementation of the Remediation Action Plan subject to any required amendments following further testing. It is considered that based on this approach Council can be satisfied that the site can be made suitable for the proposed development subject to the imposition of appropriate conditions of consent.

5.1.5. State Environmental Planning Policy No. 65 – Design Quality of Residential Flat Development

State Environmental Planning Policy No. 65 – Design Quality of Residential Flat Development (SEPP 65) aims to improve the design quality of residential flat developments, provide sustainable housing in social and environmental terms that is a long-term asset to the community and delivers better built form outcomes.

In order to satisfy these aims and improve the design quality of residential flat buildings in the State, the plan sets design principles in relation to context, scale, built form, density, resources, energy and water efficiency, landscaping, amenity, safety and security, social dimensions and aesthetics.

SEPP 65 applies to new residential flat buildings, the substantial redevelopment/refurbishment of existing residential flat buildings and conversion of an existing building to a residential flat building.

Clause 3 of SEPP 65 defines a residential flat building as follows:

Residential flat building means a building that comprises or includes:

- a) 3 or more storeys (not including levels below ground level provided for car parking or storage, or both, that protrude less than 1.2 metres above ground level), and
- b) 4 or more self-contained dwellings (whether or not the building includes uses for other purposes, such as shops), but does not include a class 1a building or a class 1b building under the Building Code of Australia.

The development meets the definition of a residential flat building. As such the provisions of SEPP 65 are applicable to the proposed development.

SEPP 65 requires any development application for residential flat development to be assessed against the 10 principles contained in clauses 9-18 of SEPP 65 and the matters contained in the Residential Flat Design Code (RFDC). The 10 principles of SEPP 65 and the matters contained in the RFDC are addressed in the Architects statement at Appendix C.

5.1.6. State Environmental Planning Policy (Building Sustainability Index: BASIX) 2004

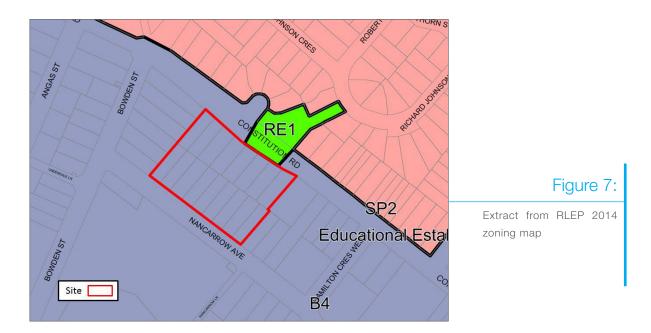
State Environmental Planning Policy (Building Sustainability Index: BASIX) 2004 applies to the development and aims to encourage sustainable residential development.

BASIX certificates for each building accompany the development application and demonstrates that the proposal achieves compliance with the BASIX water, energy and thermal efficiency targets.

5.1.7. Ryde Local Environmental Plan 2014

Zoning and Permissibility

The site is located within the B4 Mixed Use zone pursuant to the Ryde Local Environmental Plan 2014 (RLEP). An extract of the Land Zoning Map is included as Figure 7.



Pursuant to the Land Use Table of the RLEP residential accommodation is permitted with consent in the B4 zone. The application proposes residential apartments and is therefore permissible with consent.

Clause 2.3(2) of the Ryde LEP provides that the consent authority must have regard to the objectives for development in a zone when determining a development application in respect of land within the zone.

The objectives of the B4 Mixed Use zone are:

- To provide a mixture of compatible land uses.
- To integrate suitable business, office, residential, retail and other development in accessible locations so as to maximise public transport patronage and encourage walking and cycling.
- To create vibrant, active and safe communities and economically sound employment centres.
- To create safe and attractive environments for pedestrians.
- To recognise topography, landscape setting and unique location in design and land-use.

The proposed development provides for residential uses which are compatible with the broader mix of uses within the area and will not result in any conflict with the commercial uses intended in the area of the zone which is closer to the Meadowbank train station.

The site is located close to various transport methods including Meadowbank train station and ferry wharf which will assist in maximising public transport patronage and the development itself will encourage walking and cycling through the provision of through site links and a cycleway along Constitution Road. The pedestrian networks through the site will be well lit and benefit from a high level of passive surveillance which will ensure a safe and attractive environment for pedestrians. The proposed buildings are contained within the approved envelopes which are the result of a considered approach towards the unique topography of the site. For the reasons given the proposal is considered to be consistent with the objectives of the B4 zone.

Height of Buildings

In accordance with clause 4.3 'Height of Buildings' the height of a building on any land is not to exceed the maximum height shown for the land on the 'Height of Buildings Map'. The maximum height shown for the site is 15.5 metres and 21.5 metres as shown in Figure 8.

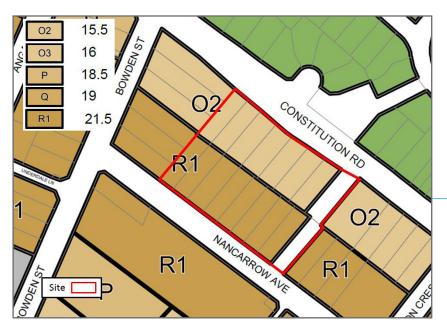


Figure 8:

Extract from RLEP 2014 height of buildings map

The proposed development does not comply with the 15.5 metre and 21.5 metre height limits under the RLEP 2014, however, the proposal is consistent with the specific heights provided for the site under the Concept Plan.

Clause 3B(2)(f) of Schedule 6A of the Environmental Planning and Assessment Act, 1979 applies to development for which a concept plan has been approved and provides that:

(f) the provisions of any environmental planning instrument or any development control plan do not have effect to the extent to which they are inconsistent with the terms of the approval of the concept plan

As the heights under the RLEP are inconsistent with the approved heights under the Concept Plan they have no effect.

Floor Space Ratio

Clause 4.4 of the RLEP 2014 provides that the maximum floor space ratio for a building on any land is not to exceed the floor space ratio shown for the land on the Floor Space Ratio Map.

The site is within an area that is identified as having an FSR of 2:1. The proposed development proposes a floor space ratio of 2.58:1 which exceeds the 2:1 control. However, the approved Concept Plan does not mandate any FSR or a cap on Gross Floor Area (other than non-residential floor space) and instead relies upon a cap of 2,005 apartments for the entire Concept Plan. The proposed development does not exceed the dwelling cap.

Clause 3B(2)(f) of Schedule 6A of the Environmental Planning and Assessment Act, 1979 applies to development for which a concept plan has been approved and provides that:

(f) the provisions of any environmental planning instrument or any development control plan do not have effect to the extent to which they are inconsistent with the terms of the approval of the concept plan

As the FSR control under the RLEP is inconsistent with the Concept Plan it has no effect.

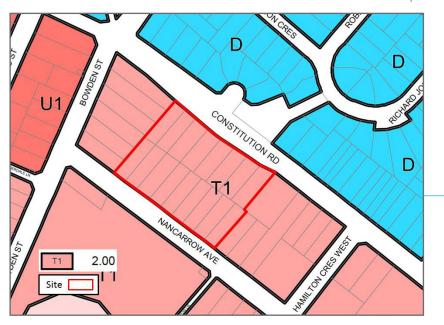


Figure 9:

Extract from Ryde LEP 2014 Floor Space Ratio map

Preservation of Trees or Vegetation

The proposal requires the removal of all of the trees on the site as well as the street trees adjacent to the site as detailed in the Arboricultural Impact Assessment and Addendum prepared by Redgum Arboricultual and Horticulture Consultants which accompanies the application. The development of the site will however involve the comprehensive landscaping of both the subject site and surrounding public domain in a coordinated and generous fashion as illustrated in the Landscape Plan prepared by Place Design which accompanies the application.

Heritage Conservation

The site is identified as a heritage item in Schedule 5 of the RLEP (item number I80 being the Former Automatic Totalisators Ltd Factory) as illustrated in Figure 10 below. In accordance with clause 5.10(2) of the RLEP development consent is required for demolition of a heritage item.

The Concept Plan approval considered the issue of demolition of this building and the Department's assessment report provides the following commentary in relation to the issue:

Council has not raised any objection to the proposed demolition of the heritage item. Rather, Council has previously recognised that the demolition of the factory at 37 Nancarrow Road is required to facilitate stormwater management upgrades and provide a safe overland flow path from Constitution Road to Parramatta River (as discussed in Section 5.6.1) On 7 August 2007 Council endorsed a Flood Management Strategy for the Ann Thorn Park catchment which included a requirement for the future demolition of the building and provision of an overland

flow path through the site. At the same time, the Council also recognised that there would be a need to document and display the heritage values of the existing building should redevelopment take place in the future.

The department considers that the safety benefits of the proposed stormwater management upgrades that will necessitate the demolition of the building outweigh the benefits to the community of retaining the heritage item. The department notes that this building has only been designed to cater for a 1 in 2 year ARI storm event, and therefore does not meet current minimum accepted safety standards.

However to mitigate against the impacts arising from the loss of the item, the following conservation measures are recommended as part of any assessment of Stage 6:

- a detailed heritage assessment of the site which includes a professionally written history of the site;
- full photographic record; and
- interpretation strategy to display the heritage values of the existing building on the newly developed site.

A Heritage Impact Statement, full photographic record and interpretation strategy have been prepared by Rappaport and these documents accompany the development application as required by clause 5.10(4) of the RLEP as well as the Concept Plan approval.



Acid Sulfate Soils

Clause 6.1 of the RLEP 2014 relates to acid sulfate soils. The objective of the clause is to ensure that development does not disturb, expose or drain acid sulfate soils and cause environmental damage.

Environmental Investigations have prepared an Environmental Site Assessment which accompanies

this application. The Assessment included a desktop analysis as well as 23 test boreholes across the site with multi-level soil sampling undertaken for laboratory analysis for relevant analytical parameters. The results of the soil sampling result in the conclusion that the majority of soils present at the site do not show the potential presence of acid sulphate soils, however, soils present within the drainage line within the centre of the site do indicate the potential for acid sulphate soils. The Assessment recommends the preparation of an Acid Sulphate Soils Management Plan for the removal of alluvial soils present within the drainage line at the centre of the site by a qualified environmental consultant, to enable appropriate offsite disposal. It is anticipated that this requirement can be adequately dealt with via a condition of consent.

Earthworks

Clause 6.2 of the RLEP relates to earthworks. The objective of the clause are to consider the following matters:

- (a) the likely disruption of, or any detrimental effect on, existing drainage patterns and soil stability in the locality,
- (b) the effect of the proposed development on the likely future use or redevelopment of the land,
- (c) the quality of the fill or the soil to be excavated, or both,
- (d) the effect of the proposed development on the existing and likely amenity of adjoining properties,
- (e) the source of any fill material and the destination of any excavated material,
- (f) the likelihood of disturbing relics,
- (g) the proximity to and potential for adverse impacts on any watercourse, drinking water catchment or environmentally sensitive area

The proposed earthworks will not result in any detrimental impact to drainage patterns as they include the upgrade of the existing stormwater pit and pipe network from Ann Thorn Park to the Shepherds Bay foreshore to convey the 100 year ARI flood including the provision of a landscaped overland flowpath from Constitution Road to the foreshore through the site.

The proposed earthworks will achieve a positive outcome for the area because they will achieve basement levels with minimal protrusion above finished ground level which will serve to reduce the apparent mass and scale of the development and provide an improved relationship between the buildings and surrounding public domain. The proposed earthworks will be undertaken only with the implementation of the appropriate environmental management measures to ensure that they do not result in adverse impact to the Parramatta River.

Flood Planning

Clause 6.3 of the RLEP applies to land at or below the flood planning level and provides that development consent must not be granted to development unless the consent authority is satisfied that the development is compatible with the flood hazard of the land, and is not likely to

significantly adversely affect flood behaviour to the detriment of other properties, and incorporates appropriate measures to manage risk of life from flood.

A Flood Assessment prepared by BG&E accompanies the proposal which provides an assessment of the flood risk on the site and to adjacent sites associated with the proposed development. The report concludes the following:

- The upgraded trunk stormwater drainage network is shown to convey the 100 year ARI flood from Ann Thorn Park to the foreshore. Flood depths in Ann Thorn Park are in the order of 1 m for the 100 year ARI flood, and 2 m for the PMF;
- Lowering Constitution Road and upgrading the trunk stormwater network reduces flood depths within Ann Thorn Park by approximately 2 m. This will reduce flood risk to properties surrounding Ann Thorn Park, and minimise the risk and consequence associated with embankment failure at Constitution Road;
- Under 100 year ARI design flood conditions the overland flowpath would only be subject to flows from direct rainfall and building runoff. Flood depths and velocities would be minor creating a low hazard zone. Should the underground pipe system become blocked, or be exceeded (events larger than 100 years ARI), significant flow could occur along the overland flowpath, creating a high hazard/risk zone;
- Flood depths in the order of 1 m could occur within the overland flowpath during the PMF. On-site refuge is available to habitable areas above PMF flood levels;
- Finished levels across the site are above the PMF flood level due to riverine flooding in Shepherds Bay (2.0 mAHD);
- The proposed development incorporates several landscaped open space areas, stormwater management measures and stormwater drainage upgrade works. The development is expected to reduce the risk of flooding within the site and improve the quality of stormwater runoff discharging to Shepherds Bay.

The floor levels within the proposed development and the vehicular and pedestrian entries/exits into the basement are above the 100 year ARI + freeboard levels as specified in the Flood Assessment. Overall, the proposed development provides a significant public benefit in relation to localised flooding in that it removes the risk of embankment failure which currently exists along Constitution Road which substantially improves the safety to surrounding properties and the public. In addition, the proposal upgrades of the existing stormwater pit and pipe network from Ann Thorn Park to the Shepherds Bay foreshore to convey the 100 year ARI flood including the provision of a landscaped overland flowpath from Nancarrow Road to the foreshore through the site.

Stormwater Management

Clause 6.4 of the RLEP seeks to minimise the impacts of urban stormwater on land to which this clause applies and on adjoining properties, native bushland and receiving waters. The subject

application is accompanied by a concept stormwater plan prepared by Harris Page & Associates including OSD details to address Council's stormwater management requirements.

5.2. Draft Environmental Planning Instruments

5.2.1. Draft State Environmental Planning Policy No. 65 - Design Quality of Environmental Planning Development (Amendment 3)

In accordance with section 79C(1)(a)(ii) of the Environmental Planning and Assessment Act 1979 any proposed instrument that is or has been the subject of public consultation is a relevant matter for consideration in the assessment of a development application.

Amendments to State Environmental Planning Policy No. 65 were on public exhibition from 23 September 2014 to 31 October 2014. The draft amendments are therefore a relevant matter for consideration.

All submissions received during the public exhibition period must now be considered and a report will be prepared with final recommendations. This report will then be put to the Minister for Planning for a decision. Any final changes will then be made to SEPP 65. Given the process which is to be followed, the draft SEPP cannot be considered 'certain and imminent'. Accordingly, the provisions of the SEPP and the Apartment Design Guide should not be given determining weight. Notwithstanding this the draft SEPP is a relevant matter for consideration. The proposed development is generally consistent with the amended provisions of the SEPP and the Apartment Design Guidelines.

5.3. Ryde Development Control Plan 2014

The following table outlines the proposed development's compliance with the relevant provisions of the Ryde Development Control Plan 2014 (Ryde DCP 2014).

5.3.1. Part 4.2 Shepherds Bay, Meadowbank

The following table summarises the proposal against the relevant controls contained in Part 4.2 of the Ryde DCP 2014:

Control	Comment
4.1 Development and the Public Domain	
Public Domain, Access and Pedestrian and C	yclist Amenity
The achievement of maximum heights and density is contingent on meeting the public domain provisions of this plan and all public domain items being provided by the proponent.	The proposed development provides all of the public domain upgrades surrounding the site as identified in the DCP and the Concept Plan.
New development must be provided with a minimum of one barrier free access point to the main entry.	The proposed development has a particularly high level of pedestrian permeability with multiple barrier free access points to the site.

Control	Comment
Publicly accessible pedestrian and cycle ways must be provided through large sites.	The proposed development includes three through-site links through the site as identified in the Concept Plan including a primary central pedestrian and cycle path.
New pedestrian and cycleway access points, gradients and linkages are to be designed to be fully accessible by all.	The through-site links are all designed to be fully accessible by all.
New roads, shared ways, pedestrian and cycle paths shall be provided in accordance with Figure 4.2.03.	The proposed development provides the shareways and pedestrian and cycle links identified in the Concept Plan. Whilst the DCP suggests a new road through the site, this is inconsistent with the approved Concept Plan and so has no effect.
The design of new roads, shared ways, footpaths and cycle paths shall be in accordance with Figure 4.2.03 to Figure 4.2.06.	The design of the new road, footway and cycle path is generally in accordance with the DCP requirements and critically a separated cycleway is provided along the southern side of Constitution Road as required by the DCP.
The design and location of vehicle access to developments should minimise conflicts between pedestrian and vehicles on footpaths, particularly along high volume pedestrian streets.	Each driveway crossing has been located at each end of the development on Nancarrow Avenue to minimise conflict between pedestrians and vehicles.
Service vehicle access is to be combined with parking access and limited to a maximum of one access point per building.	All vehicular entry into the site occurs from the one driveway into each building from Nancarrow Avenue.
Wherever practicable, vehicle access is to be a single crossing, perpendicular to the kerb alignment.	Vehicle access into each building is a single crossing.
Vehicle access ramps parallel to the street frontage will not be permitted.	There are no vehicle access ramps parallel to the street.
Vehicle entries are to have high quality finishes to walls and ceiling as well as high standard detailing. No service ducts or pipes are to be visible from the street.	It is intended that the walls of the vehicle entry and exit ramps will have high quality finishes and will not contain any service ducts or pipes.
The ground floor of all development is to be flush with the street footpath for the predominant level of the street frontage and at the main entry to the building.	There is a significant fall on the site, however, the ground floor of the buildings has been designed to relate as closely as possible to the footpath level and the buildings step up the site to ensure that apartment entries align with the pedestrian routes through the site where possible.

Control	Comment
Recesses for roller doors and fire escapes are to be wide and shallow to provide for personal security. Narrow, deep recesses are to be avoided.	The roller doors will be provided at the ends of the entrance driveway ramps which will enable a vehicle wishing to enter the basements to queue on the ramp rather than the road. The recesses that are provided will not affect the streetscape nor will they adversely affect the safety of any pedestrians.
Implementation - Infrastructure, Facilities and	d Public Domain Improvements
The public land such as the road verge adjoining a development site is to be embellished and if required dedicated to Council as part of any new development. The design and construction of the works are to be undertaken in accordance with section Figure 4.2.03 to 4.2.08.	The public domain surrounding the site will be significantly embellished as part of the development works. The proposal will introduce through-site links which will be available to the public via a right-of-way registered on title, rather than dedicated to Council. This is considered an superior outcome as it fulfils the requirement for public access without requiring the transfer of the asset to Council which will become a future maintenance burden for the Council.
Views & Vistas	
Panoramic views of Parramatta River are to be maintained from Faraday Park, Settlers Park, Anderson Park and Helene Park.	The development will not interfere with any views from the identified parks.
Development is to ensure that vistas towards Parramatta River are maintained.	Views of Parramatta River from the nearby residential flat buildings will not be affected by this development.
Development must reflect the topography of the area taking into consideration views from the Rhodes Peninsula, Railway Bridge and Ryde Bridge.	The development has reflected the topography of the area by stepping with the fall of the site and ensuring that the ground level is as close as possible to the street level. The development is consistent with the prescribed building envelopes in the approved Concept Plan which were determined to result in any acceptable view impact. The development will not adversely affect the views from the Rhodes Peninsula, Railway Bridge or Ryde Bridge.
Maintain views for pedestrians and cyclists along the public open space to the Parramatta River.	The development will not adversley affect the views for pedestrians and cyclists along the public open space adjacent to the Parramatta River.

Control	Comment
New buildings are to take into account the existing views on the subject site and adjoining sites.	The development is effectively at the top of the ridge and will not materially affects the views from adjacent properties.
Orientate new development to take advantage of water views and vistas.	The development has been designed to allow the upper floor apartments to obtain an outlook towards the Parramatta River.
New developments are not to materially compromise views of the northern ridgeline of Meadowbank.	As the development is consistent with the building envelopes approved under the Concept Plan, it will not unreasonably compromise views of the northern ridgeline of Meadowbank.
Landscaping & Open Space	
All development proposals are to be accompanied by a Landscape Plan prepared by a qualified and suitably experienced landscape architect. This is to include an Arborist report in respect of trees.	A Landscape plan has been prepared by Place Design and is submitted with the application for development. An arborist report is also included with respect to tree removal.
Roof gardens are encouraged and must be considered in any landscaping.	Two communal roof top gardens, one for each building, are proposed as part of the development.
All existing mature trees that enhance the quality of the area are to be retained.	The building envelopes approved under the Concept Plan as well as the public domain improvements require the removal of all trees. However, these will be replaced by a generous provision of coordinated landscaping as illustrated in the landscape plan prepared by Place Design which accompanies the subject application.
Provide adequate deep planting zones above car parking and other concrete and similar structures to allow sustainable planting.	The car parking levels for Building 6 extend underneath the 'U' for the above ground building. The area above this car park is to be extensively landscaped with substantial soil cover as illustrated in the landscape plan prepared by Place Design which accompanies the subject application.
Provide at ground floor level, where possible, open space for dwelling units and contiguous open garden areas to create common large landscaped space.	Open space is provided at ground level for dwellings which is contiguous with the open garden areas within the development and together provides a generously landscaped setting for the development.

Control	Comment
Where appropriate, developments should incorporate landscaping like planter boxes integrated into the upper levels of building to soften building form.	The proposed development incorporates planter boxes on the upper levels and in particular the roof top common open space areas, which serves to soften the building form.
Building setbacks are to allow for landscaping/ planting as in Section 4.2.2 Setbacks. For corner buildings a reduction of the landscape setback on one side will be considered on its merit.	Each street frontage of the site contains a landscaped perimeter consistent with the requirement of the control.
Where a proposal involves redevelopment of a site the developer shall arrange for electricity and telecommunications utilities to be undergrounded along the entire length of all street frontages.	The public domain improvements surrounding the site include the undergrounding of utilities. This issue can be addressed via a condition of consent.
Permeable landscape surface materials are to be maximised to allow maximum penetration of stormwater and urban runoff.	Permeable landscape surface materials have been maximised to allow maximum penetration of stormwater and urban runoff. A fundamental design component of the central through-site link is a dry creek bed to naturally convey overland flow through the site.
Street Furniture & Public Art	
All development proposals are to be accompanied by a landscape plan, prepared by a qualified and suitably experienced landscape architect, indicating how public domain improvements including paving, street furniture and lighting will be incorporated into the development. A Landscape plan has been prepared be Design and is submitted with the appropriate for development. The landscape plan illustration to integrate the proposal properly we surrounding footpaths.	
Public domain finishes including the style, colour and installation methods of street furniture, paving and street lighting shall be in accordance with Ryde Public Domain Technical Manual.	The specific detail of the public domain finish can be addressed via conditions of consent which identify what is required in respect of the public domain and require approval of the public domain plan prior to the issue of a Construction Certificate.

Control	Comment
Public art is to be provided in accordance with Council's Public Art Policy. Developers must examine opportunities to incorporate public art in both internal and external public spaces and indicate how public art will be incorporated into major developments.	The subject development application is accompanied by a Public Art Plan prepared by Black Beetle. The plan explores the opportunities, processes and integration of artworks as part of the proposed development and outlines aims and objectives of Public artwork in relation to this development, thematic framework for developing artworks, and locations and concepts for site specific works within the development. The plan initiates a documentation process which will take the identified artworks through design briefs, design development, fabrication and installation.
Safety	
Public spaces need to be designed to meet Crime Prevention Through Environmental Design (CPTED) Principles.	The proposed through site pedestrian links will be appropriately lit and will be subject to a high level of passive surveillance as apartments face each link.
Open sightlines and landscaping needs to be provided that allows for high levels of public surveillance by residents and visitors.	The landscaping along the street frontages and within the development will not obscure sight lines from, towards or within the development. In addition, the design also allows for passive surveillance from the apartments to the public spaces by residents and visitors.
Lighting is to be provided to all pedestrian ways, building entries, corridors, laundries, lifts, stairwells, driveways and car parks to ensure a high level of safety and security for residents and visitors at night.	This matter can be addressed as a condition on the consent.
4.2 -Architectural Characteristics	
Height	
The maximum building height is to comply with the heights shown in DLEP 2014. Buildings must comply with the maximum number of storeys shown in Figure 4.2.1 0.	The issue of height has already been addressed in this report. The DCP identifies a height of 5 storeys for the upper portion and 6 storeys for the lower portion of the site. The heights of the proposed development are consistent with the approved Concept Plan and the DCP height provisions have no effect due to their inconsistency with the approved Concept Plan.
The ground floor height shall be four metres floor regardless of use.	The ground floor heights are not required to be four metres under the Concept Plan.

Control	Comment	
Any car parking above ground will have a minimum three metres (floor to underside ceiling) to allow for potential future conversion.	There is no proposed above ground car parking. All car parking levels do not exceed greater than 1 metre above finished ground level.	
Setbacks		
Setbacks must be consistent with the setback map. New development is to have 4 metre setback from Nancarrow Avenue and 6 metre setback from Constitution Road.	The proposal provides a 4 metre setback from Nancarrow Avenue and 6 metre setback from Constitution Road.	
Setbacks for buildings of four storeys and above to be consistent with Figure 4.2.13.	Figure 4.2.13 relates to Church Street and Porter Street and is not relevant to the subject site.	
Roof Form		
Buildings below RL 15 must have articulated roofs as they will be viewed from buildings above.	This is not applicable to the development as the building is not below RL 15.	
The use of solar panels on roofs is permitted where possible.	The application does not include the provision for the installation of solar roof panels.	
Attic roofs are to be avoided as they are not in character with the locale.	Attic roofs are not proposed.	
Building Facades and Articulation		
Building facades should be articulated within a 3 metre zone to provide entries, external balconies, porches, glazed balcony enclosures, terraces, verandahs, sun shading elements etc.	The proposed building is highly articulated with a variety of balconies, terraces, sunshading elements etc providing modulation and visual interest for the building facades.	
Penthouses should be set a minimum of four metres from any building facade.	The development does not involve an penthouses.	
Articulate buildings to respond to orientation, views, acoustic requirements, street widths and the relationship of the building to external garden spaces.	The building has been designed and orientated to take advantage of northerly aspect for solar access and views to the south-east.	
Articulate buildings vertically and horizontally: materials and building setbacks on the upper storeys are to be used to reduce the perceived bulk of buildings.	incorporates a horizontal emphasis at the lower	
Provide and denote entries along street frontages and public domain spaces where appropriate.	Entries are clearly identifiable from the public domain.	

Control	Comment	
Buildings are to address streets, open spaces and the river foreshore. Street frontages are to be parallel with or aligned to the street alignment.	The proposed development addresses each street frontage with lobby entries from both Constitution Road and Nancarrow Avenue and individual apartment entries from the throughsite links. Street frontages are parallel with each street alignment.	
Provide balconies and terraces, particularly where buildings overlook public spaces.	Each apartment has been provided with a terrace or a balcony.	
All facades visible from the public domain are to be durable, low maintenance and of high quality.	All facades are proposed to be finished in durable yet high quality materials and finishes as illustrated in the architectural package.	
External glass to be non-reflective and have a maximum 20% tint.	This matter can be addressed via a condition of consent.	
Private and Communal Open Space		
No more than 50% of communal open space provides at ground level shall be paved or of other non-permeable materials.		
Residential Amenity		
Apartments below a sloping ground level shall apply the SEPP 65 guideline for lightwells.	There are no apartments below ground level.	
4.3 - Ecological Sustainability		
Energy Efficient Design		
Residential development must be designed in accordance with principle outlined in the Building Sustainability Index (BASIX)		
Noise and Vibration Attenuation		
New residential developments, including those within a mixed use building, are required to consider noise attenuation and acoustic treatment in their design.	The site is not within a location which is subject to high levels of noise such as an arterial road. Notwithstanding this, an acoustic report accompanies this application and outlines measures to be employed to ensure that a suitable acoustic environment is achieved for the apartments.	

Control	Comment
New units are to be constructed in accordance with AS 3671-1989 and AS 3671-1987.	The Australian Standard refers to road traffic noise intrusion - building siting and construction. The development is capable of complying with these Australian Standards and a condition of consent can be imposed to address this matter.
4.4 Parking Access and Loading	
All new buildings are required to provide on-site loading and unloading facilities. Loading docks shall be located in such a position that vehicles do not stand on any public road, footway, laneway or service road and vehicles entering and leaving the site move in a forward direction.	The proposed development does not incorporate any non-residential component which require a dedicated loading dock. Waste collection is intended to occur from a dedicated on street loading bay in Nancarrow Avenue.
Flooding and Stormwater Drainage	
Development must comply with Part 8.6 Floodplain Management of this DCP.	A Flood Assessment prepared by BG&E accompanies the proposal which provides an assessment of the flood risk on the site and to adjacent sites associated with the proposed development. The proposed development reduces flood risk to surrounding properties as it includes the lowering of Constitution Road. The floor levels within the development comply with the specified floor levels provided in the Flood Assessment.
Precinct Specific Development Controls - Precinct	2: Constitution Road
Views from the highest point in this precinct to the south-west and Sydney Olympic Park should be maximised	The proposed buildings are contained within the building envelopes approved under the Concept Plan. The design of the development provides view corridors throughout the site from Constitution Road to the south-west.
Minimum permeable landscaped area is to be 35% of site area.	The proposal provides 2,066 square metres or 37.6% of the site as permeable landscaped area.
Facades should be articulated within a zone of 3 metres and be built to street edge behind the required landscape setback.	Facades are proposed to be built to the street edge behind the 6 metre setback from Constitution Road and 4 metre setback from Nancarrow Avenue. The facades are highly articulated with a variety of balconies, terraces, sunshading elements etc providing modulation and visual interest for the building facades.

5.3.2. Part 7.1 Environment

Part 7.1 of the City of Ryde DCP 2014 relates to provision of sustainable development throughout the City of Ryde. Objectives include encouraging the design of energy efficient buildings, optimising solar access, decreasing total energy consumption and generally to reduce green house gas emissions and natural resource consumption.

A BASIX Certificate for the proposed development from Integreco accompanies the application which details the measures which will be implemented to minimise energy consumption and demonstrate how the intent of the DCP in relation to energy efficiency has been met. In addition, an ESD statement from Integreco also accompanies the application which demonstrates the incorporation of ESD principles in the design, construction and ongoing operation phases of the development, in accordance with the base targets within ESD Guidelines Report prepared by Ecospecifier Consulting dated October 2010 as required by the approved Concept Plan.

5.3.3. Part 7.2 Waste Minimisation and Management

Part 7.2 of the City of Ryde DCP 2014 relates to waste minimisation and management during construction and the continued operation of proposed development. Objectives include minimising resource requirements and construction waste, maximising recycling and re-use opportunities and to minimise overall environmental impacts.

A Waste Management Plan prepared by Elephants Foot accompanies this application and addresses the objectives for Waste Minimisation and Management as set out within this Part.

The proposed development provides adequate space for the sorting and storage of waste receptacles within the basement area.

5.3.4. Part 8.1 Construction Activities

Part 8.1 of the City of Ryde DCP 2014 includes objectives which encourage consideration of Ecologically Sustainable Development and site management as well as those related to protection of the environment and local amenity during construction.

An Erosion and Sediment Control Plan has been prepared and has considered the provisions within clause 2.1.2 with regard to the proposed development. Site clearing, demolition activities, water diversion, gutter bunding, signage, amenities, vehicle access, road cleaning and safety can be adequately addressed within a Construction Management Plan and dealt with by way of appropriate conditions of consent.

5.3.5. Part 8.2 Stormwater Management

Part 8.2 of the City of Ryde DCP 2014 includes provisions relating to the management of stormwater associated with development. The subject application is accompanied by a concept stormwater plan prepared by Harris Page & Associates including OSD details to address Council's stormwater management requirements.

5.3.6. Part 8.3 Driveways

Part 8.3 of the City of Ryde DCP 2014 includes specific provisions concerning the design of

driveways. The proposed development is capable of meeting these requirements.

5.3.7. Part 8.4 Title Encumbrances

Part 8.4 of the City of Ryde DCP 2014 includes specific provisions concerning title encumbrances. The proposed three through-site links are designed to provide public access from Constitution Road to Nancarrow Avenue and it is expected that Council will impose a condition of consent requiring the registration of a right of way created under Section 181A of the Conveyancing Act 1919 and registered on the title of the property at completion of the development.

5.3.8. Part 8.5 Public Civil Works

Part 8.5 of the City of Ryde DCP 2014 includes specific provisions concerning design and construction standards in relation to public domain elements such as footpaths, public roads, and kerb and gutter. The proposal is accompanied by a Civil Package prepared by BG&E as well as a landscape plan prepared by Place Design which illustrate the intended design and treatment of the public civil works associated with the proposed development. The public civil works have been designed having regard to the provisions of Part 8.5 of the DCP.

5.3.9. Part 8.6 Floodplain management

Part 8.6 of the City of Ryde DCP 2014 includes specific provisions to guide development to ensure danger to life and property damage associated with flooding and overland flow are minimised in a manner consistent with the Policies of Council formulated under the NSW Flood Policy and Floodplain Development Manual (FDM).

A Flood Assessment prepared by BG&E accompanies the proposal which provides an assessment of the flood risk on the site and to adjacent sites associated with the proposed development. The report concludes that the Lowering Constitution Road and upgrading the trunk stormwater network through the site will reduce flood risk to properties surrounding Ann Thorn Park, and minimise the risk and consequence associated with embankment failure at Constitution Road. The development is expected to reduce the risk of flooding within the site and improve the quality of stormwater runoff discharging to Shepherds Bay.

The floor levels within the proposed development and the vehicular and pedestrian entries/exits into the basement are above the 100 year ARI + freeboard levels as specified in the Flood Assessment. Overall, the proposed development provides a significant public benefit in relation to localised flooding in that it removes the risk of embankment failure which currently exists along Constitution Road which substantially improves the safety to surrounding properties and the public.

5.3.10. Part 9.2 Access for People with Disabilities

The DCP requires that the residential flat buildings must provide an accessible path of travel to all units as well as the provision of 10% adaptable units. The application is accompanied by an Access Report prepared by Design Confidence which demonstrates that the development will comply with the access requirements as well as providing 10% adaptable apartments.

5.3.11. Part 9.3 Parking Control

The Car Parking DCP requires parking to be provided at the following rates for the residential component:

- 0.6 to 1 space per one bedroom dwelling
- 0.9 to 1.2 spaces per two bedroom dwelling
- 1.4 to 1.6 spaces per three bedroom dwelling
- 1 visitor space per 5 dwellings.

The car parking figures for each stage are provided below:

Stage 6	Lower Limit	Upper Limit
75 x 1 bedroom	45	75
108 x 2 bedroom	98	130
19 x 3 bedroom	27	31
visitor	41	
TOTAL	211	277

Stage 7	Lower Limit	Upper Limit
59 x 1 bedroom	36	59
40 x 2 bedroom	36	48
10 x 3 bedroom	14	16
visitor	22	
TOTAL	108	145

The proposed development provides a total 277 car spaces comprised 236 residential car spaces and 41 visitor spaces for Stage 6 and a total 145 car spaces comprised 123 residential car spaces and 22 visitor spaces for Stage 7 which complies with the DCP car parking control.

5.3.12. Part 9.5 Tree Preservation

Part 9.5 of the City of Ryde DCP 2014 includes specific provisions concerning the retention and protection of trees. The proposal requires the removal of all of the trees on the site as well as the street trees adjacent to the site as detailed in the Arboricultural Impact Assessment and Addendum prepared by Redgum Arboricultual and Horticulture Consultants which accompanies the application. The development of the site will however involve the comprehensive landscaping of both the subject site and surrounding public domain in a coordinated and generous fashion as illustrated in the Landscape Plan prepared by Place Design which accompanies the application.

The following matters are to be taken into consideration when assessing an application pursuant to section 79C of the Environmental Planning and Assessment Act 1979. Guidelines to help identify the issues to be considered have been prepared by the Department of Urban Affairs and Planning and are included below.

6.1. The provisions of any planning instrument, draft environmental planning instrument, development control plan or regulations

The proposal is permissible pursuant to the Ryde Local Environmental Plan 2014 (RLEP) and is generally in conformity with the general and specific development type controls contained within the Ryde Development Control Plan 2014 where those controls are not inconsistent with the approved Concept Plan. The proposed development is generally consistent with the approved Concept Plan for the site and in particular the proposed buildings are consistent with the established arrangement and scale of building of the Concept Plan.

6.2. The likely impacts of that development, including environmental impacts on both the natural and built environments, and social and economic impacts in the locality

6.2.1. Context and Setting

What is the relationship to the region and local context in terms of:

- · the scenic qualities and features of the landscape?
- the character and amenity of the locality and streetscape?
- the scale, bulk, height, mass, form, character, density and design of development in the locality?
- the previous and existing land uses and activities in the locality?

The surrounding area is currently undergoing significant change with the demolition of many of the former industrial warehouse developments and the construction of mixed use and residential developments. This change in context is reflective of the subject site and surrounding area being zoned for mixed use. The proposed development is responsive to the emerging context for the area and represents the anticipated future development within the area.

The siting, scale, bulk, height, massing etc for the site has already been determined by the approved Concept Plan and the proposed buildings represent an appropriately designed development within the parameters of the Concept Plan.

What are the potential impacts on adjacent properties in terms of:

- relationship and compatibility of adjacent land uses?
- sunlight access (overshadowing)?
- visual and acoustic privacy?
- views and vistas?
- edge conditions such as boundary treatments and fencing?

The proposed development provides for buildings within the approved Concept Plan envelopes

and issues such as compatibility with adjacent uses, view impacts and overshadowing have already been considered. The proposed development incorporates appropriate design elements to ameliorate potential amenity impacts, and in particular visual and acoustic privacy within the development and particular care has been given to dealing with corner interfaces within the buildings. Edge conditions respond to the requirements of the Concept Plan to provide generously landscaped setbacks and through-site links and the ground floor plane has been designed to relate to the context around each building.

6.2.2. Built Environment

The siting, scale, bulk, height, massing etc for the site has already been determined by the approved Concept Plan. The proposed buildings are generally contained within the envelopes and have been designed to provide a unique architectural expression which references to historical industrial use of the use.

Internal amenity has been maximised with solar access achieved for 70.7% of apartments and cross ventilation achieved for 63% of the apartments, utilising the method for additional amenity provided by the Concept Plan. Privacy between buildings is acceptable as the separation distances exceed the minimum recommended distances in the Residential Flat Design Code. Privacy within the buildings is achieved through careful consideration of placement of balconies, the use of blade walls and notches in the buildings, and separation of living rooms and bedrooms in adjacent apartments.

The proposed development introduces a variety of building elements and utilises a visually engaging architectural language with a selection of appropriate materials and finishes. The proposed built form and composition of the new buildings respond to the emerging character of the area and therefore provides a positive contribution to the visual quality of Ryde.

The proposed development also includes a heritage interpretation strategy to celebrate the existing building which occupies the site as well as the provision of public art throughout the site.

6.2.3. Natural Environment

There is no significant flora or fauna which currently occupies the site. The proposed development requires the removal of all trees within and adjacent to the site in order to construct the buildings and implement the public domain and infrastructure upgrades. However, the redevelopment of the site will incorporate a generous landscaping provision with a variety of landscape elements which will significantly enhance the natural environment of the site. The new landscaping incorporates best practice water management and will create a desirable microclimate for residents and pedestrians passing through the site.

The proposed development incorporates a range of sustainability measures as outlined in the ESD statement prepared by Integreco which accompanies this application.

6.2.4. Access, transport and traffic

Would the development provide accessibility and transport management measures for vehicles, pedestrians, bicycles and the disabled within the development and locality, and what

impacts would occur on:

- travel demand?
- dependency on motor vehicles?
- traffic generation and the capacity of the local and arterial road network?
- public transport availability and use (including freight rail where relevant)?
- conflicts within and between transport modes?
- traffic management schemes?
- vehicular parking spaces?

The issue of car parking and traffic impacts associated with the proposal were closely examined during consideration of the Concept Plan which resulted in a cap on total car parking within the Concept Plan and road infrastructure upgrades necessary to ensure the acceptable performance of the local road network. The proposed development provides car parking within the range specified in Council's DCP, incorporates road infrastructure improvements including the signalisation of the intersection of Constitution Road and Bowden Street, and does not exceed the maximum cap on car parking for the Concept Plan area. In addition, the proposed development incorporates pedestrian and cycleways to maximise use of alternative forms of transport and the application is accompanied by a sustainable travel plan which outlines measures to maximum the patronage of the various public transport opportunities which are in close proximity to the site.

6.2.5. **Public domain**

The proposal includes the provision of a range of significant public domain and infrastructure upgrades including the lowering of Constitution Road to minimise the risk of embankment failure, upgrade of the existing stormwater pit and pipe network from Ann Thorn Park to the Shepherds Bay foreshore including the provision of a landscaped overland flowpath from Constitution Road to the foreshore through the site, signalisation of Constitution Road and Bowden Street intersection, and the upgrade of the road reserves adjacent to the development including landscaping, street trees, accessible pedestrian pathways, street lighting, cycle ways on Constitution Road and Nancarrow Avenue, and the upgrade of the longitudinal pit and pipe network along Constitution Road and Nancarrow Avenue to capture and convey the 20 year ARI flood.

The property's presentation in a streetscape context will be significantly enhanced as a consequence of the proposed works which will achieve progress on a site which has been dormant for many decades.

Utilities 6.2.6.

Existing utility services will adequately service the development.

6.2.7. Waste collection

A Waste Management Plan prepared by Elephants Foot accompanies this application and addresses Council's objectives for Waste Minimisation and Management. The proposed development provides adequate space for the sorting and storage of waste receptacles within the basement area.

6.2.8. Natural hazards

The site is not affected by any known hazards other than flood waters from Ann Thorp Park which will be substantially resolved as part of the proposed development.

6.2.9. Economic impact in the locality

The proposed development will provide temporary employment through the construction of the development. The proposal will introduce an increased residential population which will contribute to the economic success of surrounding retail and business activities.

6.2.10. Site design and internal design

Is the development design sensitive to environmental conditions and site attributes including:

- size, shape and design of allotments?
- the proportion of site covered by buildings?
- the position of buildings?
- the size (bulk, height, mass), form, appearance and design of buildings?
- the amount, location, design, use and management of private and communal open space?
- landscaping?

The impact of the proposal with respect to design and site planning is positive. The scale of the development is appropriate given the proposal is consistent with the scale and density provided for the site under the Concept Plan. The design outcome will contribute positively to the built form quality of the housing stock located in the Shepherds Bay Precinct and greater Ryde area.

How would the development affect the health and safety of the occupants in terms of:

- lighting, ventilation and insulation?
- building fire risk prevention and suppression/
- building materials and finishes?
- a common wall structure and design?
- access and facilities for the disabled?
- likely compliance with the Building Code of Australia?

The proposal complies with the relevant standards pertaining to health and safety and will not have any detrimental effect on workers or the general public.

6.2.11. Construction

What would be the impacts of construction activities in terms of:

- the environmental planning issues listed above?
- site safety?

The proposed works will be carried out in accordance with the provisions of the Protection of the Environment Operations Act 1997. Normal site safety measures and procedures will ensure that no site safety or environmental impacts will arise during construction.

6.3. The suitability of the site for the development

Does the proposal fit in the locality?

- are the constraints posed by adjacent developments prohibitive?
- would development lead to unmanageable transport demands and are there adequate transport facilities in the area?
- are utilities and services available to the site adequate for the development?

The adjacent development does not impose any insurmountable development constraints. There will be no excessive levels of transport demand created.

Are the site attributes conducive to development?

The site does not have any physical or engineering constraints which would prevent the proposed early works from occurring. The site is not subject to any geotechnical or contamination constraints which would prevent the development from occurring and the proposal will assist in resolving a known public flood risk and potential for embankment failure along Constitution Road.

6.4. Any submissions received in accordance with this Act or the regulations

It is envisaged that any submissions made in relation to the proposed development will be appropriately assessed by Council.

6.5. The public interest

The proposed development will provide a positive contribution to the streetscape of Constitution Road and Nancarrow Avenue. The development has been carefully designed to be compatible with the emerging pattern and character of development in the area. The development maximises internal amenity for future occupants. The proposal is also consistent with the objectives of the relevant planning provisions and the design parameters provided by the approved Concept Plan. Finally, the proposal will resolve a long standing public flood risk and potential for embankment failure along Constitution Road as well as delivering substantial upgrades to the public domain and introducing publicly accessible links through the site. For these reasons the approval of the development is considered to be in the public interest.

7.0 CONCLUSION

The relevant matters for consideration under section 79C of the Environmental Planning and Assessment Act 1979 have been addressed in this report and the proposed development has been found to be consistent with the objectives of all relevant planning provisions.

Careful consideration has been given to the location, size and design of the proposed development to ensure that a high quality outcome will be achieved which is consistent with the emerging character of the Shepherds Bay area.

The proposed development is consistent with the approved Concept Pan and complies with the intent of the applicable built form controls and responds positively to the particular site circumstances, without adverse impact to the amenity of adjoining development generally. The proposed development delivers substantial public benefits and resolves the existing flooding issues and risk of embankment failure along Constitution Road.

For reasons outlined in this Statement of Environmental Effects the proposed development for Stages 6 and 7 at 37-53 Nancarrow Avenue, Ryde should be granted development consent.

SUTHERLAND & ASSOCIATES PLANNING

APPENDIX A

CONSISTENCY WITH CONCEPT PLAN MP09_0216



Sutherland & Associates Planning

Condition **Proposal** SCHEDULE 2 PART A-ADMINISTRATIVE CONDITIONS **Development Description** The proposal is for demolition A1 Concept approval is granted to the development as described of existing buildings on the below: site and new buildings, Use of the site for a mixed use development including residential, landscaping and public domain retail, commercial and community uses incorporating: and infrastructure works to in • building envelopes for 12 buildings incorporating basement accordance with the approved level parking; Concept Plan. infrastructure works to support the development including: upgrades to the local road network; stormwater infrastructure works; publically accessible open space and through site links; and pedestrian and cycle pathways.

MOD 1

- amendment to Building Storeys Plan to allow for additional storeys at ground level in Stages 1 to 3;
- expand/connect the basement building envelopes between Stage 2 and 3 and Stage 4 and 5;
- · revision to the construction staging;
- revised timing of the delivery of the open space to be in conjunction with Stage 3 (rather than Stage 1);
- provision of an additional storey to provide a 6 storey element to the building on the corner of Belmore Street and Constitution Road:
- flexible application of the solar access requirement of the RFDC;
- · amendment of ESD measures; and
- amendments to terms of approval, future environmental assessment requirements and Statement of Commitments.

DEVELOPMENT IN ACCORDANCE WITH THE PLANS AND DOCUMENTATION

A2 The development shall be undertaken generally in accordance with MP09_0216, as modified by MP09_0216 MOD1, and:

- the Environmental Assessment dated 7 January 2011 prepared by Robertson + Marks Architects and PLACE Design Group, except where amended by the Preferred Project Report dated July 2012, including all associated documents and reports;
- the S75W Modification Application dated November 2013 prepared by Robertson + Marks Architects and City Plan Services including all documents and reports, except where amended by the:
 - Response to Submissions report dated 28 March 2014 prepared by City Plan Services; and
 - Proponents Comments in Response to Council's Submission dated 29 April 2014 prepared by City Plan Services.

The proposal is for demolition of existing buildings on the site and new buildings, landscaping and public domain and infrastructure works in accordance with the approved Concept Plan.

The proposed buildings are generally contained within the approved building envelopes in both plan and elevation. Any encroachments are particularly minor, are more than balanced by parts of the buildings which are well inside the envelopes and do not compromise the appropriate characterisation

statement of environmental effects - 37-53 Nancarrow Road, Ryde

- the Draft Statement of Commitments prepared by Robertson + Marks Architects updated on 5 October 2012, except where amended by the Revised Draft Statement of Commitments prepared by Holdmark dated March 2014; and
- the following drawings:

of the proposed development as being 'generally in accordance with' the approved envelope.

Drawings Prepared by Robertson & Marks Architects		
Drawing No	Name of Plan	Date
FIGURE 11 REV 2	PREFERRED CONCEPT PLAN	July 2012
PPR 001-D	MAXIMUM HEIGHT WITH SETBACKS	02/11/13
PPR 007-E	INDICATIVE STAGING	09/24/13
S 001/B	SLOPES ON SITE	03/25/2014
FIGURE 14 REV 4	STAGE 1 BUILDING ENVELOPE CONTROLS	28/06/2012
FIGURE 15 REV 4	STAGE 2 BUILDING ENVELOPE CONTROLS	01/18/12
FIGURE 16 REV 4	STAGE 3 BUILDING ENVELOPE CONTROLS	01/18/12
FIGURE 17 REV 4	STAGE 4 BUILDING ENVELOPE CONTROLS	01/18/12
FIGURE 18 REV 4	STAGE 5 BUILDING ENVELOPE CONTROLS	01/18/12
FIGURE 19 REV 4	STAGE 6 BUILDING ENVELOPE CONTROLS	01/18/12
FIGURE 20 REV 4	STAGE 7 BUILDING ENVELOPE CONTROLS	01/18/12
FIGURE 21 REV 4	STAGE 8 BUILDING ENVELOPE CONTROLS	01/18/12
FIGURE 22 REV 4	STAGE 9 BUILDING ENVELOPE CONTROLS	01/18/12
FIGURE 23 REV 4	STAGE 10 BUILDING ENVELOPE CONTROLS	01/18/12
FIGURE 29 REV 2	LANDSCAPE PLAN	July 2012
FIGURE 30 REV 2	VEHICULAR ACCESS AND PUBLIC TRANSPORT PLAN	July 2012
SK01 REV E	PEDESTRIAN AND CYCLEWAY ROUTES	18 Jur 2013
FIGURE 32A REV 2	INDICATIVE ACCESSIBLE CIRCULATION PLAN	July 2012
FIGURE 33 REV 2	INDICATIVE COMMUNITY, RETAIL 7 / OR COMMERCIAL USES LOCATION MAP	July 2012
FIGURE 50 REV 1	CONCEPT PLAN LANDSCAPE PLAN	28/07/2014
PPR 003-5	OPEN SPACE AREA PLAN	11/01/13

except for as modified by the following pursuant to Section 75O(4) of the Act.

Inconsistencies Between Documentation

A3 In the event of any inconsistency between modifications of the Concept Plan approval identified in this approval and the drawings/documents including Statement of Commitments referred to above, the modifications of the Concept Plan shall prevail.

Noted.

Building Envelopes

A4 Building footprints and setbacks are to be generally consistent with the Concept Plan building envelope parameter diagrams for each site, except where amended by the Modifications in Part B of this Approval.

The proposed building footprints and setbacks are generally consistent with the Concept Plan building envelope parameter diagrams. in both plan and elevation.

The approved building envelope control plan provides the following definition for pop-ups: "POPUP'S - 60% FOOTPRINT OF THE TYPICAL FLOOR PLATE BELOW". There are no prescribed setbacks from the edge of the floor below on the approved plans which dictate the configuration and layout of the pop-ups. The proposed development introduces a two storey warehouse saw-tooth expression to the top of the building to satisfy the popup requirement. This provides a distinctive character to the buildings which references the historical industrial use within the area and generates a high level of visual interest. The repetitive saw-tooth design also provides a high level of environmental performance for the top two floors by allowing generous natural light and ventilation to move around the floors.

The floor area for the top two floors do not exceed 60% of the footprint of the typical floor of the building when considered in the aggregate, as illustrated in the architectural package and in particular the plan titled 'Envelope Comparison Diagrams Pop-Up Analysis'. Accordingly, the proposed approach towards the pop-up controls is considered to be generally consistent with the provisions of the Concept Plan whilst achieving a high quality urban form outcome.

Maximum Gross Floor Area (GFA)

- A5 1. The maximum GFA for commercial, retail or community uses shall not exceed 10,000m2.
 - 2. The maximum number of dwellings shall not exceed 2,005

A tally is provided at Section 4.17 of this Statement which illustrates that proposal will not exceed the maximum number of dwellings of 2,005.

Publicly Accessible Open Space, Drainage Reserves and **Through Site Links**

A6 All public open spaces, drainage reserves and through site links shall be publicly accessible and maintained in private ownership by the future body corporate unless otherwise agreed by the Council. The proposal provides all three through-site links through the site as required by the Concept Plan. A condition of consent is anticipated which will require the registration of an easement over these links which will also be maintained in private ownership.

Lapsing of Approval

A7 Approval of the Concept Plan shall lapse 5 years after the determination date shown on this Instrument of Approval, unless an application is submitted to carry out a project or development for which concept approval has been given.

The subject development application has been lodged within 5 years of the date of approval of 6 March 2013.

SCHEDULE 2 TERMS OF APPROVAL PART B - MODIFICATIONS

Amended Concept Plan

- B1 The Concept Plan shall be amended to:
- (a) comply with the modified maximum heights (as per plans in Schedule 5), setbacks etc. under this approval and the project application approval for Stage 1 (MP09_0219). The maximum building height applies to either the number of storeys or RL levels, whichever is the lower;
- (b) provide at least one contiguous open space, of a minimum of 3,000m2, to accommodate both active and passive recreational needs. The open space shall include deep soil area and receive a minimum of 2 hours of sunlight to a minimum of 50% of the area on 21 June;
- (c) provide a public domain plan which illustrates the proposed public domain treatment including streets and setback areas, landscaping, lighting and public and communal open spaces and which is in accordance with Ryde City Council's Public Domain Technical Manual;
- (d) increase the width of the proposed through site links/view corridors to a minimum width of 20m;
- (e) provide an integrated water sensitive urban design (WSUD) strategy for the entire site; and
- (f) include a pedestrian and cycleways plan that demonstrates that the proposed routes are both viable and integrated with Council's plans for the surrounding area. The amended concept plan, demonstrating compliance with these modifications shall be submitted to, and approved by, the Director General prior to the issue of the first construction certificate.

requirements of this condition has been previously satisfied as confirmed by the Department in their letter dated 24/6/2013 and signed by Ben Lusher, Acting Director Metropolitan & Regional Projects, South. The proposed development is consistent with the relevant elements of this condition and in particular provides a 20m wide throughsite link through the site.

Amended Foreshore Link

B1A. The delivery of the foreshore link shall be split between Stage 1 and Stage 2 in accordance with the Response to Submissions prepared by City Plan Services for MP09_0216 MOD1 dated 29 April 2014

Not applicable to the subject Stages.

Sustainable Travel Plan

B2 Prior to issue of an Occupation Certificate for Stage 1 or prior to the submission of a Development Application for future stages (whichever occurs first), a Sustainable Travel Plan for the Concept Plan site shall be submitted to and approved by the Council. Options for provision of a Car Sharing Scheme for the site are to be explored and incorporated into the Sustainable Travel Plan as is a Parking Management Strategy.

A Sustainable Travel Plan prepared by Road Delay Solutions Pty Ltd accompanies this development application.

Amended Maximum Number of Storeys Above Ground Level (Finished) Plan

B3 The plan entitled Indicative Concept Plan Storeys Plan shall be amended to:

(a) Change the title to "Maximum Number of Storeys Above Ground Level (Finished) Plan', and

The amended plan, demonstrating compliance with these modifications shall be submitted to, and approved by, the Secretary within 1 month of the date of this approval.

The requirements of this condition has been satisfied and the proposal complies with the maximum number of storeys above finished ground level.

SCHEDULE 3 FUTURE ENVIRONMENTAL ASSESSMENT REQUIREMENTS

Design Excellence

1. Future Development Application/s for Stage A (the signature building fronting Church Street) shall demonstrate design excellence in accordance with the Director General's Design Excellence Guidelines.

Not applicable to the subject Stages.

Dwelling Cap

1A. Future Development Applications shall provide for a total number of dwellings up to a maximum of 2,005 across the Concept Plan site (including Stage 1). Future Development Applications shall include a projected dwelling forecast for each remaining stage demonstrating that the total dwelling numbers will adhere to the dwelling cap.

A tally is provided at Section 4.17 of this Statement which illustrates that proposal will not exceed the maximum number of dwellings of 2,005.

2. Future Development Applications shall demonstrate that the development achieves a high standard of architectural design incorporating a high level of modulation / articulation of the building and a range of high quality materials and finishes.

The architectural package which accompanies this application demonstrates a high standard of architectural design with a varied composition to the facades, high level of articulation, and a range of high quality and materials.

Built Form

- 3. Notwithstanding the approved maximum building heights in RL, future Development Applications shall demonstrate that:
- (a) buildings along Constitution Road are a maximum of 5 storeys with the exception of the element of Stage 4 located on the corner of Constitution Road and Belmore Street (as shown on PPR 002-
- B), which is permitted to a maximum of 6 storeys; and
- (b) the southern building element of Stage 8 is a maximum of 5 storeys $\,$

The proposed development provides 5 storey buildings adjacent to Constitution Road.

Maximum Storeys on Steeply Sloping Topography

3A. Future Development Applications shall satisfy the 'Maximum Number of Storeys Above Ground Level (Finished) Plan'. An exception to the maximum storey height may be given to buildings within Stages 2 and 3 on steeply sloping topography (being at the locations indicated on drawing S 001/B not including the area shown within Stage 4) where it can be demonstrated that:

- a) the overall building height satisfies the maximum permitted RL;
- b) no more than 1 additional storey is provided;
- c) an acceptable level of amenity can be achieved for any additional apartment(s) provided in accordance with the requirements of Future Environmental Assessment Requirement 21; and
- d) the additional storey is required to appropriately activate the ground level.
- 4. Future Development Applications shall ensure that basement parking levels do not exceed 1 metre above ground level (finished) and are located below the building footprint (with the exception of basements connecting Stages 2 and 3 and Stages 4 and 5) without encroachment into street setback areas.

Not applicable to the subject Stages.

The architectural package and landscape plan both demonstrate that the development has been designed to ensure that the basement parking levels do not exceed greater than 1m above finished ground level.

The basement for the Stage 6 building extends under the courtyard area, however, it does not extend into the setback area in accordance with the requirement of the condition. This is consistent with the approach adopted for Stages 1, 2, 3, 4 and 5 by the Planning Assessment Commission and is therefore considered а reasonable response to the Concept Plan provisions because greater than 25% of the common open space area is delivered as deep soil. The overall proposal is considered to remain generally consistent with the approved Concept Plan.

5. Future Development Applications shall demonstrate an appropriate interface with surrounding streets and public domain areas at pedestrian level, and an appropriate design treatment to provide an adequate level of privacy to ground level apartments.	The proposed buildings have been carefully designed to comply with the flood levels as well as providing an appropriate interface with surrounding streets and public domain. The buildings are stepped with the fall of the site and individual entries are provided to ground floor apartments where possible which activates the ground floor plane of the development. The use of deep planted terraces at the front of the courtyards for ground floor apartments provides privacy through landscaping for those apartments without the need for unattractive blank walls.
6. Future Development Application/s for Stage 3 shall provide the following minimum setbacks to the south-western boundary (common boundary with 12 Rothesay Avenue): (a) 6 metres up to 4 storeys; and (b) 9 metres above 4 storeys.	Not applicable to the subject Stages.
7. Future Development Application/s for Stage A shall provide the following minimum setbacks to Parsonage and Wells Streets: (a) Podium – 4 metres (b) Tower – 5 metres	Not applicable to the subject Stages.
8. Future Development Application/s for Stage 3 shall provide a minimum one metre setback to the existing Council owned pedestrian access way along the north-western boundary.	Not applicable to the subject Stages.
9. Future Development Application/s for Stage 9 shall provide a minimum 4 metre building setback to the single storey building fronting Bowden Street. Eaves, pergolas, outdoor seating areas or other unenclosed structures are permitted to encroach into the setback providing that the design does not result in unacceptable impacts to the streetscape or view lines.	Not applicable to the subject Stages.
10. Future Development Applications shall provide for utility infrastructure, including substations, within the building footprint, wherever possible. If this is not possible, infrastructure shall be located outside of the public domain and appropriately screened.	The substations are discreetly located at each corner of the site adjacent to Constitution Road within the property boundary and appropriately screened within a landscaped setting.

Landscaping

11. Future Development Applications shall include detailed landscape plans for public and private open space areas, street setbacks areas and for the landscape treatment of all adjoining public domain areas and road reserves in accordance with the approved Public Domain Plan.

The proposed development is accompanied by a Landscape Plan prepared by Place Design which includes the detailed design for public and private open space areas, street setbacks areas and for the landscape treatment of all adjoining public domain areas and road reserves.

Public Domain

12. Future Development Applications shall provide the detailed design for the upgrade of all road reserves adjacent to the development to the centre line of the carriageway, including landscaping, street trees, accessible pedestrian pathways, street lighting, cycle ways on Constitution Road and Nancarrow Avenue, and any other necessary infrastructure in accordance with the approved Public Domain Plan. Where the detailed design necessitates an increase in the width of the road reserve, building setbacks are to be increased to retain the approved setback to the road reserve alignment. The road reserve works are to be completed by the proponent prior to occupation of each stage.

The proposed development is accompanied by a Landscape Plan prepared by Place Design as well as a Civil Packager prepared by BG&E which together provide the detailed design for the upgrade of all road reserves adjacent to the development including all necessary detail.

Cycle Facilities

13. Future Development Applications shall provide bicycle parking at the minimum rate of 1 space per 10 car parking spaces.

The proposal provides 43 bicycle spaces which exceeds 10% of the 411 car parking spaces.

14. Future Development Applications shall demonstrate appropriate 'end of trip facilities' for cyclists within all non-residential developments in accordance with Council's requirements.

Not applicable to the subject Stages.

Open Space/Public Access

15. Future Development Applications shall include detailed landscape plans for the embellishment of publicly accessible open space areas. These areas shall include high quality landscaping and paved areas and a variety of recreation facilities which may include BBQs, seating, water features, grassed areas, paths, shade trees, bicycle racks and exercise equipment/games.

The proposed development is accompanied by a Landscape Plan prepared by Place Design which includes the detailed design for the embellishment of publicly accessible open space areas.

15A. The contiguous open space required in Modification B1(b) shall be completed, delivered and handed over to Council prior to the issue of the first Occupation Certificate for Stage 3.

The land is to be dedicated, at no cost, to Council. Arrangements for the dedication shall be finalised before the issue of the Occupation Certificate for Stage 3. If Council does not accept the dedication, the land shall provide access to the public and be in private ownership by the relevant body corporate and appropriately maintained.

Not applicable to the subject Stages.

15B Prior to the issue of an Occupation Certificate for Stage 2 an easement shall be registered over the foreshore link, which is located between Stage 1 and Stage 2 (in favour of Council) providing for public access. The terms of the easement are to be approved by Council.

Not applicable to the subject Stages.

16. Future Development Applications shall include detailed landscape plans which demonstrate accessible paths of travel for all persons for at least two of the north-south routes between Constitution Road and the Foreshore with one of the routes including the Lower Riparian linear park and a second path either along the Central Spine or the public pathway associated with Stage 1. Landscape plans will also include the detailed design of at least 1 north-south cycle path linking Constitution Road through the site to the existing foreshore cycleway.

The proposed development is accompanied by a Landscape Plan prepared by Place Design that demonstrate accessible paths of travel for all persons for at least two of the north-south routes as well as the detailed design of a north-south cycle path linking Constitution Road through the site to the existing foreshore cycleway.

17. Future Development Applications shall clearly set an appropriate legal mechanism for creating rights of public access to all publicly accessible areas of open space, drainage reserves and through site links, with the relevant instrument/s to be executed prior to the issue of the occupation certificate.

The proposed development includes the provision of the three north-south publicly accessible through site links. The central link is also the location for the an underground stormwater pipe and overland flow path to convey the 100 year ARI flood from Constitution Road to the foreshore through the site. It is expected that a condition of consent will be imposed requiring the creation of rights of public access to the three through-site links as well as the drainage reserve with the relevant instrument/s to be executed prior to the issue of the occupation certificate for any building on the site.

Community Facilities

18. Any future Development Application/s for the 1000th dwelling shall include, at no cost to Council, the delivery of an appropriate community space within the development, which can be used by Council members of the community for community purposes and related uses.

Not applicable to the subject Stages.

- a. The community facility must be a minimum of 1,000m2 in area and be primarily located on ground level. The configuration of floorspace should be designed in consultation with Council or a Council nominated community organisation(s). Any dispute in the quantum of floorspace to be provided should be referred to the Director-General, whose decision shall be final.
- b. The primary use of the designated community floor space must be for community uses. A range of other activities, such as private functions, community markets and garage sales, may be undertaken within the community facility provided that they are subsidiary to the core community function.
- c. The designated community floor space must not be used for any other commercial, retail or residential use unless Council decides not to accept the designated floorspace.
- d. The provision of the community floorspace is in addition to Council's Section 94 Contributions for future development.
- e. The facility to be delivered is to be located around the contiguous central public open space area in either Stage 2 or 3.

Public Art

19. Future Development Applications shall provide the detailed design of public art in locations throughout open space areas generally in accordance with the Public Art Strategy submitted with the PPR.

The proposal is accompanied by a Public Art Plan prepared by Black Beetle which explores the opportunities, processes and integration of artworks as part of the proposed development. The plan initiates a documentation process which will take the identified artworks through design briefs, design development, fabrication and installation.

- 20. Future Development Application/s for Stage 2 shall include a Arts and Cultural Plan developed by a professional public artist including consideration of:
- (a) materials to be used, with particular attention to durability;
- (b) location and dimension of artwork;
- (c) public art themes to respond to site history and or social, cultural or natural elements;
- (d) integration into the site and surrounds;
- (e) budget and funding; and
- (f) Council's Public Art Guide for Developers.

Not applicable to the subject Stages.

Residential Amenity

21. Future Development Applications shall demonstrate compliance with the provisions of the State Environmental Planning Policy 65 – Design Quality of Residential Flat Development (SEPP 65) and the accompanying Residential Flat Design Code 2002 (RFDC), except where modified below:

In particular, future application/s shall demonstrate that:

- (a) a minimum of 60% of apartments within each stage are capable of being cross ventilated; and
- (b) a minimum of 70% of apartments within each stage receive a minimum of 2 hours solar access to living areas and balconies mid winter; and
- (c) where less than 70% of apartments achieve 2 hours of solar access in mid winter, these apartments (beyond the first 30%) shall be designed to provide improved amenity by:
- including extensive glazing (minimum 70% of the external façade) to living rooms;
- permitting cross-ventilation specifically to those apartments;
 and
- exceeding RFDC guidelines by at least 20% in both of the following areas:
 - increased floor to ceiling height; or and
 - increased minimum apartment areas, being greater than 50sqm for 1 bedroom, 70sqm for 2 bedroom and 95sqm for 3 bedroom apartments.
- (d) a minimum of 25% of open space area of the site is deep soil zone $\,$
- (e) the proposed landscaped areas provide sufficient deep soil in accordance with the RFDC.

The proposed development achieves solar access, or "improved amenity", to 71% of apartments and cross ventilation to 63% of the apartments.

The "improved amenity" apartments meet the additional requirements of Part (c) of the condition including additional floor to ceiling height and cross ventilation as detailed in the architectural package, including а reliance ventilation shafts. The capacity for the ventilation shafts to provide cross ventilation is certified by the Windtech ventilation assessment which accompanies this application.

The proposed development provides 52.86% of the open space area of the site as deep soil which substantially exceeds the 25% minimum requirement.

ESD

22. Future Development Applications shall demonstrate the incorporation of ESD principles in the design, construction and ongoing operation phases of the development, in accordance with the base targets within ESD Guidelines Report prepared by Ecospecifier Consulting dated October 2010. Where no base target is provided within this report, the development should strive to achieve the stretch target (where relevant and feasible).

In accordance with the EnviroDevelopment philosophy, four of the categories will be targeted to show 'industry best practice'. Where the categories of water and energy are applied, BASIX will be used to test 'industry best practice' for water and energy, which will be treated as 10% better than the BASIX pass mark.

The proposal is accompanied **ESD** an statement prepared by Integreco which demonstrates the incorporation of ESD principles in the design, construction and ongoing operation phases of the development, in accordance with the base targets within ESD Guidelines Report prepared by Ecospecifier Consulting dated October 2010.

Car Parking

23. Future Development Applications shall provide on-site car parking in accordance with Council's relevant Development Control Plan up to a maximum of 2,976 spaces across the Concept Plan site.

Future Development Applications shall provide:

(a) a car parking rate which relates to the site-wide car parking provision and demonstrates that car parking may be provided for future stages within the total car parking figure of 2,976; and(b) a projected car parking forecast for each remaining stage demonstrating that the total car parking provision can be adhered to.

Provision shall also be made for adequate loading and unloading facilities for service vehicles, suitably sized and designed for the proposed use.

The proposed development provides parking in car accordance with the rates in the Ryde DCP 2014. A tally of car parking spaces is provided at Section 4.7 of this Statement which demonstrates the proposed and forecast car parking provision in the other stages and demonstrates that the maximum car parking provision of 2,976 under the Concept Plan will not be exceeded.

Loading is provided via dedicated loading bays within the rod reserve.

Nancarrow Road Extension and Road Reserve Upgrades

- 24. Future Development Application/s for Stage 4 shall include the following infrastructure works:
- (a) Nancarrow Avenue extension;
- (b) Nancarrow Avenue Local Area Traffic Management (LATM) measures and all road reserve upgrades including associated pedestrian footpaths and cycleways;
- (c) implementation of left-in/left-out arrangement at Belmore Street/ Hamilton Crescent intersection;

The detailed design is to be prepared by a suitably qualified engineer in accordance with Council's requirements and to be approved by Council before issue of the first Occupation Certificate for Stage 1. All works must be completed by the proponent prior to the issue of the occupation certificate for Stage 4.

24A. Future Development Application/s for Stage 2 shall include the following Infrastructure works:

- (a) installation of a temporary east/west pedestrian link, which connects the stairway at the northern end of the foreshore link between Stages 1 and 2 to Nancarrow Avenue along the northern boundary of Stage 2. The pedestrian link shall provide access to residents the public on a 24 hour basis and maintained until the provision of the Nancarrow Avenue extension (note: this temporary pedestrian access is not a public right of way access).
- (b) Underdale Lane Local Area Traffic Management (LATM)
- (c) installation of a pedestrian crossing facility at Bowden Street / Nancarrow Avenue; and
- (d) installation of roundabout at Belmore Street / Rothesay Avenue. The detailed design is to be prepared be a suitably qualified engineer in accordance with Council's requirements and to be submitted to Council's for approval before the lodgement of any future development application for Stage 2. All works must be completed by the proponent prior to the issue of the occupation certificate for Stage 2.

25. Future Development Application/s for the stage of development containing the 800th dwelling shall provide the detailed design for the implementation of left-in/left-out arrangement at Belmore Street/ Yerong Street intersection. The works are to be completed prior to issue of the first occupation certificate of any building of this stage.

Not applicable to the subject Stages.

Not applicable to the subject Stages.

Not applicable to the subject Stages.

Roads and Maritime Services Requirements

26. Future Development Application/s for each stage of development following the first two stages shall include a traffic study which includes figures on the current number of vehicles and pedestrians at the Railway Road pedestrian crossing at Meadowbank Station and at the Constitution Road / Bowden Street intersection. The traffic study is to be carried out to the RMS's and Council's satisfaction and shall model the impact of the anticipated increase in vehicle and pedestrian traffic for that stage. Where the study reveals that RMS warrants would be met for the provision of signalisation at either of these locations, concept design of the upgrade of the intersection to Council's and RMS's satisfaction is to be included with the Development Application and the works are to be completed by the proponent prior to the issue of first occupation certificate of any building of that stage.

A Traffic Impact Assessment prepared by Road Delay Solutions Pty Ltd accompanies application which demonstrates that signalisation of the intersection of Constitution Road and Bowden Street will need to be provided as part of the proposed development. This is also required by the Statement of Commitments. The Traffic Impact Assessment includes the concept design for the upgrade of the intersection.

27. Future application/s for Stage A shall demonstrate that the RMS requirements have been met in relation to access to RMS infrastructure on the adjoining land, including retention of existing access, parking and turning area for maintenance vehicles.

Not applicable to the subject Stages.

Site Specific Sustainable Travel Plan

28. Future Development Applications for each stage shall include a site specific sustainable travel plan incorporating a workplace travel plan and/or travel access guide. The travel plan will be in accordance with the Concept Plan Sustainable Travel Plan required by Modification B2.

A Sustainable Travel Plan prepared by Road Delay Solutions Pty Ltd accompanies the subject development application.

Heritage

- 29. Future Development Application/s for Stage 6 involving the demolition of the existing heritage item at 37 Nancarrow Avenue shall include:
- (a) a detailed heritage assessment of the site which includes a professionally written history of the site;
- (b) a full photographic record; and
- (c) an interpretation strategy to display the heritage values of the existing building on the newly developed site.
- 30. Future Development Application/s for Stage A shall include a Statement of Heritage Impact providing an assessment of the impact of the development on the adjoining heritage listed Church Street Bridge. Applications are to demonstrate that the design of the building takes into account relevant recommendations of the heritage assessment.

A Heritage Impact Statement, full photographic record and interpretation strategy have been prepared by Rappaport and these documents accompany the development application.

Not applicable to the subject Stages.

Section 94 Contributions

31. Future Development Applications shall be required to pay developer contributions to the Council towards the provision or improvement of public amenities and services. The amount of the contribution shall be determined by Council in accordance with the requirements of the Contributions Plan current at the time of approval.

Noted.

Noise and Vibration

32. Future Development Application/s for Stage A shall provide an acoustic assessment which demonstrates that the internal residential amenity of the proposed apartments is not unduly affected by the noise and vibration impacts from Church Street, to comply with the requirements of Clause 102 of State Environmental Planning Policy (Infrastructure) 2007 and the Department of Planning's 'Development Near Rail Corridors and Busy Roads – Interim Guidelines'.

Not applicable to the subject Stages.

Adaptable Housing

33. Future Development Applications shall provide a minimum of 10% of apartments as adaptable housing in accordance with Australian Standard 4229-1995.

The proposed development provides 32 adaptable apartments which meets the 10% requirement.

Stormwater Infrastructure Upgrades

- 34. Future Development Applications for Stage 6, 7, 8 or 9 (whichever occurs first) shall provide the detailed design of the following infrastructure works:
- (a) the piped drainage system and overland flow path from Ann Thorn Park to Parramatta River; and
- (b) works to eliminate the risk of embankment failure of Constitution Road.

The works will be required to be completed by the proponent prior to construction commencing for any residential buildings within these stages.

The proposal includes the detailed design for the lowering of Constitution Road to eliminate the risk of embankment failure of Constitution Road as well as the upgrade of the existing pipe stormwater pit and network from Ann Thorn Park to the Shepherds Bay foreshore to convey the 100 year ARI flood including the provision of a landscaped overland flowpath from Constitution Road to the foreshore through the site. This documentation has been prepared by BG&E and is located in the Civil Package.

Flooding and Stormwater 35. Future Development Applications for each stage of the A Flood Assessment prepared development shall include flood assessments to determine the by BG&E accompanies the minimum floor levels, any required mitigation measures and application and informs the evacuation strategy required. floor levels of the proposed development. 36. Future Development Applications for each stage of the A Stormwater Plan prepared by development shall include a Stormwater Management Plan in Harris Page accompanies this accordance with Council's requirements. application. **Sydney Water Requirements** 37. Future Development Applications shall address Sydney Water's Details concerning the Sydney requirements in relation to: Water requirements for the (a) required amplification works to existing drinking water mains; development proposed (b) required amplification works to the wastewater system; prepared by Greg Houston (c) approval for discharge of trade wastewater (where necessary); Plumbing accompany subject application. (d) application for Section 73 certificates as necessary. Contamination, Acid Sulphate Soils and Salinity 38. Future Development Applications shall include a detailed An Environmental Assessment contamination assessment (involving sampling and testing of soil) including consideration of acid including an assessment of the presence of acid sulphate soils and sulphate soils prepared by salinity. Environmental Investigations accompanies the subject application. The conclusions of the assessment are discussed under the SEPP 55 discussion in this Statement. 39. A groundwater assessment (involving sampling and testing of A Groundwater Assessment groundwater) shall be undertaken across the entire Concept Plan prepared by Environmental Investigations for the entire prior to the first Development Application being lodged for Stage 2 or any other stage of the development. Concept Plan site accompanies

the subject application.

40. Future Development Applications where necessary shall include a targeted groundwater assessment for the specific stage (based on the recommendations of the groundwater assessment undertaken for the entire Concept Plan).

The Groundwater Assessment prepared by Environmental Investigations for the entire site identified that there is a low risk of widespread groundwater within contamination the Shepherds Bay Urban Renewal Project and that any groundwater impact is unlikely to prevent the redevelopment of the sites for residential and open space development.

SCHEDULE 4 STATEMENT OF COMMITMENTS

Staging of Development and Occupation

The development is to be constructed in ten indicative stages as illustrated in Appendix 1 of MP09_0216 Mod 1.

An updated Development Staging Plan will be submitted with each subsequent Project Application.

There are no proposed changes to the indicative stages as illustrated in Appendix 1 of MP09_0216 Mod 1 and therefore no need for an updated staging plan to be submitted with this development application.

Approval Conditions

The proponent will ensure that all relevant parties engaged to carry out work are aware of and will comply with relevant conditions of consent issued under Major Project No. 09_0216. (as amended)

Noted

Accessibility

The proponent commits to providing access to and within buildings within the Concept Plan site in accordance with the Building Code of Australia. Where topography permits, publicly accessible open spaces within the Concept Plan are to be designed to provide appropriate access to people of all mobility levels.

The public open spaces have been appropriate designed to provide access for people of all mobility levels.

Landscaping

Prior to commencement of construction of Project or Development Applications within the Concept Plan site detailed documentation and specifications will be prepared for all landscape works and public space improvements.

The landscaping is to be designed so that the view corridors identified on the Concept Plan are maintained.

The proposed development is accompanied by a Landscape Plan prepared by Place Design which includes the detailed design for all landscape works and the embellishment of publicly accessible open space areas.

Community Benefits

The Proponent will enter into discussions with the City of Ryde to establish a Voluntary Planning Agreement.

The Proponent has commenced discussions with the City of Ryde to establish a Voluntary Planning Agreement.

Housing Choice

A mix of apartment sizes will be provided including one bedroom units. The increased housing supply in the area and proposed apartment mix will increase housing choice and ease affordable housing issues in the area. The opportunity for locals to "downsize" together with the additional availability will promote affordability.

The proposed development provides a balanced mix of 1 bedroom (43%), 2 bedroom (47.5%) and 3 bedroom (9.5%) apartments.

Adaptable Housing

The Proponent commits to approximately 10% of apartments within the Concept Plan site being designed to be accessible. Pathways from development to communal areas and car parking will also be designed to be accessible. The proposal provides 32 adaptable apartments which equates to 10% of the development. Pathways from the development to communal areas and car parking are also designed to be accessible.

Road Verges and Footpaths

The proponent commits to providing and/or upgrading road verges and footpaths prior to the issue of the relevant occupation certificate for each Stage.

Noted.

Publicly Accessible Open Spaces

The proponent commits to providing a total of 18,304sqm of publicly accessible public domain with the Concept Plan site that will be owned and maintained by the various owners' corporations. These areas will include 4 new publicly accessible open spaces, landscaped pedestrian connections, landscaped overland flow paths, to be owned and maintained in community title by the relevant stage development owner groups. These will include:

- 1. New Foreshore Link publicly accessible open space (Development Stage 2)
- 2. New Upper Level Public Square (Development Stage 2, 3 & 5)
- 3. New Central Spine (Development Stage 3)
- 4. New Central Foreshore Plaza (Development Stage 3)
- 5. New upper eastern pedestrian link (Stages 4 and 5)
- 6. New Pedestrian Spine 2 (North) publicly accessible open space (Development Stage 6)
- 7. New Upper Riparian Foreshore Link publicly accessible open space (Development Stages 6 $\&\,7)$

The proposed development provides the following publicly accessible open space areas relevant to the subject Stage 6 and 7 development:

- New Pedestrian Spine 2
 (North) publicly accessible open space (Development Stage 6)
- New Upper Riparian
 Foreshore Link publicly
 accessible open space
 (Development Stages 6 & 7)

- 8. New Lower Riparian Foreshore Link publicly accessible open space (Development Stages 8 & 9)
- 9. New Pedestrian Spine 1 South publicly accessible open space (Development Stages 8)
- 10. Gateway Building Central Plaza and pedestrian link (Development Stage A)

Road Works

The proponent commits to providing the following new road infrastructure and up-gradings which are illustrated on Map 11 below.

- 1. Pedestrian signals replacing the zebra crossing on Railway Road at the Station. To be completed prior to the issue of an Occupation Certificate for Stage 3 of the Development.
- 2. Signalling Bowden Street/Constitution Road. To be completed prior to the issue of an Occupation Certificate for Stage 6 of the Development.
- 3. Roundabout at Rothesay Ave/Belmore Street. To be completed prior to the issue of an Occupation Certificate for Stage 2 of the Development.
- 4. Yerong/Belmore left in/out. To be completed prior to the issue of an Occupation Certificate for Stage 4 of the Development.
- 5. Hamilton "Lane" and Nancarrow "Lane" LATM and two-way construction between Belmore and Bowden. To be completed prior to the issue of an Occupation Certificate for Stage 2 of the Development.
- 6. Underdale Lane LATM scheme. To be completed prior to the issue of an Occupation Certificate for Stage 4 of the Development.
- 7. Hamilton Lane/Belmore Street left in/left out. To be completed prior to the issue of an Occupation Certificate for Stage 2 of the Development.
- 8. Introduction of a pedestrian facility on Bowden Street at Underdale Lane. To be completed prior to the issue of an Occupation Certificate for Stage 4 of the Development.
- 9. Lowering of Constitution Road. To be completed prior to the issue of an occupation certificate for Stage 8 of the Development.
- 10. Re-grading works associated with the construction of the new Nancarrow Avenue Link Road. To be completed prior to the issue of an Occupation Certificate for Stage 3 of the Development .

The proposed development provides the following relevant new road infrastructure in accordance with the Statement of Commitments:

- Signalling Bowden Street/ Constitution Road.
- Lowering of Constitution Road.

Land to be Dedicated

Land comprising the two-way road link to be constructed between Belmore and Bowden Streets, being the connection of Nancarrow Ave to Hamilton Crescent. This requires the dedication by the Proponent an area of land of approximately 325sqm to the Council.

Not relevant to the subject stages.

To be dedicated to Council prior to the issue of an occupation certificate for Stage 2 of the Development.

Tree Management

Tree protection measures will be implemented for trees to be retained as recommended in the Arborist Report at Annexure 23 to the submitted EA.

Noted.

Crime Prevention Through Environmental Design

The design of the public domain, landscaping and building design facilitates the achievement of CPTED principles. Prior to commencement of construction of any subsequent Project Applications CPTED Assessments will be provided.

Noted.

Planting near footpaths will need to be maintained on a regular basis to avoid concealment opportunities for criminals who may hide in dense shrubbery.

Environmentally Sustainable Development

All Residential development within the Concept Plan site will meet the following Sustainability targets:

- The BASIX water consumption benchmark
- The BASIX energy consumption benchmark

In addition, the proponent commits to further investigate the opportunity for including the following ESD principles:

- Design internal apartment layouts to maximise natural ventilation and to capture prevailing winds;
- Utilise roof forms to capture natural light and ventilation;
- Use of high thermal mass materials within apartments;
- Ensure natural light and ventilation is provided to common areas to minimise energy consumption;
- Divide the layout of the apartments into zones to reduce heat and cooling energy consumption;
- Utilise low water flow fixtures and tap ware;
- Harvesting of stormwater where feasible; and
- · Recycling of water where feasible

BASIX Certificate accompanies the subject application. In addition, the proposal is accompanied by an ESD statement prepared by Integreco which demonstrates the incorporation of ESD principles in the design, construction and ongoing operation phases of the development, in accordance with the base targets within ESD Guidelines Report prepared by Ecospecifier Consulting dated October 2010.

Stormwater Management

The Proponent is committed to providing the necessary stormwater upgrades, the details of which will be included in the final VPA when negotiated with Council.

Prior to commencement of construction of all Project or Development Applications within the Concept Plan site the Proponent commits to preparation of an Integrated Stormwater Management Plan for the relevant development stage.

The subject application is accompanied by a Stormwater Plan prepared by Harris Page.

Noise

All Project or Development Applications within the Concept Plan site for all development Stages are to comply with the relevant acoustic standards and controls contained in the BCA.

The subject application is accompanied by an Acoustic Report prepared by Acouras Consultancy which details the necessary acoustic attenuation measures for the proposal

Site Contamination

All Project or Development Applications within the Concept Plan site for all development stages will be required to comply with the requirements of SEPP 55 Remediation of Land.

Noted. SEPP 55 has been discussed previously in this Statement.

Construction Management

Prior to commencement of construction of all Project or Development Applications within the Concept Plan site a Construction Management Plan will be prepared by the proponent for each development stage and will be submitted to the satisfaction of the Principal Certifying Authority prior to any new building work within the Concept Plan site.

All construction materials, vehicles, waste and the like will be stored within the site.

All demolition and all construction and associated work will be restricted to between the hours of 7.00am and 7.00pm Monday to Friday (other than public holidays) and between 8.00am and 4.00pm on Saturday. No work is to be carried out on Sunday or public holidays.

Prior to commencement of construction of all Project or Development Applications within the Concept Plan site a Traffic Management Plan (TMP) for the relevant development stage, which addresses construction access and egress to the site, including vehicle routes and parking for workers, staging and timing of construction of internal road network and other relevant issues, will be prepared and submitted to the satisfaction of Principal Certifying Authority. The TMP will be prepared in accordance with the RTA's guidance on TMP's

Noted. A Construction Management Plan will be prepared and submitted to the satisfaction of the Principal Certifying Authority prior to any new building work within the Concept Plan site.

Utilities

A Section 73 Certificate from Sydney Water will be obtained as required.

Noted.

All existing aerial services (including low voltage Energy Australia electricity and subscriber television services) along the frontage of the Concept Plan Site are to be relocated underground prior to the occupation of the development stages. The cost of this work is to be borne by the developer.

Documentary evidence will be obtained from Energy Australia to confirm that they have been consulted and that their requirements have been met by the Concept Plan and all subsequent Project or Development Applications within the Concept Plan site.

Arborist Report

All subsequent development stages will be required to comply with the requirements of the Arborist Report (Annexure 23 to the submitted Environmental Assessment).

Noted.

Environmental Management Plan

Prior to commencement of construction of Project or Development Applications within the Concept Plan site, a development Stage-specific Environmental Management Plan (EMP) will be prepared and submitted to and approved by the Principal Certifying Authority. The EMP will comprise:

- a. Hours of construction work
- b. Sediment and Erosion Control;
- c. Waste Management;
- d. Noise and Vibration Management;
- e. Air Quality and dust control;
- f. Use of cranes, plant and machinery
- g. Use of ladders, tapes, scaffolding and plant /machinery of conductive material
- h. Excavation and boring
- i. Plant and vehicle movements including ingress and egress of vehicles to the site, loading and unloading, including construction zones, transportation of material, including contaminated material, predicted traffic volumes, types and routes
- j. TMP;
- k. Piling, sheet piling, batter and anchors

Noted. An Environmental Management Plan will be prepared and submitted to the satisfaction of the Principal Certifying Authority prior to any new building work within the Concept Plan site.

Flooding

All Development or Project Applications for individual development stages within the Concept Plan site are to be accompanied by a detailed Flood Impact Assessment Report using the Concept Plan Flood Study Report findings. These studies are to include such safety management measures as safe flood evacuation routes and refuge areas.

The subject application is accompanied by a Flood Assessment prepared by BG&E.

Waste Management

Prior to commencement of construction of all Project or Development Applications within the Concept Plan site, a Waste Management Plan will be prepared for the relevant development stage which includes demonstration of the fact that the road network is capable of being serviced by Council's Waste vehicles.

A Waste Management Plan prepared by Elephant's Foot accompanies the subject application.

Sustainable Travel Plan

Prior to issue of Occupation Certificates for any habitable areas in any development within the Concept Plan site a Sustainable Travel Plan for the Concept Plan site will be submitted to and approved by the Department of Planning. Individual Project or Development Applications will be accompanied by Development stage- specific Sustainable Travel Plans that are consistent with the Concept Plan Sustainable Travel Plan.

A Sustainable Travel Plan prepared by Road Delay Solutions Pty Ltd accompanies the subject application.

Groundwater

As required by the NSW Office of Water:

Groundwater:

Licences under Part V of the Water Act 1912 are required for the works for the purposes of temporary dewatering as part of the proposed construction.

- · General and Administrative Issues
- Specific Conditions
- Formol Application Issues

Noted.

SCHEDULE 5 MAXIMUM BUILDING HEIGHT CONTROL PLANS

Refer to Plans

The proposed buildings are generally contained within the approved building envelopes in both plan and elevation.

APPENDIX B

SURVEY PLAN

B

H Ramsay

APPENDIX C

ARCHITECTURAL DRAWINGS AND SEPP 65 DESIGN VERIFICATION STATEMENT



Turner Architects

APPENDIX D

VENTILATION ASSESSMENT

Windtech

APPENDIX E

LANDSCAPE & PUBLIC DOMAIN PLANS

Place Design

APPENDIX F

DETAILED DESIGN OF PUBLIC ART

Black Beetle

APPENDIX G

CIVIL PACKAGE



BG&E

APPENDIX H

FLOOD ASSESSMENT



BG&E

APPENDIXI

STORMWATER PLAN

Harris Page

APPENDIX J

QS COST ESTIMATE

Altus Page Kirkland

APPENDIX K

ENVIRONMENTAL SITE ASSESSMENT



Environmental Investigations

APPENDIX L

REMEDIATION ACTION PLAN

Environmental Investigations

APPENDIX M

GROUNDWATER ASSESSMENT



Environmental Investigations

APPENDIX N

HERITAGE IMPACT STATEMENT AND INTERPRETATION STRATEGY

Rappaport

APPENDIX O

ACOUSTIC REPORT



Acouras Consultancy

APPENDIX P

BCA COMPLIANCE ASSESSMENT REPORT

Vic Lilli & Partners

APPENDIX Q

FIRE SAFETY REPORT



GN Consulting

APPENDIX R

BASIX CERTIFICATE

R

Integreco

APPENDIX S

ESD STATEMENT

S

Integreco

APPENDIX T

ACCESSIBILITY REPORT

Design Confidence

APPENDIX U

PARKING ASSESSMENT



Thompson Stanbury

APPENDIX V

TRAFFIC IMPACT ASSESSMENT



Road Delay Solutions Pty Ltd

APPENDIX W

SUSTAINABLE TRAVEL PLAN



Road Delay Solutions Pty Ltd

APPENDIX X

WASTE MANAGEMENT PLAN (CONSTRUCTION)



Holdmark

APPENDIX Y

WASTE MANAGEMENT PLAN (OPERATIONAL)



Elephants Foot

APPENDIX Z

ARBORICULTURAL REPORT

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Redgum

APPENDIX AA

SYDNEY WATER REQUIREMENTS



Greg Houston Plumbing

APPENDIX AB

GEOTECHNICAL REPORT



Asset Geotechnical