ITEM 8.1	**DRAFT NORTHERN BEACHES HOSPITAL PRECINCT STRUCTURE PLAN**
REPORTING MANAGER	**ACTING DEPUTY GENERAL MANAGER PLANNING & COMMUNITY**
TRIM FILE REF	**2016/387988**
ATTACHMENTS	**1 Draft Northern Beaches Hospital Precinct Structure Plan** **2 Northern Beaches Hospital Transport Study (Detailed Transport Assessment)** **3 Analysis Report** **4 Scenarios Report** **5 Engagement Strategy**

EXECUTIVE SUMMARY

PURPOSE

To present to Council the Draft Northern Beaches Hospital Precinct Structure Plan and to seek Council's endorsement to publicly exhibit the Draft Northern Beaches Hospital Precinct Structure Plan ('the Plan').

SUMMARY

The Northern Beaches Hospital Precinct Structure Plan creates a sustainable long term future for the newly identified Strategic Centre in Frenchs Forest.

The Structure Plan acknowledges the need for growth in the precinct in response to significant infrastructure investment and change. Anchored by the new Northern Beaches Hospital and associated traffic and transport opportunities, Frenchs Forest will change in the future and become a new vibrant town centre with a variety of new housing and employment opportunities along with new public infrastructure.

The Structure Plan has been informed by ongoing community and stakeholder engagement and balances the constraints of the area with a responsible plan for growth. There are also opportunities to capitalise on future infrastructure investment to deliver a further connected and vibrant centre.

Developed in collaboration with State Agencies, Council and the Community, the Structure Plan will guide the future for the precinct over the next 20 years. It will need to be reviewed and revised as delivery occurs.

Key highlights of the plan include:

- a new, centrally located town centre that is connected to the Northern Beaches Hospital with uses including retail, commercial, residential, open space, and recreation
- Up to 10% of new dwellings to be provided as affordable rental housing throughout the precinct to support key workers
- The construction of a new community Aquatic Centre on the town centre site
- New pedestrian and cycle infrastructure

- New, state of the art, education facilities to cater for primary and secondary students
- Shared and multi use indoor and outdoor recreation facilities
- New housing (approximately 2,200 new dwellings) and employment (approximately 2,300 new jobs) to address demand and support the hospital

Work to commence the preparation of the Plan began in August 2013. Council resolved to prepare a Structure Plan for the Northern Beaches Hospital Precinct to provide a planning framework for development within the precinct over a 20 year planning horizon. With the New South Wales Department of Planning and Environment (DPE) a partnership was established to deliver the Structure Plan.

Detailed analysis was carried out between July 2014 and April 2015. This included extensive community engagement and collaboration with the various State Government departments culminating in the preparation of four development and transport scenarios for the future of the precinct. These were presented to the community in April 2015.

The preferred scenario was determined following a review of the community and stakeholder engagement and the extensive research and analysis undertaken by Council and its consultants. The preferred growth scenario provided for an additional 4,500 additional dwellings and 10,000 jobs within the Hospital Precinct over the next 20 years.

An integral part of this project has been ongoing detailed discussions and collaboration with a number of State Government departments who, along with Council and DPE, formed an 'Inter-agency working group' (IWG) to ensure the best possible outcomes are achieved for the community.

The IWG is comprised of Council, DPE (Chair), Roads and Maritime Services (RMS), Transport for New South Wales (TfNSW), Department of Education and Communities (DEC), New South Wales Health Infrastructure and Sydney Water. The IWG continually reviewed the Plan as Council progressed through each stage of the project.

In April 2015 it was determined by the IWG, and in particular following advice from the RMS and TfNSW, that the additional transport and road infrastructure upgrades required would not be provided in the short to medium term (to support the preferred growth scenario) and that further assessment and modeling was required. This resulted in the Plan being placed on hold whilst additional detailed traffic and transport modeling was undertaken to the satisfaction of the RMS.

At this point a traffic engineering consultancy was separately engaged by Council, DPE, RMS and TfNSW to undertake additional traffic and transport modeling. The details and findings of the traffic and transport modeling are attached to this report in the form of a Transport Study (Attachment 2).

This Council report outlines the history of the structure plan project, the engagement process and the extent to which the additional traffic assessment has informed a preferred growth scenario, which has largely informed the draft Plan (Attachment 1).

The Transport Study confirmed that the Frenchs Forest area faces significant constraints and challenges in its ability to cater for additional housing and employment growth within the existing capacity constraints. The Transport Study also identifies local road upgrades that are critical to the delivery of additional growth in the precinct.

The draft Plan (Attachment 1) identifies areas within the precinct that, in the short term, have the ability to cater for additional housing and employment growth within the transport constraints without compromising the long term objective for the area to become a fully functioning Strategic Centre, in accordance with the State Government's 'A Plan for Growing Sydney'.

The draft Plan proposes housing growth in the order of approximately 2,200 new residential apartments that vary between 3 and 12 storeys in height and an additional 2,300 jobs can be catered for, subject to a number of local road improvements and infrastructure upgrades.

What has become clear throughout the preparation of the Plan is that further investment by the State Government is required in the form of a viable public transport solution in order to achieve a fully functioning Strategic Centre in Frenchs Forest. Council's traffic consultants have identified that the most appropriate long term solution is an east-west Bus Rapid Transit (BRT) system, connecting Dee Why-Brookvale to Chatswood. Only with this level of infrastructure investment can a fully operational Strategic Centre be achieved.

This finding supports the NSW Long Term Transport Master Plan that also identifies the east-west link between Dee Why-Brookvale and the Northern Beaches Hospital Precinct (NBHP) as one of Sydney's main demand corridors, linking the Dee Why-Brookvale Strategic Centre to the NBHP Strategic Centre through to Chatswood.

The next step in the preparation of the Plan is to seek Council's endorsement for the draft Plan to be publicly exhibited. It is recommended that the draft Plan be exhibited for a period of at least 6 weeks to enable the community and stakeholders to view, understand and comment on the proposal.

In light of the impending Christmas and New Year break and in accordance with Council's position on exhibiting planning documents during this period, it is recommended that Council place the draft Plan on display immediately and to extend the public exhibition (including engagement activities) of the draft Plan into February 2017.

The purpose of the Public Exhibition period will be for the community and stakeholders to have the opportunity to engage with Council and provide feedback in response to the Draft Plan. Engagement activities during the public exhibition period will include:

- Drop in sessions where community members and stakeholders will have the opportunity to discuss the draft Plan with Council staff. This will include a community information/drop in meeting within 14 days of the commencement of public exhibition of the Draft Plan
- Online engagement via the project page
- Targeted letter box drops of information brochures to local residents
- Media articles/advertisements.

FINANCIAL IMPACT

The draft Plan poses a nil financial impact at this point in time due to its strategic nature. However, as this report and attachments outline, a number of infrastructure upgrades are required to deliver the growth proposed that will required to be funded by a Section 94 Contributions Plan which will be prepared at a later stage and once the precinct planning process is completed.

ENVIRONMENTAL IMPACT

Sustainable planning measures such as energy and water targets will be implemented through development control plans and further investigations of development practices and incentives which will be prepared and investigated at a later stage and once the precinct planning process is completed.

SOCIAL IMPACT

The Plan includes a range of outcomes that will have a positive social impact on the local community. Additional housing (including affordable housing) and employment growth combined with the provision of essential social infrastructure such as schools, recreation facilities and the new hospital will create a vibrant centre in the Frenchs Forest area.

RECOMMENDATION OF ACTING DEPUTY GENERAL MANAGER PLANNING & COMMUNITY

That Council:

A. Endorse the Draft Northern Beaches Hospital Precinct Structure Plan for the purposes of public exhibition.

B. Commence immediate exhibition of the Draft Northern Beaches Hospital Precinct Structure Plan to conclude on 28 February 2017.

C. Hold a Community information/drop-in meeting within the next 14 days.

D. Engage with the Community and Stakeholders as per the Engagement Strategy (Attachment 5).

REPORT

BACKGROUND

On 26 October 2012, the State Government made an amendment to State Environmental Planning Policy (State and Regional Development) 2011, identifying the Frenchs Forest hospital site, together with the roadway at the intersection of Warringah Road and Wakehurst Parkway, as a State Significant Infrastructure site. The amendment declared development on the site to be State Significant Infrastructure in accordance with the Environmental Planning and Assessment Act, 1979.

On 2 May 2013 the NSW Minister for Health, The Hon. Jillian Skinner MP, announced an invitation for expressions of interest from the private sector to design, construct, operate and maintain a new hospital at Frenchs Forest. In December 2014 Healthscope entered into a contract with the Government for delivery of the hospital. Site clearing and preparation works commenced in September 2014. Following a stage two planning application, construction of the new hospital commenced in 2015 and the new hospital is scheduled for completion in 2018.

In addition to the above, the NSW Government is undertaking road upgrades around the new Northern Beaches Hospital with work planned to be completed in time for the hospital opening. Roads and Maritime Services (RMS) is delivering the road upgrades in two stages. Stage 1 will provide essential access for the Northern Beaches Hospital and Stage 2 will help to increase capacity of the surrounding road network and improve access through the precinct.

The hospital, together with the associated road upgrades represents a significant investment in infrastructure for the Northern Beaches, estimated to be valued at approximately $1 billion.

In response, Council resolved to prepare a Northern Beaches Hospital Precinct Structure Plan (Hospital PSP) on 6 August 2013. Council acknowledged that the scale of the hospital development and associated road works would change the dynamic of the surrounding area. This re-enforced the need for Council to undertake forward planning to determine the most appropriate future land uses, local infrastructure and urban quality requirements in proximity of the hospital.

The Plan is needed to ensure that Council has a solid planning framework (including proposed zoning and development controls) to inform and guide future planning decisions for land surrounding the hospital.

PLANNING CONTEXT

In December 2010 the NSW Government released its Metropolitan Strategy for Sydney 2036, in which, unlike previous plans, Frenchs Forest was identified as a Potential Specialised Centre.

After a change of government, in early 2013, the NSW Government released a new Draft Metropolitan Strategy for Sydney to 2031, setting out a framework for sustainable growth for the Sydney metropolitan region to 2031. This reiterated the status of Frenchs Forest as a Potential Specialised Precinct for accommodating growth within the region.

The aim of the precinct was to capitalise on the growing cluster of health related uses with associated research and business park opportunities to stimulate jobs. The strategy identified criteria for achieving a Specialised Precinct as follows:

- Act as an employment centre and location of essential urban services
- Enable a minimum of 8,000 jobs, potential for greater than 12,000 jobs
- Perform vital economic, research and employment roles for the region and Sydney
- Evolve over time to include a greater mix of residential, retail and service uses

- Include ancillary support uses, such as a student and staff accommodation adjacent to the hospital
- Connect to other specialised centres and major centres
- Integrate with or be adjacent to public transport and associated corridors
- Incorporate quality open space, public places and parks within the framework of the centre
- Link with motorways, arterial and relevant freight networks related to the specialisation

In 2014 the State Government released *A Plan for Growing Sydney*.

A Plan for Growing Sydney employs a different approach to identifying the hierarchy and typology of centres across Metropolitan Sydney. This Plan identifies Frenchs Forest as a 'Strategic Centre'.

Strategic Centres are identified in locations that currently have, or are planned to have, at least 10,000 jobs and are priority locations for employment, retail, housing, services and mixed uses.

A key planning principle is to focus future growth, urban renewal and a networked transport system around the Strategic Centres.

For the Northern Beaches Hospital Precinct - Strategic Centre, the 2014 plan identifies the following priorities:

- delivery of the new hospital
- support for health related land uses and infrastructure in the precinct around the hospital
- protection of capacity for employment growth in the precinct around the hospital
- provision of additional capacity for mixed uses such as offices, health, retail, services and housing in the precinct around the hospital
- support the preparation of a precinct structure plan to guide future development of the area
- progression of planning for the road improvements supporting the hospital and surrounding precinct
- progression of planning for a public transport interchange servicing the hospital precinct
- improvement of walking and cycling connections within the hospital precinct and surrounding areas

PROJECT CONTEXT

The recently released Draft North District Plan is consistent in nominating Frenchs Forest as a Strategic Centre. The new and proposed development at Frenchs Forest consists of three separate projects. The State Government is undertaking two projects and Council is coordinating one in partnership with the Department of Planning and Environment (DPE).

The three projects are:

- Construction of a new hospital (Health Infrastructure)
- Road and Connectivity Improvements & Network enhancements (RMS)
- Precinct Planning (Council in partnership with DPE)

The precinct planning project is largely driven by the need for an integrated approach with two State Government Projects.

DRAFT NORTHERN BEACHES HOSPITAL PRECINCT STRUCTURE PLAN

Project Scope

During 2013, Council committed to funding for the preparation of the Northern Beaches Hospital Precinct Structure Plan (the Plan) which will guide the future development of the precinct surrounding the Northern Beaches Hospital.

The consultancy firm, Hames Sharley, was identified as the preferred tenderer and commenced work on the Plan in early July 2014 (Details of the tender process were reported to Council at its meeting of 29 April 2014).

Hames Sharley put together a multi–disciplinary team including sub consultants Macroplan Dimasi and ARUP to provide economic and transport planning expertise. Hames Sharley brings to the project a sound background in the delivery of specialised activity precincts and centres both nationally and internationally.

The original scope of work for the preparation of the Plan identified 3 key stages as follows:

- Stage 1: Project Definition and Visioning
- Stage 2: Scenario Development and Evaluation
- Stage 3: Preferred Scenario Exhibition

Further details on each of these stages can be found in Chapter 3 of Attachment 1.

Should Council adopt the recommendations of this report, the following stages of the process to prepare the Hospital Structure Plan remain to be completed:

- Further community and stakeholder engagement: Exhibition of the Draft Hospital Structure Plan to the community including receiving and reviewing submissions
- Final Hospital Structure Plan: Preparation of a submissions report and presentation of the Final Plan and accompanying report to Council

THE PREFERRED SCENARIO

To confirm a preferred growth scenario, a review of the community and stakeholder engagement and extensive research analysis was undertaken. This identified a preferred growth scenario that provided for an additional 4,500 dwellings and 10,000 jobs, within the Hospital Precinct.

As outlined previously within this report, the project has involved extensive collaboration and consultation with a number of State Agencies who form the IWG that was established as part of this project.

In mid-2015 the preferred scenario was presented to the IWG to seek endorsement of the preferred scenario to allow the draft Plan to be finalised and reported to Council prior to public exhibition.

The IWG reviewed the preferred scenario and on the advice of the RMS and TfNSW determined that further and more detailed traffic and transport analysis and modeling, beyond that already undertaken by the RMS to support its upgrades, was required prior to an agreement being reached by the IWG. This decision effectively put the draft Plan on hold until such time as further analysis and modeling of the road network could be undertaken.

At this point it was identified that without additional transport and infrastructure upgrades (beyond that which is currently being undertaken) a revised scenario was required to be prepared that could cater for development in consideration of the road network capacity and constraints.

NORTHERN BEACHES HOSPITAL TRANSPORT STUDY (Attachment 2)

As a result of the IWG's request, Council and DPE engaged a traffic consultant to undertake a further and more detailed traffic and transport analysis and modelling.

The details of the transport study can be found in Attachment 2 of this Report.

In summary, in undertaking the further traffic assessment, the traffic consultant identified that there were significant constraints that limit the ability to deliver the preferred scenario.

This primarily related to the limited capacity of the road network and the absence of a high volume and frequency public transport system.

The transport study (Attachment 2) provides more detail on this issue and the capacity of the road network. The traffic consultant analysed the network constraints, individual intersections and the modelling and assumptions used by the RMS when designing the roadworks in the area.

In particular, the Environmental Impact Statement (EIS) undertaken for the Stage 2 Network Enhancement Roadworks which the traffic consultant analysed (in detail) outlines the employment and housing assumptions adopted in the modelling for the RMS's Northern Beaches Connectivity and Network Enhancements project.

The employment and housing assumptions adopted in the modelling are based on growth forecasts to the year 2028 by the Bureau of Transport Statistics (BTS). The growth forecast used by BTS did not explicitly include the level of growth that would normally be associated with a new 'Strategic Centre'.

Accordingly, the road network will only cater for moderate employment and housing growth. Additional growth is further limited by the absence of a long term east/west public transport solution in the form of a Bus Rapid Transit system.

The attached transport report further outlines the constraints of the area, the network's inability to cater for any substantial growth and the extent to which the additional transport assessments have informed the draft precinct structure plan. This includes the capacity for growth and the appropriate location of potential growth within the precinct.

From this point onwards the capacity of the road network has largely driven the preferred growth scenario. Four growth scenarios were developed and tested and modeled by ARUP against the capacity of the road network and functioning of particular intersections including those along Frenchs Forest Road. The traffic movements generated by the location of the town centre have also been modeled.

The transport assessment undertaken by the traffic consultant identified a viable preferred growth scenario; however, upgrades to Grace Avenue and an extension of Naree Road would be required to deliver this scenario. These upgrades will potentially require the partial, and in some cases full acquisition of properties along Naree Road, Grace Avenue and Forest Way. The design of the upgrades will be the subject of further and more detailed analysis should the plan proceed in its current form.

In the absence of these upgrades the transport assessment identified a level of growth that provides between 700-1300 new dwellings could be delivered within the road capacity, following the completion of the RMS roadworks.

In comparison, the preferred growth scenario (identified as Scenario 2 in the ARUP Transport Study) requires local road upgrades to Grace Avenue and Naree Road and would provide additional road capacity and potentially cater for a Strategic Centre in the order of 12,000 jobs and an additional 2,500 dwellings.

This technical transport analysis has informed the draft Plan and has been carefully considered in the development of the Structure Plan.

The detailed Transport Assessment is contained in its entirety as Attachment 2 of this report.

DRAFT NORTHERN BEACHES HOSPITAL PRECINCT STRUCTURE PLAN (Attachment 1)

Based on detailed research, results of the community engagement and in particular the Transport Assessment, a Draft Precinct Structure Plan has been developed. The Structure Plan will leverage off the $1 billion investment in the new Hospital and road network upgrades to deliver a new sustainable, vibrant and connected Strategic Centre for Frenchs Forest and the wider Northern Beaches community.

The Draft Precinct Structure Plan identifies what land use changes are considered appropriate for the Precinct and necessary if the area is to achieve its identified status as a Strategic Centre. The main components of the Draft Structure Plan are:

Precinct 1:

- A new centrally located urban core connected to the new hospital with uses including retail, commercial, residential, open space and recreation. Building heights will be up to 40m
- New integrated aquatic centre
- General residential uplift along Frenchs Forest Road West between Wakehurst Parkway and Forest Way
- Additional permitted ground floor uses to activate the street frontage and provide supporting uses, immediately adjacent to new Hospital and urban core
- Affordable housing
- A new mixed use neighbourhood centre on Bantry Bay Road, to provide essential services for the residents south of Warringah Road, and also to provide housing choice in close proximity to transport and facilities
- New pedestrian and cycle way infrastructure
- Minimal growth and additional permitted uses in the form of attached dwellings and dual occupancies south of Warringah Road adjacent to the RMS roadworks

Precinct 2:

- Residential uplift to provide a gateway to the precinct
- Affordable housing

Precinct 3:

- Until further investment in a long term transport solution is provided, landowners are encouraged to explore the existing planning controls. These permit a range of land uses that are complementary to the long term objective of the precinct

Precinct 4:

- Benchmark integration of social infrastructure and educational facilities
- A new, state of the art, education facility
- Shared multiuse and multi purposed indoor and outdoor recreation facilities

Sustainable planning measures such as the development of energy and water targets and the inclusion of affordable housing within the precinct will be implemented through planning controls.

The Draft Northern Beaches Hospital Precinct Structure Plan is contained in its entirety as Attachment 1 of this report.

PUBLIC EXHIBITION

It is recommended that the draft Plan be exhibited for a period of at least 6 weeks to enable the community and stakeholders to view, understand and comment on the proposal.

The impending Christmas and New Year break raises issues regarding the timing of exhibition and commencement immediately after adoption of the Recommendation of this Report.

It is also Council's clear and long held position that exhibition of planning documents over a Christmas and new year period require an extended exhibition period to ensure that all community members have the time and ability to review and comment on the documents.

In light of the above, it is recommended that Council place the draft Plan on display immediately following the adoption of the Recommendations of this report and to commence formal public exhibition (including engagement activities) of the draft Plan in late January 2017.

This will ensure that all residents are provided with enough opportunity and time to review and comment on the draft Plan while on display in December 2016/January 2017 and to allow Council to engage with the community and stakeholders effectively as part of its formal engagement process in late January 2017 and running for a minimum of 6 weeks from this point.

The purpose of the Public Exhibition period will be for the community and stakeholders to have the opportunity to engage with Council and provide feedback in response to the Draft Plan. Engagement activities during the public exhibition period will include:

- Drop in sessions where community members and stakeholders will have the opportunity to discuss the draft Plan with Council staff. This will include a community information/drop in meeting within 14 days of the commencement of public exhibition of the Draft Plan
- Online engagement via the project page
- Targeted letter box drops of information brochures to local residents
- Media articles/advertisements.

The community should, again, be made aware that this draft Plan is intended to be the basis upon which future land use planning is undertaken and is a plan for the next 20 years.

The Plan is not the end of the process, as it does not rezone the land. This statutory process will commence once Council has endorsed the Final Structure Plan.

POST PUBLIC EXHIBITION

Following the formal public exhibition of the Draft Hospital Precinct Structure Plan, the project team will collate all submissions and prepare a summary report to Council. The report may include recommendations for changes to the draft Plan for Council's consideration when deciding upon the final Plan.

Once Council has endorsed a final Plan the appropriate process to rezone land can be determined and that process will commence.

The rezoning can occur in one of two ways, either by way of an amendment to Warringah Local Environmental Plan 2011 or a State Government amendment via a State Environmental Planning Policy. A decision on which process will be pursued has yet to be determined.

In any event there will be the need for a Development Control Plan along with a specific and direct Section 94 Contribution Plan to collect monetary contributions to fund necessary community infrastructure as outlined throughout the Plan. These documents will be critical to the precincts success and longevity as a Strategic Centre on the Northern Beaches. Preparation of these important planning documents will commence following the endorsement of the Final Structure Plan.

HOSPITAL PRECINCT STRUCTURE PLAN

DRAFT STRUCTURE PLAN REPORT

Prepared for Northern Beaches Council

NORTHERN BEACHES COUNCIL

NOVEMBER 2016

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Revision Letter	Date	Reason for Issue
A	13/03/2015	Draft for Discussion
B	14/06/2016	Revised Draft for Discussion
C	24/06/2016	Final Draft for Council Review
D	24/11/2016	Final Draft for Public Exhibition

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FRUITO

EXECUTIVE SUMMARY

1.0 EXECUTIVE SUMMARY

1.0 Executive Summary

The Hospital Precinct Structure Plan (Structure Plan) creates a sustainable future for the repositioning of Frenchs Forest to a Strategic Centre as established by "A Plan for Growing Sydney" and guides potential future growth in the area over the next 20-30 years.

The Structure Plan has been informed by community and stakeholder consultation to facilitate the progress of Frenchs Forest into a Strategic Centre, with enhanced transport infrastructure.

The Structure Plan balances the development potential of the preferred growth scenario, with current transport and infrastructure limitations. Scenario 4 was identified as the preferred growth scenario during the community engagement process. Also referred to as "Strategic Centre Full Potential," it considers both local street upgrades and the integration of public transport initiatives commensurate with a Strategic Centre.

The Structure Plan acknowledges that future development beyond that currently mapped within Frenchs Forest may be desired and this opportunity still exists, subject to further careful analysis and appropriate infrastructure improvements.

The Structure Plan Report is the third report produced as part of the Structure Plan process. Building upon the previously completed Analysis Report and Scenarios Report, it also incorporates the results from the Northern Beaches Hospital Detailed Transport Assessment (Transport Assessment) produced by Arup, and included as Appendix A.

The Structure Plan report articulates a staged approach to development. It balances development potential that is presently viable based on current infrastructure and transport capacity upgrades, with the longer term development framework underpinned with the objective of Frenchs Forest evolving into a Strategic Centre.

The Structure Plan is the result of a detailed and collaborative process with the local community, stakeholders, Northern Beaches Council and New South Wales (NSW) State Government including the Department of Planning and Environment, Transport for NSW, Roads and Maritime Services, Health Infrastructure, the Department of Education and Communities, and the Office of Environment and Heritage. The consultative process identified the aspirations of these groups in transitioning Frenchs Forest to a Strategic Centre. In particular, highlighting an urban typology that incorporates a mode shift to public transport and supports other transit oriented development initiatives as the preferred way forward.

Cognisant of these aspirations and the desire to transition Frenchs Forest into a Strategic Centre, the Structure Plan responds to infrastructure limitations as highlighted within the Transport Assessment (Appendix A). It further outlines high level land use capacity, traffic and transport initiatives, diversity of built form and density as well as identity and place making initiatives.

The Structure Plan identifies future transport and infrastructure recommendations which are required to facilitate the transitioning of Frenchs Forest into a Strategic Centre, whilst highlighting the potential relocation and redevelopment of key assets to aid the precinct's transition into a Strategic Centre. Notably, the potential relocation of Forest High School to the existing Warringah Aquatic Centre, and the development of a retail core including increased residential density on the existing Forest High School site.

The Structure Plan provides a foundation for the next steps the Northern Beaches Council will need to undertake including amendments to the LEP, DCP and the preparation of a Section 94 Contribution Plan.

FRUITO

INTRODUCTION 2.0

THE CASE FOR CHANGE

2.0 Introduction

The Structure Plan process as outlined within this report is underpinned by urban economics, strategic traffic and transport recommendations and best practice urban design to guide the long term development and implementation of a Strategic Centre at Frenchs Forest.

More than simply describing a Structure Plan for the precinct, the following report results from coordination with the community, Northern Beaches Council and the NSW State Government including; the Department of Planning and Environment, Roads and Maritime Services, Transport for NSW, Health Infrastructure and NSW Department of Education and Communities. To deliver a strategic methodology that underpins the integrated urban design, planning, transport and economic inputs that will lead to the sustainable development of the precinct.

OVERVIEW

The Structure Plan report is the third report produced as part of the Hospital Precinct Structure Plan process. Building upon the previously completed Analysis Report and Scenarios Report, it further incorporates the Northern Beaches Detailed Transport Assessment (Detailed Transport Assessment) conducted by Arup and included as Appendix A. The Detailed Transport Assessment was undertaken subsequent to the completion of these reports. It was produced following a request by State agencies who identified the need for more traffic and transport modelling to ensure the future network could support the growth identified within the Structure Plan. As a collective, these documents provide the foundation of information, underpinning the Hospital Precinct Structure Plan.

This report seeks to articulate a place that achieves the Northern Beaches Council and the Department of Planning and Environment's goal for a Strategic Centre that performs a vital economic and employment role for both the region and metropolitan Sydney. The report is structured to demonstrate the ability of the precinct to reach its full potential as a Strategic Centre, and its capacity to evolve over time to include a greater mix of residential, retail and service uses.

The Structure Plan report acknowledges that development presently mapped represents the first stage of the precinct's development into a Strategic Centre. It acknowledges that future development beyond that currently mapped, may be desired should appropriate infrastructure improvements occur.

The Hospital Precinct Structure Plan intends to take advantage of the strengths of the precinct to create a synergy between the various uses and users as the area evolves. This project has the opportunity to deliver more than just the mix of land uses and health support industries associated with a major hospital. It can create localised employment opportunities to spur the economic evolution and redevelopment of the Northern Beaches, as well as the sequenced delivery of increased residential density (through up-zoning of existing residential land). In doing so, the Northern Beaches can become a more dynamic, more liveable location with the injection of associated research and health industries, driving jobs and growth within the Northern Beaches. Simultaneously providing appropriate housing provisions including affordable housing to enable the diversification of housing stock, accommodate population growth and generate greater activity throughout the area.

THE CASE FOR CHANGE

The construction of the new level 5 Frenchs Forest Hospital creates opportunity to leverage off this significant investment and provide a new strategic centre to cater for the health, retail, commercial, residential, education and recreational needs of the Northern Beaches community. In addition to the construction of a new Hospital, The NSW Government is investing $500 million to upgrade the roads around the new Northern Beaches Hospital with work proposed to be completed in time for the hospital opening in 2018. The roadworks are being undertaken in two stages. Stage 1 consists of works to provide essential connections to the new Hospital . Stage 2 consists of network enhancement works including the provision of a grade separated underpass for approximately 1.3 kilometres below the intersections of Forest Way, Hilmer Street and Wakehurst Parkway.

The Structure Plan report is based upon the direction established in *A Plan for Growing Sydney*. The opportunity exists to bring to Frenchs Forest best practice integrated urban design development initiatives that will enable the precinct to evolve beyond its current capacity. Moreover, this will enable the precinct to meet the criteria for a Strategic Centre as established by *A Plan for Growing Sydney* and enable the centre to contribute to the region and city's economy.

People are key inputs to production and therefore, the ability to move people to and between dense urban clusters of economic activity, be it for jobs, research, education, living or recreating, means establishing a successful transport network. It is also recognised there is a move away from personal vehicle dependence in a trade-off with lifestyle, a desire for reduced commute times and ability to live close to work. For Frenchs Forest, this means the opportunity exists to provide appropriate residential up-zoning provisions to accommodate population growth and housing demand presently experienced within the Northern Beaches. It also means opportunity exists to use the economic performance of the existing business park and leverage the hospital development to invest in infrastructure initiatives that support a 21st century integrated, mixed use precinct, that is sustained and enabled by transit.

Underpinned by precinct visioning, development principles and the Detailed Transport Assessment, the Structure Plan considers a number of infrastructure based scenarios to determine the capacity of the precinct for the future. The varying scenarios quantify different long term outcomes for the site with respect to housing density, diversity of uses and infrastructure delivery, as well as qualitative aspirations for open space, built form and community events.

The determination of a preferred scenario for the precinct is enabled through this analysis. This process ensures a robust and flexible approach to the development of the area that can respond to changing market conditions and development opportunities as they arise.

INVESTIGATION AREA 2016

DEFINING THE INVESTIGATION AREA

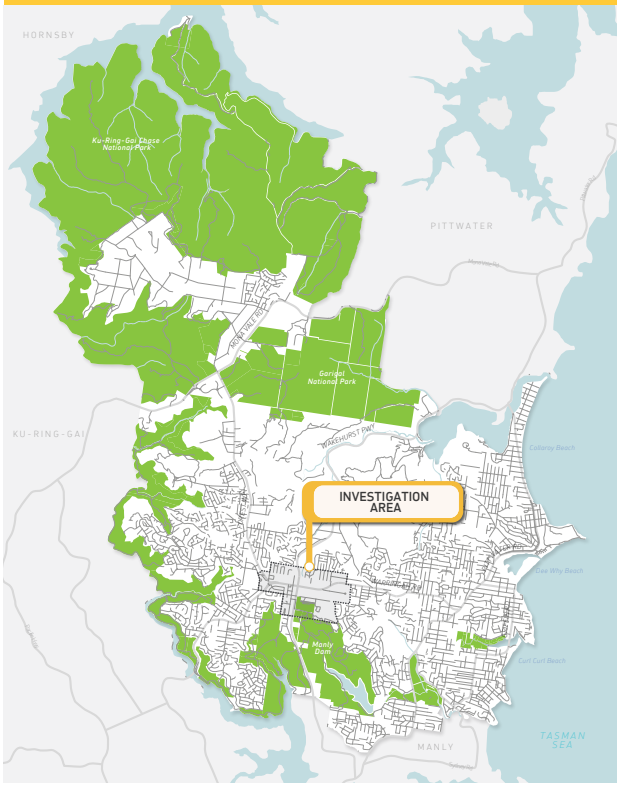
The Hospital Precinct Structure Plan adopts a 200 hectare investigation area. The investigation area is located within the Northern Beaches Council, situated approximately 10 kilometres north-west from Manly and approximately 15 kilometres south-west from Mona Vale. The investigation area is located in the suburb of Frenchs Forest and is intersected by two major thoroughfares, Warringah Road and Wakehurst Parkway, with Forest Way feeding into Warringah Road in the investigation area's north western end.

The purpose of the investigation area is to provide an area within which to test the long term objectives to establish a Strategic Centre at Frenchs Forest. This investigation area is supported by an area of influence (A 1.5 kilometre radial area from the intersection of Warringah Road and Wakehurst Parkway). The investigation area has been the primary focus area for the development of the Structure Plan.

The investigation area is bound by Iris Street to the north, Jones Street into Allambie Road to the east, Yarraman Avenue extending through Manly Dam lands to the south, and Rangers Retreat Road up to Grace Avenue to the west. It encompasses land that falls within the Frenchs Forest suburb and includes the Forestway Shopping Centre as well as the former Bantry Bay and Skyline Shops neighbourhood centres. RMS have undertaken construction work to remove the existing buildings and structures from properties between No. 449 - 467 Warringah Road, including the former Bantry Bay Shops. These properties were acquired by RMS for the Northern Beaches Hospital Road upgrade project.

The investigation area encourages continued coordination and allows for the creation of a Hospital Precinct Structure Plan responsive to the investment of the Northern Beaches Hospital site currently underway.

Investigation Area within Northern Beaches



Investigation Area

Investigation Area with 1.5 km radius Area of Influence

CONFIRMING THE ASPIRATIONS

During the development of the Scenarios Report, a series of aspirations for the Structure Plan were identified by the community. These aspirations respond to an analysis of the existing context, outcomes of previous consultation undertaken including the Community Strategic Plan, comments received during the Drop In Sessions and Workshops at Forestville RSL as well as Strategic Centre Criteria outlined in *A Plan for Growing Sydney*.

This is coupled with key elements that constitute urban design excellence for Strategic Centres such as place creation, identity, movement networks, land uses, future proofing and social, economic, environmental and governance sustainability.

The intent for the delivery of the Hospital Precinct Structure Plan is described in the following aspirations as the first step to achieving a whole-of-project vision. This intent is then translated into possible future precinct typologies for the Hospital Precinct.

ASPIRATION 01
TRANSITION FROM A BUSINESS PARK TO A STRATEGIC CENTRE

ASPIRATION 02
CREATE A HEALTH AND WELLNESS PRECINCT

ASPIRATION 03
INCLUSION OF AFFORDABLE HOUSING

ASPIRATION 04
REINFORCE THE PRECINCT AS AN ECONOMIC HUB

ASPIRATION 05
CLARIFY THE STREET NETWORK

ASPIRATION 06
EXTEND AND CONNECT TO THE EXISTING FABRIC

ASPIRATION 07
ENHANCE THE IDENTITY OF THE PRECINCT

ASPIRATION 08
INTEGRATE PUBLIC TRANSPORT COMMENSURATE WITH A STRATEGIC CENTRE

ASPIRATION 09
MAKE THE PRECINCT BIGGER

ASPIRATION 10
DEFINE THE MIX OF USES

ASPIRATION 11
LEVERAGE THE NATURAL ENVIRONMENT

ASPIRATION 12
DESIGN FOR THE FUTURE

ASPIRATION 13
CREATE A VIBRANT COMMUNITY DESTINATION

ASPIRATION 14
MAKE THE PRECINCT ACTIVE AND HEALTHY

ASPIRATION 15
CREATE A LEGACY

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COMMUNITY & STAKHOLDER ENGAGEMENT 3.0

CONFIRMING THE PREFERRED SCENARIO

3.0 Community and Stakeholder Engagement

The development of the Hospital Precinct Structure Plan is underpinned by an engagement strategy that involved key stakeholders and the community. The aim of the consultation process was to:

+ Obtain a good understanding of stakeholder and community issues and aspirations for the area;
+ Inform stakeholders and the community about the project; and
+ Provide opportunities for stakeholder and community participation in the development of the Hospital Precinct Structure Plan.

This section of the report summarises engagement sessions undertaken, highlights key outcomes from these sessions and the capacity to which they have informed the Structure Plan.

The engagement process comprises three steps that are embedded within the development of the Structure Plan, including:

+ Step 1: Project Definition and Visioning
+ Step 2: Scenario Development and Evaluation
+ Step 3: Preferred Scenario Exhibition

Step 1: Project Definition and Visioning involved two drop in sessions at Forestville RSL on the evening of Thursday, 9 October 2014 and the afternoon of Saturday, 18 October 2014. Approximately 150 stakeholder and community members attended each drop in session.

This provided interactive community drop in sessions which introduced the project to stakeholders and the community, then sought comments from attendees around topics including community facilities, open space, housing, jobs, businesses, access and transport. The comments informed the aspirations identified in Section 2.0 of this report.

In addition to the interactive community drop in sessions, further engagement measures undertaken during Step 1 of the engagement process included:

+ On line engagement using spatial tool 'Social Pinpoint' & Your Say website;
+ Project updates using the Community Engagement Register (CER);
+ Development of an online educational video;
+ Targeted letter box drops of 10,000 brochures to residents inside the investigation area and area of influence;
+ Wider community mail outs;
+ Collaboration with State Agencies through the Inter Agency Working Group; and
+ Media articles / advertisements.

Step 2: Scenario Development and Evaluation involved three workshop sessions at Forestville RSL on the afternoon of Saturday, 8 November 2014, the afternoon of Wednesday, 19 November 2014 and the evening of Wednesday, 19 November 2014. Approximately 40 stakeholder and community members attended each workshop. The workshops undertaken can be summarised as follows:

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- Key Stakeholder Engagement (1 on 1 Meetings & Workshops);
- Community Reference Group (Workshops);
- Resident Input (Workshops);

Four development scenarios were presented during the workshop sessions. The scenarios presented consider different development parameters in relation to the investigation area, land ownership, traffic and transport initiatives as well as open space and pedestrian connectivity.

Underpinning each scenario is the common intention to reposition the project from an isolated "hospital" and logistics based business park to a sustainable, liveable, commercially minded, urban precinct connected with the broader Frenchs Forest community and Northern Beaches region.

In summary, the scenario's presented included:

- Scenario 1, "Base Case," represents the 2018 redevelopment of the precinct including the completed Northern Beaches Hospital and RMS road upgrades.
- Scenario 2, "Local Street Network Upgrade," considers the possibility by 2036 of increased site capacity by introducing an inner loop road, elevating the role of some identified existing streets and creating new street connections to enable an outer loop road system. In this scenario the existing bus system is retained.
- Scenario 3, "Mode Shift," considers by 2036 a new focus on public transport initiatives and potential Bus Rapid Transit network (or similar). While an inner loop road is clarified for the precinct, the emphasis is on pedestrian amenity and connectivity associated with public transport initiatives.
- Scenario 4, "Strategic Centre Full Potential," considers by 2036 both local street upgrades and the integration of public transport initiatives commensurate with a Strategic Centre.

It is evident that stakeholders and the community have a strong preference towards achieving Scenario 4 - Strategic Centre Full Potential with 56.1 per cent of all votes across the three workshops awarded to this scenario. The second most preferred scenario was Scenario 3 – Mode Shift with 36.4 per cent of all votes across the three workshops.

Most noticeably, stakeholders and the community do not have a strong preference towards Scenario 1 – Base Case (5.9 per cent of all votes) or Scenario 2 – Local Street Network Upgrade (1.6 per cent of all votes). This translates to a preference and ambitious appetite for change with a public transport focus as Frenchs Forest transitions to a Strategic Centre.

In addition to community and stakeholder workshops, State Agency Input has been provided through the vehicle of the Interagency Working Group (IWG). Working together with Northern Beaches Council, the IWG, including NSW Department of Planning and Environment, Roads and Maritime Services, Transport for NSW, Health Infrastructure, and NSW Department of Education and Communities, have identified a number of cross-government opportunities that facilitate the desired outcomes at Frenchs Forest.The IWG workshops have continued throughout the development of the Structure Plan process.

Following the engagement process and confirmation of a preferred growth scenario (Scenario 4), discussions were held with relevant NSW Government agencies to discuss the future transport requirements of the precinct for the next 20 years. It was resolved more traffic and transport modelling was required. This was to ensure the future transport network could support the increased growth as intended by the Structure Plan, and identify if any additional infrastructure upgrades were required, beyond what was already planned for the hospital, to enable the transitioning of Frenchs Forrest into a Strategic Centre.

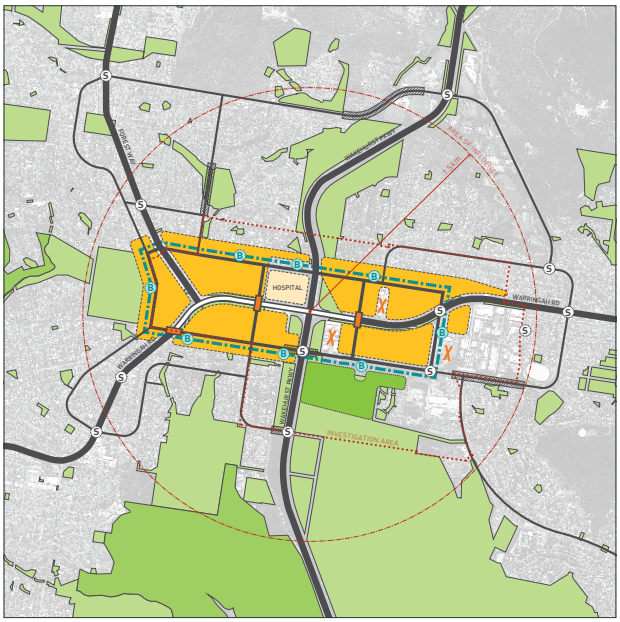
Subsequently, the preparation of the Hospital Precinct Structure Plan was put on hold while a detailed transport assessment was undertaken. The process and outcomes of this assessment are detailed in following section.

Step 3: Public Exhibition of Draft Structure Plan will now be undertaken following the finalisation of the draft Plan and endorsement of Council to publicly exhibit the document. The engagement methodology for this process includes (but not limited to):

- Online engagement via the project page;
- Targeted letter box drops of brochures to local residents;
- Media articles/advertisements; and
- Drop in sessions where community members can discuss the draft with Council staff.

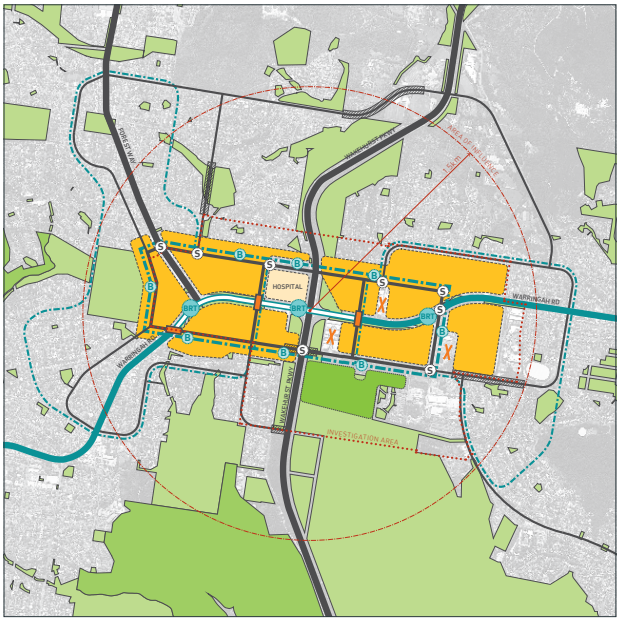
Growth Scenarios

Scenario 1 – Base Case



Scenario 2 – Local Street Network Upgrade (Including new streets)

Scenario 3 – Mode Shift (No change to local street network)



Scenario 4 – Strategic Centre Full Potential (Scenario 2 plus 3)

Area of Influence
Investigation Area
Hospital Site
Road Network
Road Cut
Open Space
Public Transport Route
Bus Stop
Signalised Intersection
5 Minute Walking Radius
Pedestrian / Cyclist Overpass
Bus Rapid Transit

DETAILED TRANSPORT ASSESSMENT

The preferred scenario (Scenario 4) as determined by community and stakeholder involvement, resulted in a Strategic Centre which provided an additional 4,500 dwellings and achieved the State Governments employment target of 10,000 jobs. In addition to growth spread across the investigation area, the preferred scenario identified a Town Centre precinct adjacent to the Hospital site on the existing High School site.

This scenario relied heavily upon infrastructure upgrades to the public transport (Bus Rapid Transit) and road network in the area, including a number of road bridges.

The preferred scenario was presented to the IWG in mid-2015. At this meeting the RMS and TfNSW identified a requirement for further traffic assessment of the preferred growth scenario. Subsequently, Northern Beaches Council and the Department of Planning and Environment engaged ARUP to undertake further traffic assessment.

In undertaking the further traffic assessment, it become apparent that there were significant constraints that limit the ability to provide a fully functioning Strategic Centre, as presented in the preferred scenario to the IWG in mid-2015.

As part of the Stage 2 Network Enhancement works, RMS undertook analysis which outlined the employment and housing assumptions adopted in the modelling for the RMS's Northern Beaches Hospital Connectivity and Enhancements project.

The employment and housing assumptions adopted in the modelling are based on growth forecasts to the year 2028 by the Bureau of Transport Statistics (BTS). The growth forecast used by BTS did not explicitly include the level of growth that would normally be associated with a new 'Strategic Centre'.

It is for this reason that the road network notwithstanding the current upgrades, has limited ability to cater for additional employment and housing growth. Additional growth is further limited by the absence of a long term east/west public transport solution in the form of a Bus Rapid Transit system for which Council has long advocated.

The proceeding report further outlines the constraints of the area, the network's inability to cater for any substantial growth and the extent to which the additional transport assessments have informed the draft precinct structure plan. This includes the capacity for growth and the appropriate location of potential growth within the precinct.

From this point onwards the capacity of the road network has largely driven the preferred growth scenario. Four growth scenarios were developed and tested and modelled by ARUP against the capacity of the road network and functioning of particular intersections including Frenchs Forest Road. The traffic movements generated by the location of the town centre have also been modelled.

The Detailed Transport Assessment undertaken by ARUP identified a viable preferred growth scenario; however, upgrades to Grace Avenue and an extension of Naree Road would be required to deliver this scenario.

In the absence of these upgrades the Detailed Transport Assessment identified a level of growth that provides between 700-1300 new dwellings could be delivered within the road capacity, post Stage 1 and and Stage 2 RMS upgrade works being completed.

In comparison, the preferred growth scenario (identified as Scenario 2 in the ARUP Transport Study) requires local road upgrades to Grace Avenue and Naree Road and would provide additional road capacity and potentially cater for a Strategic Centre in the order of 12,000 jobs and an additional 2,500 dwellings.

The Detailed Transport Assessment is contained in its entirety as **Appendix A** of this report.

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DRAFT STRUCTURE PLAN

4.0

GUIDING FUTURE GROWTH

4.0 Draft Structure Plan

This section of the Hospital Precinct Structure Plan Report describes the agreed Structure Plan. Not a design, the Structure Plan is intended to provide a strategic framework for the long term development of the Northern Beaches Hospital Precinct.

The Structure Plan maps the development potential based on the current network and transport capacity. Developable areas of the Structure Plan are underpinned with the objective of transitioning the precinct into a Strategic Centre, and are strategically located to consolidate development to facilitate this transition.

The Structure Plan consists of four nominated precincts that combine to create the Hospital Precinct Structure Plan. The precincts encompass a range of land uses that will support the areas transition into a Strategic Centre.

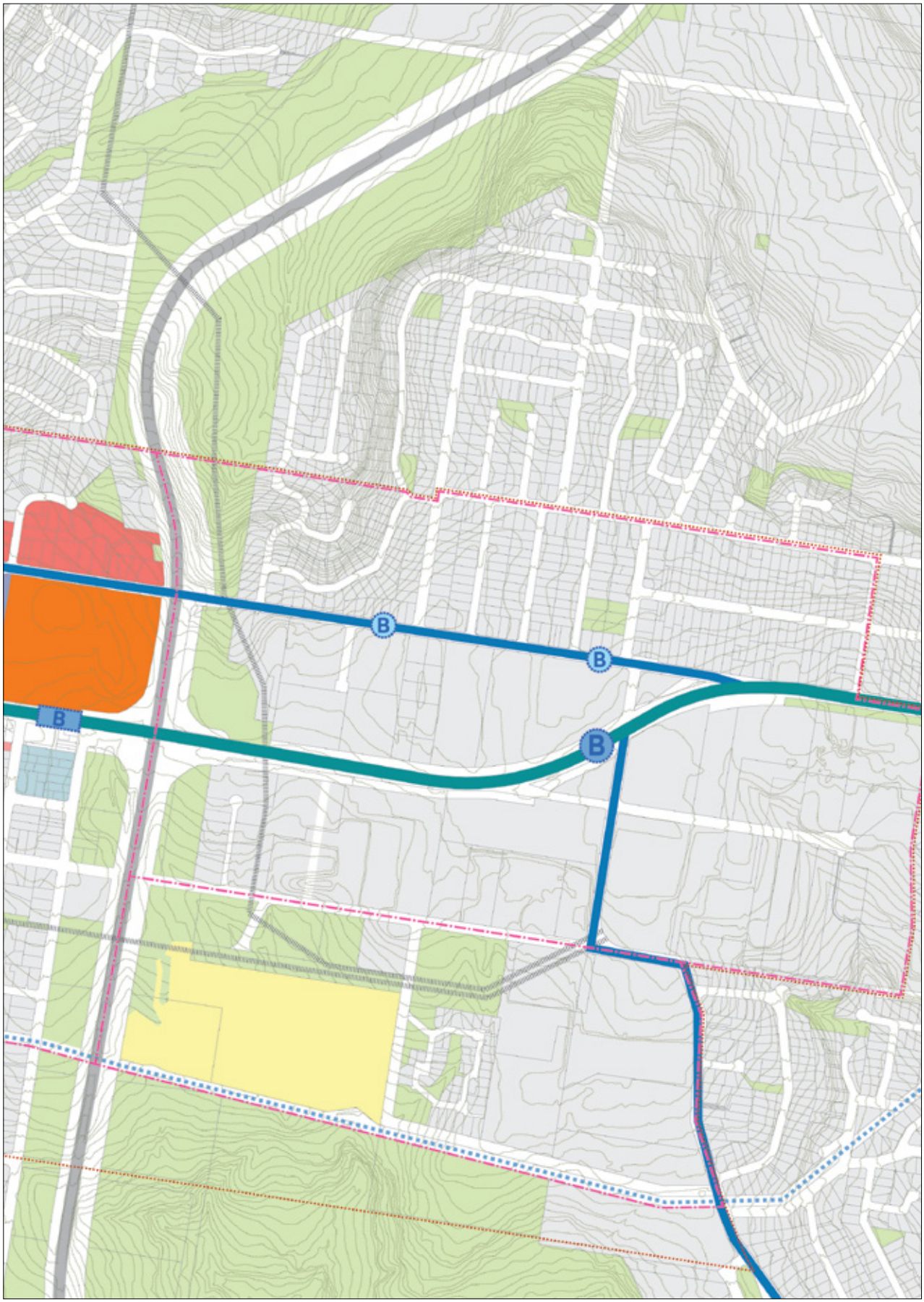
It is acknowledged that future development capacity beyond that currently mapped within Frenchs Forest may be desired and this opportunity still exists, subject to further careful analysis and appropriate infrastructure improvements.

The key elements of the Structure Plan include a revised road network hierarchy, transit integration, open space networks, pedestrian and active transport connectivity and land use and density intensification. These elements are combined in the following pages to describe the holistic and sustainable approach to precinct development commensurate with a Strategic Centre.

In the following section, each of the identified precincts are described in further detail. In evaluating the capacity and appropriate urban form to the Strategic Centre, we have made the following considerations:

- In determining the residential capacity of the study area, we have had regard for the characteristics and locational qualities of the various precincts; the comparative yields from other infill residential projects across Sydney; the likely spread of new housing north and south of Warringah Road; and limitations of developable areas due to network and transport constraints.
- In determining the investigation area's employment capacity we have taken into consideration the existing employment numbers, the estimated employment growth likely to be generated by the new hospital, the benchmark employment target of 10,000 jobs as set by A Plan for Growing Sydney, in addition to current network capacity limitations. The investigation areas presently yield approximately 8,000 jobs. Taking the additional number of jobs anticipated to be provided through the development of the new hospital (1300), it is anticipated minimal growth is needed to achieve the benchmark employment target in the short to medium term.
- In determining an appropriate location for the initial development of the Structure Plan, growth is consolidated to the west of the Hospital Precinct Structure Plan area. Consolidation will provide the critical mass required to activate and spur additional development within the Structure Plan area. Should infrastructure and transport upgrades be provided in the future, it will also facilitate the transitioning of the area into a Strategic Centre. In determining an appropriate scale for future development, we have taken the approach of establishing a height datum for the precinct to reinforce its identity as a Strategic Centre.

Structure Plan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TRANSPORT AND ROAD NETWORK HIERARCHY

High performance public transport and road network hierarchy are essential criteria in the delivery of Strategic Centres across metropolitan Sydney. This section describes the road network strategy that underpins the delivery of the Hospital Precinct Structure Plan.

A detailed transport assessment of the future land use changes identified for the hospital precinct has been undertaken, including network modelling of future traffic movement options beyond those currently proposed by the NSW State Government as part of the Northern Beaches Hospital Road Connectivity and Network Enhancement Project.

This involved a two stage process: Stage One analysed the transport influencers and impacts on the Frenchs Forest Strategic Centre to help inform the identification of the most appropriate land use scenario for the precinct from a transport and accessibility perspective. Stage Two involved a detailed evaluation of the preferred land use scenario using modelling to understand the impacts on the function and operation of the surrounding transport network from the proposed land use changes. The Detailed Transport Assessment Report is included as **Appendix A.**

This section of the report provides a strategic overview of the integrated approach to transport and traffic at the Frenchs Forest Strategic Centre.

ROAD NETWORK

An established road network exists at Frenchs Forest. Due to the catalytic development of the new Northern Beaches Hospital, considerable upgrades to the regional road network have commenced. Further upgrades are required to transition the centre from a business park and hospital construction site to a fully functioning Strategic Centre. An overview of the road network hierarchy is described below.

Regional Roads

Warringah Road, Wakehurst Parkway and Forest Way connect the Hospital Precinct to metropolitan Sydney. Warringah Road, and the associated RMS upgrades, connects the Hospital Precinct east-west, from Dee Why to Chatswood. Wakehurst Parkway provides north-south connectivity from central Sydney to the Northern Beaches. Forest Way provides connection to Mona Vale Road in the north.

Collector Roads

Connect the sub-arterial roads to the local road system in developed areas.

Local Roads

In brief, a number of local roads have been identified for upgrade to provide improved local access to sites within the Hospital Precinct. The first component of the local road upgrades is currently underway with the upgrade to Frenchs Forest Road West and East to facilitate the hospital delivery (RMS Stage 1 works).

The other key local road improvement required is in the western portion of the Hospital Precinct (Naree Road extension and Grace Avenue upgrade). The local road upgrades should provide complete streets including pedestrian and cycle amenity as well as vehicle functionality.

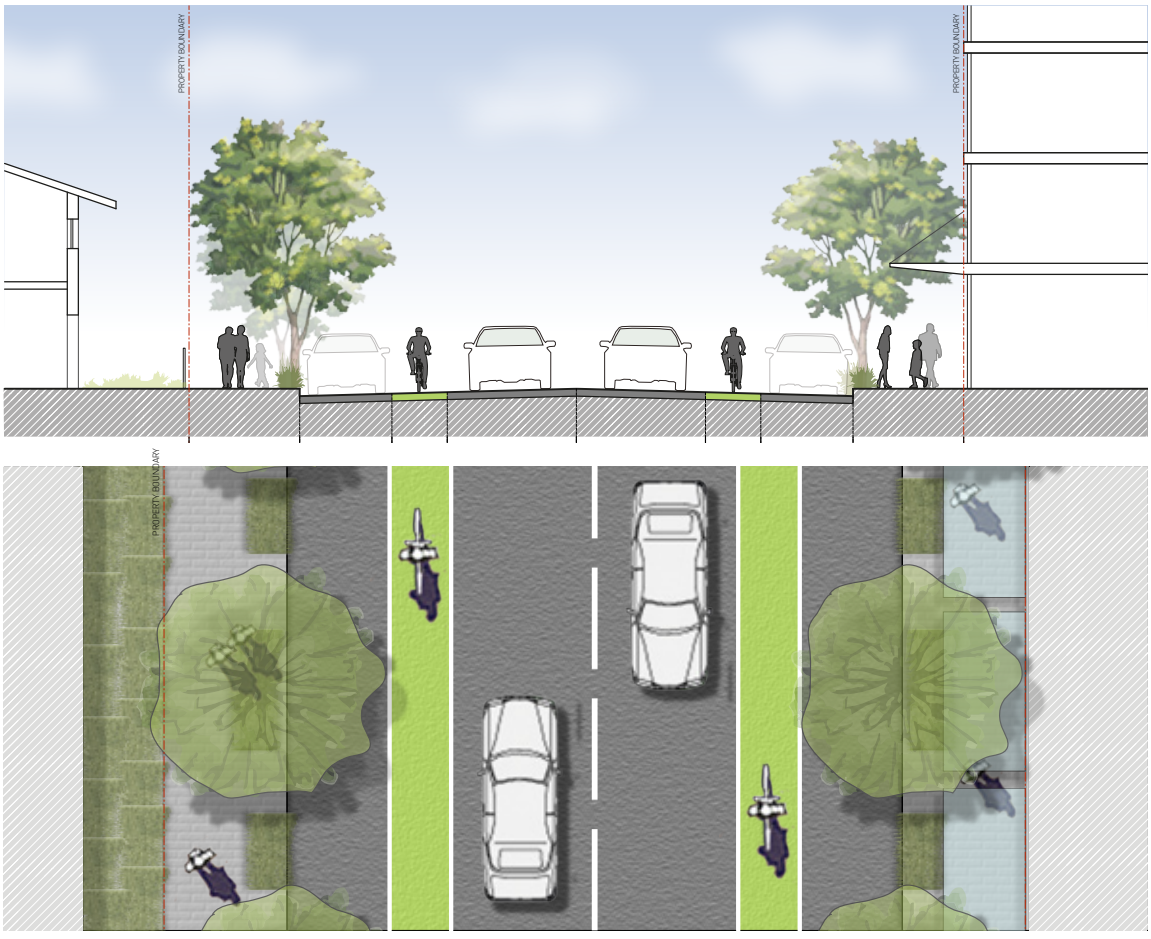
Complete Streets

Complete streets incorporate pedestrian and cycle movement as part of their character and function, as shown in the indicative street section overleaf. Pedestrian / cyclist overpasses of Warringah Road have been identified to provide north-south connectivity, proving greater access to bus stops and enhancing precinct connectivity.

PUBLIC TRANSPORT

A Bus Rapid Transit (BRT) system has been identified as the appropriate public transport system for Frenchs Forest, particularly from Dee Why to Chatswood. A BRT system would correspond with the identity of Frenchs Forest as a Strategic Centre for metropolitan Sydney. However, this has not been identified as being able to be provided in the short term development of the precinct. The absence of a BRT system limits the current ability for Frenchs Forest to reach its full potential as a Strategic Centre in metropolitan Sydney. In the short term, increased frequency bus services have been identified as the most appropriate public transport system to cater for the growth proposed under the Structure Plan.

INDICATIVE SECTION AND PLAN FOR A COMPLETE STREET



Movement and Public Transport Network

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IMPLEMENTATION

The establishment of a Structure Plan for Frenchs Forest has been a highly collaborative process. Working together with Northern Beaches Council, the Interagency Working Group, including NSW Department of Planning and Environment, Roads and Maritime Services, Transport for NSW, Health Infrastructure, and NSW Department of Education and Communities, have identified a number of cross-government opportunities that facilitate the desired outcomes at Frenchs Forest.

In addition, changes in land ownership, options and amalgamations have similarly created private sector opportunities that can deliver the long term aspirations for the Structure Plan. As an overview, the following approach to implementation is nominated:

ACHIEVING THE URBAN CORE AND RESIDENTIAL GATEWAY (PRECINCTS 1 & 2)

- **STEP 1:** Collaboratively with NSW Department of Education and Communities investigate the potential to relocate The Forest High School to the existing Warringah Aquatic Centre site.
- **STEP 2:** In parallel, develop a new retail and mixed use facility at the existing Forest High School site, following discussions with NSW Department of Education and Communities that includes provision for potential community facilities, including a new aquatic centre.
- **STEP 3:** General residential uplift, including provision for affordable housing located to the west and north of the urban core.

ACHIEVING THE BUSINESS PARK AND INNOVATION PRECINCT (PRECINCT 3)

The current planning controls provide opportunity for a wide range of land uses that could facilitate the transition of this precinct into a business and innovation precinct in the short term.

Any development beyond this is restricted by the current infrastructure capacity limits. As such, any investment and/or growth within this precinct beyond what is permissible under current planning controls is dependent upon the implementation of a BRT system.

ACHIEVING A RECREATION AND SPECIAL USES PRECINCT (PRECINCT 4)

Opportunity exists to develop an education precinct, whilst concurrently establishing provision for shared multi-purpose community facilities within the Recreation and Special Uses Precinct.

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STRUCTURE PLAN PRECINCTS

5.0

DEFINING THE CHARACTER OF THE PRECINCTS

5.0 Structure Plan Precincts

The Structure Plan acknowledges the long term objective to transition Frenchs Forest to a Strategic Centre, this objective is fundamental and reflective of community and state government aspirations. It therefore underpins the current development framework outlined within this section.

The Structure Plan describes both the repositioning of Frenchs Forest to a Strategic Centre, guiding future growth in the area over the next 20-30 years. Whilst simultaneously balancing the long term growth objective with the current development potential presently viable under the current infrastructure and transport capacity,

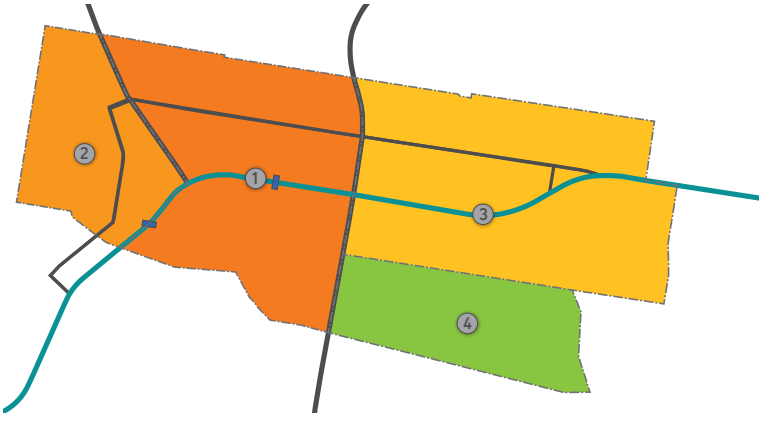
In this section of the report, four precincts have been nominated. The precincts reflect four different character areas within the Investigation area that combine to create the Hospital Precinct Structure Plan.

Not mutually exclusive, the precincts work together to achieve an integrated and holistic framework for the future delivery of a Strategic Centre at Frenchs Forest. Each precinct, has specific characteristics and infrastructure requirements that require consideration on an individual basis. As illustrated in the diagram below, the four precincts, which collectively form the Northern Beaches Hospital Precinct Structure Plan are as follows:

+ **Precinct 1. Frenchs Forest Urban Core**
+ **Precinct 2. Residential Gateway**
+ **Precinct 3. Business Park and Innovation Precinct**
+ **Precinct 4. Recreation and Special Use Precinct**

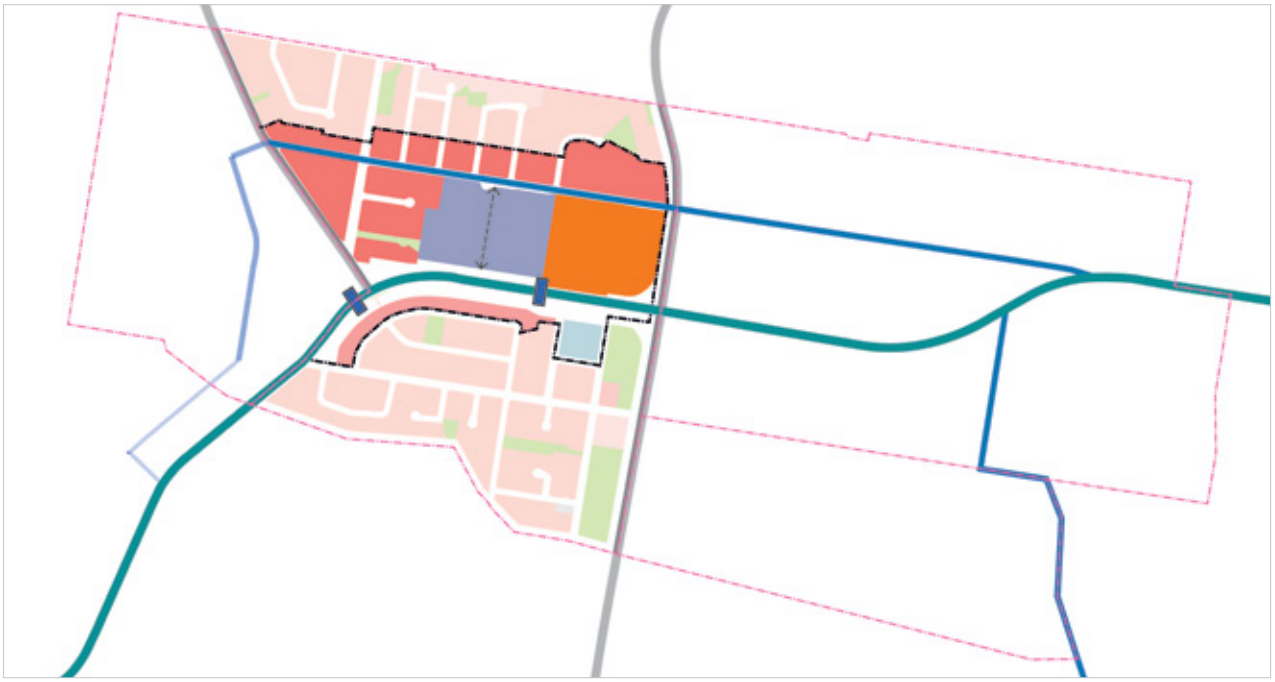
The following section is divided in to four parts, each part describing an individual precinct. The description of each precinct is related to the following:

+ **Urban Form,** considering the relationship between land use and an appropriate built form;
+ **Movement,** incorporating public transport, street infrastructure and active transit initiatives;
+ **Environment,** highlighting key assets for enhancement or inclusion;
+ **Activity,** the employment and activation generator of the area; and
+ **Implementation,** describing the intended actions to achieve a Strategic Centre at Frenchs Forest.



Precinct Zoning Changes

Precinct 1: Frenchs Forest Urban Core



LONG TERM OBJECTIVE (20+ YEARS)

The long term objective for Precinct 1: Frenchs Forest Urban Core is to reinforce this area as the urban centrepiece of the Hospital Precinct Structure Plan. Leveraging investment at the new hospital, it is identified as the civic and community focus. The Frenchs Forest Urban Core includes significant retail development, community and social infrastructure, civic scaled open space, commercial activities and diverse residential opportunities including affordable housing options. It is also identified as a suitable location for a future aquatic centre to replace the existing Warringah Aquatic Centre. It is anticipated to be the highest order destination within the Frenchs Forest Strategic Centre, co-located with the hospital, these activities can secure the precinct as an attractor and destination for the region and local community alike.

SHORT TERM OBJECTIVE

Presently, infrastructure and network limitations do not enable the complete uplift of this precinct as envisioned for the long term. Consequently, the Structure Plan proposes a development framework which enables a staged approach to facilitate the ultimate realisation of the precinct's long term objective. Residential development is consolidated north of Frenchs Forest Road West, and west of the town centre. This will provide an activated urban core for the short term whilst enabling future residential growth, should infrastructure and network improvements permit.

A pedestrian 'green link' is proposed to connect the town centre with the residential areas located west and east of Forest Way. A north-south connection link proposed within the town centre provides a pedestrian focused "main street", which is to be characterised by slow moving traffic and pedestrian prioritization in order to create a vibrant street environment and promote walkability.

The former Bantry Bay Shops are proposed as medium density shop top housing, reflecting the community's desire to include a retail neighbourhood presence within the area. Activated ground floor uses are encouraged directly adjacent to the town centre and hospital site, north of Frenchs Forest Road West. These tenancies are intended to accommodate ancillary uses, complementary to the new hospital.

The Structure Plan proposes additional permitted land uses to properties immediately adjoining the southern side of Warringah Road however, beyond this, minimal residential growth is proposed. Like much of the Hospital Precinct this growth is heavily restricted by network capacity and transport limitations.

Precinct 1 Short Term Jobs *(Source: MacroPlan Dimasi)*

Employment Type	GFA	Jobs
Northern Beaches Hospital	100,000 sqm	1300
Retail	25,000 sqm	800 - 850
Other (e.g. personal services, recreation, childcare)	2,400 sqm	150 - 200
Total Employment	**127,500 sqm**	**2,250 - 2,350**

HOUSING *(Source: MacroPlan Dimasi)*

Location	Number	Residents
Precinct 1	940	2,068
Total Housing	**940**	**2,068**

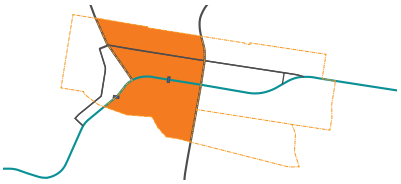
Precinct 1 Long Term Jobs *(Source: MacroPlan Dimasi)*

Employment Type	GFA	Jobs
Northern Beaches Hospital	100,000 sqm	1,900
Retail (Includes allied health & medical)	25,000 sqm	800 - 850
Other (e.g. personal services, recreation, childcare)	2,400 sqm	150 - 200
Total Employment	**127,500 sqm**	**2,850 - 2,950**

HOUSING *(Source: MacroPlan Dimasi)*

Location	Number	Residents
Precinct 1	1,700 - 1,980	4,250 - 4,950
Total Housing	**1,700 - 1,980**	**4,250 - 4,950**

Precinct 1: Frenchs Forest Urban Core



URBAN FORM

Description and Character

The character of the precinct will reinforce the civic identity with medium to large scale buildings set within a residential context. The central area of this precinct, notably the town centre and hospital site will be the most highly activated area of the Structure Plan. The ground floor will be primarily retail. Where retail is not the primary use of the building (such as commercial, health and civic buildings) the ground floor treatment should have a unique address reflective of the building type.

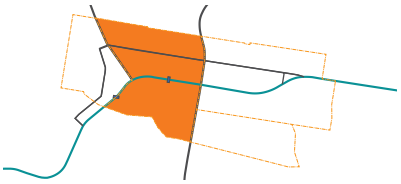
The character of the central area of the precinct will be notably different to the surrounding residential areas. The buildings of the Urban Core precinct should be treated as discreet buildings. Materials used at the ground plane should enhance the pedestrian environment and precinct role as a civic focal point.

Typology and Built Form

- Built form complements and reinforces the place as a major hub, similar to the Major Centre of Brookvale-Dee Why.
- Sited on the highest area of the precinct the built form should take advantage of views and reinforce the ridgeline.
- The overall height datum for the Urban Core precinct is 40m, supported by residential uses which range from 11m - 40m.
- Ground level should be consistent with the delivery of the RMS Stage 1 Road Works for Frenchs Forest Road West, to assist the legibility and walkability of the area.
- Topography should be utilised to sleeve and conceal car parking. Under-croft parking is encouraged to provide discrete vehicle access and egress.
- Frenchs Forest Road West provides the physical regional address for the precinct with Warringah Road providing the visual address for the area.
- Include a civic space that is the centrepiece of the Frenchs Forest Urban Core. The character of the place is envisioned to be an active contemporary urban civic space.
- Retail: Rather than a traditional shopping mall, the retail component should be considered as a town centre, delivered as a number of buildings and places, and supported by community, cultural, commercial and residential uses.
- Commercial: These buildings can be individual or related to a retail podium. They should reinforce the precinct's identity through architectural form.
- Community and Civic Activities: Should be included within the town centre. These activities provide opportunity for place based activation of public spaces. Opportunity exists for the inclusion of a potential aquatic centre.
- Higher Density Residential: Transition from single lot housing can appropriately include terrace, walk up, and residential flat buildings, Opportunity exists for the inclusion of affordable housing options.
- Sustainable Planning Measures: Such as the development of energy and water targets will be implemented through development control plans. Further investigations into sustainable development practices and incentives will be undertaken.
- There will be a transition from areas of greater density and built form to adjoining low density residential areas. This transition will be carefully managed by planning controls including the proposed floor space ratios which limit the amount of building area that can be developed on each site as well as building setback and building envelope controls.

Indicative internal perspective of the Town Centre

Precinct 1: Frenchs Forest Urban Core



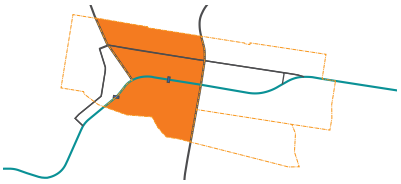
URBAN FORM (Continued)

Land Use and Zoning

- B4 Mixed Use for Town Centre (retail supported by commercial, health and wellness, civic, cultural, entertainment, cultural and formal public open spaces with residential above).
- R2+ Low Density Residential plus amendments to Schedule 1 Additional Permitted Uses for dual occupancy and attached dwellings (Concentrated south of Warringah Road).
- R3+ Medium Density Residential plus amendments to Schedule 1 Additional Permitted Use for supportive uses at ground level (Adjacent to the town centre and hospital site) to activate Frenchs Forest Road West.
- R3 Medium Density for residential to enable a diversity of housing types commensurate with a Strategic Centre for metropolitan Sydney (which respond to topographical constraints).
- B1 Neighbourhood Centre for former Bantry Bay.
- SP1 Special Activities for Northern Beaches Hospital.

Indicative Zoning for Precinct 1: Frenchs Forest Urban Core

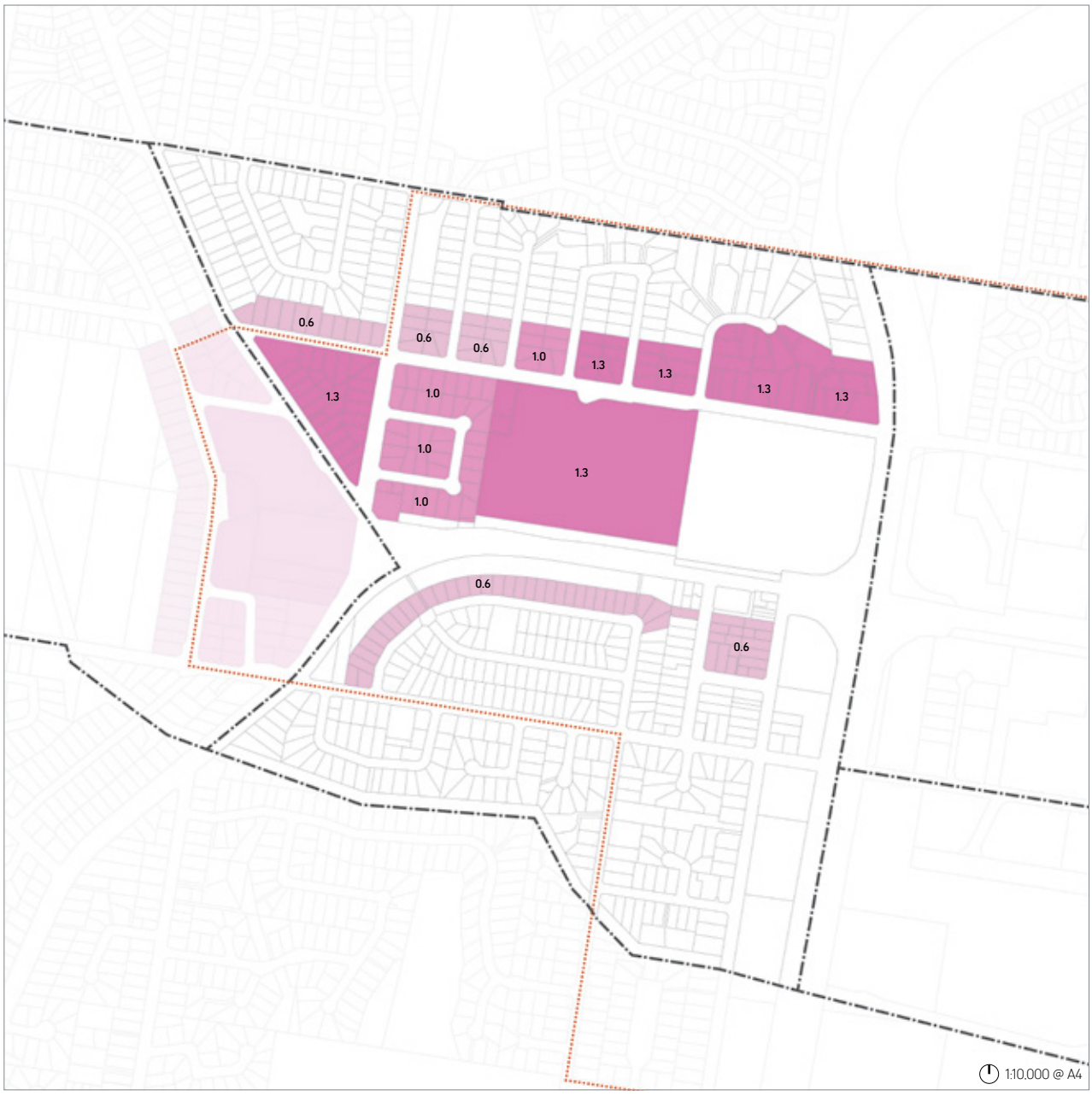
Precinct 1: Frenchs Forest Urban Core



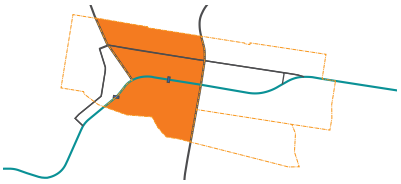
Indicative Heights for Precinct 1: Frenchs Forest Urban Core

- Investigation Area
- Precinct Boundary
- 8.5m
- 11m
- 17.5m
- 21m
- 21-27.5m
- 28-34m
- 40m
- Transition Zone

Indicative Floor Space Ratio for Precinct 1: Frenchs Forest Urban Core



Precinct 1: Frenchs Forest Urban Core



MOVEMENT

Public Transport

A Bus Rapid Transit (BRT) system has been identified as the appropriate public transport system for Frenchs Forest, particularly from Dee Why to Chatswood. A BRT system would correspond with the identity of Frenchs Forest as a Strategic Centre for metropolitan Sydney. However, it has not been identified as a short term deliverable for the Hospital Precinct Structure Plan.

The absence of a BRT system limits the current ability for Frenchs Forest to reach its full potential as a Strategic Centre in metropolitan Sydney. In the short term, increased frequency bus services have been identified as the most appropriate public transport system to cater for the growth proposed under the Structure Plan

Connections (Regional, Centre, Precinct)

The primary address of the Urban Core precinct is Warringah Road and its associated upgrades. This regional scaled road connects the Strategic Centre directly to Dee Why and Chatswood. The Urban Core precinct is bounded to the east by the regional connector Wakehurst Parkway. At a Strategic Centre scale, the key roads are Frenchs Forest Road West and Forest Way. Due to block size, additional local roads may be appropriate within the retail core.

Pedestrian and Cyclist Movement

The Structure Plan roads are identified as complete streets. These streets incorporate pedestrian and cycle movement as part of their character and function. Pedestrian / cyclist overpasses of Warringah Road have been identified to provide north-south connectivity, proving greater access to bus stops and enhancing precinct connectivity.

Servicing

The servicing and access of the new Northern Beaches Hospital remains unchanged, with the primary hospital entrance and drop off located on Frenchs Forest Road West and ambulance and servicing access from Warringah Road. The inclusion of a retail core adjacent the new hospital requires servicing of retail, food and beverage, and refuse management. This functionality should be separated from pedestrian prioritised areas. Access to the retail core will be focused on Frenchs Forest Road West.

Parking Strategy

A significant structured car park dedicated to the hospital is located to the west of the hospital site. Opportunity exists to collocate car parking and car park access for the retail core with the hospital car park. Moreover, a car parking strategy should be considered that best utilises cross function performance. In addition, a car parking strategy and port cochere strategy for residential and hotel uses within the urban core should also be considered with respect to transit orientated development initiatives and legibility of relationship between car space and residential address.

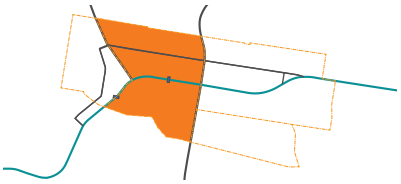
Connection In and Around the Precinct

+ Warringah Road is the visual address of the Urban Core precinct. The potential for busy roads to divide the Precinct will be mitigated using strategically located pedestrian and cyclist bridges.
+ The north-south link within the town centre provides a pedestrian focused "main street" or "identity street". It is characterised by slow moving traffic, prioritising pedestrians to create a vibrant street environment and promote walkability.
+ All streets in the Urban Core precinct are activated by mixed use retail, commercial, residential, community, education, health and civic uses. These are address streets and can be reinforced with public squares, forecourts and urban pocket parks.
+ Service and access is separated from pedestrian and active transport wherever possible.
+ A "Green Link" is proposed to connect the town centre to residential areas located directly west. The green link should facilitate an accessible town centre, and may require a property acquisition to facilitate its complete development.
+ Potential partial lot acquisition is proposed to enable a precinct loop road, which will connect with Naree Road.

Movement Network for Precinct 1: Frenchs Forest Urban Core

- Investigation Area
- Precinct Boundary
- Access / Servicing
- Possible Mid Block Connection
- Overhead Powerlines
- "The Pipeline" Pedestrian / Cyclist Connection
- Open Space
- NBH Site
- RMS Hospital Connectivity Work
- RMS Network Enhancement Work
- RMS Four Land Underpass Upgrade
- Regional Road
- Collector Road
- Collector Road with Infrastructure Upgrades
- Local Road Upgrade
- Potential Road Closure
- Signalised Intersection
- Pedestrian / Cyclist Overpass
- Bus Interchange
- Regional Bus Stop
- Local Bus Stop

Precinct 1: Frenchs Forest Urban Core



ENVIRONMENT

Topography and Landform

The Urban Core precinct is located at the highest topographical point of the Hospital Precinct. The bordering Warringah Road runs along the natural east-west ridge line providing the opportunity for substantial district views.

Open Space Structure and Links

The area identified for the Urban Core does not presently have any existing open spaces commensurate with the envisaged role of this precinct. Accordingly, the Structure Plan proposes a civic space for the Urban Core which can provide a destination for residents and visitors. It is envisaged the space will be activated by appropriate uses, and host weekly, monthly and annual events.

The civic space is to be associated with the north-south complete street, located through the centre of the potential town centre site. This link and associated civil space provides the identity address for the Urban Core and links the hospital and retail uses to residents south of Warringah Road.

An existing pocket park within the southern residential precinct is to be preserved and enhanced as residential densities increase. Existing neighbourhood parks and access to Rabbet Park to the north are also to be preserved and enhanced.

Cultural and Social Assets

No cultural and social assets currently exist within the Urban Core precinct. Opportunity exists to include these assets within proximity to the potential town centre site and new Northern Beaches Hospital. Cultural and social assets identified for inclusion within the precinct are:

- Free public wifi to enable a connected and integrated digital urban core. These facilities could be provided by private enterprise for the community.
- Small scale meeting places and recreational facilities in a flexible format that can serve dual purposes. This place could also be used by the hospital auxiliary as a community connection.
- Childcare services commensurate with a Specialised Precinct and its workforce.
- Community centre including the provision of an aquatic centre.

The civic space described above, also makes a significant contribution to the cultural identity and activation of the Urban Core.

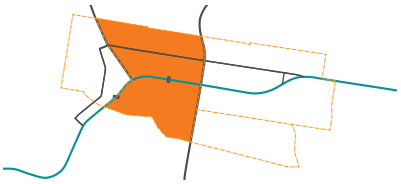
Conservation Areas

Native vegetation and a wildlife corridor exist within the Urban Core as part of the north-south Wakehurst Parkway system. This reinforces the green identity of the Hospital Precinct Structure Plan and provides a place based outcome for Frenchs Forest as a Strategic Centre.

Indicative Environmental Plan Precinct 1: Frenchs Forest Urban Core

- Investigation Area
- Precinct Boundary
- Possible Mid Block Connection
- Open Space Link
- "The Pipeline" Pedestrian / Cyclist Connection
- Overhead Powerlines
- Streams and Waterways
- Civic Space
- Recreation
- Pocket Park
- Open Space
- Open Space Conservation
- Pedestrian / Cyclist Overpass (Existing)
- Pedestrian / Cyclist Overpass (Proposed)
- Regional Road
- Collector Road
- Collector Road with Infrastructure Upgrades
- Local Road Upgrade

Precinct 1: Frenchs Forest Urban Core



ACTIVITY

The activity focus of the Urban Core is the Northern Beaches Hospital, currently in construction and being delivered by Healthscope together with Health Infrastructure. The development provides a significant employment focus for both the region and the precinct. It is further a catalyst for additional activity surrounding the development. The hospital is anticipated to provide an additional 1,300 jobs upon opening in 2018, with a further 600 to be added by 2036.

The hospital, though a high employer, will not provide a destination in its own right. The opportunity exists to couple a major retail facility with the hospital to achieve an activated and diversified urban core. The Structure Plan highlights the potential location for a retail based mixed use precinct on the high school site immediately to the west of the new hospital. In line with demand as highlighted within the Transport Assessment, the Structure Plan suggests a town centre in the order of 27,400sqm of GFA.This development will be associated with public domain and place based initiatives that create a formalised destination for Frenchs Forest.

High density residential development with activated ground floor uses, hotel and serviced apartments are considered appropriate within this precinct. Particularly to support the new Northern Beaches Hospital and shift to transit orientated development.

Strategic Intent

+ Function as the central activity area for the precinct.
+ Accommodate core retail and medical uses.
+ Provide a central transport hub with service links to broader region.
+ Support core functions with ancillary, street based uses and activation.
+ Accommodate regional community and civic functions.
+ Deliver height strategies to reinforce the core.

Anchor Activities

+ Northern Beaches Hospital.
+ District retail.
+ Transport service stops.
+ Community facilities including provision for a potential public aquatic centre.

Employment Potential

+ Primary generators are hospital and town centre retail.
+ New uses proposed for ground floor tenancies located north of Frenchs Forest Road West, adjacent to the town centre and hospital.

Housing Potential

+ High density housing to support hospital and core commercial activities.
+ Primary activity expected adjacent to major arterials and facilities.
+ Affordable housing.

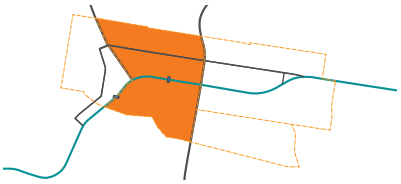
Precinct 1 Short Term Jobs *(Source: MacroPlan Dimasi)*

Employment Type	GFA	Jobs
Northern Beaches Hospital	100,000 sqm	1300
Retail	25,000 sqm	800 - 850
Other (e.g. personal services, recreation, childcare)	2,400 sqm	150 - 200
Total Employment	**127,500 sqm**	**2,250 - 2,350**

HOUSING *(Source: MacroPlan Dimasi)*

Location	Number	Residents
Precinct 1	940	2,068
Total Housing	**940**	**2,068**

Precinct 1: Frenchs Forest Urban Core



IMPLEMENTATION

Opportunity Sites

The Urban Core Precinct has two key opportunity sites; the Forest High School site and the former Bantry Bay shops site.

The Forest High School site (63,500sqm) has been identified as the appropriate location for a retail based mixed use development. The site can provide the new hospital and surrounding areas with community facilities, retail, restaurants, cafés, entertainment, and residential accommodation.

The area located south of the former Bantry Bay Shops has been identified as the appropriate location for a neighbourhood centre development, that is connected to retail core amenities and the Northern Beaches Hospital via new pedestrian infrastructure. Community feedback supported the inclusion of shop top housing and the desire to have a neighbourhood presence continued in this location.

Further Investigations

The appropriate development tools and mechanisms to achieve a high performance urban core requires a number of further investigations, including:

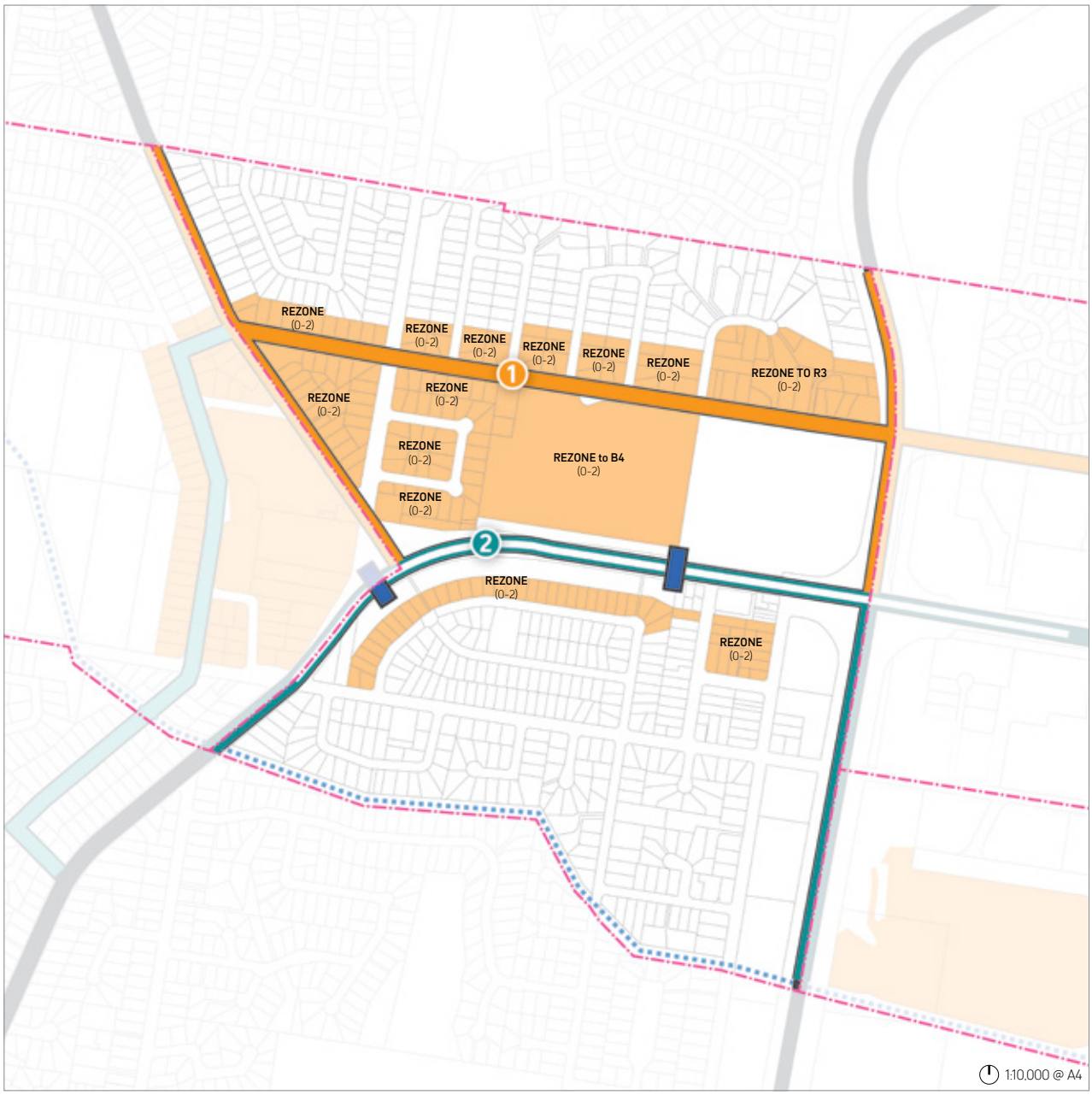
+ Development mechanisms appropriate for the transition of land use from education to retail mixed use.
+ Section 94 contributions associated with infrastructure upgrade requirements for the precinct.

Capacity Limits

Height limits proposed throughout the Urban Core precinct are reflective of the desired built form for the Hospital Precinct Structure Plan Precinct. Height limits provide a development framework to guide future growth and outline the overall development intent of the precinct.

In comparison to height limits, floor space ratios are low. Maintaining low floor space ratio's (FSR) ensures developable areas are commensurate with current infrastructure limitations.

Indicative Staging and Implementation Plan Precinct 1: Frenchs Forest Urban Core

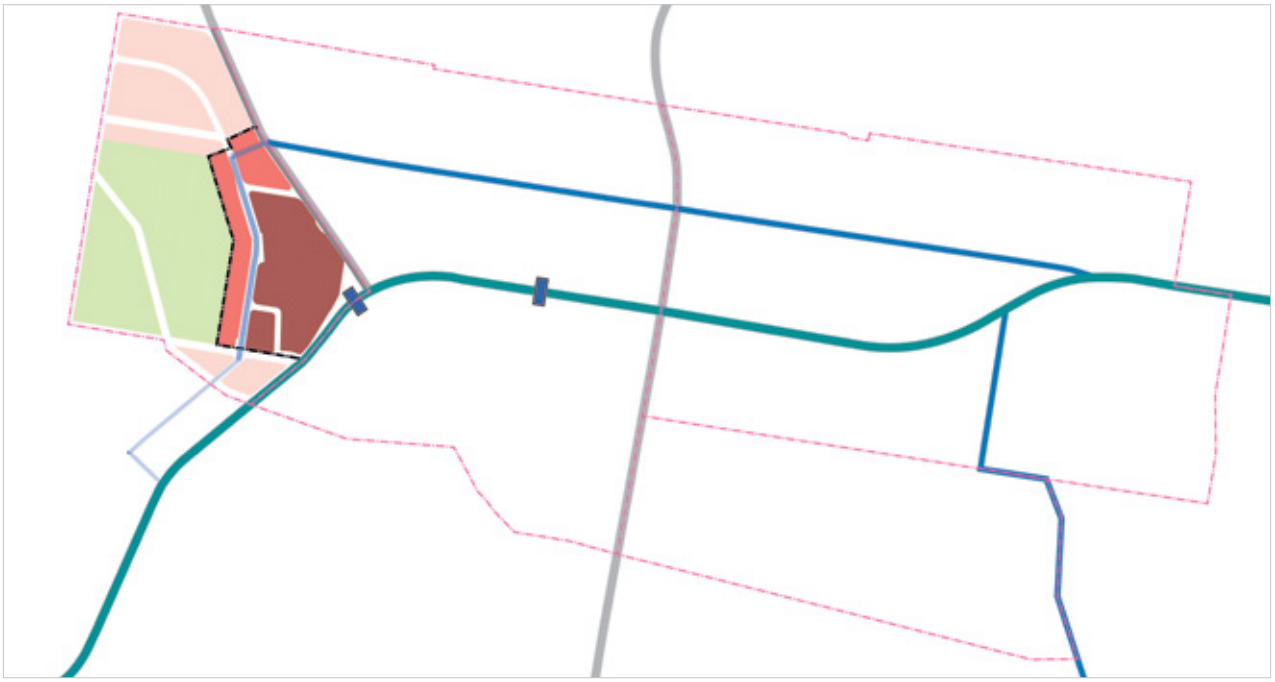


Investigation Area
Precinct Boundary
"The Pipeline" Pedestrian / Cyclist Connection
Pedestrian / Cyclist Overpass

1 RMS Hospital Connectivity Work
2 RMS Network Enhancement Work
Northern Beaches Council Short Term Infrastructure Upgrades

(0-2 YRS) Short Term Rezoning

Precinct 2: Residential Gateway



LONG TERM OBJECTIVE (20+ YEARS)

The Residential Gateway is the western threshold to the Structure Plan and is identified as the appropriate location for landmark architecture and residential gateway. The precinct has also been identified as a suitable location for affordable housing provisions.

SHORT TERM OBJECTIVE

Residential areas of this precinct are in close proximity to the 'green link' provided within the Urban Core Precinct. As such the Residential Gateway Precinct has pedestrian connectivity and high accessibility to local amenities.

The significant investment in public infrastructure and rezonings associated with the Structure Plan are likely to create major uplifts in land value in and around the Hospital Precinct Structure Plan. In this context, it is considered appropriate that allowance be made for the provision of affordable housing. Without provision of affordable housing dwellings are expected to be unattainable for low to moderate income earners.

This has negative impacts on a diverse cross section of community members. Notably, young people trying to enter the housing market, hospital staff needing to live close to employment opportunities and other essential workers in aged care, retail and teaching. Ensuring there is sufficient housing for all community members is essential to sustain and create a vibrant, active and connected Strategic Centre. The Residential Gateway has been identified as a suitable location to include affordable housing. Notably, due to its close proximity to local amenities, pedestrian and cycle infrastructure and public transit options. In addition to the precinct's ability to accommodate increased density.

Although the precinct supports residential uplift, consideration has been given to the surrounding context, notably adjoining bushland located to the west and existing residential areas located to the north and south. As a result, residential density transitions as it encroach this area and heights reduce to provide a contextually appropriate interface.

The primary school site is proposed to be retained in its current location. The proposed zoning of the school site will allow for the ongoing provision of an education facility and mixed use development concurrently.

Precinct 2 Short Term Jobs *(Source: MacroPlan Dimasi)*

Employment Type	GFA	Jobs
Other	0 sqm	0
Total Employment	**0 sqm**	**0**

HOUSING *(Source: MacroPlan Dimasi)*

Location	Number	Residents
Precinct 2	1,176	2,587
Total Housing	**1,176**	**2,587**

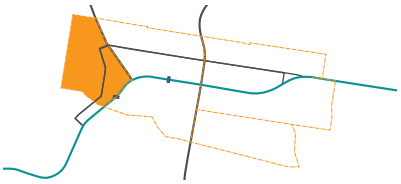
Precinct 2 Long Term Jobs *(Source: MacroPlan Dimasi)*

Employment Type	GFA	Jobs
Other (Anticipated relocation to Town Centre)	0 sqm	0
Total Employment	**0 sqm**	**0**

HOUSING *(Source: MacroPlan Dimasi)*

Location	Number	Residents
Precinct 2	1,700 - 1,980	3,000 - 3,375
Total Housing	**1,700 - 1,980**	**3,000 - 3,375**

Precinct 2: Residential Gateway



URBAN FORM

Description and Character

The Residential Gateway creates a community based neighbourhood for the region supported by high density residential development within close proximity to local amenities. Affordable housing is encouraged within the Residential Gateway, taking advantage of the precinct's ability to accommodate increased density, increased height and its proximity to local services and amenities.

The precinct will provide a community and recreation destination for the area through the integration of shared recreational facilities and access to the regional open space network of Fitzpatrick Reserve. Located at the eastern edge of Fitzpatrick Reserve, the area is intended to reinforce the bushland setting by providing a complementary identity for development within the area.

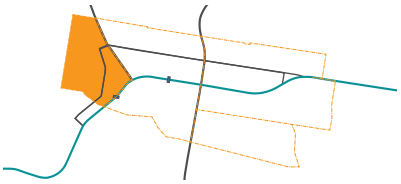
Typology and Built Form

- Diversity of housing choice with lower scale on neighbourhood streets, higher scale on arterial roads.
- Bush Edge Residential: These buildings should contribute to a built edge that reinforces Frenchs Forest Reserve and formalises containment to bushland. These buildings should consider local and natural materials to support the bush edge character.
- Higher Density Residential: Transition from single lot housing can appropriately include terrace, walk up, and residential flat buildings. A variety of best practice residential typologies from townhouses to apartment buildings to towers that respond to their context, create a clear and distinctive identity for the precinct and achieve sustainable outcomes are considered appropriate for this precinct.
- The datum height for the precinct is 40m.The 40m datum provides a suitable interface to the adjacent high density residential zones located east. Heights gradually step down to the west as they respond to the existing natural environment and provide appropriate edge conditions.
- Sustainable Planning Measures: Such as the development of energy and water targets will be implemented through development control plans. Further investigations into sustainable development practices and incentives will be undertaken.

Intersection of Warringah Road and Forest Way looking north

Grace Avenue looking south

Precinct 2: Residential Gateway



URBAN FORM (Continued)

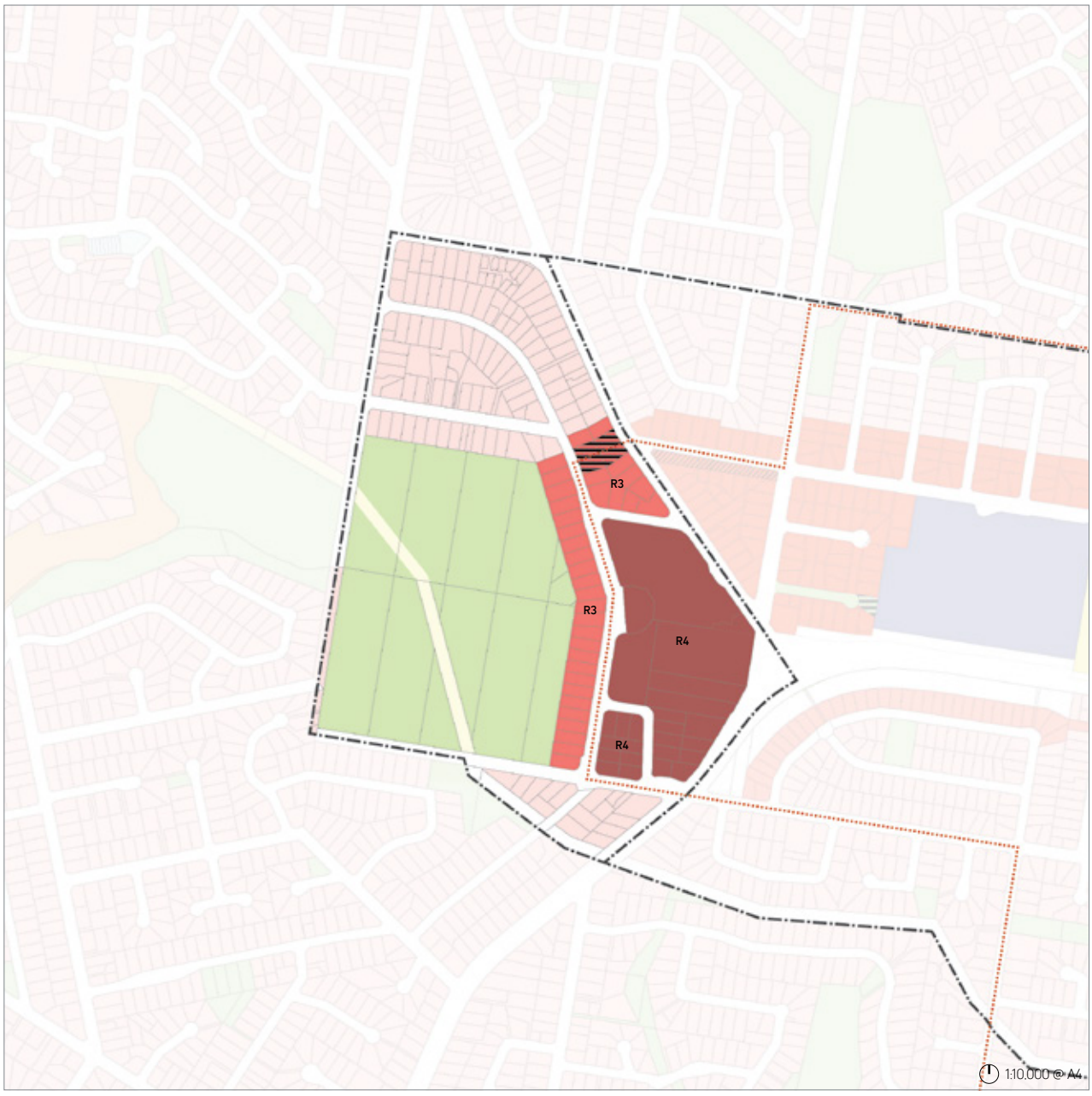
Land Use and Zoning

- R3 Medium Density for residential to enable a diversity of housing types commensurate with a Strategic Centre for metropolitan Sydney (responding to topographical constraints and existing infrastructure barriers).
- R4 High Density for residential to enable a diversity of housing types commensurate with a Strategic Centre for metropolitan Sydney (responding to topographical constraints and existing infrastructure barriers).

Connection Typologies

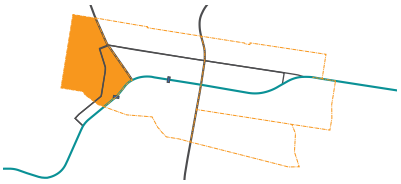
- "Precinct Loop Road" link across Warringah Road, along Grace Avenue and across Forest Way is characterised as a "complete street" typology. This provides a clear address and allows for safe travel by those walking, cycling, riding public transport or driving.

Indicative Zoning for Precinct 2: Residential Gateway

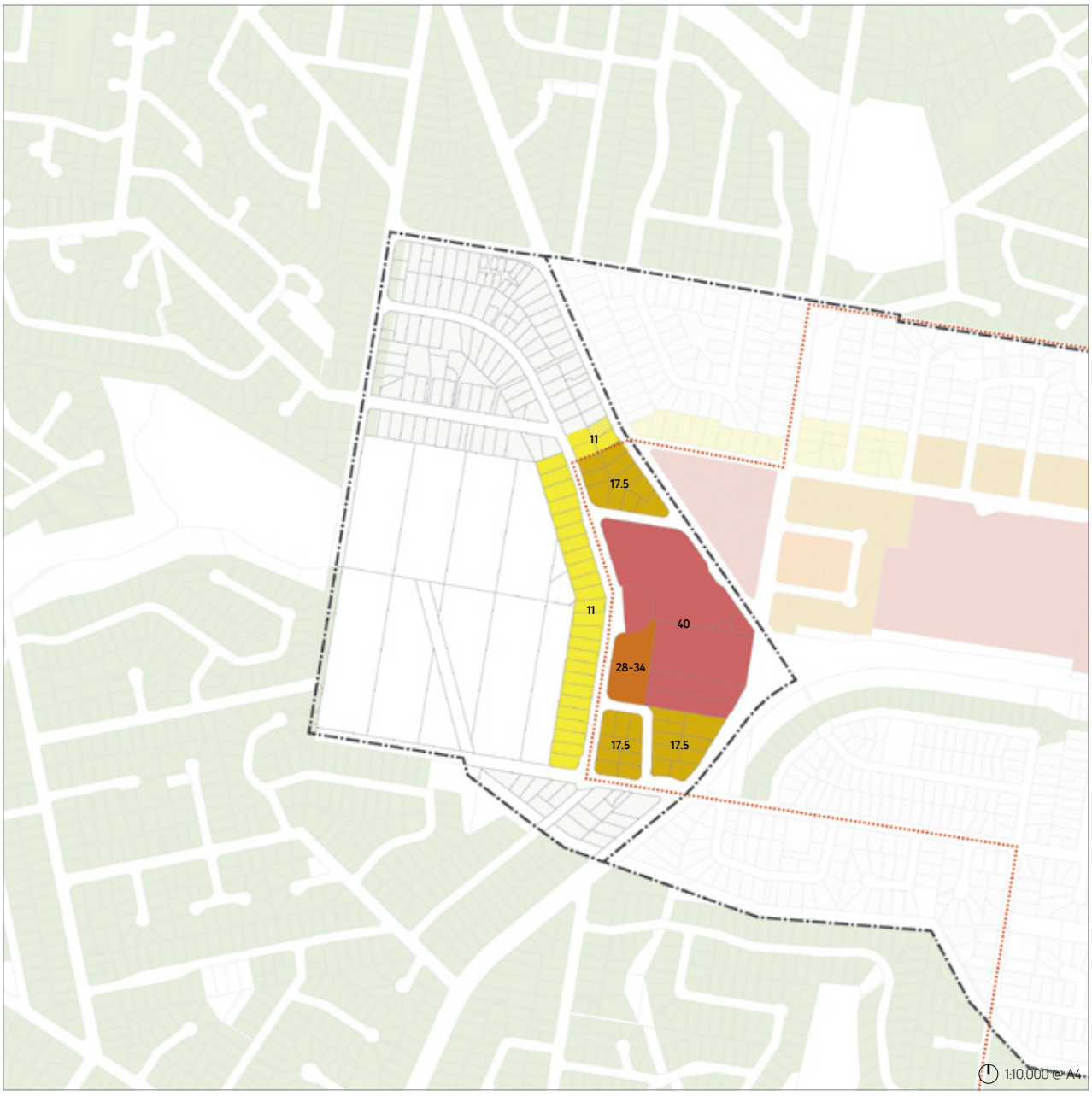


- Investigation Area
- Precinct Boundary
- Open Space
- B1 Neighbourhood Centre
- B4 Mixed Use / Urban Core
- B7 Business Park
- R2 Low Density Residential
- R3 Medium Density Residential
- R4 High Density Residential
- SP1 Special Activities
- Potential Property Acquisition

Precinct 2: Residential Gateway



Indicative Heights for Precinct 2: Residential Gateway



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- 8.5m
- 11m
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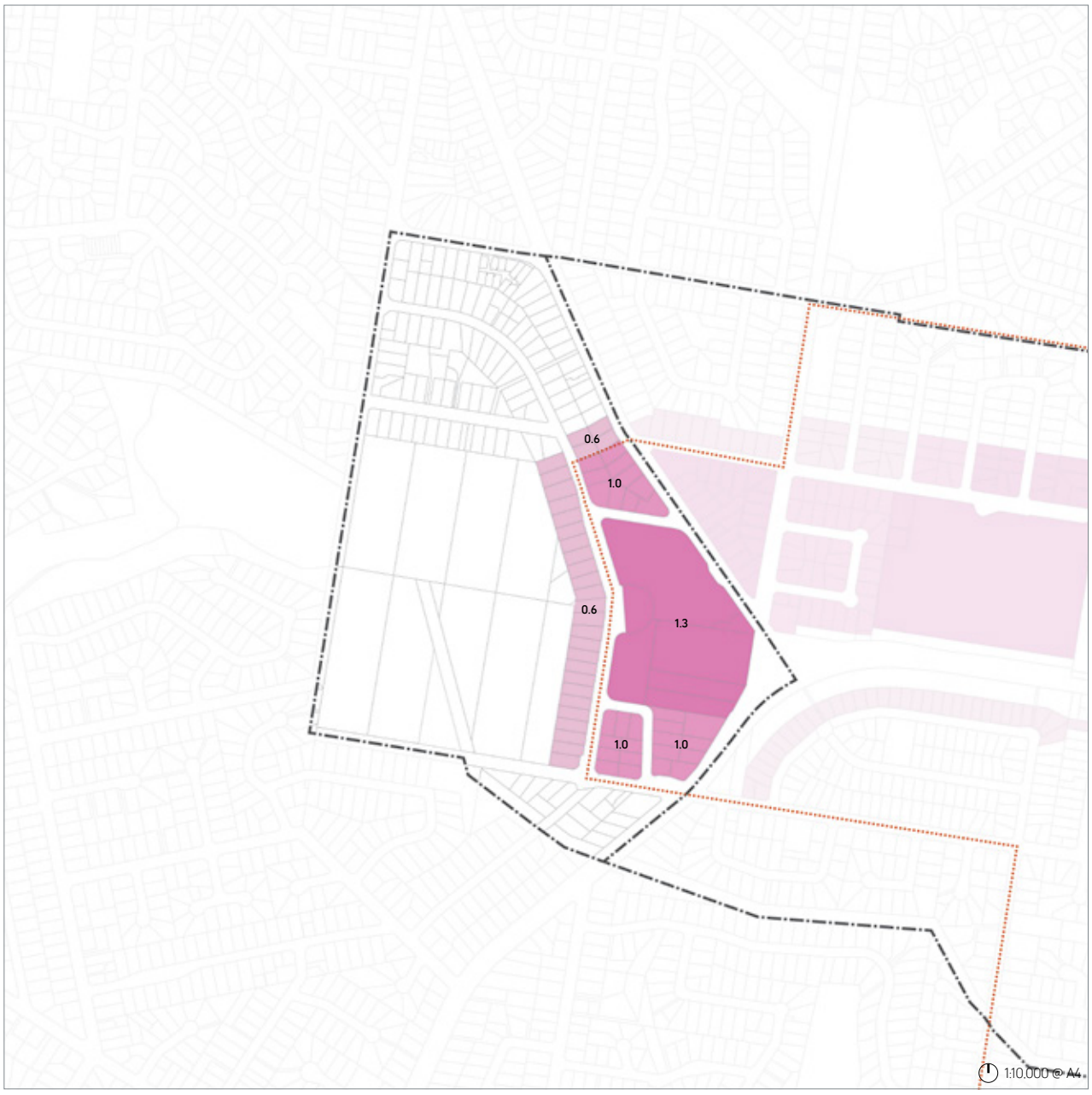
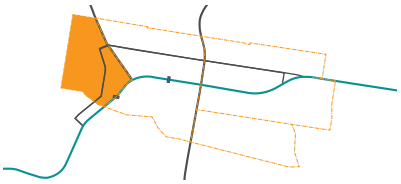
- 28-34m
- 40m

Indicative Floor Space Ratio for Precinct 2: Residential Gateway



Precinct 2: Residential Gateway



MOVEMENT

Public Transport

A Bus Rapid Transit (BRT) system has been identified as the appropriate public transport system for Frenchs Forest, particularly from Dee Why to Chatswood. A BRT system would correspond with the identity of Frenchs Forest as a Strategic Centre for metropolitan Sydney. However, it has not been identified as a short term deliverable for the Hospital Precinct Structure Plan.

The absence of a BRT system limits the current ability for Frenchs Forest to reach its full potential as a Strategic Centre in metropolitan Sydney. In the short term, increased frequency bus services have been identified as the most appropriate public transport system to cater for the growth proposed under the Structure Plan

Connections (Regional, Centre, Precinct)

The primary regional addresses of the Residential Gateway are Warringah Road and Forest Way. These provide connection to Dee Why and Chatswood, and Mona Vale Road respectively. At a Strategic Centre scale, Grace Avenue is to be upgraded to form part of the long term delivery of the Strategic Centre road system and provide a four lane Collector Road.

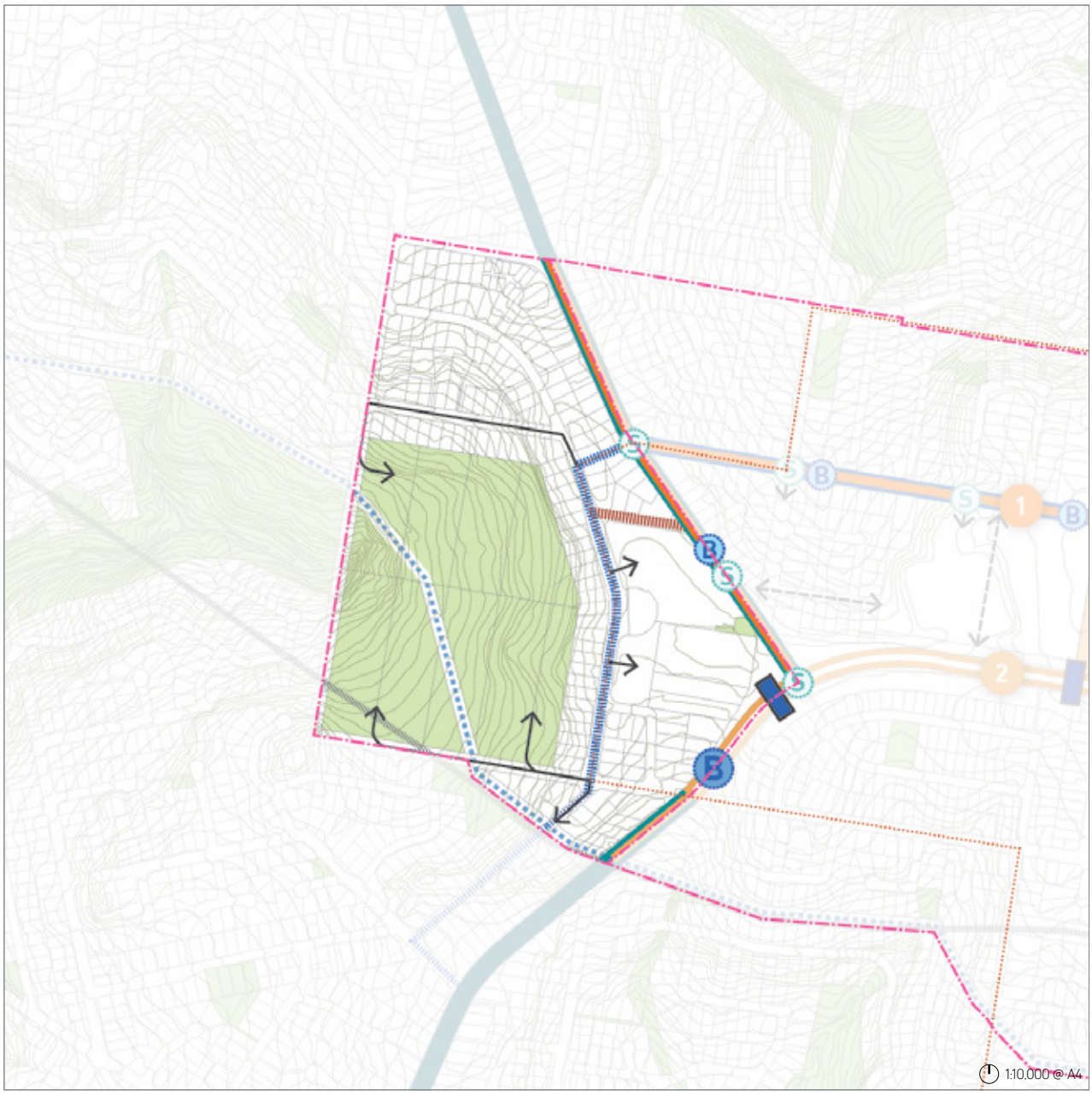
This involves land acquisition to enable Naree Road to be extended west across Forest Way to connect with Grace Avenue. The two-fold benefit of this connection is an increase in road capacity to service the precinct and improved east west connectivity to the town centre. The east west spine along the Frenchs Forest Road alignment is important for the proper functioning of the Strategic Centre.

Pedestrian and Cyclist Movement

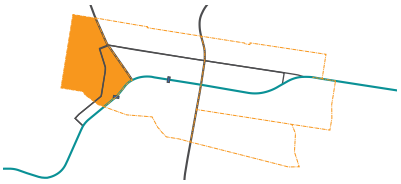
Grace Avenue once upgraded is identified to be a complete street. Complete streets incorporate pedestrian and cycle movement as part of their character and function. In turn promoting active modes of travel within the Structure Plan Precinct.

Investigations should be undertaken to facilitate a green pedestrian link from Forest Way Shopping Centre to the Urban Core Precinct.

Movement Network for Precinct 2: Residential Gateway



Precinct 2: Residential Gateway



ENVIRONMENT

Topography and Landform

The Residential Gateway is located at the eastern edge of the Frenchs Forest Reserve. The natural landform slopes significantly from Forest Way to the Frenchs Forest Reserve . Higher density residential is located to take advantage of the views afforded by the precinct's topography.

Open Space Structure and Links

Investigations should be undertaken to facilitate a green pedestrian link from Forest Way Shopping Centre to the Urban Core Precinct.

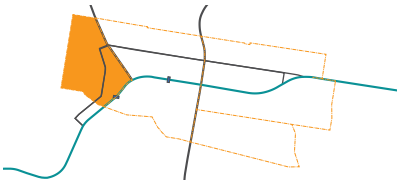
Cultural and Social Assets

A church, community and childcare facility are currently located within the precinct. Opportunity exists to preserve or co-locate these facilities, particularly the recreation facilities to reinforce the area as a community asset. Uses identified for inclusion within the precinct are typically a more traditional offer than that suggested for Frenchs Forest Urban Core, these include:

+ Indoor / outdoor recreation.
+ Childcare facilities.
+ Primary School.

Indicative Environmental Plan Precinct 2: Residential Gateway

Precinct 2: Residential Gateway



ACTIVITY

The activity focus of this precinct is the creation and consolidation of a high density residential precinct located east of Grace Avenue, The Structure Plan suggests the Forestway Shopping Centre presents an opportunity to create a residential focus gateway on the amalgamated land.

This precinct has also been identified as a suitable location to include affordable housing due to it's proximity to public transport and local amenities.

Strategic Intent

- Function as the key north west link to broader region.
- Consider arterial road frontage as supporting higher density housing.
- Continue to provide transport link to north west residential and business areas.
- Provide important pedestrian and cyclist network connectivity for broader precinct.
- Provide western access and address to regional open space corridor.

Anchor Activities

- High density residential dwellings.

Housing Potential

- Higher density housing potential.
- Primary activity expected adjacent to arterial roads (Forest Way and Warringah Road) and supporting school or community services.
- Affordable housing provisions enabled through a range of planning mechanisms.

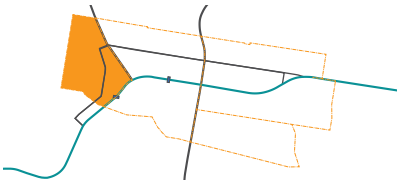
Precinct 2 Short Term Jobs *(Source: MacroPlan Dimasi)*

Employment Type	GFA	Jobs
Other	0 sqm	0
Total Employment	**0 sqm**	**0**

HOUSING *(Source: MacroPlan Dimasi)*

Location	Number	Residents
Precinct 2	1,176	2,587
Total Housing	**1,176**	**2,587**

Precinct 2: Residential Gateway



IMPLEMENTATION

Opportunity Sites

The Residential Gateway presents a key opportunity site, the potential amalgamation of Forestway Shopping Centre and Council owned land site. This site provides the opportunity to transition the current urban environment towards a Strategic Centre through land consolidation and uplift.

The site (51,300sqm) has been identified as the appropriate location for a benchmark higher density residential development. Located immediately adjacent to transit provisions, the site has the opportunity to deliver an integrated and diversified residential product that is underpinned by transit orientated principles.

Further Investigations

The appropriate development tools and mechanisms to achieve a residential precinct at Frenchs Forest requires a number of further investigations, including:

- Car parking strategy associated with residential density and transit orientated development.
- Land parcelisation for expressions of interest and tender,
- Section 94 contributions associated with infrastructure upgrade requirements for the precinct.
- Affordable housing planning mechanisms.

Capacity Limits

Height limits proposed throughout the Residential Gateway Precinct are reflective of the desired built form outcomes. Height limits are intended to provide a development framework to guide future growth and outline the overall development intent of the precinct.

In comparison to height limits, floor space ratios are low. Maintaining low floor space ratio's (FSR) ensures developable areas are commensurate with current infrastructure limitations.

Indicative Staging and Implementation Plan Precinct 2: Residential Gateway

Precinct 3: Business Park and Innovation Precinct

LONG TERM OBJECTIVE (20+ YEARS)

The long term vision for the Business Park and Innovation Precinct is to evolve from its current logistics focus towards a higher performing commercial precinct for the region. It will remain the primary employment focus within the Structure Plan area. Coupled with public transport initiatives and improved road networks should they eventuate, it will also attract a new labour force to the area. The possibility for research and development associated with the health provision of the area is also enabled as the area becomes more desirable to diverse industries and talent. Should infrastructure and network capacity improve, the precinct also provides opportunity to accommodate residential uplift to the north of Frenchs Forest Road East. Albeit, this is highly dependant on further analysis and appropriate network improvements.

A Plan for Growing Sydney sets a target of a Strategic Centre providing 10,000 jobs. Currently the development potential of the Business Park is constrained by road network limitations. However, it presently provides approximately 8,000 jobs. Taking into consideration the additional number of jobs to be provided through the development of the new hospital (1300), it is anticipated minimal growth is needed to achieve *A Plan for Growing Sydney* employment target in the short to medium term.

SHORT TERM OBJECTIVE

Cognisant of the long term strategic objective to transition this precinct into an area of innovation, interim measures are proposed within the Structure Plan to enable this gradual transition.

Notably, land owners are encouraged to explore current planning controls that permit a range of land uses that are complementary to the development of a Business Park and Innovation Precinct.

Precinct 3 Short Term Jobs *(Source: MacroPlan Dimasi)*

Employment Type	GFA	Jobs
Business Park	0 sqm	0
Other	0 sqm	0
Total Employment	**0**	**0**

HOUSING *(Source: MacroPlan Dimasi)*

Location	Number	Residents
Precinct 3	0	0
Total Housing	**0**	**0**

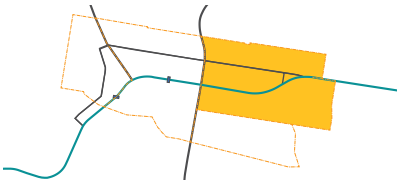
Precinct 3 Long Term Jobs *(Source: MacroPlan Dimasi)*

Employment Type	GFA	Jobs
Business Park	100,000 sqm	1,600 - 1,800
Other (e.g. hotel, convenience retail and services etc)	10,000 sqm	150 - 200
Total Employment	**110,000 sqm**	**1,750 - 1,980**

HOUSING *(Source: MacroPlan Dimasi)*

Location	Number	Residents
Precinct 3	760 - 800	1,900 - 2,000
Total Housing	**760 - 800**	**1,900 - 2,000**

Precinct 3: Business Park and Innovation Precinct



URBAN FORM

Description and Character

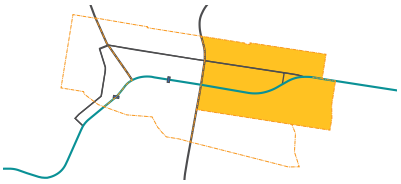
The Business Park and Innovation Precinct is the economic centre of the Structure Plan. Rather than a traditional business park, the Business Park and Innovation Precinct is intended to provide a culturally and contextually appropriate response to the site and therefore, continue the legacy of long term employment in the region. Materials, built form and landscape design are to be considered with respect to the bushland identity of the area and respond to changed workplace initiatives for economic centres.

Typology and Built Form

- Transition into a best practice 21st century business park and innovation precinct.
- Allow for a mix of complementary and supporting uses to make this transition feasible.
- Focus on employment uses with complementary activation beyond the 9am to 5pm work day.
- Reinforce the "forest" character of the existing business park through landscape initiatives and building heights.
- Large Format Commercial: commercial buildings supported by ground floor foyer, retail and food and beverage. Creating a high quality workplace is important for these large floor plate buildings. To reinforce identity, they should consider materials and construction that responds to context. Orientation should be considered with respect to open space.
- Landmark Commercial: Commercial buildings supported by ground floor foyer, retail and food and beverage. These buildings can provide landmarks for the precinct and their architecture should reflect their importance. In the long term elevated height datum in key locations enables this identity to be coupled with height. Orientation should be considered with respect to open space.
- Sustainable planning measures such as the development of energy and water targets will be implemented through development control plans and further investigations into sustainable development practices and incentives.

accenture

Precinct 3: Business Park and Innovation Precinct



MOVEMENT

Public Transport

A Bus Rapid Transit (BRT) system has been identified as the appropriate public transport system for Frenchs Forest, particularly from Dee Why to Chatswood. A BRT system would correspond with the identity of Frenchs Forest as a Strategic Centre for metropolitan Sydney. However, it has not been identified as a short term deliverable for the Hospital Precinct Structure Plan.

The absence of a BRT system limits the current ability for Frenchs Forest to reach its full potential as a Strategic Centre in metropolitan Sydney. In the short term, increased frequency bus services have been identified as the most appropriate public transport system to cater for the growth proposed under the Structure Plan

Connections (Regional, Centre, Precinct)

The primary address of the Business Park and Innovation Precinct is Warringah Road and its associated upgrades. This regional scaled road connects the Strategic Centre and business park activities directly to Dee Why and Chatswood. The precinct is also bounded to the west by the regional connector Wakehurst Parkway. At a Strategic Centre scale, the key road is the upgraded Frenchs Forest Road East.. Due to block size, north-south connectors may be appropriate and would assist with servicing and access of development sites.

Pedestrian and Cyclist Movement

The Strategic Centre roads are identified as complete streets. These streets incorporate pedestrian and cycle movement as part of the character and function of the street.

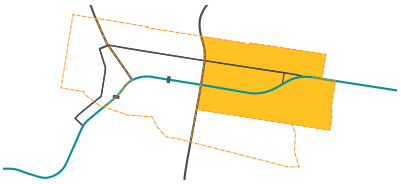
Parking Strategy

The long term delivery of the Business Park and Innovation precinct as a core employment provider of the Strategic Centre will result in the reduction of on-grade and under-utilised parking. The area will transition to alternative parking methods and should be coupled with a strategic car parking strategy that considers shared facilities and transit orientated initiatives.

Movement Network for Precinct 3: Business Park and Innovation Precinct

- Investigation Area
- Precinct Boundary
- Access / Servicing
- Possible Mid Block Connection
- Overhead Powerlines
- "The Pipeline" Pedestrian / Cyclist Connection
- Open Space
- NBH Site
- RMS Hospital Connectivity Work
- RMS Network Enhancement Work
- RMS Four Land Underpass Upgrade
- Regional Road
- Collector Road
- Collector Road with Infrastructure Upgrades
- Local Road Upgrade
- Potential Road Closure
- Signalised Intersection
- Pedestrian / Cyclist Overpass
- Bus Interchange
- Regional Bus Stop
- Local Bus Stop
- Proposed Shared Pedestrian/Cycle Path

Precinct 3: Business Park and Innovation Precinct



ENVIRONMENT

Topography and Landform

Warringah Road runs along the east-west ridge line of the precinct. The natural landform slopes significantly from the ridge to the north and south. Development within the precinct can take advantage of views and assist in the resolution of the precinct's public domain topography.

Open Space Structure and Links

The precinct does not currently have any open space commensurate with the role of a business focused precinct. The Structure Plan proposes the location of a number of identified open spaces networked to reinforce pedestrian and bike connections. Furthermore, landscape buffers proposed to interface with major road infrastructure on Warringah Road will reinforce the green identity of the Strategic Centre.

Conservation Areas

Native vegetation exists along the eastern side of the intersections of Wakehurst Parkway and Frenchs Forest Road and Wakehurst Parkway and Warringah Road. These strips of vegetation are to be maintained and where possible enhanced to reinforce the green identify of the Frenchs Forest locality and Structure Plan.

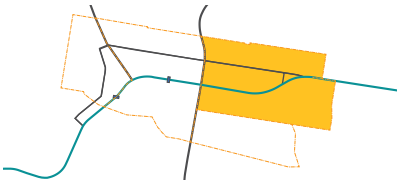
Cultural and Social Assets

Apart from the hotel and pub, no cultural and social assets currently exist within the Business Park and Innovation Precinct. The opportunity exists to include cultural and social assets within the precinct to support the area as an employment hub. Uses identified for inclusion within the precinct are typically a more traditional offer than that suggested for Frenchs Forest Urban Core and include:

+ Childcare facilities.
+ Health related facilities.

Indicative Environmental Plan Precinct 3: Business Park and Innovation Precinct

Precinct 3: Business Park and Innovation Precinct



ACTIVITY

The achievement of a Strategic Centre relies on the centre remaining a significant employer within the metropolitan region. The business park in its current format is limited as a result of poor regional transport infrastructure and access, as well as inadequate access to public transport. Significant road improvements and the introduction of high frequency public transport are required to support the long term delivery of the business park as a significant commercial employer.

As an interim measure, until such time infrastructure upgrades unlock the full development potential of the precinct, the agglomeration of permissible land uses are encouraged within the Business and Innovation Precinct.

The inclusion of additional uses encourage access to new labour forces. This in turn provides opportunity to shift the land uses to include research and development industries, health and medical ancillary services, education, and higher order commercial enterprises, as well as logistics based businesses.

Strategic Intent

+ Continue as primary employment centre for local area.
+ Provide flexible zoning to encourage ancillary employment activities.
+ Transition to higher order employment categories with expansion of transport services.

Anchor Activities

+ Existing businesses.
+ Allied health (physiotherapy, rehabilitation, etc.) and secondary medical services (hospital goods, equipment and service supplies).
+ Health related personal services (fitness, gymnasium, etc.).

Employment Potential

+ Primary employment generator will be existing businesses (logistics based and small-medium sized business enterprises).
+ New business park entrants attracted by hospital proximity and service potential.
+ Other generators will include a range of ancillary uses such as allied and secondary medical, fitness and rehabilitation.

Housing Potential

+ Long term opportunity to accommodate medium density housing north of Frenchs Forest Road East.
+ Could accommodate nursing facilities (learning and living).
+ All housing is subject to infrastructure and network improvements and is not viable under the current infrastructure and network provisions.

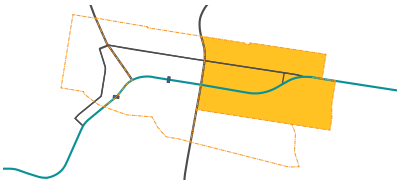
Precinct 3 Short Term Jobs *(Source: MacroPlan Dimasi)*

Employment Type	GFA	Jobs
Business Park	0 sqm	0
Other	0 sqm	0
Total Employment	**0 sqm**	**0**

HOUSING *(Source: MacroPlan Dimasi)*

Location	Number	Residents
Precinct 3	0	0
Total Housing	**0**	**0**

Precinct 3: Business Park and Innovation Precinct



IMPLEMENTATION

Development Staging

The existing business park has not seen take-up of development in current market conditions despite flexible planning controls. This is a consequence of lack of both road and public infrastructure to the area. Road upgrades and public transport improvements are anticipated to improve this however, development potential is largely hinged on the infrastructure networks ability to accommodate for new growth.

Further Investigations

The appropriate development tools and mechanisms to achieve a high performance Business Park and Innovation Precinct at Frenchs Forest requires a number of further investigations, including:

- Car parking strategy associated with new commercial development as transit orientated development.
- Detailed traffic assessment beyond concept in order to access and egress development parcels.
- Development mechanisms appropriate for the transition of logistics to higher order commercial uses.
- Land parcelisation for expressions of interest and tender.
- Section 94 contributions associated with infrastructure upgrade requirements for the precinct.

Indicative Staging and Implementation Plan Precinct 3: Business Park and Innovation Precinct

Precinct 4: Recreation and Special Use Precinct

LONG TERM OBJECTIVE (20+ YEARS)

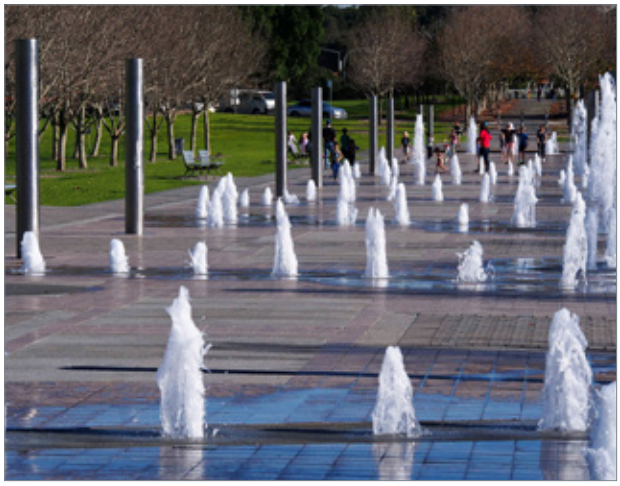
The long term vision for the Recreation and Special Use Precinct is intended to provide an education and recreation focus for the Strategic Centre.

A major recreational destination, connected to the regional open space network and the Manly Dam Reserve. It provides the major area of open space, and is anticipated to provide the "lungs" for the Hospital Precinct Structure Plan.

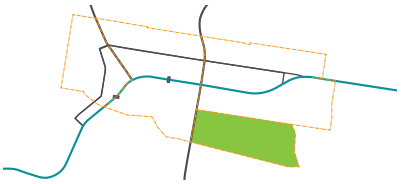
The long term vision for the Structure Plan is to confirm this area as a Recreation and Special Use precinct. Evolution of the existing recreational facilities is essential to ensure their long term sustainability.

SHORT TERM OBJECTIVE

Aquatic Reserve provides a significant opportunity for a benchmark project including the integration of social infrastructure and educational facilities. The reserve has the potential to accommodate the relocated Forest High School in addition to multi-purpose and shared recreational space for community use.



Precinct 4: Recreation and Special Use Precinct



URBAN FORM

Description and Character

Traditionally the recreation focus of the region and in close proximity to Manly Dam and other regional recreational amenities, the Structure Plan confirms this area as a Recreation and Special Use precinct. Evolution of the existing recreational facilities is essential to ensure their long term sustainability. The special uses on site are to be supported by these recreational and lifestyle assets.

Built form within the recreational space, including the Warringah Aquatic Centre and baseball facilities, should be elevated to reflect the role of the building as a component of the recreation destination. Edge development, including existing and proposed special uses and residential development, should step down to respond to the bushland setting and provide a frame for the parkland.

Typology and Built Form

- Elevate regional open space amenities and facilities as a regional destination commensurate with a Strategic Centre for metropolitan Sydney.
- Reinforce the "forest" character of the precinct through landscape initiatives.
- Sustainable planning measures such as the development of energy and water targets will be implemented through development control plans and further investigations into sustainable development practices and incentives.

ACTIVITY

The activity focus of this precinct is the creation of a new state of the art educational facility, a multi-purpose and multi-functional centre as well as shared recreation spaces. Due to existing road network constraints and capacity limitations, and development beyond infrastructure provisions and recreation is not viable.

The Structure Plan suggests the potential relocation of the existing aquatic centre to the town centre site and construction of a new education facility (high school) in conjunction with other shared recreation buildings and spaces on the aquatic reserve.

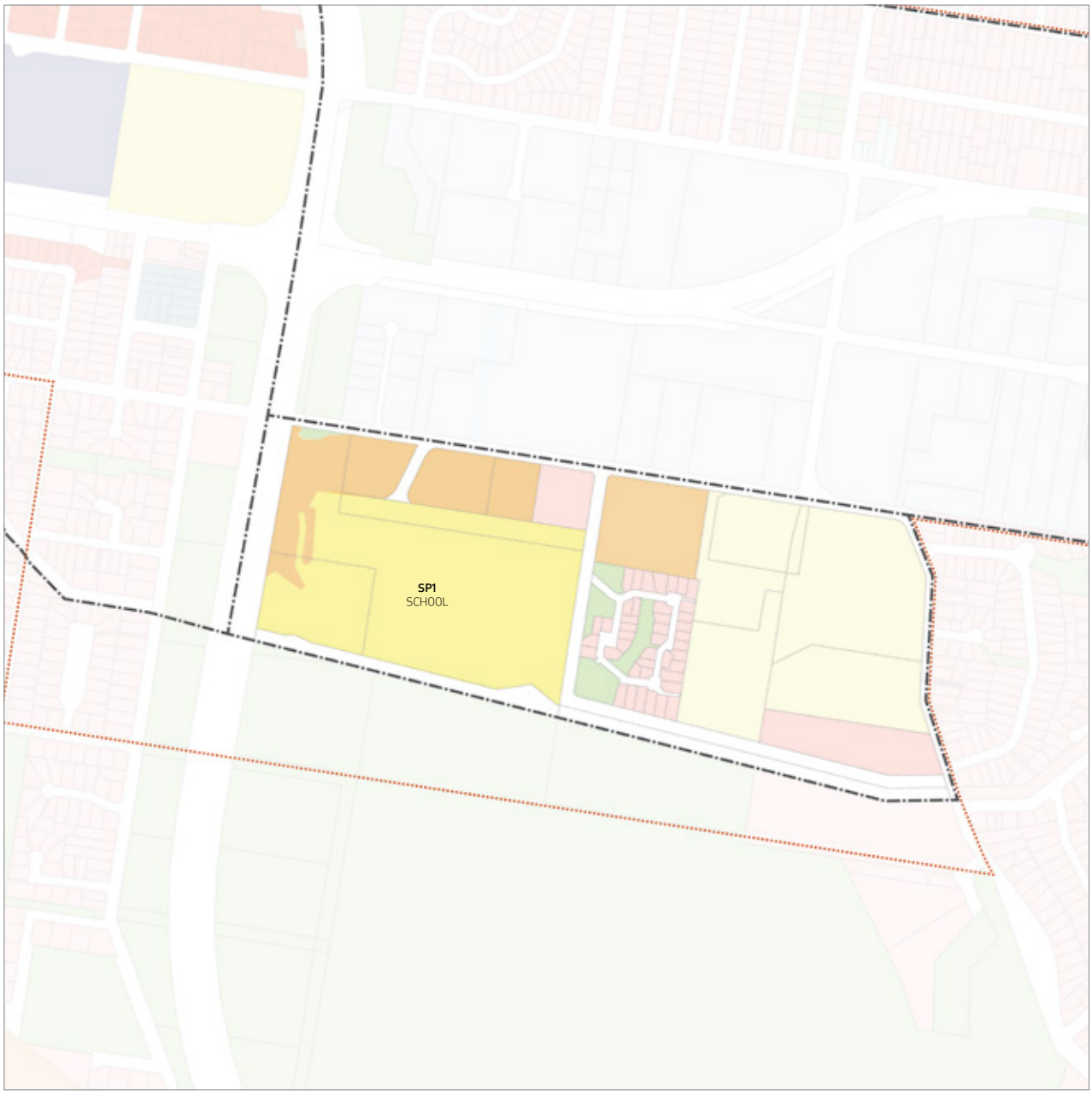
Strategic Intent

- Deliver a state of the art recreation and special use precinct to accommodate an educational facility and multi-purpose, multi-functional centre and shared recreation spaces for the use of the school and community.

Anchor Activities

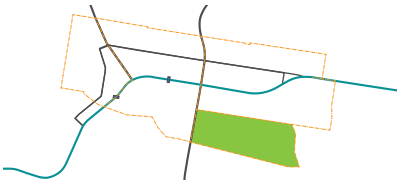
- Education facility.
- Shared multi-purpose/multi-functional centre (indoor sports centre).
- Shared Recreation spaces (sporting ovals and fields).

Indicative Zoning for Precinct 4: Recreation and Special Use Precinct



- Investigation Area
- Precinct Boundary
- Open Space
- B1 Neighbourhood Centre
- B4 Mixed Use / Urban Core
- B7 Business Park
- E2 Environmental Conservation
- R2 Low Density Residential
- R3 Medium Density Residential
- R4 High Density Residential
- SP1 Special Activities

Precinct 4: Recreation and Special Use Precinct



MOVEMENT

Public Transport
A Bus Rapid Transit (BRT) system has been identified as the appropriate public transport system for Frenchs Forest, particularly from Dee Why to Chatswood. A BRT system would correspond with the identity of Frenchs Forest as a Strategic Centre for metropolitan Sydney. However, it has not been identified as a short term deliverable for the Hospital Precinct Structure Plan.

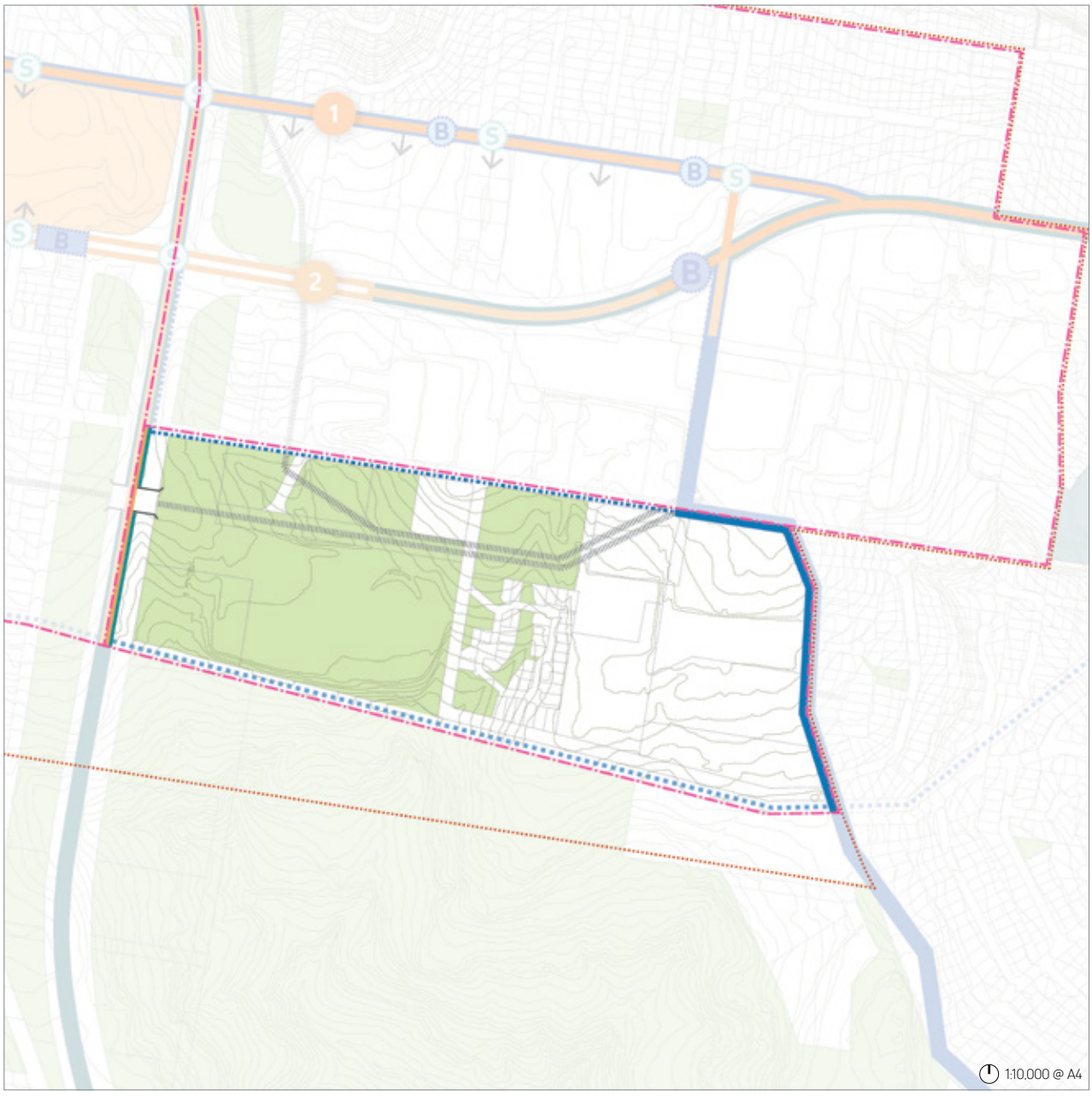
The absence of a BRT system limits the current ability for Frenchs Forest to reach its full potential as a Strategic Centre in metropolitan Sydney. In the short term, increased frequency bus services have been identified as the most appropriate public transport system to cater for the growth proposed under the Structure Plan

Connections (Regional, Centre, Precinct)
The primary regional address of the Recreation and Special Use Precinct is Aquatic Drive. Aquatic Drive does not currently provide access to Wakehurst Parkway. Following the completion of the RMS road upgrade works it will provide a limited connection to Wakehurst Parkway i.e. left hand and right hand turn in off Wakehurst Parkway and left hand turn out onto Wakehurst Parkway.

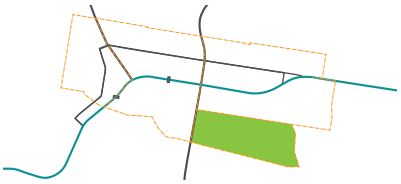
Pedestrian and Cyclist Movement

+ Aquatic Drive and Allambie Road have been identified as having the potential to provide regional shared pedestrian and cycle pathway to Warringah Road. This link will provide the opportunity to link the recreation and special use precinct with the rest of the precinct and in particular the urban core.
+ Further investigations should be undertaken to provide additional shared pedestrian and cycle pathways across Wakehurst Parkway providing a direct link to the new hospital and urban core.

Movement Network for Precinct 4: Recreation and Special Use Precinct



Precinct 4: Recreation and Special Use Precinct



ENVIRONMENT

Topography and Landform

The Recreation and Special Uses Precinct is located at the northern and highest point of the Manly Dam Reserve and its associated regional open space networks. The natural landform slopes significantly to the south of the precinct. The existing recreation and special uses take advantage of this bush land setting.

Future redevelopment within the area should be undertaken to positively respond to and reinforce the natural environment of the place.

Open Space Structure and Links

The existing recreational facilities should be maintained and enhanced. These are to be preserved and reinforced in the Structure Plan.

The precinct will also reinforce the existing connections to Many Dam Reserve and regional recreation by maintaining and improving access and linking it through to the adjacent precincts of the Structure Plan.

Cultural and Social Assets

The existing recreational facilities at the site provide significant cultural and social assets for the region. Additional uses can be considered to reinforce the identity of the place. Uses identified for inclusion within the precinct are typically a more traditional offer than that suggested for Frenchs Forest Urban Core and include:

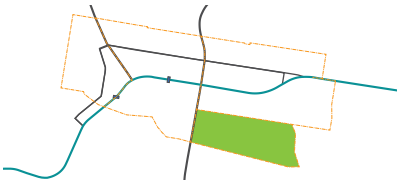
- A strong focus on sports facilities.
- A strong focus on indoor / outdoor recreation.
- Supporting childcare facilities.
- Community facilities.
- Educational facilities.

Conservation Areas

Native vegetation exists adjacent the Recreation and Special Uses Precinct as part of the north-south regional recreation system associated with Manly Dam Reserve. This adjacency is to be reinforced by the Structure Plan. This will reinforce the green identity of the Hospital Precinct Structure Plan and provide a natural place-based outcome for Frenchs Forest as a Strategic Centre.

Indicative Environmental Plan Precinct 4: Recreation and Special Use Precinct

Precinct 4: Recreation and Special Use Precinct



IMPLEMENTATION

Development Staging

The existing aquatic centre may be required to be relocated to the new town centre site. This process may require the aquatic centre to cease operations for a period of time to allow for a new state of the art educational facility and multi-purpose and multi-functional centre and shared recreation spaces to be built on the current aquatic centre site.

Further Investigations

The appropriate development tools and mechanisms to achieve a state of the art recreation and special use precinct at Frenchs Forest requires a number of further investigations, including:

- Development mechanisms and controls appropriate for the transition of recreation area into an educational facility, multi-purpose and multi-functional centre and shared recreation space.
- Protection and enhancement of environmentally sensitive lands within the precinct within the legislative requirements and allowances.
- Investigate opportunities to provide additional and improved pedestrian and bicycle connections between the precinct and the urban core.

Indicative Staging and Implementation Plan Precinct 3: Business Park and Innovation Precinct

Investigation Area
Precinct Boundary
"The Pipeline" Pedestrian / Cyclist Connection
1 RMS Hospital Connectivity Work
2 RMS Network Enhancement Work
Northern Beaches Council Short Term Infrastructure Upgrades
(0-2 YRS) Short Term Rezoning

FRUITO

THE WAY FORWARD

6.0

DELIVERING A STRATEGIC CENTRE

6.0 The Way Forward

The Hospital Precinct Structure Plan Report is underpinned by urban economics, strategic traffic and transport recommendations and best practice urban design to guide the future development and implementation of a Strategic Centre at Frenchs Forest.

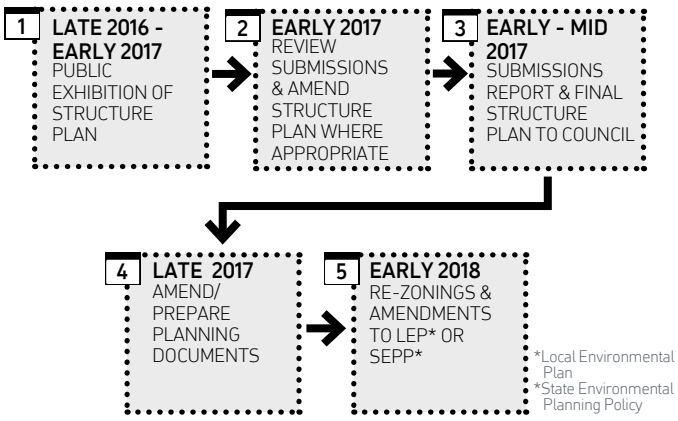
The Structure Plan provides the basis for the long term delivery of this Strategic Centre. It focuses on high level land use capacity, traffic and transport initiatives, diversity of built form and density, identity and place making.

The consultative process has identified an urban typology that incorporates a mode shift to public transport and supports other transit orientated development initiatives, including mixed use, as the preferred way forward. In doing so, the Structure Plan identifies priority public transport corridors and hubs in alignment with the staging and phasing proposed by TfNSW. It addresses local and regional pedestrian connectivity and amenity through enhanced precinct connectivity and open space improvements. The Structure Plan leverages opportunities for catalytic anchor development with respect to land use clustering and ownership, then confirms an appropriate built form type and scale that enhances the identity of Frenchs Forest.

The Hospital Precinct Structure Plan is the result of a detailed and collaborative process with the local community, stakeholders, Northern Beaches Council and NSW State Government including the Department of Planning and Environment, Transport for NSW, Roads and Maritime Services, Health Infrastructure, the Department of Education and Communities, and the Office of Environment and Heritage. It represents the aspirations of these groups in transitioning Frenchs Forest to a Strategic Centre.

The Hospital Precinct Structure Plan provides a foundation for the next steps for Northern Beaches Council to undertake including amendments to the LEP, DCP, Section 94 Contribution Plan and State Government SEPP amendments.

INDICATIVE TIMEFRAME AND PROCESS DIAGRAM



Frenchs Forest Road West looking west

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Northern Beaches Hospital Transport Study

Detailed Transport Assessment

Prepared for Northern Beaches Council, Roads and Maritime Services and Transport for NSW

Issue | 22 November 2016

This report takes into account the particular instructions and requirements of our client.

It is not intended for and should not be relied upon by any third party and no responsibility is undertaken to any third party.

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Job title		Northern Beaches Hospital Transport Study			**Job number** 237921
Document title		Detailed Transport Assessment			**File reference**
Document ref		Prepared for Northern Beaches Council, Roads and Maritime Services and			
Revision	**Date**	**Filename**	NBH_Transport_Plan_Report.docx		
Draft 1	4 Apr 2016	**Description**	First draft		
			Prepared by	Checked by	Approved by
		Name	Sam Gray	Naomi Brissett	Sam Gray
		Signature			
Draft 2	22 April 2016	**Filename**	NBH_Transport_Plan_Report.docx		
		Description	Second draft		
			Prepared by	Checked by	Approved by
		Name	Naomi Brissett	Andrew Hulse	Andrew Hulse
		Signature			
Draft 3	3 May 2016	**Filename**	Draft 3_NBH_Transport_Plan_Report.docx		
		Description	Third draft including Council comments		
			Prepared by	Checked by	Approved by
		Name	Naomi Brissett	Andrew Hulse	Andrew Hulse
		Signature			
Issue	22 Nov 2016	**Filename**	NBH_Transport_Plan_Report.docx		
		Description	Issue		
			Prepared by	Checked by	Approved by
		Name	Naomi Brissett	Andrew Hulse	Andrew Hulse
		Signature			
				Issue Document Verification with Document	✓

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Terms of Reference

BRT	Bus Rapid Transit
BSA	Bureau of Statistics Analysis
BTS	Bureau of Transport Statistics
CBD	Central Business District
DPE	Department of Planning and Environment
EIS	Environmental Impact Statement
MCA	Multi Criteria Assessment
RMS	Roads and Maritime Services
PWG	Project Working Group
TfNSW	Transport for New South Wales
WAC	Warringah Aquatic Centre

Executive Summary

Arup was engaged by Northern Beaches Council (former Warringah Council), Roads and Maritime (RMS) and Transport for NSW (TfNSW) in 2015 to undertake a detailed transport assessment of the road network surrounding the Northern Beaches Hospital (NBH) to inform the finalisation of the draft Hospital Precinct Structure Plan.

The purpose of the Study was to undertake a strategic review of the preferred growth scenarios included in the draft Hospital Precinct Structure Plan from a transport network and operations perspective.

Following the community and business workshops on the draft Hospital Precinct Structure Plan held by Northern Beaches Council in October and November 2014, discussions were held with relevant NSW Government agencies to discuss the future transport requirements of the precinct over the next 20 years.

More traffic and transport modelling was identified as being required to ensure the future transport network could support the increased growth identified for the Strategic Centre in the draft Structure Plan, beyond what was identified by the new Hospital development.

This meant the preparation of the Draft Hospital Precinct Structure Plan was put on hold while a detailed transport assessment was undertaken. This process has enabled the identification of the level of growth that could be accommodated in the precinct over the next 20 years to be determined based on the function and operation of the traffic and transport networks surrounding the hospital precinct.

To support the opening of the new Northern Beaches Hospital at Frenchs Forest, Road and Maritime Services (RMS) is upgrading roads around the new hospital site. This includes the Stage 1 Connectivity Works being road works to enhance connectivity to the hospital, and Stage 2 Network Enhancement Works being works to improve the broader road network capacity.

The road upgrades cater for the additional traffic generated as a result of the new hospital development. However it does not cater for the additional growth anticipated in the draft Hospital Precinct Structure Plan as a result of Frenchs Forest being identified as a Strategic Centre. Further road upgrades will be needed to sustain Frenchs Forest as a successful strategic centre.

As part of this transport study, four growth scenarios were developed based on the challenges and opportunities identified. The scenarios altered the location and mix of land uses within the hospital precinct. The four scenarios were assessed based on a high level Multi Criteria Assessment (MCA) which reviewed the ability of each scenario to support the principles of:

- Integrating land use and transport.
- Encouraging public and active transport use.
- Facilitating accessible, pleasant and safe environments.
- Reducing the need to travel.

A high level assessment of how the road and transport networks surrounding the hospital precinct might respond to each growth scenario was undertaken, and the

potential need for infrastructure upgrades was identified. Based on this, a preferred scenario for the location and mix of land uses within the hospital precinct was identified.

The preferred scenario results in less residents and less workers being accommodated than was previously envisaged by the growth scenarios discussed during the community and business workshops in October and November 2014.

Modelling for the preferred growth scenario predicted the detailed traffic operations on the local road network in 2036 and was used to test if any local area road upgrades were required to further enhance traffic capacity and hence ensure the objectives were met for the strategic centre.

The modelling outcomes were:

- Results suggested Frenchs Forest Road West would accommodate the Strategic Centre's traffic. The models' improved signal phasing and signal coordination along the corridor can accommodate the increases in vehicle trips.
- Further investigations (land use and traffic modelling work) of the local road network is required to unlock additional capacity to ensure the Strategic Centre is effectively delivered.

Following adoption of the preferred growth scenario and Stage 2 traffic modelling assessment, further refinement occurred to consider two local issues associated with delivery of the structure plan and road network improvements:

- Relocation of The Forest High School to the Warringah Aquatic Centre site on Aquatic Drive.
- Adjustment to the urban density along the southern boundary of the RMS Stage 2 Network Enhancement Works to respond to the changing road environment.

Traffic assessment undertaken for both of these refinements found that they could be accommodated by the RMS road upgrade projects.

This Study has identified a preferred land use scenario with consideration of traffic and transport impacts to inform the draft Hospital Precinct Structure Plan. It has also provided the opportunity to align the NSW Government road network upgrades being implemented as part of the Northern Beaches Hospital with the development of the Northern Beaches Hospital Precinct as a Strategic Centre for the region taking account of the potential growth that would be stimulated as a result of this.

1 Introduction

1.1 The purpose of this study

Arup was engaged by Northern Beaches Council, Roads and Maritime (RMS) and Transport for NSW (TfNSW) in 2015 to undertake a detailed transport assessment of the road network surrounding the Northern Beaches Hospital (NBH) to inform the finalisation of the draft Hospital Precinct Structure Plan.

The purpose of the Study was to undertake a strategic review of the preferred growth scenarios included in the draft Hospital Precinct Structure Plan from a transport network and operations perspective.

Following the community and business workshops on the draft Hospital Precinct Structure Plan held by Northern Beaches Council in October and November 2014, discussions were held with relevant NSW Government agencies to discuss the future transport requirements of the precinct over the next 20 years.

More traffic and transport modelling was identified as being required to ensure the future transport network could support the increased growth identified for the Strategic Centre in the draft Structure Plan, beyond what was identified by the new Hospital development.

This meant the preparation of the Draft Hospital Precinct Structure Plan was put on hold while a detailed transport assessment was undertaken. This process has enabled the identification of the level of growth that could be accommodated in the precinct over the next 20 years to be determined based on the function and operation of the traffic and transport networks surrounding the hospital precinct.

The process involved developing and assessing four alternative growth scenarios to understand the impact and influence of development uplift on the surrounding transport network, and identify potential network improvement options that would support the future growth generated by the development of a Strategic Centre for the area.

The preferred growth scenario that was identified was then taken forward to the second stage of the process, undertaking a detailed traffic modelling assessment along the Frenchs Forest Road West corridor. This work has informed the development of the final Hospital Precinct Structure Plan.

This Study has provided the opportunity to align the NSW Government road network upgrades being implemented as part of the Northern Beaches Hospital, and the development of the Northern Beaches Hospital Precinct as a Strategic Centre for the region and the growth that would be stimulated as a result of this.

1.2 Project Working Group

The organisational chart shown in Figure 1 identifies the inter-agency structure of the Project Working Group (PWG) that guided the Northern Beaches Hospital Transport Study.

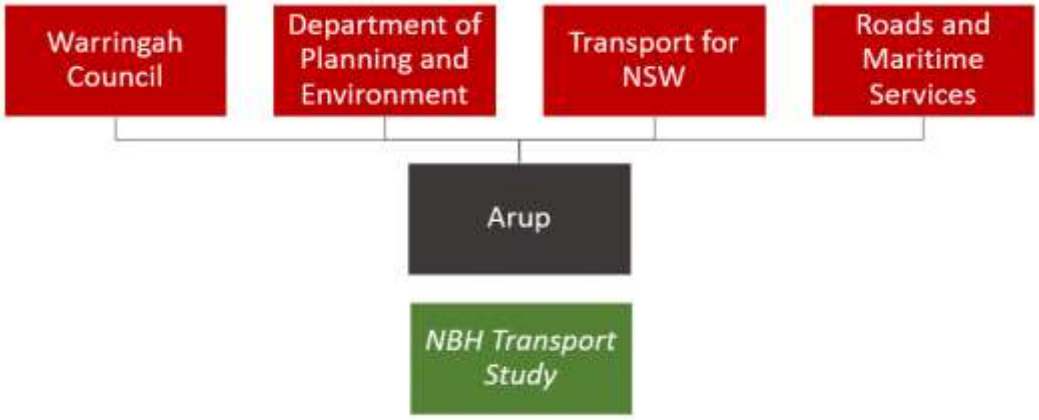

Figure 1: PWG Organisational Structure

1.3 The study area

The study area for the Northern Beaches Hospital Transport Study, shown in Figure 2, extended beyond the Hospital Precinct Structure Plan to ensure a holistic transport assessment was undertaken, taking into consideration the wider context and its influence and impact on the hospital precinct.

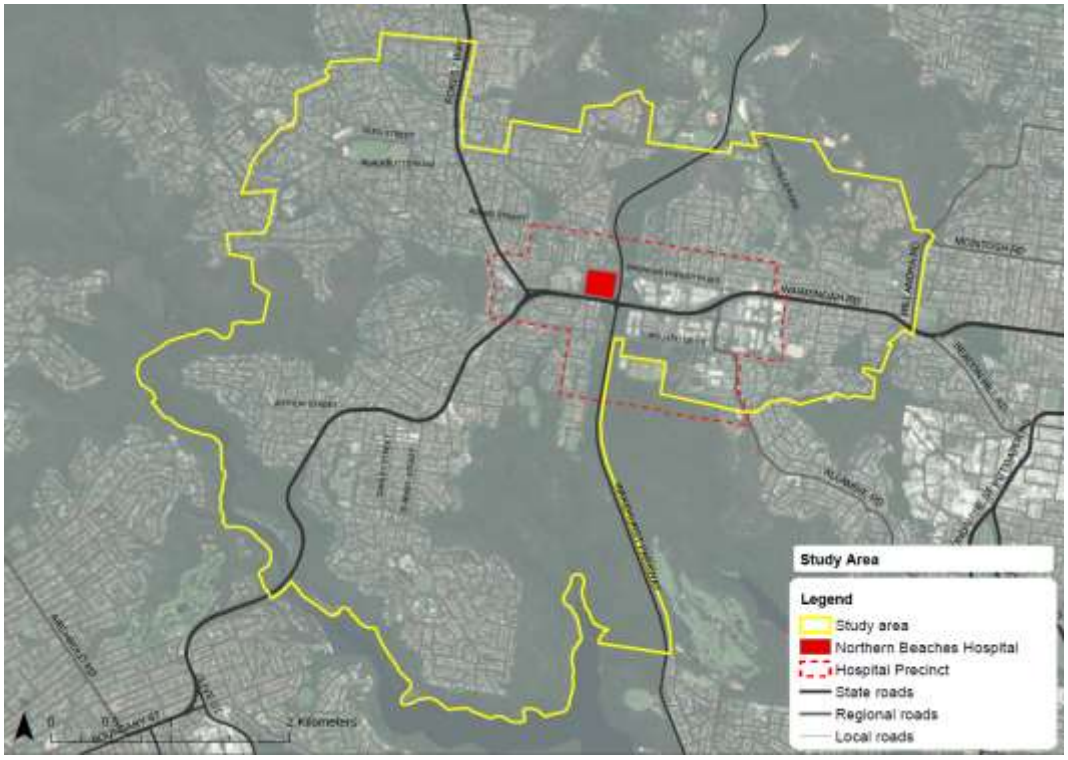

Figure 2: Northern Beaches Hospital Transport Study – Study Area

The study area encompassed the suburbs of Frenchs Forest, Forestville, Killarney Heights, part of southern Belrose, part of western Beacon Hill, and part of northern Allambie Heights.

The wider study area ensured that an integrated transport assessment could be undertaken, giving consideration to the travel behaviours of the community surrounding the hospital precinct to develop a clear understanding of the demands for travel in the region, and the influences on the transport network and its performance and operation within the hospital precinct.

1.4 Strategic context

1.4.1 Northern Beaches Hospital

On 2 May 2013 the NSW Minister for Health, The Hon. Jillian Skinner MP announced that expressions of interest would be invited from the private sector to design, construct, operate and maintain a world-class hospital at Frenchs Forest.

A new Level 5 hospital is currently being constructed at Frenchs Forest to serve the Northern Beaches community. The nine-storey high facility, includes a multi-storey 1,400 space car park and helipad. The project is valued at approximately $1 billion, including $400 million in road upgrades set to be completed before completion in 2018.

The new hospital will contain 488 hospital beds, bringing the total number of beds available on the Northern Beaches to 554, and employ 1,300 staff, increasing the existing workforce by 400. In addition, 700 jobs will be created during the construction of the hospital. Construction began in early 2015, and the hospital is scheduled to open in 2018.

1.4.2 Northern Beaches Hospital Road Connectivity and Network Enhancement Project

To support the opening of the new Northern Beaches Hospital at Frenchs Forest, RMS is upgrading roads around the new hospital site, with work planned to be completed in time for the hospital opening in 2018. These upgrades will provide customers with a better travel experience, increase the capacity of the road network and improve access through the area, including for pedestrians and cyclists.

The proposal involves a staged infrastructure application that sets out the Concept Proposal for works to arterial and sub-arterial roads in the Northern Beaches Hospital precinct at Frenchs Forest. The Concept Proposal includes:

- Stage 1 Connectivity Works being road works to enhance connectivity to the hospital, approved June 2015.
- Stage 2 Network Enhancement Works being works to improve the broader road network capacity, approved February 2016.
- Utility relocation and ancillary works for construction such as compound sites and sedimentation basins, for both stages of the proposal.

The Environmental Impact Statement (EIS) undertaken for the Stage 2 Network Enhancement Works outlines the employment and housing assumptions adopted in the modelling for the RMS's Northern Beaches Hospital Road Connectivity and Network Enhancement project. The employment and housing assumptions adopted in the modelling are based on growth forecasts to the year 2028 by the Bureau of Transport Statistics (BTS).

The road upgrades cater for the additional traffic generated as a result of the new hospital development and background traffic growth. However, as outlined in Section 1.6, lower population yields were used in the RMS modelling than was developed as part of the original draft Hospital Precinct Structure Plan as a result of Frenchs Forest being identified as a Strategic Centre.

A key measure of the performance of the road network model is "unreleased demand". This is a measure of the traffic demand that is unable to be accommodated by the capacity of the road network during the period of the model simulation, due to sustained high levels of congestion within the area over the model period. In reality, this presents itself as queuing on the approaches to the area network and an extended duration of congested conditions.

The modelling results provided in Chapter 5 of the Northern Beaches Hospital Stage 2 EIS - Network Enhancement Works Traffic and Transport Impact, indicate that under the Do Minimal Case, approximately 12-14 percent in 2018 and 10-17 percent in 2028 of the peak period traffic demands would be unable to enter the modelled study area during each three hour peak period. The 2012 Base Condition modelling indicates that currently only 2 percent of peak hour traffic demands are unable to enter the modelled study area during each of the peak periods. This indicates the existing road network is at capacity to service current demands, and unable to accommodate the predicted increase in background traffic volumes and additional traffic generated by the Northern Beaches Hospital development.

While the infrastructure upgrade proposed as part of Stage 1 Project will assist in alleviating the congestion, the additional infrastructure proposed as part of the Stage 2 Project is expected to mitigate the full impacts of the Northern Beaches Hospital development and background traffic growth.

As the design of the Stage 2 Project has been developed to accommodate the predicted increase in background traffic volumes and likely additional traffic generated by the Northern Beaches Hospital, it is not expected that there will be excess road capacity during the AM and PM peak periods to accommodate induced demands from other nearby roads.

It is further noted that whilst the Stage 2 Project includes upgrades that increases capacity on Warringah Road between Fitzpatrick Avenue and Allambie Road it does not increase the capacity of the broader Warringah Road or Forest Way corridors. In this regard it is predicted that increased congestion will be present at the adjacent intersections to the study area, including:

- Warringah Road/ Government Road
- Forest Way/ Adams Street
- Warringah Road/ Currie Road/ Brown Street.

Future works will be required at these intersections to alleviate the congestion caused by the additional traffic present on the network.

1.4.3 A Plan for Growing Sydney

In December 2014 the NSW Government released *A Plan for Growing Sydney*. This provides a 20 year planning and land use strategy for the Sydney metropolitan area. The strategy outlines four key objectives, those being:

- Improve access for Sydney's residents between their homes, place of work, open space areas and their local centres.
- Make a wider variety of housing available to suit the changing demographics of Sydney.
- Deliver new infrastructure to support the growth of the city.
- Maintain a sustainable city which safeguards environmentally significant areas across Sydney.

The plan aims to balance the need to accelerate housing production with a desire for high levels of amenity and the creation of strong and resilient communities within a highly liveable city. The facilitation of more homes and jobs co-ordinated with infrastructure delivery in and around centres and along key public transport corridor is a key strategy for the achievement of these priorities.

Of particular relevance to the NBH Precinct, *A Plan for Growing Sydney* identifies the precinct as a Strategic Centre with the following objectives:

- Deliver a new Northern Beaches Hospital.
- Support health-related land uses and infrastructure around the Northern Beaches Hospital site.
- Work with council to protect capacity for employment growth beyond the Northern Beaches Hospital site.
- Work with council to provide capacity for additional mixed-use development in Northern Beaches Hospital Precinct including offices, health, retail, services and housing.
- Support the preparation of a precinct structure plan in partnership with council to guide future development of the area.
- Progress planning for road improvements supporting Northern Beaches Hospital Precinct, including underpasses on Warringah Road at Forest Way and Wakehurst Parkway.
- Progress planning for a new public transport interchange servicing Northern Beaches Hospital Precinct.
- Improve walking and cycling connections between the different parts of Northern Beaches Hospital Precinct and to its surrounding area.

1.4.4 Draft Hospital Precinct Structure Plan

The area around the Northern Beaches Hospital at Frenchs Forest was identified as a potential specialised precinct for health purposes, by the Department of Planning and Environment (DPE) as part of the 2013 Draft Metropolitan Strategy.

The area was identified as a specialist precinct by the NSW Government because of the potential for economic opportunities associated with the development of the new hospital.

In order to implement DPE's strategic direction, in 2014, Northern Beaches Council engaged consultants, Hames Sharley, to prepare a Precinct Structure Plan to guide future land uses and development around the new Northern Beaches Hospital at Frenchs Forest.

The project considered the implications of the hospital project on the wider area, including the environmental, social, economic, traffic, transport and accessibility issues surrounding the hospital site, and a mix of open space and development opportunities.

The aim of the Draft Structure Plan is to create an innovative precinct that stimulates economic growth and provides friendly and accessible spaces for the public. One of the key features of the project is to identify sustainable transport options as part of the new health precinct.

Community consultation on the Draft Structure Plan was held in October and November 2014. Following this process, consultation was held with state agencies including RMS, TfNSW & DPE. Critical to these discussions was the need to obtain commitment from all state agencies prior to finalising the draft Structure Plan. This commitment was not reached with RMS & TfNSW who identified the need for a more detailed transport assessment. This included network modelling to understand the impacts of extra dwellings and businesses surrounding the hospital site on the wider transport network.

In order to help plan the best locations for housing and employment growth, and to ensure future transport infrastructure upgrades are available when needed, the draft Hospital Precinct Structure Plan was put on hold while this work was completed.

1.4.5 Northern Beaches Hospital Transport Study (This Study)

In 2015, RMS, TfNSW and Council agreed to carry out and fund a more detailed transport assessment including network modelling. Arup was engaged to undertake this work. The study involved a two stage process, which is outlined below.

Stage One

Stage One analysed the transport influencers and impacts on the Frenchs Forest Strategic Centre to help inform the identification of the most appropriate growth scenario for the precinct from a transport and accessibility perspective. A key component of this stage was the identification of four growth scenarios. Numerous meetings were held with the PWG to discuss and sign off on a preferred growth scenario. No commitment was obtained for any of the preferred

growth scenarios. In December 2015, RMS requested further detailed evaluation of scenarios. Arup completed this and agreement was reached at the following PWG meeting on 9 March 2016. Stage Two was then able to commence.

Stage Two

Stage Two involved a detailed evaluation of the preferred land use scenario using VISSIM modelling (microscopic multi-modal traffic flow simulation software package) to understand the impacts on the function and operation of the surrounding transport network from the proposed land use changes.

Once this work was completed and the results of a preferred growth scenario presented to the PWG for approval, Council was able to recommence the preparation of the draft Hospital Precinct Structure Plan.

Figure 3 below identifies the previous indicative work streams described above and how this Study precipitated.

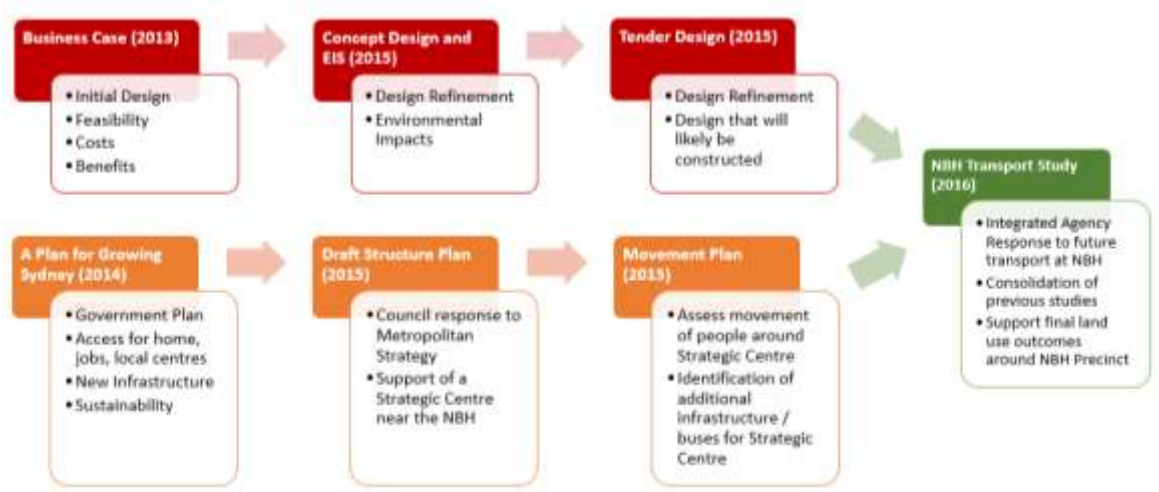

Figure 3: Indicative work streams

1.5 Methodology

The employment and housing assumptions adopted in the modelling for RMS's Northern Beaches Hospital Road Connectivity and Network Enhancement project was prior to the Northern Beaches Hospital precinct being identified as a Strategic Centre. It therefore did not include the level of growth that would normally be associated with a new 'Strategic Centre'.

As a result, the road network surrounding the Northern Beaches Hospital development has a limited capacity to accommodate additional growth beyond what was assumed in the RMS model.

This report outlines the extent to which additional growth can be accommodated on the surrounding road network to inform the development of the draft Structure Plan for the wider precinct.

As outlined previously, this Study has been undertaken in two stages which are detailed in the following sections. A two stage process was identified by the PWG to ensure the future growth scenario to be taken forward to the traffic modelling

assessment was informed by an initial high level integrated land use and transport assessment.

Since RMS had completed their analysis for the Northern Beaches Hospital Road Network Upgrades, the NSW Government had released updated land use forecasts, altering the previously expected growth for the future. An understanding of the new forecast growth for the precinct and the travel behaviours that would influence the impact of additional growth on the function and operation of the surrounding transport networks was required to inform the development of achievable growth scenarios.

1.5.1 Stage One – Identification of a preferred growth scenario

Stage One involved the following:

- A review of existing strategic land use and transport plans and policies for the area.
- Understanding the two traffic models previously created by RMS for the Northern Beaches Hospital Road Network Upgrades.
- Understanding the amount and location of future population and employment growth predicted for the area.
- Understanding why people travel, how people travel and where people travel both now and in the future for the area.
- Understanding how the road network surrounding the hospital precinct would operate in the future with the road upgrades being delivered by the NSW Government, and the predicted traffic growth informed by travel forecasts provided by Transport for NSW for the area.
- Identification of where potential spare capacity might be available on the surrounding road network following the RMS road upgrades to accommodate further growth and development, and what travel demands and influences could support further growth and development in the hospital precinct.
- Development of four growth scenarios in collaboration with Northern Beaches Council based on the objectives of:
  - Integrating land use and transport
  - Supporting the use of public and active transport
  - Facilitating accessible, amenable and safe environments
  - Reducing the need to travel through trip containment and co-location of uses.
- A high level assessment of how the road and transport networks surrounding the hospital precinct would respond to the growth scenarios developed, and their potential for infrastructure upgrade requirements.
- Comparison of the growth scenarios using a Multi Criteria Assessment (MCA) to identify a preferred scenario that would support the principles of land use and transport integration, accessibility, and sustainable travel behaviours

within the future hospital precinct, to progress to Stage Two for more detailed traffic modelling.

1.5.2 Stage Two – Preferred growth scenario traffic modelling assessment

The preferred growth scenario is shown in Figure 4.

Figure 4: Preferred growth scenario

Stage 2 involved the following:

- Assessment of the potential traffic distribution to understand the high level impacts caused by the new preferred growth scenario (identified in Stage 1):
  - Evidence that identified the new *Road Network Enhancement Work* can accommodate the traffic trip generation caused by the preferred growth scenario

- Development of a local area operational traffic model that assessed the Frenchs Forest Road West corridor:
  - Generation of likely trip patterns that represented the preferred growth scenario for the town centre
  - Quantified the traffic impacts on the road network caused by the town centre
  - Identification of road infrastructure improvements required to accommodate the town centre (centre road access)

The outcomes of the Stage 2 transport assessment are discussed in Section 3.

1.5.3 Stage Two refinement

Following adoption of the preferred growth scenario and Stage 2 traffic modelling assessment, further refinement occurred to consider two local issues associated with delivery of the structure plan and road network improvements:

- Relocation of The Forest High School to the Warringah Aquatic Centre (WAC) site on Aquatic Drive.

- Adjustment to the urban density along the southern boundary of the RMS Stage 2 Network Enhancement Works to respond to the changing road environment.

These refinements to the Stage 2 assessment are discussed in Section 3.

1.6 Summary of land use assumptions used for modelling

The following land use mix assumptions are relevant to the different stages of modelling undertaken for the NBH precinct:

1.6.1 Original Hames Sharley/ MacroPlan Dimasi/ Arup

Bureau of Transport Studies (BTS) additional floor space and employment forecasts to 2021

- 704 dwellings (2,268 people)
- 47,000 m^2 Commercial GFA (715 jobs)
- 4,000 m^2 Retail GFA (133 jobs)
- 70,000 m^2 Hospital (1,400 jobs)

Structure Plan - specialised precinct full potential additional floor space for 2036 (Based on Macroplan assessment in 2014)

- 3,838 dwellings (10,102 people)
- 140,000 m^2 Commercial GFA (2,129 jobs)
- 34,000 m^2 Retail GFA (1,133 jobs)
- 100,000 m^2 Hospital (2,000 jobs)

1.6.2 RMS modelling for the Northern Beaches Hospital Road Connectivity and Network Enhancement Project

Forecasts for population and employment within the NBH Structure Plan investigation area included in the original RMS model for 2036:

- 2,712 people
- 4,464 jobs (additional to hospital)

1.6.3 Updated Arup modelling for the detailed transport assessment for preferred growth scenario 2

Forecasts for population and employment within the NBH Structure Plan investigation area included in the Arup modelling for 2031:

- 4,400 people (2,000 dwellings assuming 2.2 people /dwelling)
- 3,700 jobs (additional to hospital)

2 Detailed Transport Assessment

2.1 Current and future context

2.1.1 Population and employment growth

In 2011, there were over 30,000 residents living within the study area. By 2031, this is forecast to grow to over 40,000 residents. Employment within the study area provided over 13,000 jobs in 2011, and this is forecast to grow to over 19,000 jobs by 2031[1].

Within the hospital precinct itself, it was previously envisaged in the growth scenarios discussed during the community and business workshops in October and November 2014 that by 2036 an additional 6,800 residents and 4,500 jobs could be located in the hospital precinct.

RMS modelling works undertaken as part of the Northern Beaches Hospital Road Connectivity and Network Enhancement Project provided for an additional 2,710 residents and 4,465 jobs by 2036 in the hospital precinct (on top of original forecast growth[2]) as shown in Figure 5 and Figure 6.

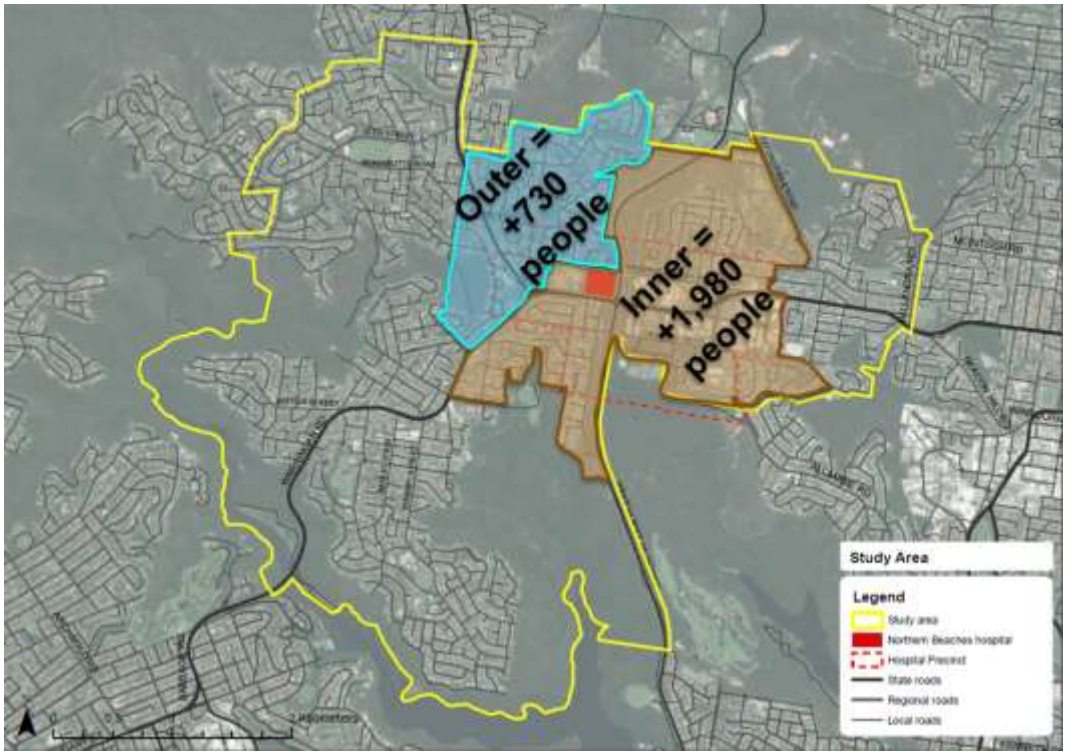

Figure 5: Assumed population increase to 2036 (TfNSW, BSA, RMS)

[1] Transport for NSW, Bureau of Statistics and Analytics, Strategic Travel Model (LU14), 2015
[2] Transport for NSW, Bureau of Statistics and Analytics, Strategic Travel Model (LU12)

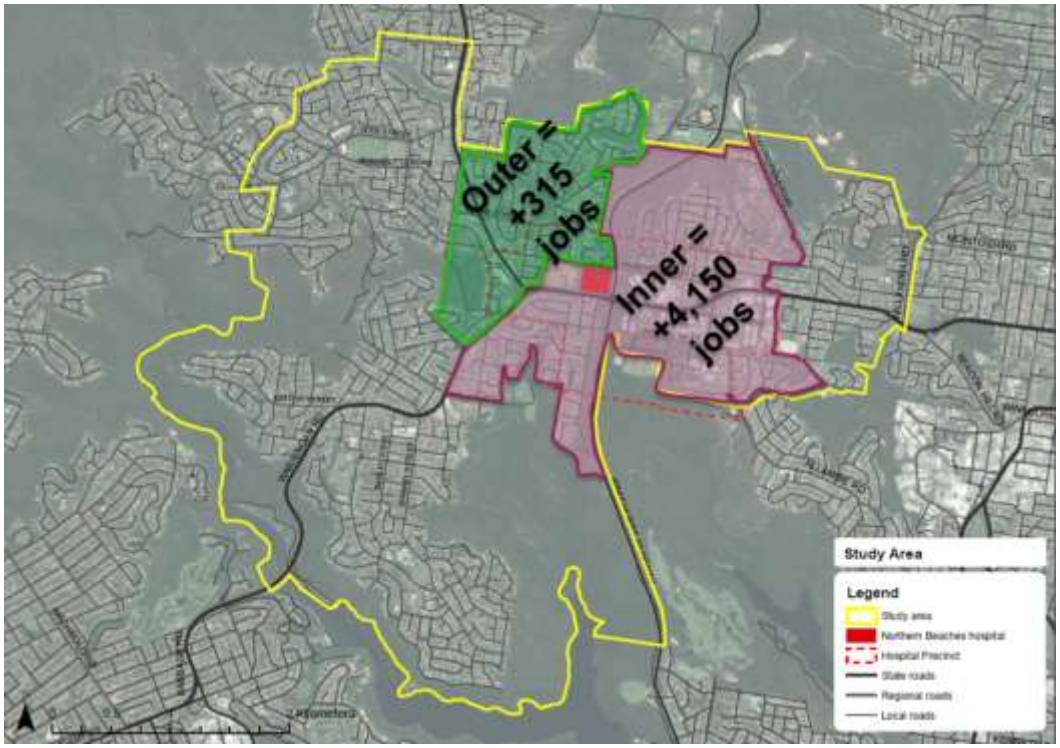

Figure 6: Assumed employment increase to 2036 (TfNSW, BSA, RMS)

2.1.2 Forecast travel characteristics

To understand the reasons why people within the study area travel, and how they travel, analysis was undertaken of internal trips within the study area and external trips leaving the study area. This helped to differentiate between the reasons that people travel for services that are well provided within the study area and those which require people to travel outside of the study area to access them. From this, identification of any differentiators between mode choice based on internal and external trips was also undertaken.

Why people travel

Figure 7 indicates that in 2031, for internal trips, the most common reason for travel is forecast to be related to social and recreational purposes. This is followed by commuting, shopping and educational related trips. Showing that a large proportion of trips within the study area will be for discretionary purposes, meaning that people have the option of choosing the timing and/or destination of their travel.

Figure 8 indicates that for an external trip leaving the study area, almost half are forecast to be for the purpose of commuting to work. These trips are non-discretionary trips, which means they have specific locations and require travel at specific times. It can be seen that a significant proportion of external trips are also forecast to be for social and recreational purposes.

Figure 7: 2031 internal trips by purpose[3]

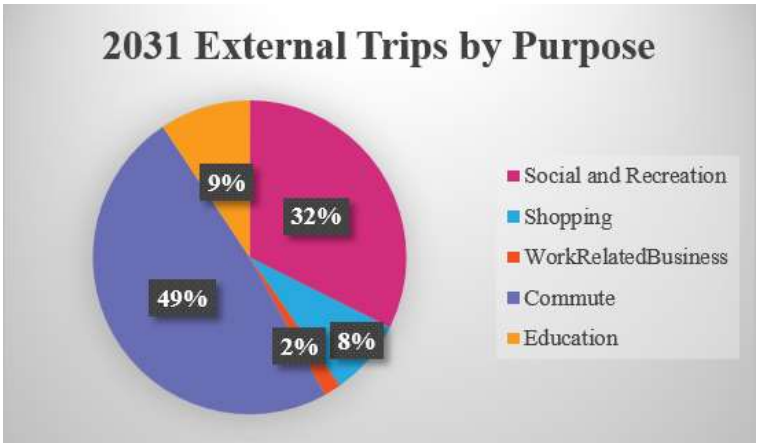

Figure 8: 2031 external trips by purpose[4]

[3] Transport for NSW, Bureau of Statistics and Analytics, Strategic Travel Model, 2015
[4] Transport for NSW, Bureau of Statistics and Analytics, Strategic Travel Model, 2015

How people travel

Figure 9 indicates that in 2031, for internal trips, a significant proportion is forecast to be by car, with 48 per cent by car driver, and a further 21 per cent by car passenger. A significant proportion of internal trips are also forecast to be made by active transport, e.g. walking or cycling, suggesting generally shorter trip lengths that would support the use of active transport modes inside the study area.

Figure 10 indicates that for external trips leaving the study area, a far higher amount are forecast to be by car in 2031 compared to internal trips, with 61 per cent by car driver and 20 per cent by car passenger. Active transport use is forecast to be significantly lower than internal trips. However, public transport use is forecast to increase from the 3 per cent of internal trips being by bus, to 11 percent for external trips.

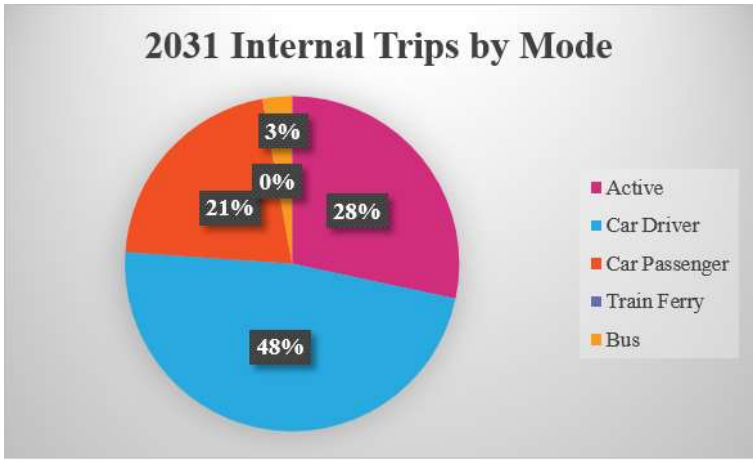

Figure 9: 2031 internal trips by mode[5]

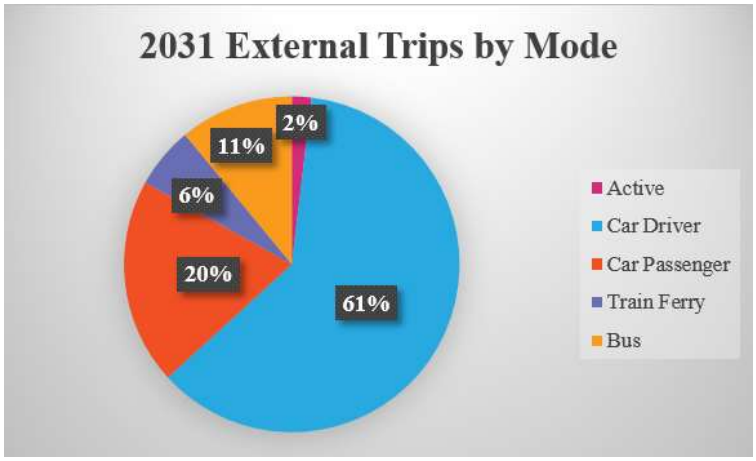

Figure 10: 2031 external trips by mode[6]

[5] Transport for NSW, Bureau of Statistics and Analytics, Strategic Travel Model, 2015
[6] Transport for NSW, Bureau of Statistics and Analytics, Strategic Travel Model, 2015

Where people travel

Figure 11 and Figure 12 indicate that for trips coming to and from the study area in 2031, they will remain largely concentrated around the Northern Beaches region.

For trips coming to the study area, the highest proportions originate within the study area itself, or to the north and east of the study area, with over 1,000 people travelling from the Brookvale-Dee Why centre.

For trips going from the study area, they will also see the highest proportions remaining within the study area itself, or travelling to the north and east, similar to above. However, a greater proportion are destined for the employment centres to the south of the study area, with over 3,000 going to the Sydney CBD and North Sydney, and over 1,000 going to Chatswood. Brookvale-Dee Why will still have a large proportion travelling from the study area, with over 2,000 destined for this centre.

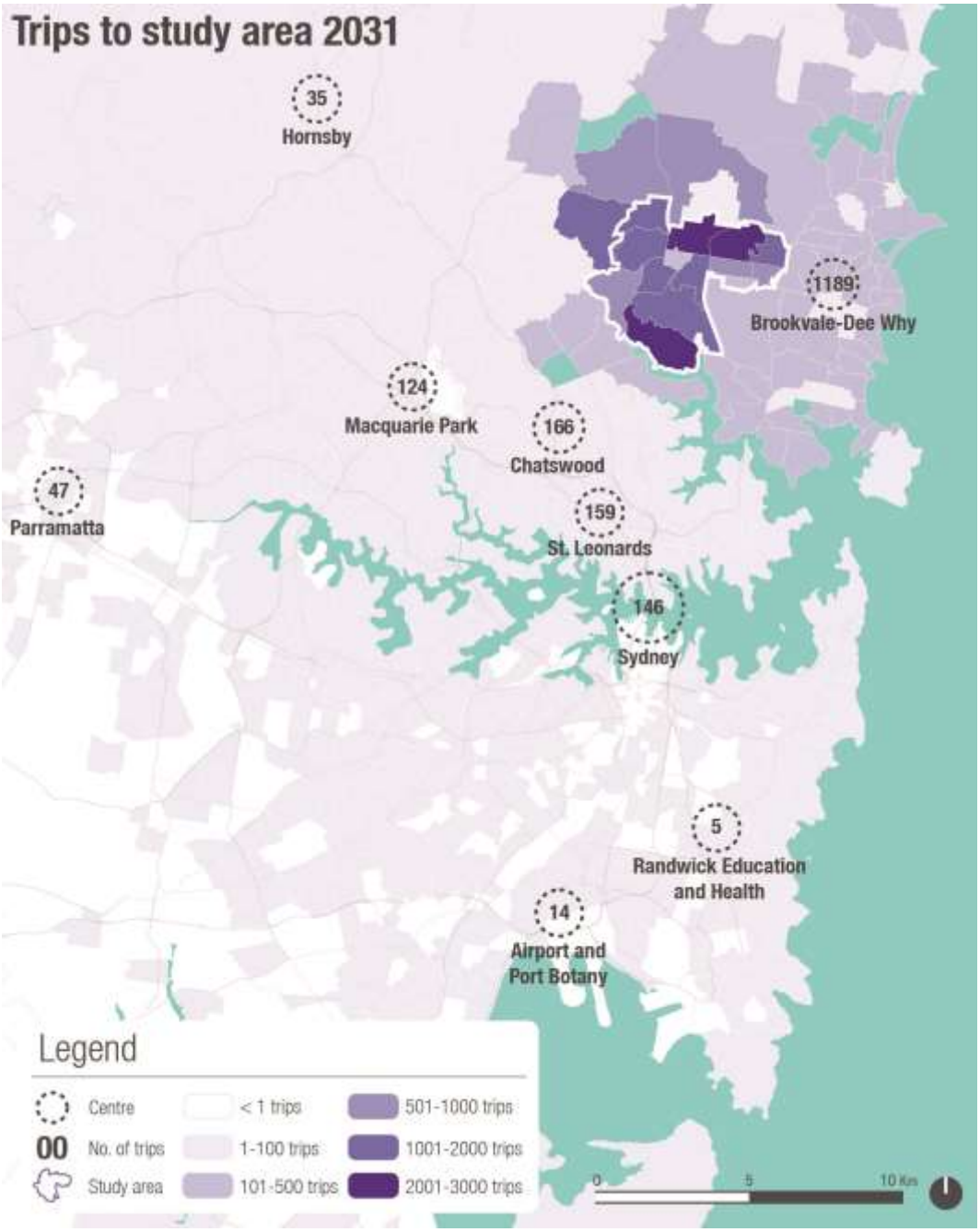

Figure 11: Trip locations to the Study Area in 2031[7]

[7] Transport for NSW, Bureau of Statistics and Analytics, Strategic Travel Model, 2015

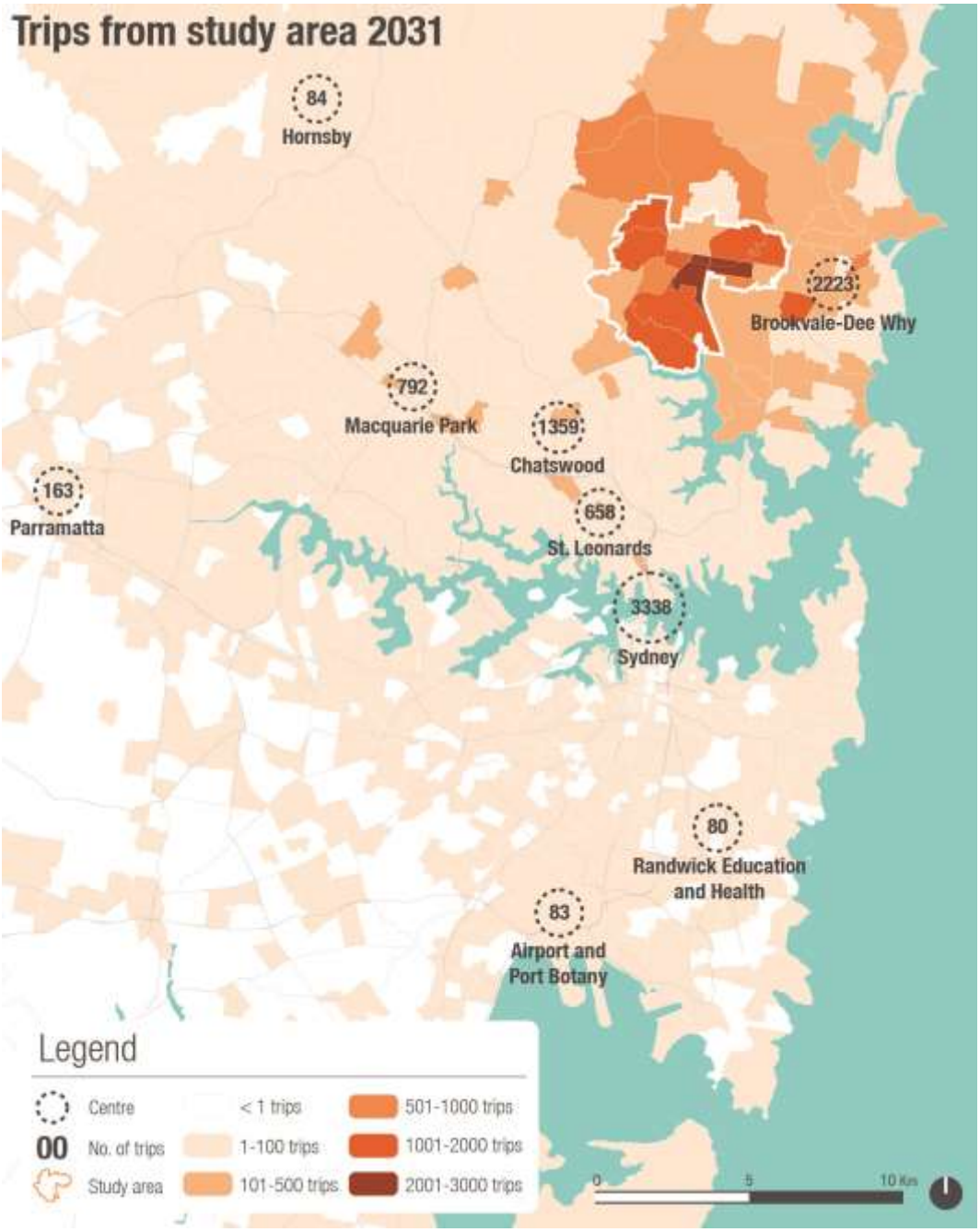

Figure 12: Trip locations from the Study Area in 2031[8]

[8] Transport for NSW, Bureau of Statistics and Analytics, Strategic Travel Model, 2015

A significant number of through trips are experienced travelling east and west through the study area that do not start or end within the study area itself. Figure 13 indicates that in 2031, this is forecast to make up 77 per cent of trips travelling westbound through the study area in the AM peak. Figure 14 indicates that 67 per cent of trips are travelling eastbound through the study area in the AM peak.

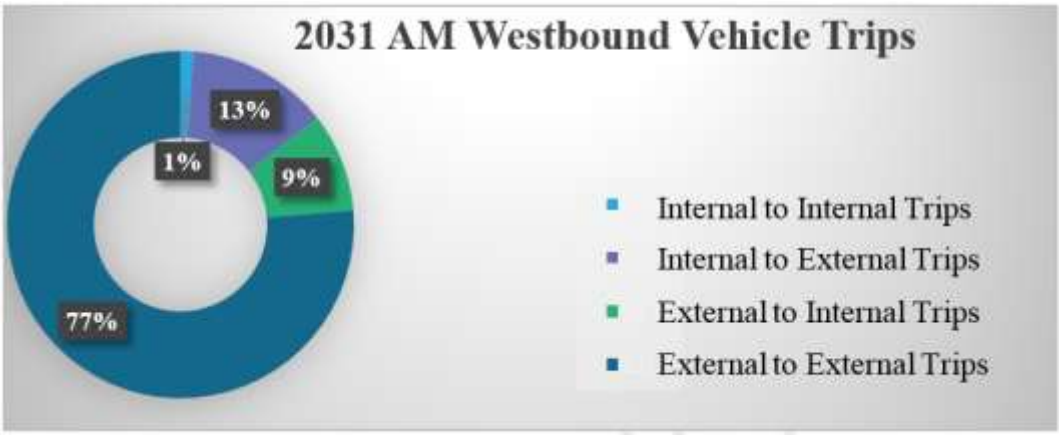

Figure 13: Trip origin and destinations AM westbound vehicle trips[9]

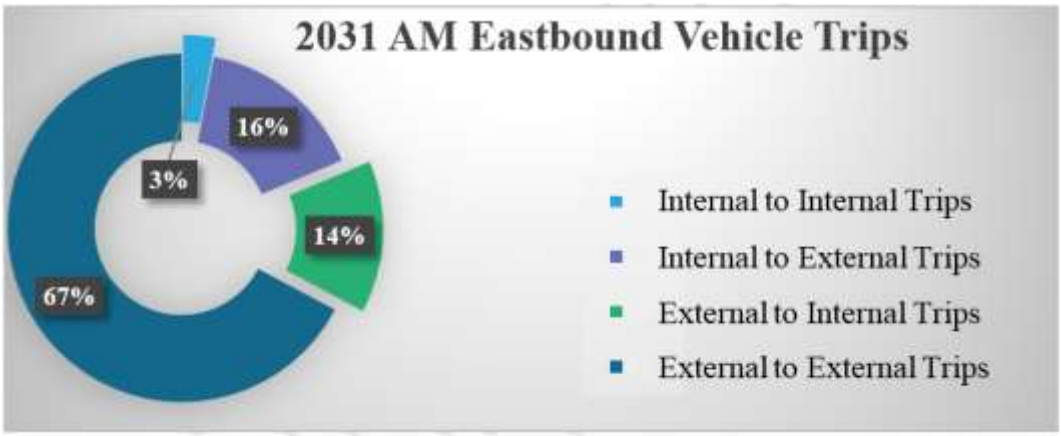

Figure 14: Trip origin and destinations AM eastbound vehicle trips[10]

[9] Transport for NSW, Bureau of Statistics and Analytics, Strategic Travel Model, 2015
[10] Transport for NSW, Bureau of Statistics and Analytics, Strategic Travel Model, 2015

2.1.3 Transport networks and their performance

Bus operations now and passenger volume growth to 2031

Bus travel speeds are identified to currently be slowest along Forest Way, and at the Forest Way and Warringah Road intersection, along with parts of Warringah Road running through Frenchs Forest and Forestville, Frenchs Forest Road, and Allambie Road when approaching Warringah Road in the AM peak hour (8:00-9:00) [11].

In the PM peak hour (17:00-18:00) bus travel speeds were identified as currently slowest at the intersection of Forest Way and Warringah Road, Warringah Road travelling through Frenchs Forest and Forestville, Frenchs Forest Road, and Allambie Road when approaching Warringah Road.

Figure 15 highlights bus passenger volumes are forecast to grow the most along Frenchs Forest Road within the study area to 2031[12].

Future bus planning and the NSW Government's response to these forecast bus demands are described in Section 4.2.

Vehicle Network assignment (growth 2011 to 2031)

The land use changes (population and employment growth as a result of the NBH) is predicted to generate additional traffic above today's levels. Figure 16 shows the modelled prediction of the location and amount of increase in morning traffic on the wider NBH road network[13].

Figure 16 highlights that the roads in the immediate vicinity of the NBH and along Warringah Road are expected to have a greater vehicle trip demands by 2031.

The large scale infrastructure upgrades being undertaken by RMS, will be delivered to accommodate this forecast traffic growth from the new Hospital development. The upgrades do not cater for additional growth anticipated by a strategic centre in this location, thus requiring a scale down of the growth scenario.

[11] Transport for NSW, Bureau of Statistics and Analytics, Public Transport Information and Priority System, 2015
[12] Transport for NSW, Bureau of Statistics and Analytics, Strategic Travel Model, 2015
[13] Transport for NSW, Bureau of Statistics and Analytics, Strategic Travel Model, 2015

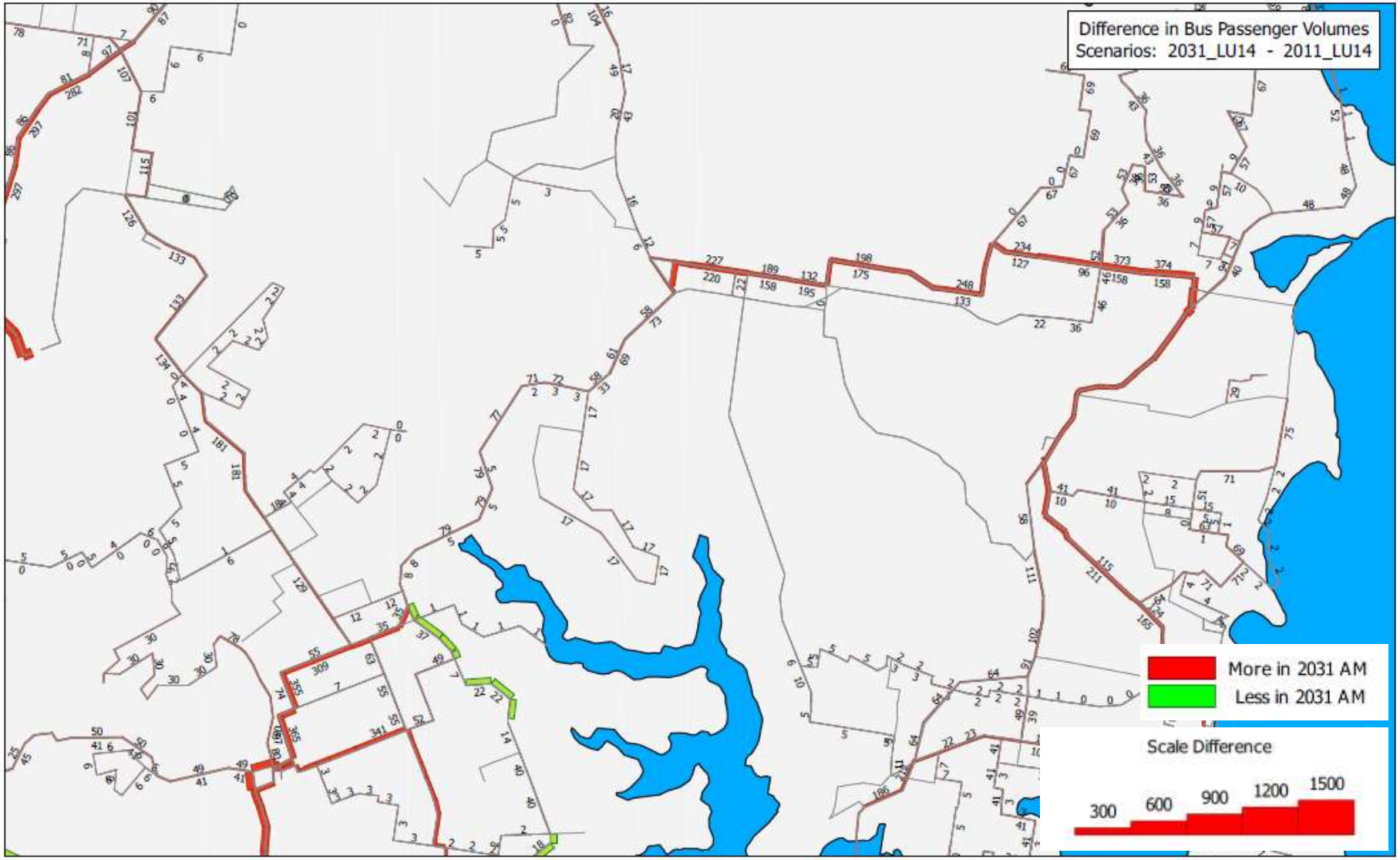

Figure 15: Sydney Travel Model bus volumes 2011-2031

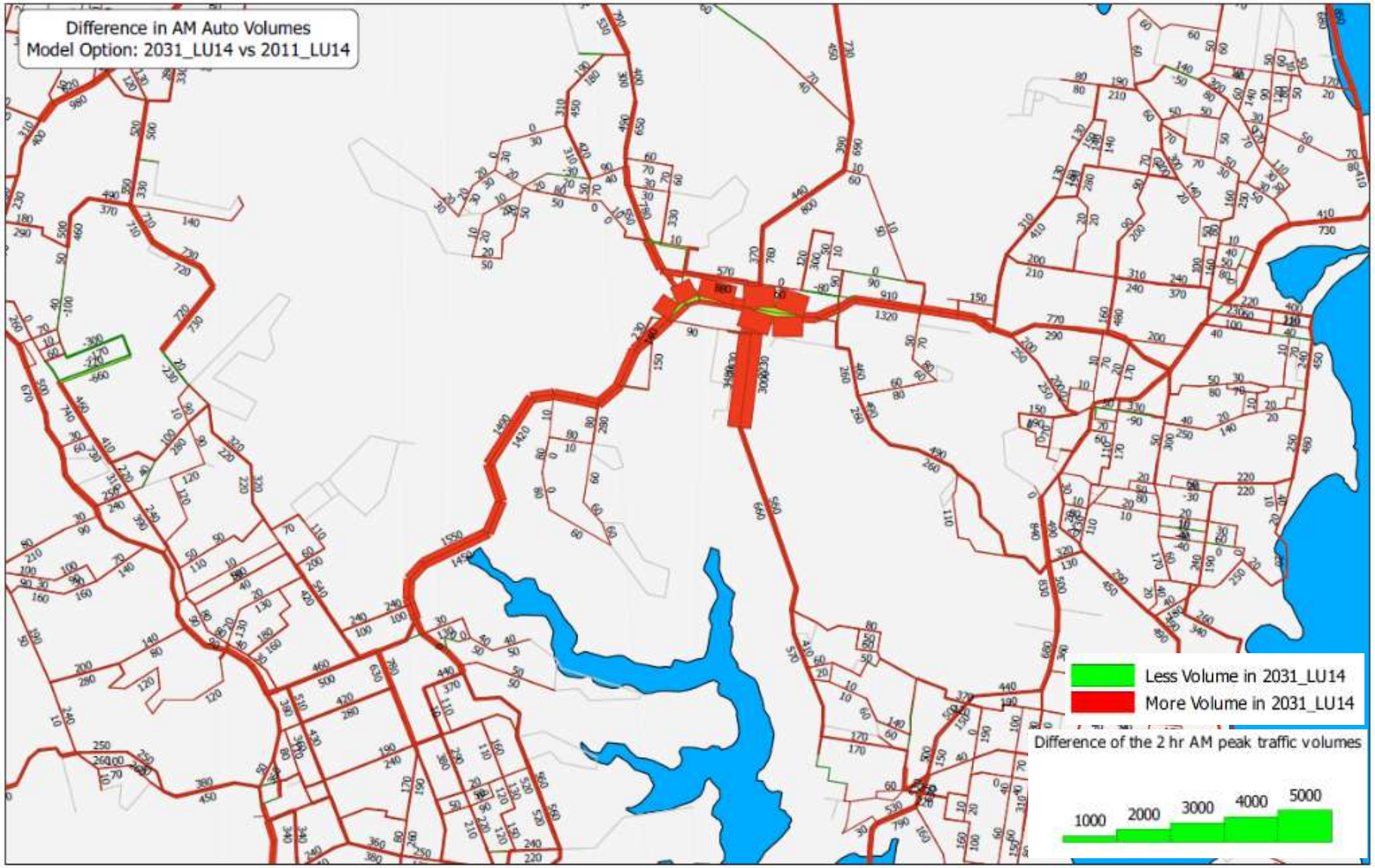

Figure 16: Sydney Travel Model road volumes 2011-2031

2.2 Scenario development

From the outcomes of the analysis outlined above, a number of challenges and opportunities were identified to inform the development of four growth scenarios that would support land use and transport integration, and sustainable travel behaviours for the hospital precinct into the future.

It was identified that a large proportion of travel leaving the study area that was related to work purposes was to access employment provided in the Global Economic Corridor. It is not perceived that the draft Structure Plan would be able to greatly influence this trend in the next 20 years, however, encouraging mode shift from car to public transport for these trips would help to alleviate congestion experienced on the network into the future.

A large proportion of trips leaving the study area were also identified for social and recreational purposes. Providing the opportunity to further develop the provision of these uses within the study area into the future will reduce the need to travel outside the study area and network congestion. This could also support off-peak direction travel for suburbs such as Forestville and Killarney Heights when accessing the hospital precinct for these uses.

Implementing principles of trip containment and co-location of uses within the study area into the future would help to reduce the need to travel. It was seen that for internal trips a high proportion were identified to be by active transport means. Creating a higher density mixed-use centre within the hospital precinct and co-locating higher density residential uses nearby would reduce the need to travel for a large proportion of trips, such as shopping purposes.

In addition to this, urban design measures that would support the use of active transport options such as safe and direct connections and pleasant environments should be considered during the implementation of the structure plan going forward to further support the use of these modes for local trips.

Four growth scenarios contained different locations and a mix of land uses within the hospital precinct. A multi criteria assessment (MCA) of each scenario was conducted (See Figure 17).

The MCA reviewed the ability of each scenario to support the principles of:

- Integrating land use and transport
- Encouraging public and active transport use
- Facilitating accessible, pleasant and safe environments
- Reducing the need to travel.

In addition to the MCA, a high level assessment of how the road and transport networks surrounding the hospital precinct might respond to each growth scenario was undertaken, and the potential need for infrastructure upgrades was identified. Based on this, a preferred scenario for the location and mix of land uses within the hospital precinct was identified.

	Land use layout and co-location of uses	Road network impacts	Trip generation	Public transport network integration	BRT Park and Ride potential	Environment lending itself to walking	Requirement for infrastructure upgrades (cost)	Overall ranking
Scenario One	✓	-	✓	✓✓✓	×	✓	××	M
Scenario Two	✓✓✓	✓	×	✓✓	✓	✓✓✓	×××	H
Scenario Three	✓	-	✓✓	✓✓	✓	××	×	M
Scenario Four	×	×	×	✓	✓	×××	×××	L

Score	Description
✓✓✓ (+3)	- Major positive impacts. - Substantial benefits flowing to a large number of people / industries.
✓✓ (+2)	- Moderate positive impacts. - Benefits flowing to a specific range of people or industries in certain areas.
✓ (+1)	- Minimal positive impact. - May be confined to a limited area or to limited people / industries.
-	- Neutral – no discernible or predicted positive or negative impact.
× (-1)	- Minimal negative impact, able to be managed or mitigated, and will not cause substantial detrimental impacts. - May be confined to a small area or to a limited number of people / industries.
×× (-2)	- Moderate negative impacts. - Impacts affecting a moderate area, a specific range of people or industries in certain areas.
××× (-3)	- Major negative impacts with long-term and possibly irreversible impacts leading to serious damage, degradation or deterioration of the physical, economic or social environment. - Substantial impacts affecting a large number of people / industries. - Possible mitigation measures impose significant cost.

Figure 17: Multi Criteria Assessment framework

2.3 Preferred growth scenario

Based on the outcomes of the MCA, scenario two was identified as the preferred growth scenario due to its ability to support the principles of land use and transport integration, accessibility, and sustainable travel behaviours within the future hospital precinct.

The draft Structure Plan based on scenario two:

- Consolidates development to the west.
- Optimises development adjacent to Grace Avenue.
- Provides appropriate interface to northern residential areas.
- Provides short to medium term development guidance, to achieve long term aspiration of a Strategic Centre.

3 Traffic Modelling Assessment

The PWG requested further traffic analysis to demonstrate that Frenchs Forest Road West had the capacity to accommodate a town centre. The modelled extents of Frenchs Forest Road West are shown in Figure 18 on the following page.

Modelling predicted the detailed traffic operations on the local road network in 2036 and was used to test if any local area road upgrades were required to further enhance traffic capacity and hence ensure the objectives were met for the town centre. The modelling tasks involved:

- Replicating the residential, commercial and retail land use of a Strategic Centre along Frenchs Forest Road West in 2036.
- Replicating the traffic trips in the AM and PM peak hours that would be generated by the Strategic Centre.
- Testing in the traffic model what effects the predicted traffic causes on the local road network. Specifically to:
    - Understand how the traffic signals would respond to accommodate the traffic
    - Understand if any turning lane re-configurations are required
    - Completing testing of the land use and associated traffic trips and patterns to gain further confidence in the traffic modelling outputs.

The modelling outcomes were:

- Results suggested Frenchs Forest Road West would accommodate the Strategic Centre's traffic. The models' improved signal phasing and signal coordination along the corridor can accommodate the increases in vehicle trips.
- Modelling indicated slight increases in congestion would occur along the local road corridor in both peak hours. However, this should be viewed with the equivalent offset of congestion relief on the wider NBH and Frenchs Forest precinct.
- Further investigations (land use and traffic modelling work) of the local road network is required to unlock additional capacity to ensure the Strategic Centre is effectively delivered.

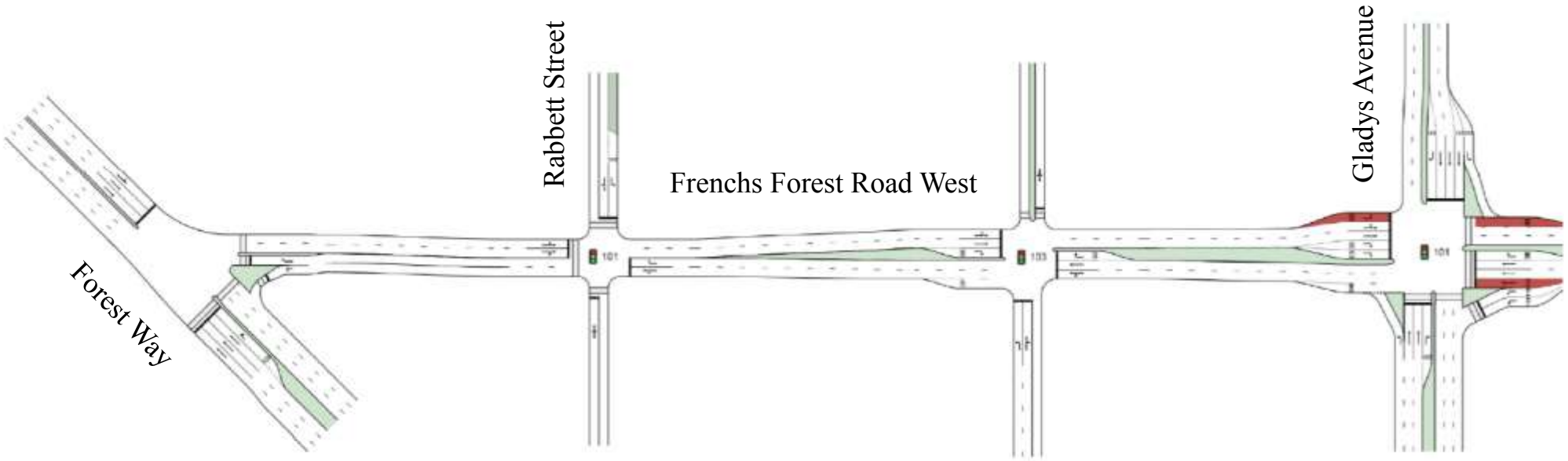

Figure 18: Extent of model

3.1 Refinement to growth scenario

Following adoption of the preferred growth scenario and Stage 2 traffic modelling assessment, further refinement occurred to consider two local issues associated with delivery of the structure plan and road network improvements.

3.1.1 Relocation of The Forest High School

A traffic review has been undertaken of relocating The Forest High School to the Warringah Aquatic Centre (WAC) site on Aquatic Drive. The investigation included increasing total enrolments from the existing enrolment of 919 students to 1,500 students.

The existing student residential locations were provided by The Forest High School to assist with assessment of access from the catchment. It is evident that a significant proportion of the students are located to the east of the school with access via Warringah Road either by private vehicle drop-off or bus access. This is relevant for consideration of access routes as it results in less vehicles needing to cross Wakehurst Parkway to access the school site.

It was found that despite the intersections being largely unaffected by the potential relocation of the school to the WAC site, the southern approach to the Allambie Road/Warringah Road intersection is currently congested and if the relocation of the school site to the WAC site is pursued the RMS will have to further consider upgrades to this intersection to reduce congestion – further detailed analysis will be required.

In association with the relocation, consideration of walking and cycling access routes will be required to determine the need for improvement through provision of shared pedestrian / cyclist paths and good crossing facilities.

3.1.2 Properties along the northern side of Karingal Crescent

As part of the Stage 2 Network Enhancement works, RMS have raised concerns over the ability for the road network to support growth south of Warringah Road and east of Wakehurst Parkway. The results of the modelling and design undertaken for the Stage 2 works and advice from RMS indicate that any new large scale development that borders Warringah Road will face considerable challenges in terms of safe access and egress, and will have major consequences for the broader road network.

In particular, any upgrading of the intersection of Fizpatrick Avenue to and across Warringah Road has the potential to impact significantly on the Northern Beaches Hospital Connectivity and Network Enhancement roadworks and connecting streets. The RMS modelling shows extensive queuing and breakdown across the network are likely to result. It is for these reasons that no major growth is suitable for the area south of Warringah Road and east of Wakehurst Parkway.

Notwithstanding the above, there remains strategic justification to consider a slight adjustment to the urban density along the southern boundary of the RMS Stage 2 Network Enhancement works where properties have been directly affected by the roadworks. Minor density uplift will encourage a new built form to better respond to the changing road environment. This uplift includes 32 properties along the northern side of Karingal Crescent which back onto the widened road corridor as shown in Figure 19.

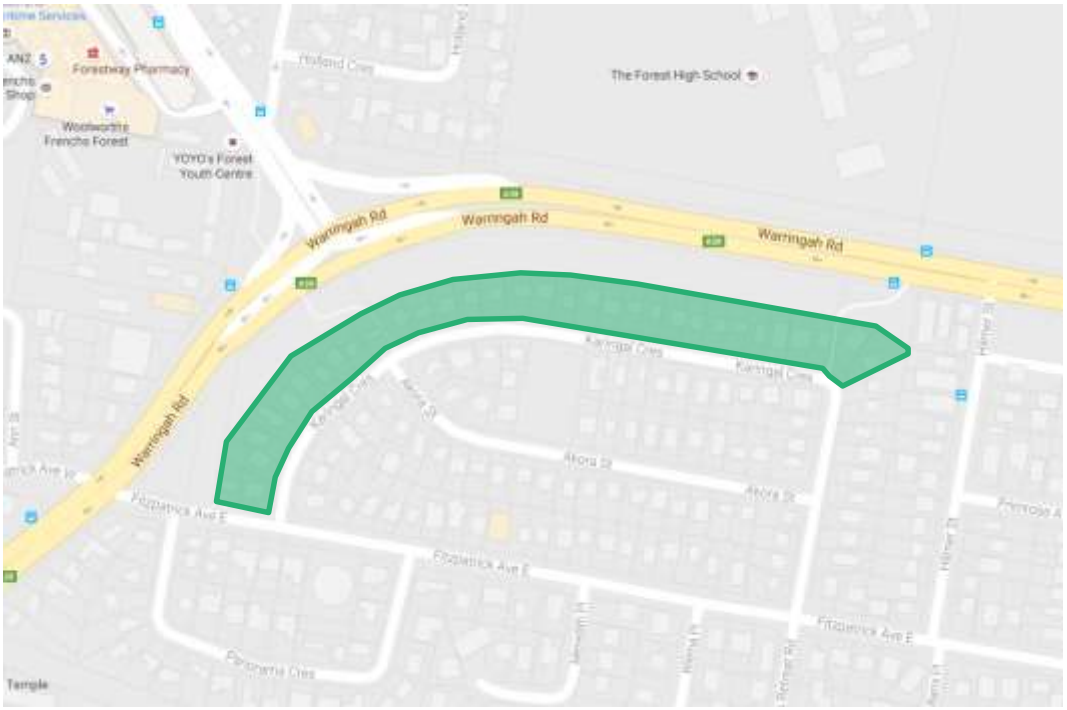

Figure 19: Properties along the northern side of Karingal Crescent

The land use assumptions utilised in the RMS modelling for this precinct included an additional 90 dwellings. The proposed uplift along one side of Karingal Crescent is therefore allowed for in the local road network modelling. Based on the low density residential traffic generation rate of 10.7 daily vehicle trips per dwelling[14], the additional 32 residential dwellings would generate 342 vehicle trips per day. These additional trips on Karingal Crescent will be well within the environmental capacity of a local street.

[14] Guide to Traffic Generating Developments - Updated traffic surveys, TDT 2013/04a

4 Recommendations for the Future

4.1 Introduction

The level of development considered for the strategic centre in this road network modelling should be considered as the first stage in delivering a strategic centre in this location to its full potential. The RMS have provided road upgrades to accommodate the forecast traffic demand/increase from the hospital and this study has identified the level of development possible within the strategic centre. Further upgrades to roads, and in particular public transport, are needed to ensure the longevity and functioning of Frenchs Forest as a Strategic Centre.

4.2 Future public transport options

Sydney's Bus Future

The Sydney's Bus Future document was released in December 2013. It provides the framework for improving and delivering better bus services throughout the Sydney metropolitan area. Bus services will be focused into three key routes, as shown in Figure 20 below:

- Rapid routes, to use priority infrastructure, connect regionally throughout the city and have stops every 800m-1,000m
- Suburban routes, which will have stops every 400m and have mix of frequent 'turn up and go' and timetabled services
- Local routes which will complete the network using local streets

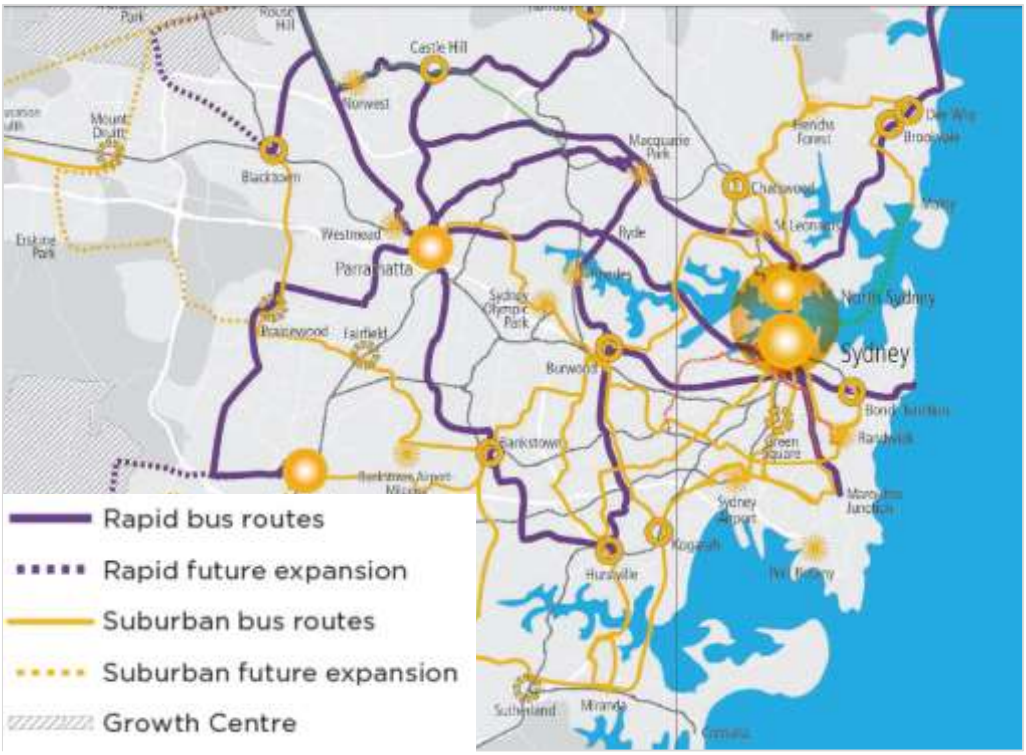

Figure 20: Rapid and suburban bus routes

Of particular relevance to the NBH Precinct, Sydney's Bus Future identifies the following objectives:

- Direct connections will link the Northern Beaches to major centres such as Chatswood, St Leonards and Macquarie Park, including more than 50 new Suburban services operating every weekday to connect Manly to Chatswood via Brookvale and the proposed Northern Beaches Hospital
- More bus services to meet growing and changing demand with service frequencies will be enhanced in the evening, at night and on the weekend to meet increased customer demand outside traditional commuter peaks

Beyond this study, there is a need for further planning work to deliver effective public transport options for residential and employment land use in the area. TfNSW will continue to develop bus planning in response to future development. This will include detailed investigations into stopping locations, service frequencies and bus priority at key intersections.

4.3 Future active transport options

Throughout this study, active transport was seen as a key driver to enable the success of a Strategic Centre at the NBH Precinct. Active transport was considered at a high level to relieve other transport modes and to increase the attractiveness, amenity and safety in the local area.

Beyond this study, there is a need for further planning work to deliver quality active transport options for walking and cycling to and from residential and employment land uses in the area. This will be undertaken as part of the ongoing assessment within the Structure Plan process. It will be key to ensuring the strategic objectives of establishing a Strategic Centre in Frenchs Forest are met.

4.4 Future road network upgrades

Local NBH Precinct Road Network

As outlined in Section 1.4.2, the RMS is committed to upgrading roads around the NBH Precinct[15]. These upgrades will provide customers with a better travel experience, increase the capacity of the road network and improve access through the area, including for pedestrians and cyclists.

Effective road links are critical to enable the success of a Strategic Centre at the NBH Precinct. As described in Section 3, high level traffic modelling that was undertaken has suggested that the future Frenchs Forest Road West corridor can accommodate the traffic demands generated by the preferred growth scenario for the Strategic Centre.

Beyond this study, there is a need for further planning work to unlock more capacity on the local road network. Key strategic road linkages within the western precinct will be further investigated as part of the Structure Plan process. Road network improvements will further enable the success of the Strategic Centre.

[15] full details can be found on the Roads and Maritime Services website at http://www.rms.nsw.gov.au/projects/sydney-north/northern-beaches-hospital/

Greater Sydney Road Network

Infrastructure NSW released the 2014 State Infrastructure Strategy Update which included reference to a Western Harbour Tunnel. The Western Harbour Tunnel and Beaches (motorway) Link would connect Sydney's northern suburbs to an interchange at Rozelle, providing a western bypass of the Sydney CBD[16]. An information sheet is shown in Figure 21.

Figure 21: Western Harbour Tunnel information sheet

[16] http://minister.infrastructure.gov.au/pf/releases/2015/November/pf036_2015.aspx

The NSW Government identifies that the Western Harbour Tunnel will provide benefits to the NBH Precinct and Northern Beaches area via[17]:

- Environmental and health benefits due to reduced noise and emissions.
- Improved travel times, less fuel consumption and reduced congestion.
  - The link has the potential to relieve traffic congestion on both Warringah Road and The Spit.
- Public transport users can expect faster travel times as a result of traffic congestion relief on Warringah Road and The Spit.
- Greater areas will be accessible for population and employment growth and urban renewal.

The feasibility and planning of this project is currently being undertaken by the government and is subject to approval. It is not a committed project.

[17] https://www.nsw.gov.au/sites/default/files/miscellaneous/western-harbour-tunnel_sis2014.pdf

5 Conclusion

This report has outlined the transport assessment undertaken and justifies the preferred growth scenario.

The road upgrade works being undertaken by the RMS will enhance connectivity to the hospital and improve the broader road network capacity. These road upgrade works cater for the additional traffic generated as a result of the new hospital development. However, it does not cater for the additional growth anticipated in the draft Hospital Precinct Structure Plan as a result of Frenchs Forest being identified as a Strategic Centre.

In effect, the provision of Stage 2 RMS Road Works for the Northern Beaches Hospital development is not expected to provide excess road capacity during the AM and PM peak above accommodating the already identified additional traffic demands generated by the new Hospital and background growth factored into the model.

Modelling for the preferred growth scenario as part of this report, predicted the detailed traffic operations on the local road network in 2036 and was used to test if any local area road upgrades were required to further enhance traffic capacity and hence ensure the objectives were met for the strategic centre.

The modelling outcomes were:

- Results suggested Frenchs Forest Road West would accommodate the Strategic Centre's traffic. The models' improved signal phasing and signal coordination along the corridor can accommodate the increases in vehicle trips.
- Further investigations (land use and traffic modelling work) of the local road network is required to unlock additional capacity to ensure the Strategic Centre is effectively delivered.

Following adoption of the preferred growth scenario and Stage 2 traffic modelling assessment, further refinement occurred to consider two local issues associated with delivery of the structure plan and road network improvements:

- Relocation of The Forest High School to the WAC site on Aquatic Drive.
- Adjustment to the urban density along the southern boundary of the RMS Stage 2 Network Enhancement Works to respond to the changing road environment.

Traffic assessment undertaken for both of these refinements found that they could be accommodated by the RMS road upgrade projects.

This Study has identified a preferred land use scenario with consideration of traffic and transport impacts to inform the draft Hospital Precinct Structure Plan. It has also provided the opportunity to align the NSW Government road network upgrades, being implemented as part of the Northern Beaches Hospital, with development of the Northern Beaches Hospital Precinct.

HOSPITAL PRECINCT STRUCTURE PLAN

ANALYSIS REPORT

Prepared for Northen Beaches Council

NORTHERN BEACHES COUNCIL

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NOVEMBER 2016

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Ref: 50666

Revision Letter	Date	Reason for Issue
A	30/09/2014	Draft for Discussion
B	28/11/2014	Draft for Final
C	14/10/2016	Final
D	09/11/2016	Final

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This document was prepared before 12 May 2016, being the date of creation of the Northern Beaches Council pursuant to the Local Government (Council Amalgamations) Proclamation 2016.

The Northern Beaches Hospital Precinct Structure Plan Project was commissioned by the former Warringah Council and this Analysis Report was prepared before 12 May 2016. Consequently, it makes reference to Warringah Council and Warringah Local Government Area.

It is acknowledged that the relevant local government authority since 12 May 2016, is the Northern Beaches Council.

All references to Warringah Council and Warringah LGA are to be read as references to "the former Warringah Council" and "the former Local Government Area of Warringah" respectively.

FRUITO

INTRODUCTION 1.0

INTRODUCTION

1.1 Repositioning Frenchs Forest

The Hospital Precinct Structure Plan describes the repositioning of Frenchs Forest area to a strategic centre known as the Northern Beaches Hospital Precinct, and guides future growth in the area over the next 20 years. Led by Hames Sharley, the process is supplemented by close collaboration with Arup for transport infrastructure and MacroPlan Dimasi for urban economics. More than simply describing a Structure Plan for the precinct, the following report results from coordination with Warringah Council and the Department of Planning + Environment to deliver a strategic methodology that underpins the integrated urban design, planning, transport and economic inputs that will lead to the sustainable and feasible development of the precinct.

INTRODUCTION

This report seeks to articulate a place that achieves Warringah Council and the Department of Planning and Environment's goal for a strategic centre that performs a vital economic and employment role for both the region and metropolitan Sydney. It will also demonstrate a capacity to evolve over time to include a greater mix of residential, retail and service uses. The precinct presents a unique opportunity due to the commitment of a new hospital and the precinct's location at the strategic intersection of Warringah Road and Wakehurst Parkway.

The Hospital Precinct Structure Plan intends to take advantage of the strengths of the precinct to create a synergy between a variety of uses and users that will ultimately inhabit this place. This project has the opportunity to deliver more than just the mix of land uses and health support industries associated with a major hospital. It can create localised employment opportunities to spur the economic evolution and redevelopment of Warringah as a region. In doing so, Warringah can become a more dynamic, more prosperous and more liveable city with the emerging injection of more industries and research associated with health, and therefore more jobs and people in Warringah.

This transition can be achieved through understanding the site, its region and its people. Engagement with key stakeholders and community members who will visit, work and reside there is essential. This report represents the compilation of data collection with respect to planning, environment, transport and economics. It is supported by benchmarking and identifies priority considerations to transition the area to a strategic centre.

The subsequent stages of the Hospital Precinct Structure Plan process will prepare development scenarios to be reviewed and evaluated by the project team in order to select a preferred scenario for the Structure Plan. This will guide development at Frenchs Forest and the Northern Beaches Hospital Precinct for the next 20 years.

1.2 CREATING A STRATEGIC CENTRE

STRATEGIC CENTRE OF NORTHERN BEACHES HOSPITAL PRECONCT AT FRENCHS FOREST

By 2018 Frenchs Forest will be home to a new world class Northern Beaches Hospital at the intersection of Warringah Road and Wakehurst Parkway. The public and private facility, located on 6.5 hectares, is a significant investment in state infrastructure valued at approximately $600 million. Given the scale of the development, it is imperative that appropriate and considered land use planning implications be identified for the area surrounding the development.

While Health Infrastructure has given consideration to the local and regional context, primarily focused on existing development, the opportunity exists to harness and leverage the health investment towards positioning the precinct as a world class activity centre. In parallel, the NSW Government has released the A Plan for Growing Sydney. This document identifies key drivers for the metro area of Sydney, including a 'strategic centre' in and around the site of the proposed Northern Beaches Hospital.

The purpose of the strategic centre is to capitalise on the growing cluster of hospital and health related uses with associated research and business park opportunities to stimulate local jobs. This is a specific outcome of the state government's intention to manage population growth, provide appropriate housing and create employment opportunities.

In order to achieve a strategic centre at Frenchs Forest, it is essential that the multiple policy and directional documents for land use planning in Warringah are coordinated. These documents, prepared by state and federal levels of government, the Shore Regional Organisation of Councils (SHOROC) and Warringah Council, can be coordinated into a single strategic plan that is clear, ordered and contextually appropriate to Warringah in order to guide future planning in the region. The Hospital Precinct Structure Plan (HPSP) can provide a catalyst for achieving mutual stakeholder aspirations at a regional level and local level.

Identifying, investigating and refining the types of land uses which will best position this precinct, as well as positioning it as a destination for Warringah and a desirable location to 'work,' 'live,' and 'play,' are also exciting challenges presented by this project.

A STRATEGIC CENTRE IS ONE OF NUMEROUS CENTRE TYPES IDENTIFIED IN THE CURRENT NSW A PLAN FOR GROWING SYDNEY.

AT THE NEXUS OF THE STRATEGIC CENTRE IS THE FUTURE NORTHERN BEACHES HOSPITAL ON A 6.5 HA SITE AT THE INTERSECTION OF WARRINGAH ROAD AND WAKEHURST PARKWAY.

1.3 Role and Structure of the Report

ROLE AND STRUCTURE OF THE REPORT

This report is prepared as the key deliverable for Stage 2 of the Hospital Precinct Structure Plan. The chapters contained in this report form the basis for the Final Hospital Precinct Structure Plan Report. At the conclusion of each stage the report will be presented to Warringah Council for approval prior to commencing the subsequent stage.

The project's final report will include four key components that will be delivered over the project's duration. This report includes two components: Introduction and Analysis Report.

Chapter 1 of this report introduces the project **Introduction** and recommends an Investigation Area for the Hospital Precinct Structure Plan. Also in this report, the **Analysis Report** encompasses Chapter 2 - Context Analysis, Chapter 3 - Benchmarking Analysis, and Chapter 4 - Next Steps. These chapters include the following research:

- A literature review of relevant planning policies and documents;
- Baseline data mapping for the Warringah Local Government Area and the Hospital Precinct;
- An economic analysis determining the current and forecast market conditions and a preliminary identification of capacity for development;
- A transport analysis for existing movement and access into and throughout the precinct including a statement on the current status of the Road and Maritime Services road works;
- A statement on the current status of Health Infrastructure's Northern Beaches Hospital;
- A summary of previous stakeholder and community engagement undertaken.

A benchmarking study has also been undertaken to evaluate what makes a Strategic Centre. This includes the NSW Government's definition in the A Plan for Growing Sydney in addition to the identification of characteristics consistent across local, national and international examples of strategic centres. A series of comparisons for Sydney based strategic centres demonstrates the qualitative and quantitative measures against which the Hospital Precinct can be compared.

The Analysis Report also identifies priority issues for the Hospital Precinct Structure Plan. We welcome the opportunity to review the content of this report with Warringah Council to ensure the key objectives for the project are being established at this early stage.

The **Scenario Testing** portion of the final report will include various structures for future development. The **Preferred Structure Plan** will then outline the preferred structure plan and illustrate the way forward for Frenchs Forest and the Northern Beaches Hospital Precinct.

As summarised in the graphic below, this Analysis Report encompasses the first two sections of the final report, with subsequent sections to be delivered over the course of the project timeline.

FINAL REPORT COMPONENTS

INTRODUCTION
CHAPTER 1: INTRODUCTION

ANALYSIS REPORT
CHAPTER 2: CONTEXT ANALYSIS
CHAPTER 3: BENCHMARKING ANALYSIS
CHAPTER 4: NEXT STEPS

IN THIS REPORT

SCENARIO TESTING

PREFERRED STRUCTURE PLAN

STILL TO COME

1.4 Key Objectives

6 KEY OBJECTIVES FOR WARRINGAH APPLIED TO THE HOSPITAL PRECINCT STRUCTURE PLAN

KEY OBJECTIVES FOR THE NORTHERN BEACHES AND WARRINGAH

The project objectives outlined on the following pages are aspirations for the future of Warringah born from the Warringah Community Strategic Plan 2023. Although these objectives apply to Warringah as a whole, this plan will provide a foundation to guide the delivery of the Hospital Precinct. The six objectives are as follows:

- **VIBRANT COMMUNITY**
- **LIFESTYLE AND RECREATION**
- **HEALTHY ENVIRONMENT**
- **CONNECTED TRANSPORT**
- **LIVEABLE NEIGHBOURHOODS**
- **WORKING TOGETHER**

These objectives are extracts from the Warringah Community Strategic Plan 2023 and provide a touchstone for each stage and phase of project delivery.

1. VIBRANT COMMUNITY

Enhanced in cultural life, connections and wellbeing - catering for all generations / needs

Community members actively support each other and residents have a strong sense of belonging and community spirit. Residents are involved in the community and a high percentage regularly volunteer to help others.

The community is made up of people of all ages and life stages. The public places, facilities and services need to reflect this and be accessible to all. Everyone should have the opportunity to access the things they need for a good quality of life.

SPECIFIC OBJECTIVES

- **Have the services to promote and deliver health and wellbeing;**
- **Feel safe and protected at home and in public, and have a respect for each other and the area;**
- **Support and care for all our community members and provide opportunities to connect and belong;**
- **Value heritage and cultural diversity, celebrating and fostering creativity.**

2. LIFESTYLE AND RECREATION

Enriched through sport, recreation and outdoor enjoyment in an attractive setting

Participation in recreational and leisure activities is high, with rates well above state and national averages. This is important as physical health contributes to overall wellbeing and enables people to participate fully in work, family and community life.

Warringah is fortunate to have a diverse range of recreational and leisure options; an abundance of parks, reserves, beaches, lagoons, walking and cycling paths. However, access to bushland and waterways needs to be balanced with the need to preserve them.

SPECIFIC OBJECTIVES

- **Have access to a diverse range of recreational facilities that meet the needs of the community and sporting groups;**
- **Have access to attractive parks and natural areas that encourage and support a safe healthy lifestyle;**
- **Have inviting public spaces that are clean, green and well designed.**

3. HEALTHY ENVIRONMENT

Healthy and well protected and continuously strives for a sustainable future

The natural environment is treasured by residents and visitors alike, for many it is the reason why they live in Warringah. Reducing the impact of certain activities on the natural environment is critical.

The conservation value of much of the bush land is high. It is home to a wide variety of threatened species of animals and plants. Warringah strives to retain and improve the quality of habitats to protect this biodiversity. The community needs to retain communities of high conservation value bush land and manage recreational access to preserve natural heritage.

SPECIFIC OBJECTIVES

- **Value the health of the beaches, foreshores and waterways as natural habitats and for enjoyment;**
- **Protect and sustain the diverse bush land as valuable habitats, and provide for a variety of wildlife to thrive and migrate;**
- **Strive to live and work sustainably and reduce environmental footprints;**
- **Effectively plan for and respond to natural hazards and climate change in a sustainable way.**

4. CONNECTED TRANSPORT

Allow residents to get around for living, working and learning within and outside Warringah

Area residents need to shift away from dependency on car based travel to effectively connect with places of work, learning and play.

Public transport needs to be an attractive alternative that is accessible. Services need to conveniently operate and provide links to all suburbs as well as centres outside Warringah. The efficiency of the road network needs to be improved through better management and upgrading of key intersections. There is a need for improved park and ride facilities near transport hubs and centres.

SPECIFIC OBJECTIVES

- **Have an effective interconnected public transport system that is safe, efficient and affordable;**
- **Use a well-designed and functioning road network;**
- **Conveniently access parking near transport hubs and close to urban centres;**
- **Safely and conveniently walk or ride around Warringah.**

5. LIVEABLE NEIGHBOURHOODS

The community's diverse needs are met for living, working and learning in an attractive urban environment

Neighbourhoods will face new challenges as the population increases and needs change. There should be affordable housing for the young and key workers such as police, teachers and nurses. We need a different mix of housing that is both sympathetic to the sense of identity of neighbourhoods yet provides choice.

Living near to transport hubs and retail and employment centres encourages people to live, work and play near home. Increasing density can help maintain vibrant, people friendly neighbourhoods by supporting local shops, cafés, libraries and community centres. Density that is well planned and well designed serves an important function in preserving and enhancing unique neighbourhoods, facilitating better transportation and housing choice.

SPECIFIC OBJECTIVES

- **Have attractive and functional urban and commercial centres that adapt to the needs of residents and business;**
- **Encourage and support a diversity of businesses that provide a range of services and employment opportunities;**
- **Offer a variety of housing choices that meet the needs of our community and complements local neighbourhoods and the Warringah lifestyle;**
- **Have access to a range of local educational and training opportunities that complements the local economy.**

6. WORKING TOGETHER

The community participates in decision making; leadership is responsive, building effective partnerships and planning for the future

The changes the community wants to bring about cannot be achieved by one organisation but require all stakeholders in Warringah's future to work together.

Residents want to contribute to decisions that affect them. They want to play a more active role in civic life, providing opinion and taking advantage of opportunities to influence decision making. The desire for greater personal responsibility includes being tolerant of the views of others and appreciating that, sometimes, the common good has to take precedent over individual or minority interests.

SPECIFIC OBJECTIVES

- **Residents are effectively represented, can provide opinions and contribute to decisions that impact Warringah;**
- **Trust politicians and public officers and they demonstrate leadership, transparency, accountability and deliver value for money services;**
- **Residents participate in effective partnerships and collaborate for now and the future.**

1.5 Investigation Area

DEFINING THE INVESTIGATION AREA

The Hospital Precinct Structure Plan adopts a 200 Ha Investigation Area within the south central reaches of the Warringah LGA. The Investigation Area is intersected by two major thoroughfares, Warringah Road and Wakehurst Parkway, with Forest Way feeding into Warringah Road in the study area's western end.

The purpose of the Investigation Area is to provide an area within which to test the long term objectives of a Strategic Centre at Frenchs Forest. This Investigation Area is supported by an area of influence, a 1.5km radial area from the crossroads of Warringah Road and Wakehurst Parkway.

The Investigation Area is bound by Iris Street to the north, Jones Street into Allambie Road to the east, Yarraman Avenue extending through Manly Dam lands to the south, and Rangers Retreat Road up to Grace Avenue to the west. The Investigation Area encompasses land that falls within the Frenchs Forest suburb and includes the Bantry Bay and Skyline Shops neighbourhood centres.

The Investigation Area encourages continued coordination between neighbouring civic organisations and allows for the creation of a Precinct Structure Plan responsive to the investment of the Northern Beaches Hospital site currently underway.

Figure 1.5.1: Investigation Area within Warringah

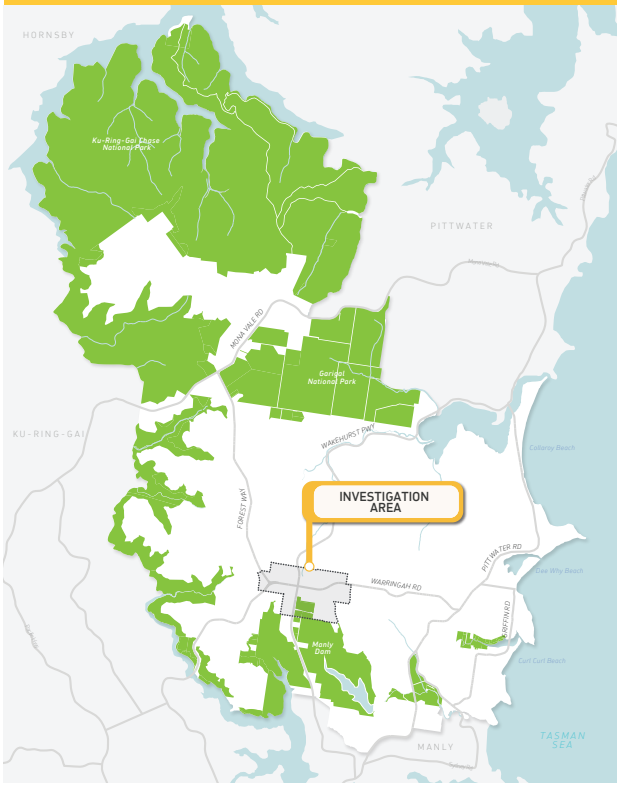
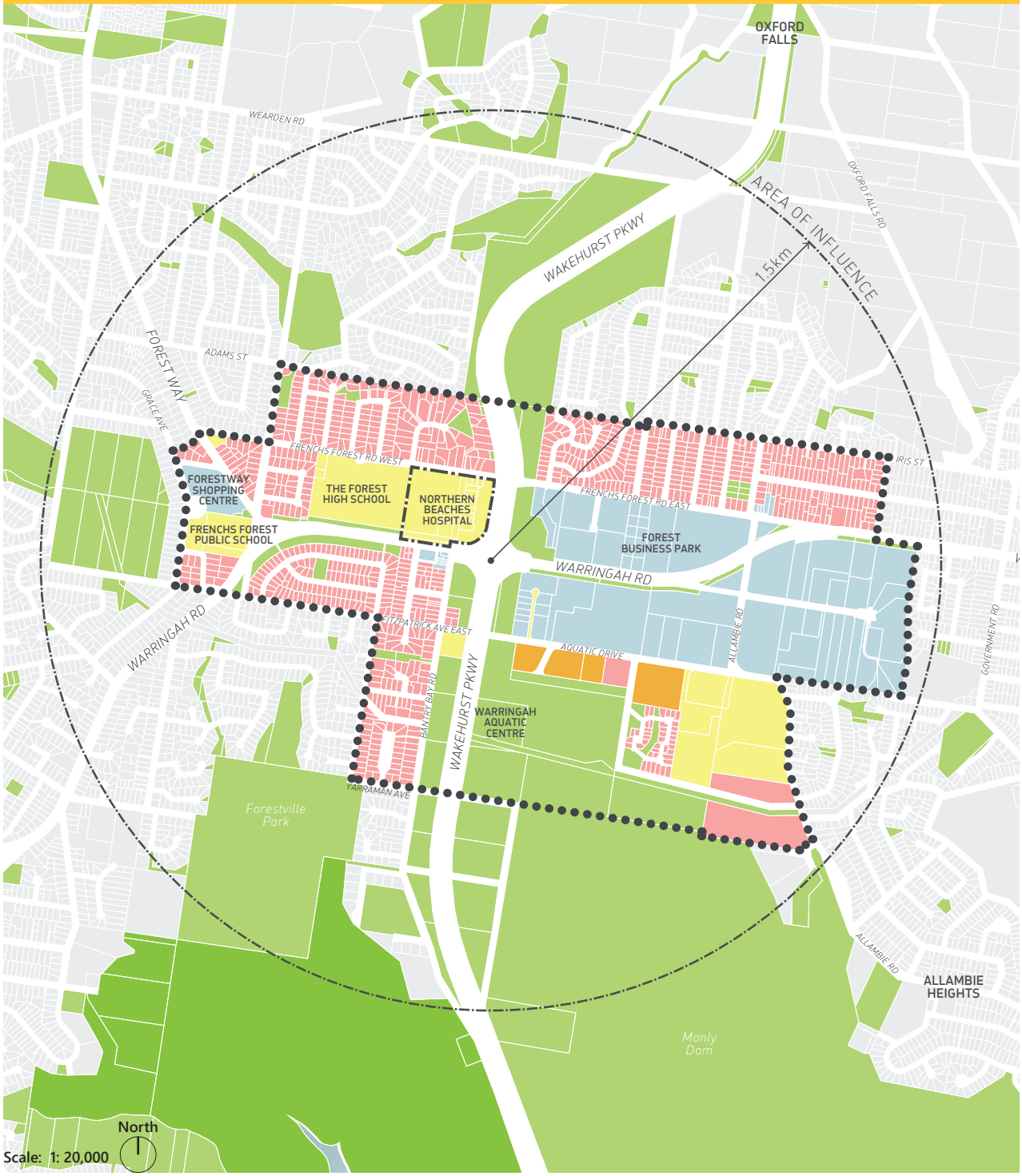


Figure 1.5.2: Investigation Area with 1.5 km radius Area of Influence



CONTEXT 2.0

CONTEXT

2.0 Context

INTRODUCTION

Northern Beaches Hospital Precinct's future as a Strategic Centre has implications beyond the immediate Investigation Area; public and private investment in all of Warringah and the Northern Beaches will respond to and build from the Northern Beaches Hospital for years to come. Therefore, a thorough understanding of the Investigation Area's context, both current and proposed, is necessary to gauge appropriate development for the precinct.

The following section outlines the planning, mapping, economic, transport, and community context of Frenchs Forest and the Northern Beaches Hospital Precinct. This enables the project recommendations to respond at a city and local scale.

The Investigation Area is physically and environmentally constrained by its context, yet its proximity to the surrounding Northern Beaches suburbs ensures improved amenity accessibility for area residents.

2.1 Planning Context

INTRODUCTION

Warringah Local Government Area (LGA) has numerous planning documents to enable a strategic plan for future growth. Outlined below are prominent documents affecting state, regional and local planning policy and decision making. Like other LGAs, development is guided by a Local Environmental Plan (LEP) and Development Control Plan (DCP).

In addition to LGA planning, strategies at a regional scale have been developed with neighbouring Pittwater Council, Manly Council and Mosman Council.

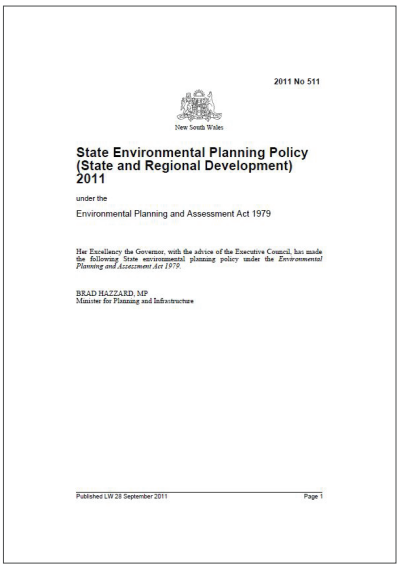
Most recently, the NSW Government has released long term regional and action plans complete with funding strategies. Central to these plans is A Plan for Growing Sydney. The document includes four goals so that Sydney will be:

- A competitive economy with world class services and transport;
- A city of housing choice with homes that meet our needs and lifestyles;
- A great place to live with communities that are strong, healthy and well connected; and
- A sustainable and resilient city that protects the natural environment and has a balanced approach to the use of land and resources.

The plan also identifies the Northern Beaches Hospital Precinct as a 'strategic centre' for growth fuelled by the Hospital development.

It is important to note that the identification and mapping of the Northern Beaches Hospital Precinct has been done under the NSW Government's State Environmental Planning Policy (State and Regional Development) 2011.

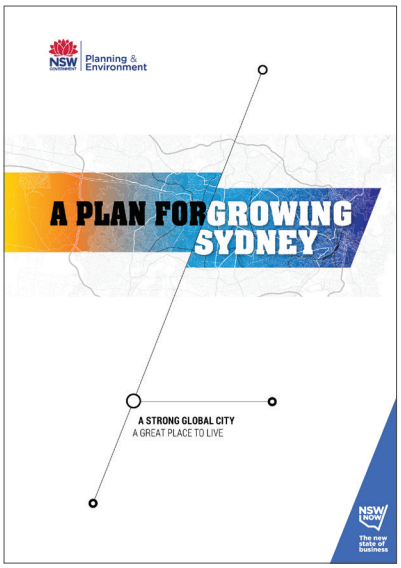
NSW STATE GOVERNMENT



STATE ENVIRONMENTAL PLANNING POLICY (SEPP) 2011

NSW Government's State Environmental Planning Policy (State and Regional Development) 2011 replaces Part3A of the EPA Act 1979. The SEPP identifies development that is State significance.

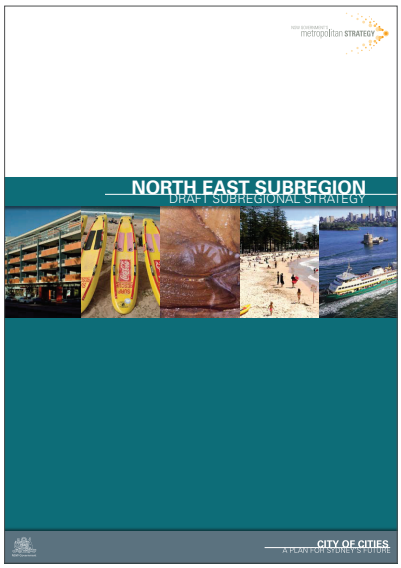
The Northern Beaches Hospital and Precinct development was identified in SEPP 2011 as a State Significant Infrastructure (SSI) project. The SSI maps identifies a site of significance encompassing the hospital site and the Warringah Road/ Wakehurst Parkway intersection. This area has been included in the investigation boundary for the precinct structure plan. SEPP 2011 acknowledges the importance of the project in the implementation of the Government's strategy to engage the private sector to deliver public hospital services and infrastructure projects. The creation of a new health precinct will provide locally accessible health services, along with employment opportunities.



A PLAN FOR GROWING SYDNEY (2014)

This document sets a framework for sustainable growth for the Sydney metropolitan region. Underpinned by community engagement, the strategy outlines key goals, targets and actions for infrastructure and land use development with a focus on boosting housing and jobs growth across all of Sydney.

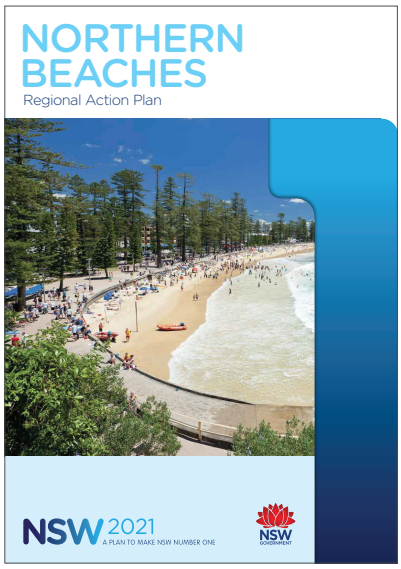
The Northern Beaches Hospital Precinct has been identified as a 'strategic centre' for growth within the regional framework, served by a potential extension of transit from Chatswood to Dee Why. The priorities of the precinct are to capitalise on the growing cluster of health related uses with associated research and business park opportunities to stimulate local jobs as well as providing capacity for additional mixed-use development, including offices, health, retail, services and housing. Priorities also cover road, public and active transport improvements.



DRAFT NORTH EAST SUBREGIONAL STRATEGY (2007)

This document provides implementation information at a local level for the North East Subregion of the A Plan for Growing Sydney, which includes Warringah Council, Pittwater Council and Manly Council. It provides a basis for coordinating planning and economic development, environmental management, open space systems and agreements about targets for dwellings and employment growth.

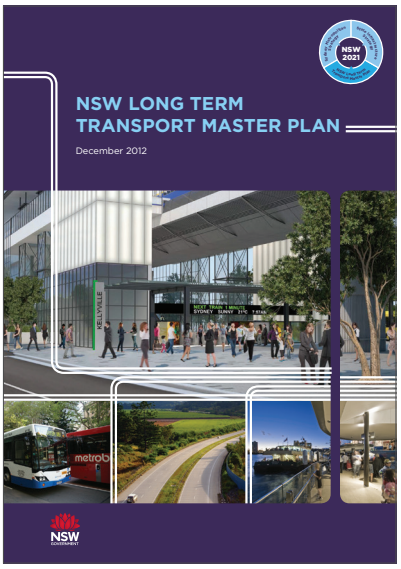
One of the primary visions for the North East Subregion is to allow residents to live and work within the subregion. The Northern Beaches Hospital sits at the centre of this strategy and Warringah Road is identified as a strategic bus corridor. The strategy emphasises the need for good access to the new hospital and improved key transport corridors to, from and within the subregion.



NORTHERN BEACHES REGIONAL ACTION PLAN (2012)

With the goal of integrating planning activities for the Northern Beaches, the Regional Action Plan identifies the immediate actions the NSW Government will prioritise over the next few years. These are meant to complement both the long term strategies developed in the A Plan for Growing Sydney and the North East Subregional Strategy through the inclusion of Warringah Council, Pittwater Council, Manly Council and Mosman Council.

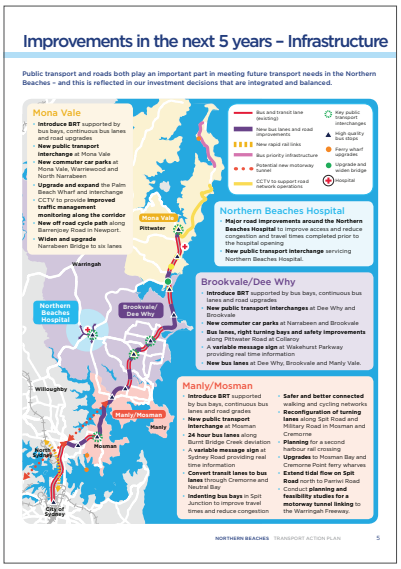
The Regional Action Plan's top priority is to improve access to healthcare for the Northern Beaches. To do this, the first action step is to "plan for and construct the Northern Beaches Hospital at Frenchs Forest" and calls for an analysis of traffic and transport issues around the new hospital. It also nominates that Bus Rapid Transit should be investigated for the Northern Beaches.



LONG TERM TRANSPORT MASTER PLAN (2012)

The Long Term Transport Master Plan presents the NSW Government's 20 year vision for the delivery of world class public transport, roads and freight network to NSW. It is an overarching framework intended to guide subsequent and more detailed transport plans, policy decisions, reforms and funding decisions.

The Mona Vale-CBD travel route is identified as one of the most constrained in Sydney. Consequently, the provision of a Northern Beaches Bus Rapid Transit (BRT) network extension along this corridor is identified as a potential strategic action with a 5-10 year timeframe. Additionally, east-west kerbside BRT facilities along Warringah Road are identified as one of six shortlisted options to address the future demands of the Northern Beaches transport system.

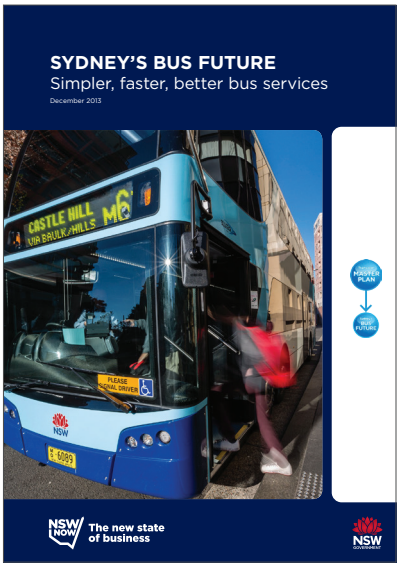


NORTHERN BEACHES TRANSPORT ACTION PLAN (2014)

The Northern Beaches Transport Action Plan is a plan to transform transport in the Northern Beaches so that it can grow with the increasing number of people and jobs in the area.

The plan includes $400 million invested in major road improvements to reduce congestion and improve travel times around the Northern Beaches Hospital; $125 million invested to provide kerbside BRT on the Northern Beaches; $11 million invested to provide better bus services that will start earlier and finish later during the week and on weekends; $30 million to provide five public transport interchanges at key locations, one of which is at the Northern Beaches Hospital; and $5 million from Restart NSW for strategic and feasibility studies establishing a Northern Beaches Motorway Tunnel.

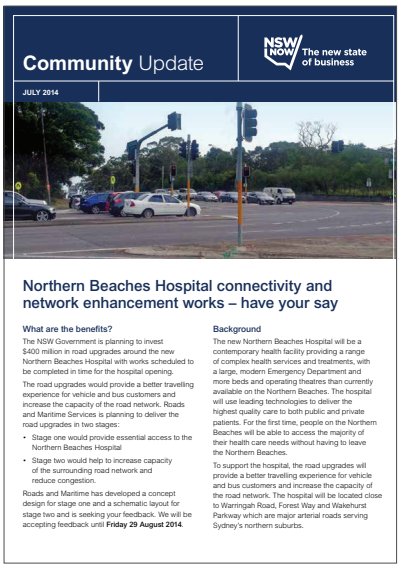
NSW STATE GOVERNMENT



SYDNEY'S BUS FUTURE (2013)

Sydney's Bus Future is the NSW Government's long term plan to redesign Sydney's bus network to meet customer needs now and into the future. It sets out step-by-step actions to deliver fast and reliable bus services for customers where and when they are needed.

The introduction of BRT to the Northern Beaches is a long term strategy in the plan. However, the Warringah Road bus route is classified as a major suburban bus route and is not nominated for BRT. This is consistent with previous studies. Under this plan, Warringah Road will have a mix of frequent 'turn up and go' and timetabled services, stops every 400m and bus priority targeted at key pinch points to increase service performance.



HOSPITAL CONNECTIVITY AND ENHANCEMENT WORKS (2014)

The NSW Government has invested $400 million in the 2014/15 budget for road upgrades around the hospital to provide customers with a better travelling experience by car or bus. This work will be completed in time for the opening of the Northern Beaches Hospital in 2018.

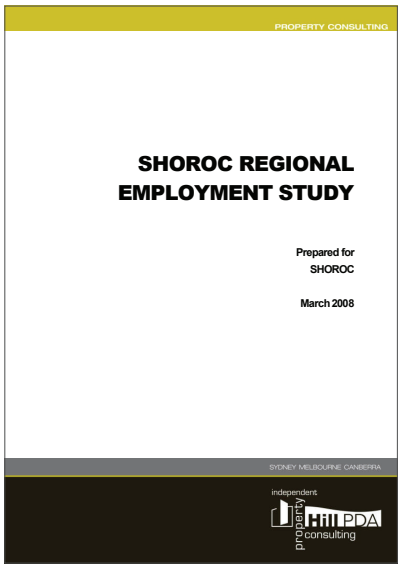
RMS has released concepts for the Stage 2 grade separation of Warringah Road, improvements for Frenchs Forest Road, and Wakehurst Parkway and Forest Way. Road widening, new pedestrian bridges and bus priority lanes are all being considered to help reduce congestion and service the new hospital. Work to reduce the impact of flooding on Wakehurst Parkway is also being examined in parallel with planning for the road upgrades.

FRENCHS FOREST SPECIALISED CENTRE SIGNIFICANT STUDY (2010)

This study proposes new controls to facilitate the growth of Frenchs Forest. Under a new regulatory framework, the hospital site and adjoining parcels create development opportunities for mixed use, medical, residential and commercial uses. To complement this study, Transport for NSW prepared a Transport Management and Accessibility Plan for the area.

A resulting structure plan was developed for Frenchs Forest that identifies general transport improvements, conservation areas, and future land use designations for the precinct. It predates the official determination of the site for the hospital. A key component of this structure plan is delivering a tunnel underneath Warringah Road to divert traffic. This presumption has since been removed in favour of an at grade 12 lane thoroughfare.

SHOROC



SHOROC REGIONAL EMPLOYMENT STUDY (2008)

Completed on behalf of the Shore Regional Organisation of Councils (SHOROC), which includes Warringah Council, Pittwater Council, Manly Council and Mosman Council, this study estimates that Warringah will experience substantial commercial growth (+108,000sqm) particularly relating to Property and Business Services (+91,000sqm or 57%). This could be accommodated in a range of locations including town centres and in business parks such, as Frenchs Forest.

The study acknowledges Frenchs Forest's potential as an improved centre, noting it should become a Specialised Centre for Health and Technology. The study says the centre can become the premier regional location for medical uses.

SHAPING OUR FUTURE (2010)

This plan provides a whole of region strategy for SHOROC. The document outlines how the councils will work together, with other levels of government and local businesses to combat regional issues like road congestion, public transport, population growth, enhancing the natural environment, minimising infrastructure costs and the lack of access to high quality health services.

This plan calls for the immediate construction of the Northern Beaches Hospital and for it to act as a focal point of a larger strategic centre for not just medical services and jobs, but housing as well. As a strategic centre, the study reinforces the nexus of proposed BRT services and road upgrades between Chatswood and Dee Why.

SHAPING OUR SUSTAINABLE FUTURE (2011)

This document forms Part Two of Shaping Our Future. It is an action plan outlining the key areas in which SHOROC will work together to target the region's sustainability causes. It contains priority projects for transport, energy, climate change, ecologically sustainable development, waste, water, biodiversity and skills and capacity building.

The planning and development of the Northern Beaches Hospital site and surrounding sites sits squarely amongst three of the plan's five 'domains' for sustainable action, including 'Health & Well Being,' 'Built Environment,' and 'Jobs and Economic Development.' SHOROC have used these domains to define and develop the sustainability action plan for the region.

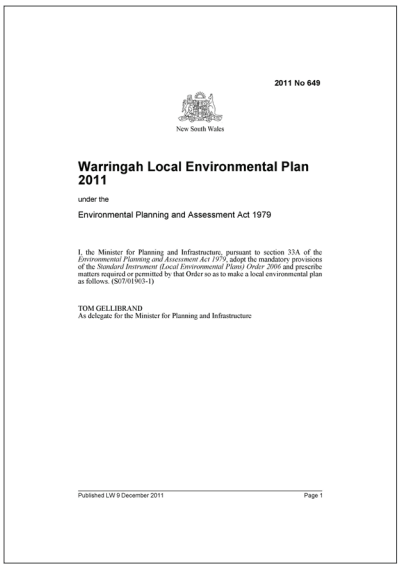
SHOROC

SPATIAL ANALYSIS REPORT (2011)

With its evidence basis of geography, networks, land use, and transport, the purpose of this document is to enable SHOROC to take an informed lead in advocacy of regional matters and to have a strong evidence basis from which to propose a way forward.

This document promotes Frenchs Forest as an urban intensified infill development site for employment and dwellings linked by an 'east west spine transportation route' to take pressure off north south traffic. It also outlines the provision of actual spatial locations for projects, policies and strategies aimed to carry out this development.

WARRINGAH COUNCIL



2011 No 649

New South Wales

Warringah Local Environmental Plan 2011

under the

Environmental Planning and Assessment Act 1979

I, the Minister for Planning and Infrastructure, pursuant to section 33A of the *Environmental Planning and Assessment Act 1979*, adopt the mandatory provisions of the *Standard Instrument (Local Environmental Plans) Order 2006* and prescribe matters required or permitted by that Order so as to make a local environmental plan as follows. (S07/01903-1)

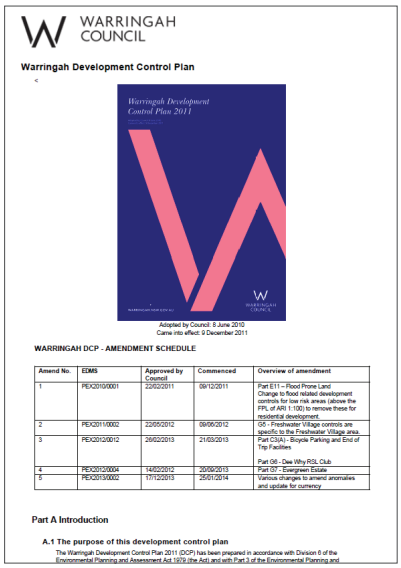
TOM GELLIBRAND
As delegate for the Minister for Planning and Infrastructure

Published LW 9 December 2011 Page 1

WARRINGAH LOCAL ENVIRONMENTAL PLAN (2011)

The Warringah LEP 2011 is the legal planning instrument for development in Warringah and functions as a tool to ensure planning decisions. It describes principal development standards for Warringah including the zoning, height of buildings, floor space ratio, car parking, roof features, sun access and design excellence.

The Warringah LEP provides a planning framework for Frenchs Forest area. **Currently, there are several projects within the study area where information has been submitted to Council either as a Planning Proposal or through pre-lodgement meetings. These projects may suggest an alteration to existing planning controls. Information submitted to Council is summarised in this literature review and will be considered during the Hospital Precinct Structure Plan process.**



WARRINGAH COUNCIL

Warringah Development Control Plan

Warringah Development Control Plan 2011

Adopted by Council: 8 June 2010
Came into effect: 9 December 2011

WARRINGAH DCP - AMENDMENT SCHEDULE

Amend No.	EDMS	Approved by Council	Commenced	Overview of amendment
1	PEX2010/0001	22/02/2011	09/12/2011	Part E11 – Flood Prone Land Change to flood related development controls for low risk areas (above the PPL of ARI 1:100) to remove these for residential development.
2	PEX2011/0002	22/05/2012	09/06/2012	Q5 - Freshwater Village controls are specific to the Freshwater Village area.
3	PEX2012/0012	26/02/2013	21/03/2013	Part C3(A) - Bicycle Parking and End of Trip Facilities Part Q6 - Dee Why RSL Club
4	PEX2012/0004	14/02/2012	20/09/2013	Part Q7 - Evergreen Estate
5	PEX2013/0002	17/12/2013	25/01/2014	Various changes to amend anomalies and update for currency

Part A Introduction

A.1 The purpose of this development control plan

The Warringah Development Control Plan 2011 (DCP) has been prepared in accordance with Division 6 of the Environmental Planning and Assessment Act 1979 (the Act) and with Part 3 of the Environmental Planning and

WARRINGAH DEVELOPMENT CONTROL PLAN (2011)

The Warringah DCP 2011 is the principal environmental planning instrument to guide all of Warringah. This DCP contains detailed provisions that supplement the provisions of the LEP. If there is any inconsistency between this DCP and the LEP, the LEP will prevail.

The Warringah DCP 2011 provides detailed provisions supplementing the LEP to strengthen the regional position of Warringah as a multifunctional and innovative centre that encourages employment and economic growth.

WARRINGAH COMMUNITY ENGAGEMENT FRAMEWORK (2011)

This framework was developed by Warringah Council to encourage effective engagement with the community and internally. The Community Engagement Framework includes three components: an engagement policy to provide a broad framework and policy direction; a matrix to provide staff with direction on engagement planning, and a toolkit to provide advice on 'how to' undertake engagement.

The Hospital Precinct Structure Plan has been identified as a 'high impact' project. As such, high impact projects are required to include a full range of appropriate community participation on the engagement spectrum from information to collaboration.

WARRINGAH COMMUNITY STRATEGIC PLAN 2023 (2013)

This vision based plan sets out the long term aspirations of the Warringah community. It reflects where the community wants to be in 10 years and is the key reference point for decision making. The plan was prepared by Council on behalf of Warringah's stakeholders with regard to state and regional policy.

Six community outcomes emerged from this process:

- **Vibrant Community**
- **Lifestyle and Recreation**
- **Healthy Environment**
- **Connect Transport**
- **Liveable Neighbourhoods**
- **Working Together**

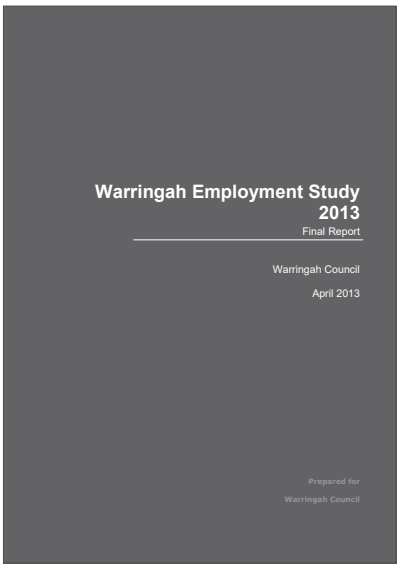
A further 22 key objectives sit beneath. These themes can be applied as broad community principles to assist future planning to help shape the Hospital Precinct Structure Plan.

WARRINGAH ECONOMIC DEVELOPMENT PLAN (2011)

This plan acknowledges that Warringah has the largest economy of the SHOROC Councils, with a stable, highly skilled and educated workforce and increasingly diverse economic base. The plan seeks to confirms Council's commitment to reducing obstacles and progressing actions that maximise opportunities for economic development.

The plan's expectations for Frenchs Forest area are largely in line with other strategy documents in that the area is envisaged "as supporting the clustering of health, technology and medical device companies around a new hospital." Notably, the plan suggests that the centre is anticipated to accommodate up to 12,000-17,000 additional jobs.

WARRINGAH COUNCIL



WARRINGAH EMPLOYMENT STUDY (2013)

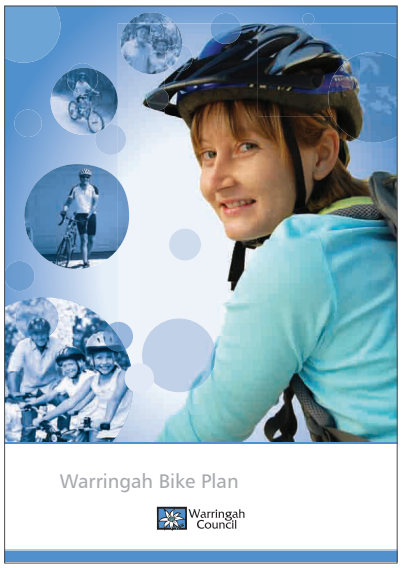
Prepared by SGS, this report considers the potential for the LGA to accommodate the additional employment capacity target of 12,500 jobs from 2001 to 2031 as set by the Draft North East Subregional Strategy (equivalent to an additional employment target of 7,500 jobs for the period from 2013 to 2031).

The study suggests that the new hospital site will create significant opportunities for employment growth in health and well being industries. The report further suggests that a clustering of health activities is likely to spur new interest in education, medical related research and pharmaceuticals industries. Further investment in transport infrastructure, however, is identified as necessary to accommodate potential growth.

WARRINGAH SUSTAINABLE TRANSPORT STRATEGY (2013)

The purpose of this strategy to provide a framework to guide and support sustainable transport in Warringah. It identifies medium to long term directions for the continued development of travel modes, infrastructure and behaviours to transition to more sustainable transport within and beyond Warringah. It is also guides program implementation and actions in relation to sustainable transport that can be resourced through Warringah's Community Strategic Plan. There are five supporting strategies that form the basis of the framework: Council's role as a leader in sustainable transport incentives; regional advocacy and partnerships; active travel; place planning and connectivity; information, accessibility and reporting.

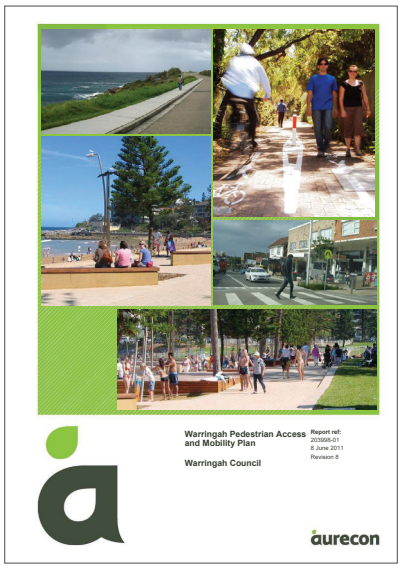
While there are no strategies specific to the Hospital Precinct, the strategy strongly supports BRT solutions at a regional level and active transport solutions in precinct planning.



WARRINGAH BIKE PLAN (2010)

The Warringah Bike Plan provides the basis for cycling infrastructure and education to deliver a better environment for cycling in Warringah. The Bike Plan also outlines various promotion strategies and events to encourage more people to ride their bikes for local trips to the beach, the shops, school or the bus, for transport, recreation, fitness and fun.

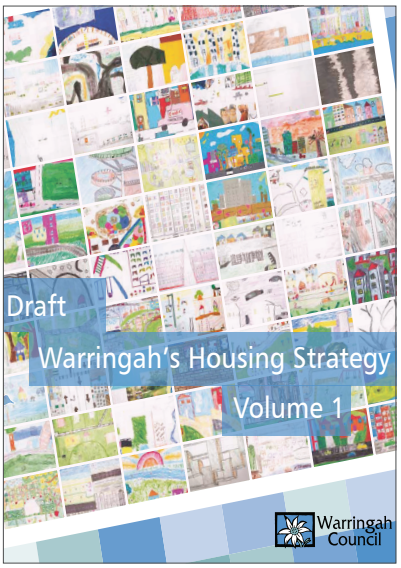
The plan recommends an off-road shared path on Warringah Road and Allambie Road; an off-road shared path link over Wakehurst Parkway linking the Allambie industrial precinct; on-road sealed shoulders on Wakehurst Parkway and Aquatic Drive; and bicycle parking at the Aquatic Centre and Forest Way Shops. The plan also nominates the intersections of Warringah Road with Forest Way and Warringah Road with Allambie Road Cycle Safety Hotspots.



WARRINGAH PEDESTRIAN ACCESS AND MOBILITY PLAN (2011)

The Warringah Pedestrian Access and Mobility Plan was produced in June 2011 with the objective of improving access and mobility in the LGA. It focuses on 14 town and local centres that high levels of pedestrian activity. This plan considers two precincts relevant to the Northern Beaches Hospital Precinct: Allambie Grove and Forest Way.

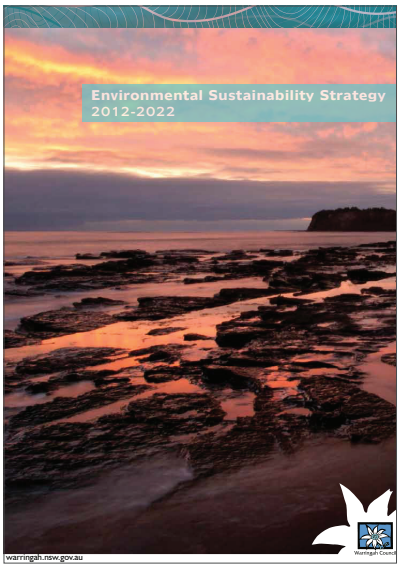
Relevant infrastructure strategies identified in the Pedestrian Access and Mobility Plan include supporting a strong focus on the pedestrian environment in the Hospital Precinct Structure Plan process; installation of refuges at Skyline shops and Capital Business Park; provision of additional crossings at Warringah Road and Allambie Road; replacement of roundabouts at Allambie Road and Rodborough Road with signals; and additional crossing facilities along Allambie Road at Flers Street and Mortain Avenue.



WARRINGAH DRAFT HOUSING STRATEGY (2011)

This document outlines how Warringah will meet the NSW Government's housing target of 10,300 new dwellings between 2005 and 2031. The Draft Housing Strategy also ensures Council's planning policies respond to the area's changing demographics such as its ageing population, the growing number of single parent households and families with fewer children. A second volume of this report considers Narraweena and its potential to be up zoned for higher density development. While neither report has been adopted by council, both are publicly available.

The hospital precinct is identified as one of eight 'villages' ideal for increasing housing choice. This coincides with Warringah's centre based growth strategy to optimise the use of existing services and infrastructure. Community engagement results also show that residents see the coastal areas of Warringah as having sufficient development and express a desire for additional dwellings away from the coast.



WARRINGAH ENVIRONMENTAL SUSTAINABILITY STRATEGY (2012)

This strategy sets a long term direction for how best to balance growth with the environmental, economic and social values of the Warringah community. This strategy supersedes Council's 2001 Environmental Strategy. The inclusion of the word 'sustainability' in the title of this current strategy emphasises that the issues of today are complex and are linked to broader societal issues.

The strategy calls for smaller ecological footprints, sustainable design for the built environment, and expansion of transport options in setting a sustainable future for Warringah. These principles will guide future precinct designs and LGA wide planning policies and decisions.

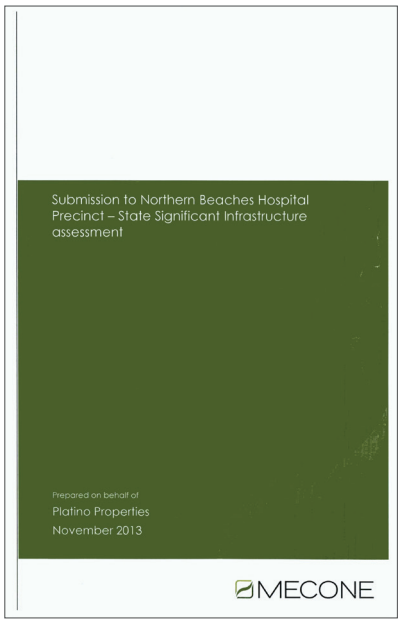
DRAFT PLANNING PROPOSALS

In addition to the existing planning framework for the Hospital Precinct, it is of benefit to consider several Draft Planning Proposals that Warringah Council has received in the last 12 months for sites within the Hospital Precinct Structure Plan investigation area. These Draft Planning Proposals provide an insight into the developer interest in the area.

Three documents have been received by Warringah Council:

- Skyline Place Draft Planning Proposal on behalf of Platino Properties (November 2013)
- 357-373 Warringah Road and 8 Rodborough Place Draft Planning Proposal on behalf of Masters (September 2014)
- Frenchs Forest Town Centre Concept Master Plan on behalf of TOGA Development Group (August 2014)

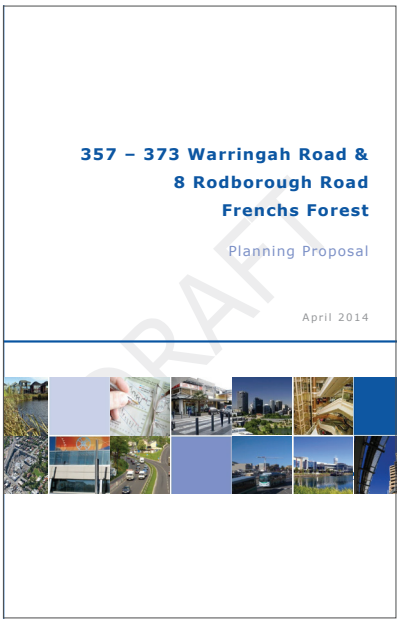
This information has been submitted to Council and pre-lodgement meetings have occurred, either formally or informally. The Draft Planning Proposals would most likely have been assessed by Council as part of a Planning Proposal process if the Hospital Precinct Structure Plan process weren't occurring simultaneously. As such, these documents will be considered during the Structure Plan process.



SKYLINE PLACE DRAFT PLANNING PROPOSAL (NOVEMBER 2013)

This Draft Planning Proposal has been prepared on behalf of Platino Properties to investigate the potential of parts of the Frenchs Forest Employment Precinct to effectively integrate with the Hospital Precinct and provide relevant land uses that support the hospital and its workers. Platino Properties is a land owner at Skyline Place and has support from other neighbouring land owners for the proposed urban renewal of the precinct.

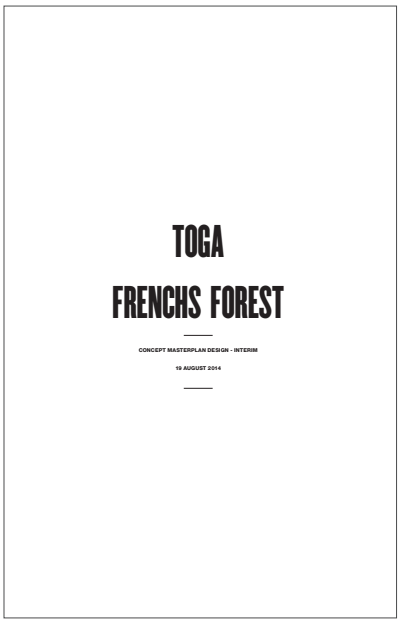
This Draft Planning Proposal recommends a transition from B7 Business Park to B4 Mixed Use and R3 Medium Density Residential at Skyline Place. The intention is that this rezoning will provide land uses in support of the Hospital Precinct including commercial uses, short stay accommodation, allied health services, residential and accommodation for key workers.



MASTERS DRAFT PLANNING PROPOSAL (SEPTEMBER 2014)

This Draft Planning Proposal has been prepared on behalf of Masters to add 'hardware and building supplies' as an additional permitted land use to land at 357-373 Warringah Road and 8 Rodborough Place, Frenchs Forest. The land is currently zoned B7 Business Park in the Warringah LEP 2011. 'Wholesale supplies' and 'retail premises' of which 'hardware and building supplies' is a sub category are prohibited in the B7 Business Park zone.

Rather than proceeding with an independent Planning Proposal request for the rezoning of the site to accommodate a Masters store, Masters now seek to engage with Council during the Precinct Structure Plan process. Additional research and analysis has been provided by Masters for consideration in the Hospital Precinct Structure Plan.



TOGA CONCEPT MASTER PLAN FOR FRENCHS FOREST TOWN CENTRE (AUGUST 2014)

This document has been provided to Council at a pre-lodgement meeting with the TOGA Development Group. The Concept Master Plan identifies a vision for Frenchs Forest Town Centre to become a landmark gateway symbolising the heart of Frenchs Forest on the ridge. The proponent has created a 10,000sqm park that connects the two sides of the town centre, and links to the bushland beyond. The Concept Master Plan demonstrates capacity for 200,000sqm of residential development and 28,000sqm of non-residential development.

This Concept Master Plan will be considered during the Precinct Structure Plan process in the context of the current zoning controls, the capacity of the RMS Road Works and the relationship of the proposed town centre with the Northern Beaches Hospital.

2.2 Mapping Context

INTRODUCTION

With planned strategic centres as part of the A Plan for Growing Sydney, Warringah LGA sits at an economically strategic location north of the global Sydney CBD, while offering unrivalled natural amenities and world class beach sites. This section studies Warringah's overall context within Sydney and the north east, showing the LGA's existing and proposed infrastructure, natural systems and other elements. Key systems identified at both a regional level and investigation area precinct level include existing road hierarchies, open space networks, regulatory framework and natural assets.

On the following pages a summary of key existing and planned urban centres is mapped to give an understanding of how Warringah is set to develop under the state and local policy direction. Key to this is the identification and placement of Northern Beaches Hospital Precinct as a Strategic Centre within Warringah and how it relates to other centre types throughout the LGA.

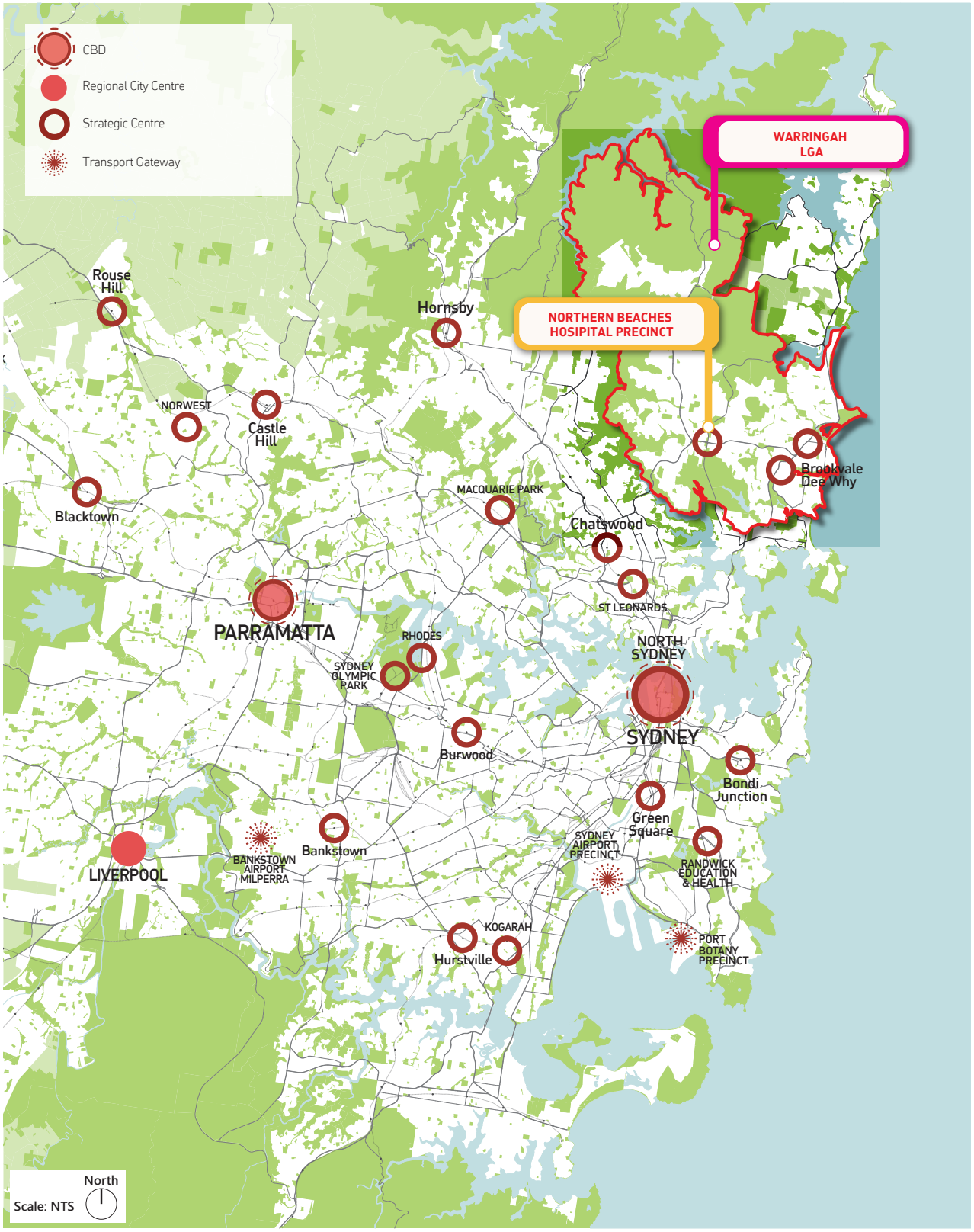
Additional analysis of parcel data was conducted for the Hospital Precinct Structure Plan investigation area. This level of analysis can guide future scenarios for the Structure Plan as they are developed.

This research illustrates how Warringah can respond to future policy expectations, and when combined into a single data set, gives insight into future improvements around land use, transport, conservation and urban design.

The following information was collated through available GIS data provided by Warringah Council. The regional and local scale are intentionally paired for clarity of information.

Regional Map

The A Plan for Growing Sydney identifies Northern Beaches Hosipital Precinct as a Strategic Centre in Warringah LGA. The other Strategic Centre is Brookvale-Dee Why. The wider Sydney Region has numerous Strategic Centres, with nearby centres of Macquarie Business Park, Hornsby, Chatswood and St Leonards.

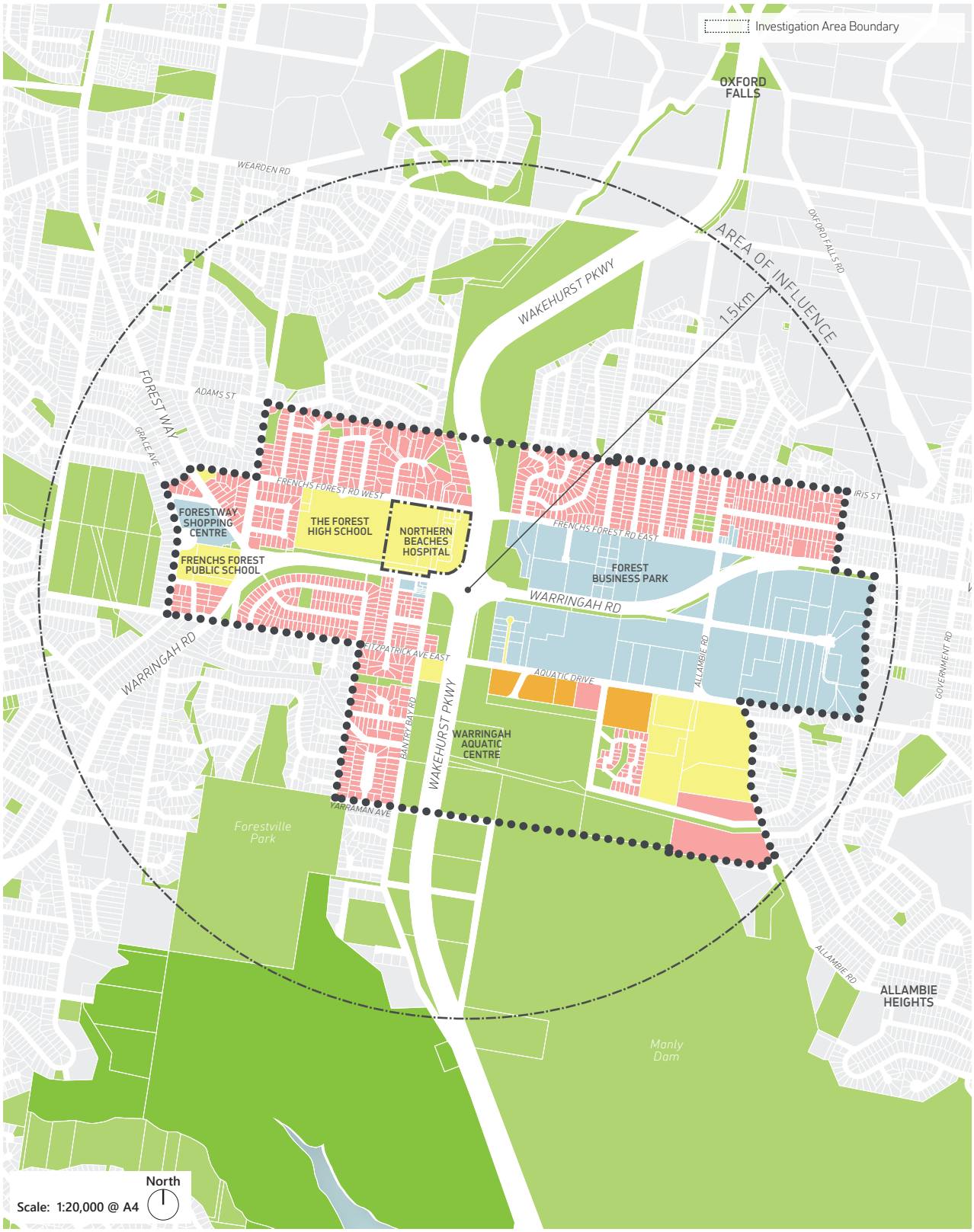


Warringah LGA

The investigation area for the Hospital Precinct is located in the south central area of the Warringah LGA at Frenchs Forest. It is located at the crossroads of Warringah Road and the Wakehurst Parkway. Warringah Road provides the east-west connector between the major centre of Chatswood and the future major centre of Brookvale-Dee Why within Warringah.

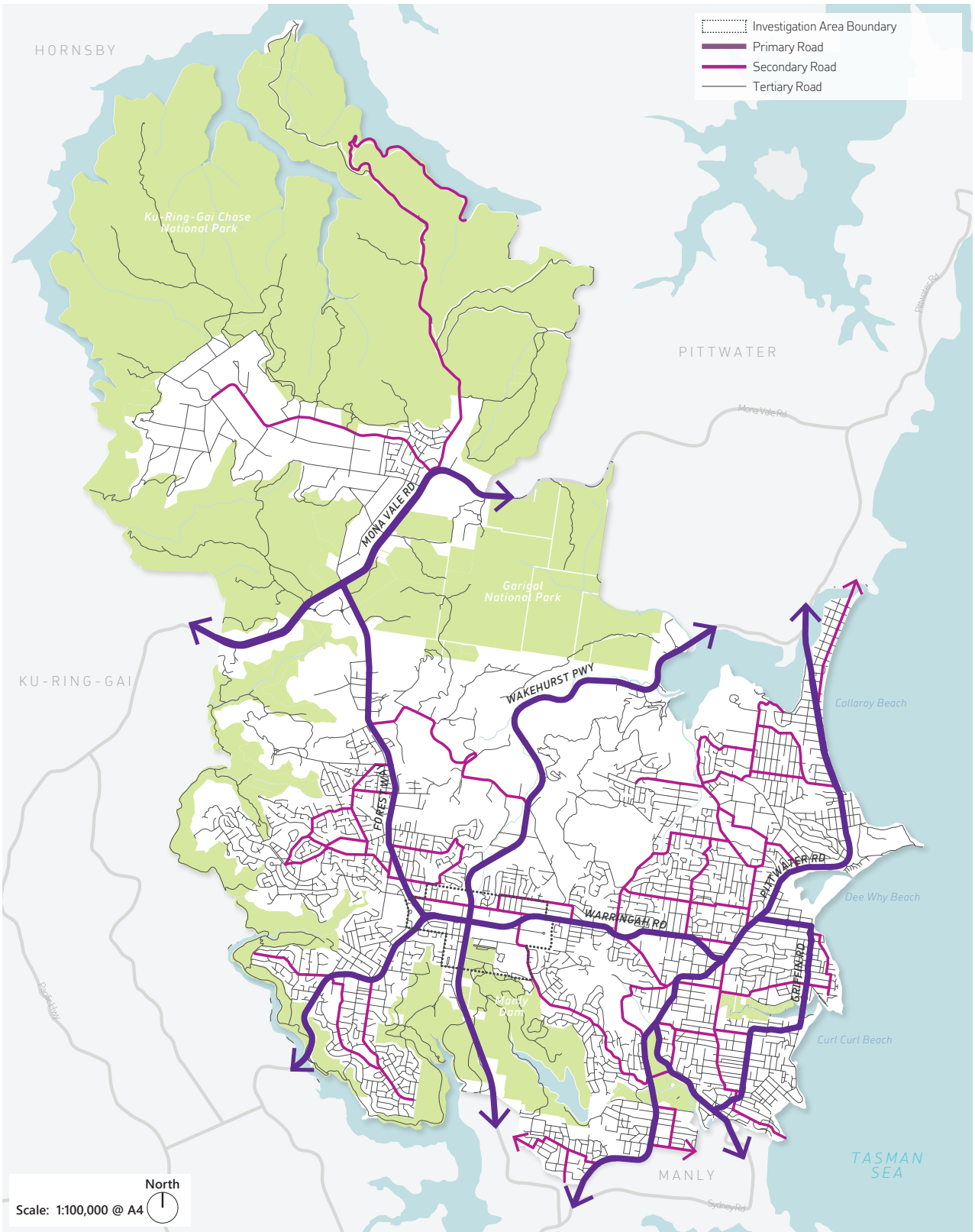
Investigation Area

The catalyst for the investigation area is the new Northern Beaches Hospital which is located on a 6 Ha site at the intersection of Warringah Road and the Wakehurst Parkway. It incorporates the existing Frenchs Forest Business Park, Forestway Shopping Centre, The Forest High School, Frenchs Forest Public Primary School, Warringah Aquatic Centre, Sunnyfield, aged care and numerous residential neighbourhoods and regional open space networks.



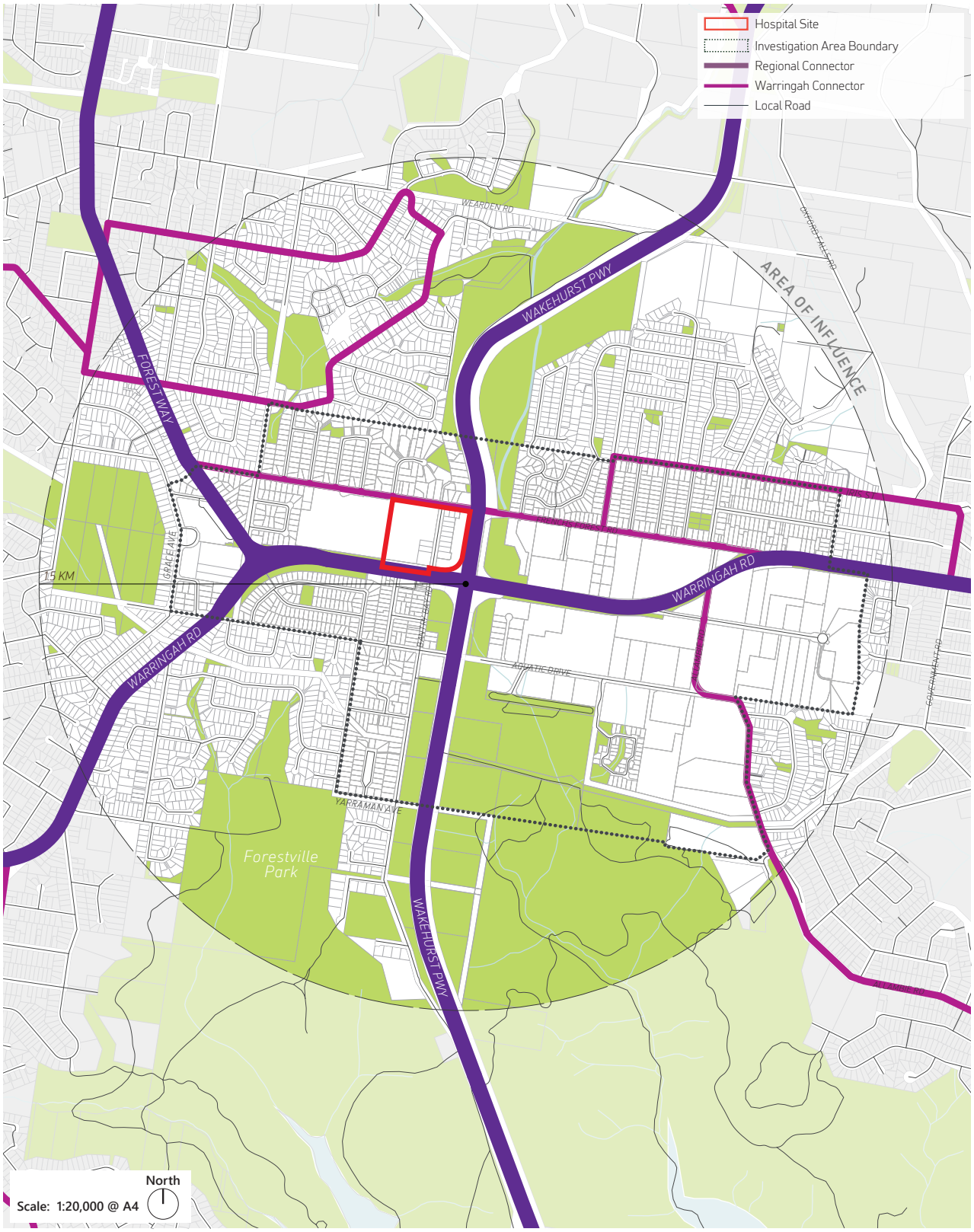
Road Hierarchy - Regional

Warringah is well served by an established regional road network. Warringah Road provides the primary east-west spine from Chatswood to Brookvale-Dee Why. North-south connections include Mona Vale Road linking to Ku-Ring-Gai Chase National Park and Wakehurst Parkway linking to the Northern Beaches. Pittwater Road provides a north-south coastal connector between Manly and Palm Beach.



Road Hierarchy - Precinct

The investigation area is centred to the crossroads of the regional connectors of Warringah Road and Wakehurst Parkway, The crossroads are supported by a network of local connectors and roads. The proposed area road upgrades will challenge the connectivity of the precinct as a result of grade separation proposed on Warringah Road. For more information refer to Section 2.5: Transport Context.

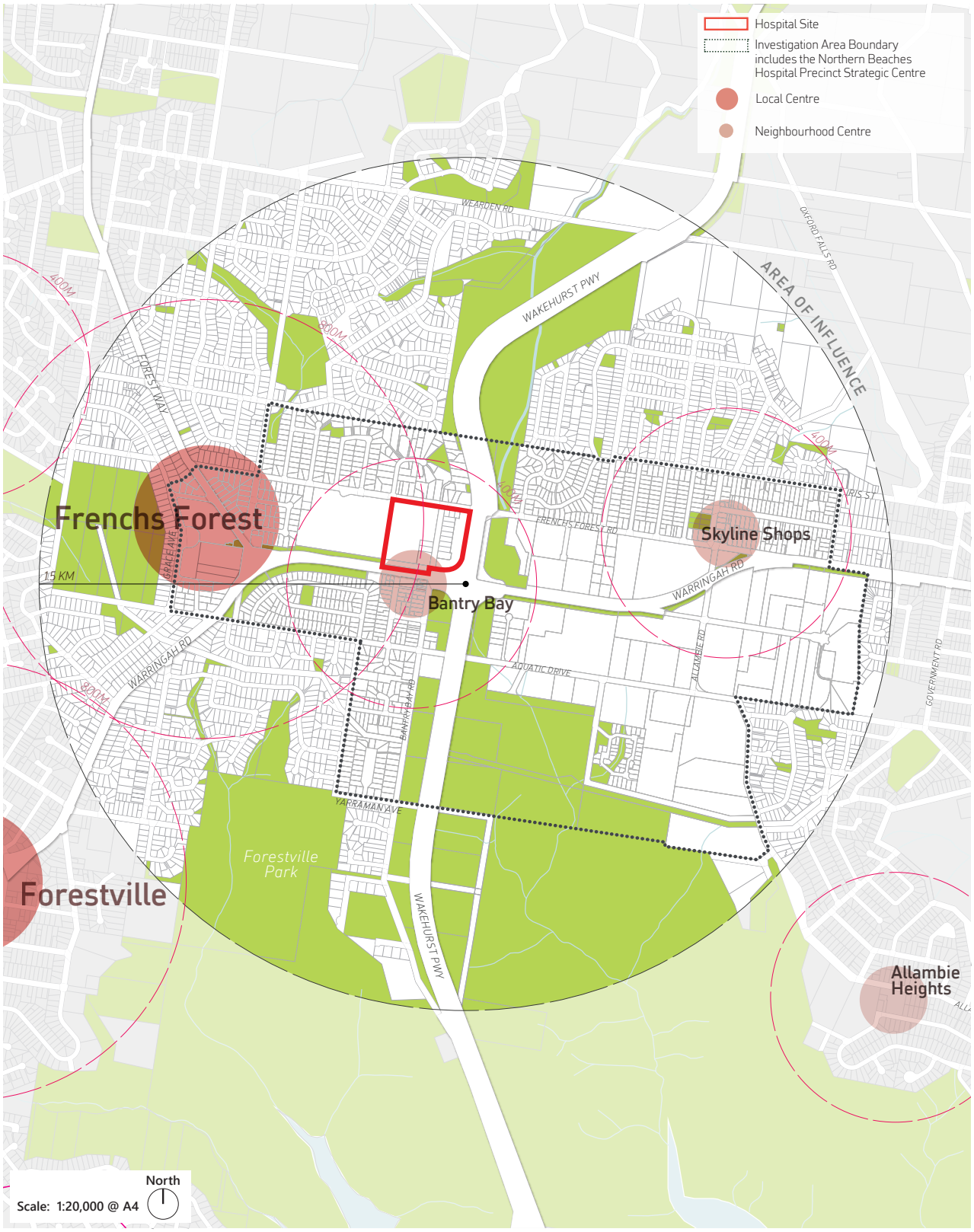


Centres Hierarchy - Regional

A hierarchy of activity centres exists within Warringah LGA and is supported by planning policy. The Northern Beaches Hospital Precinct Strategic Centre is planed to deliver additional employment for the region with associated and appropriate land uses and activity. The hospital precinct sits at the same level as the Strategic Centre of Brookvale - Dee Why. Villages, Local and Neighbourhood Centres provide a lower order structure to the area. Hierarchies are referenced from the Draft North East Subregional Strategy (2007).

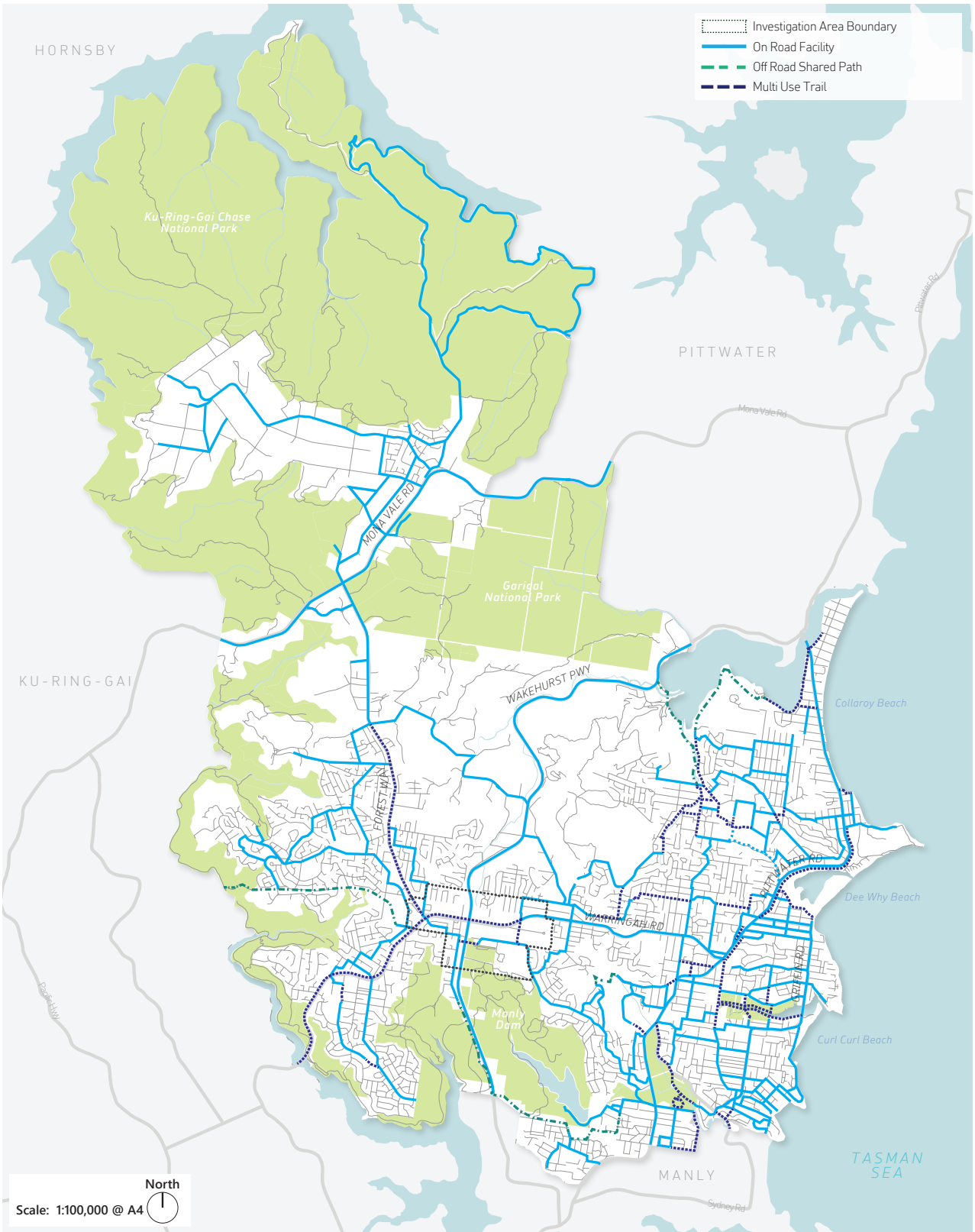
Strategic Centre

The purpose of the Northern Beaches Hospital Precinct Strategic Centre is to provide an employment focus for the region. The catalyst for this employment is the creation of the new Northern Beaches Hospital and its associated land uses.



Bicycle Network - Regional

The Warringah LGA is characterised by a focus on lifestyle and proximity to recreation. Once the Warringah Bike Plan is fully implemented, the area will be even more served by a bicycle network that includes recreational, commuter and local pathways. The network shown in the map below represents Warringah's plan for the entire LGA.



Bicycle Network - Precinct

Once the Warringah Bike Plan is fully implemented, the Strategic Centre will be well serviced by a bicycle network. With some sections of bike trails open for public use and others still in the planning stages, the opportunity exists to further connect this system to the existing and reinforced open space network. The network shown in the map below represents Warringah's plan for Frenchs Forest area.

Public Transport - Regional

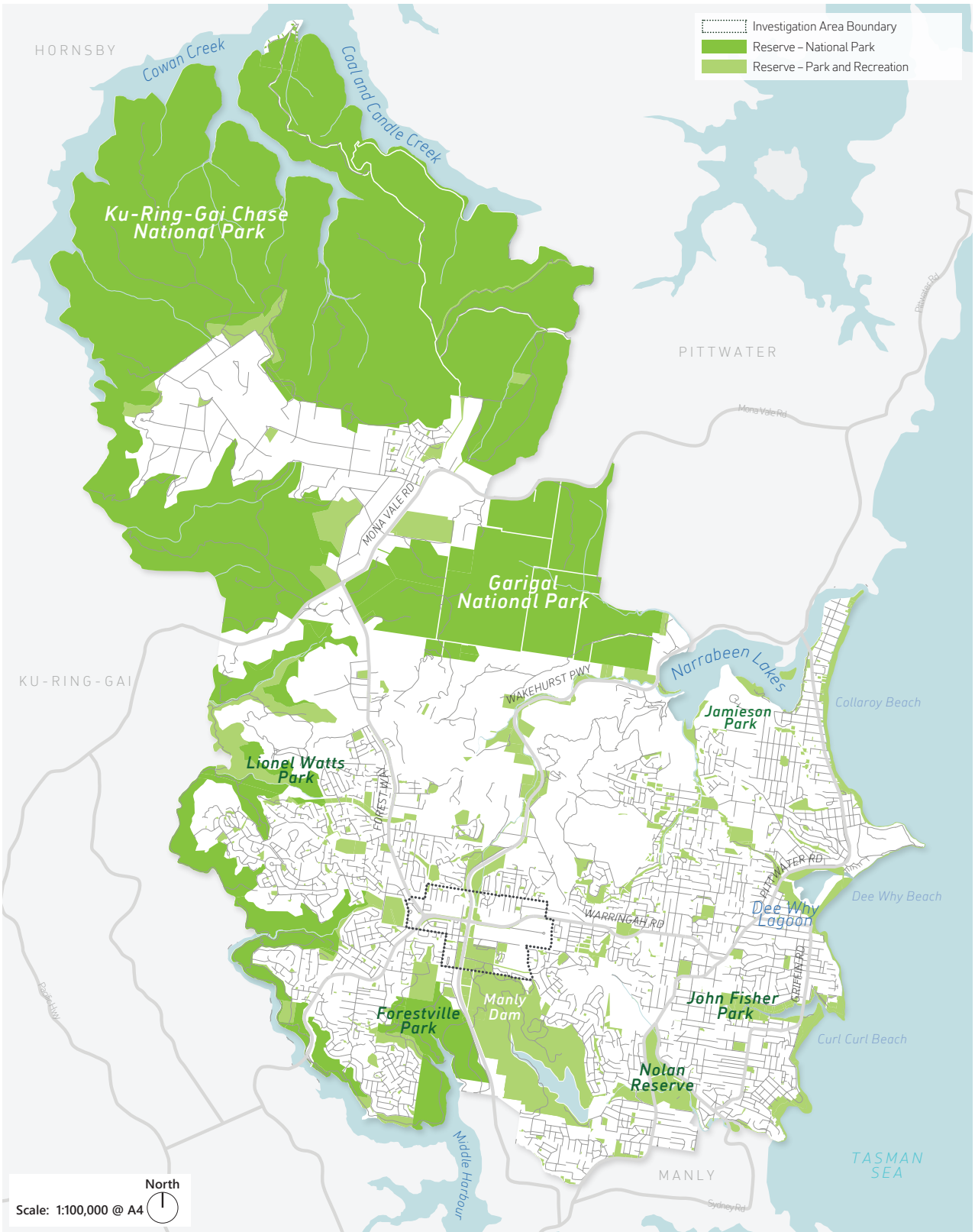
Warringah is well serviced by a regional bus network. Sydney Buses provide the north-south and east-west network. This is augmented by the private Forest Coach Lines service that connects locally to Chatswood in the west. Bus Rapid Transit is suggested to be reinforced along Pittwater Road. For more information refer to Section 2.5: Transport Context.

Public Transport - Precinct

Bus transit is the primary transport initiative for the investigation area. While bus upgrades are suggested to parallel the hospital delivery, Bus Rapid Transit is focused away from the investigation area. The opportunity exists to clarify and make legible the regional and local bus networks that service the precinct. For more information refer to Section 2.5: Transport Context.

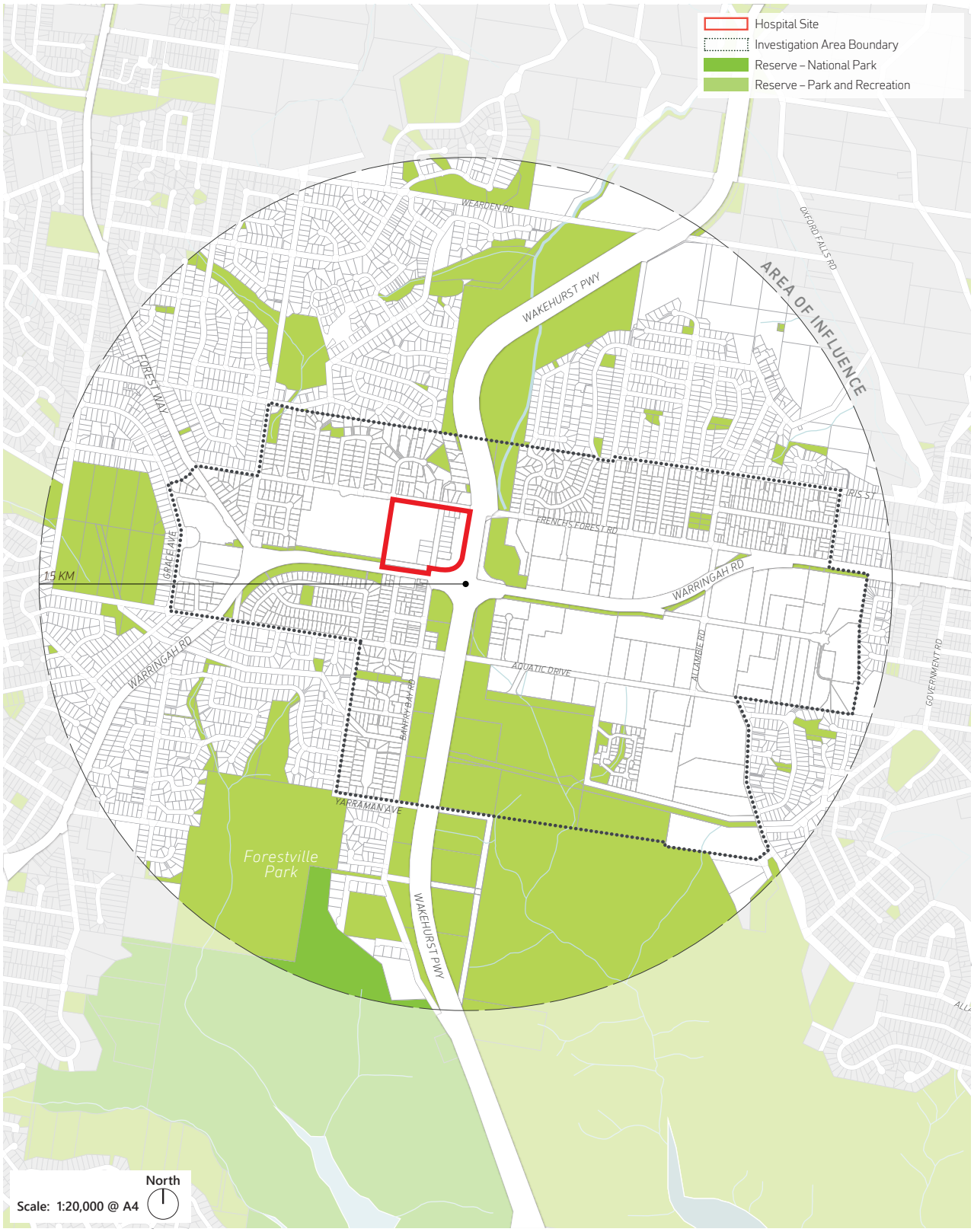
Open Space - Regional

The Ku-Ring-Gai Chase and Garrigal National Park account for nearly 1/3 of Warringah's Local Government Area. This is an impressive resource asset for the region. It is supported by a network of regional park connectors, coastal precincts and local open spaces across the LGA.



Open Space - Precinct

Forestville Park and the north-south open space resources of the Wakehurst Parkway provide a distinctive green identity to the investigation area. This provides a regionally scaled recreational asset for the Northern Beaches which can be further integrated with recreational facilities and bicycle networks.

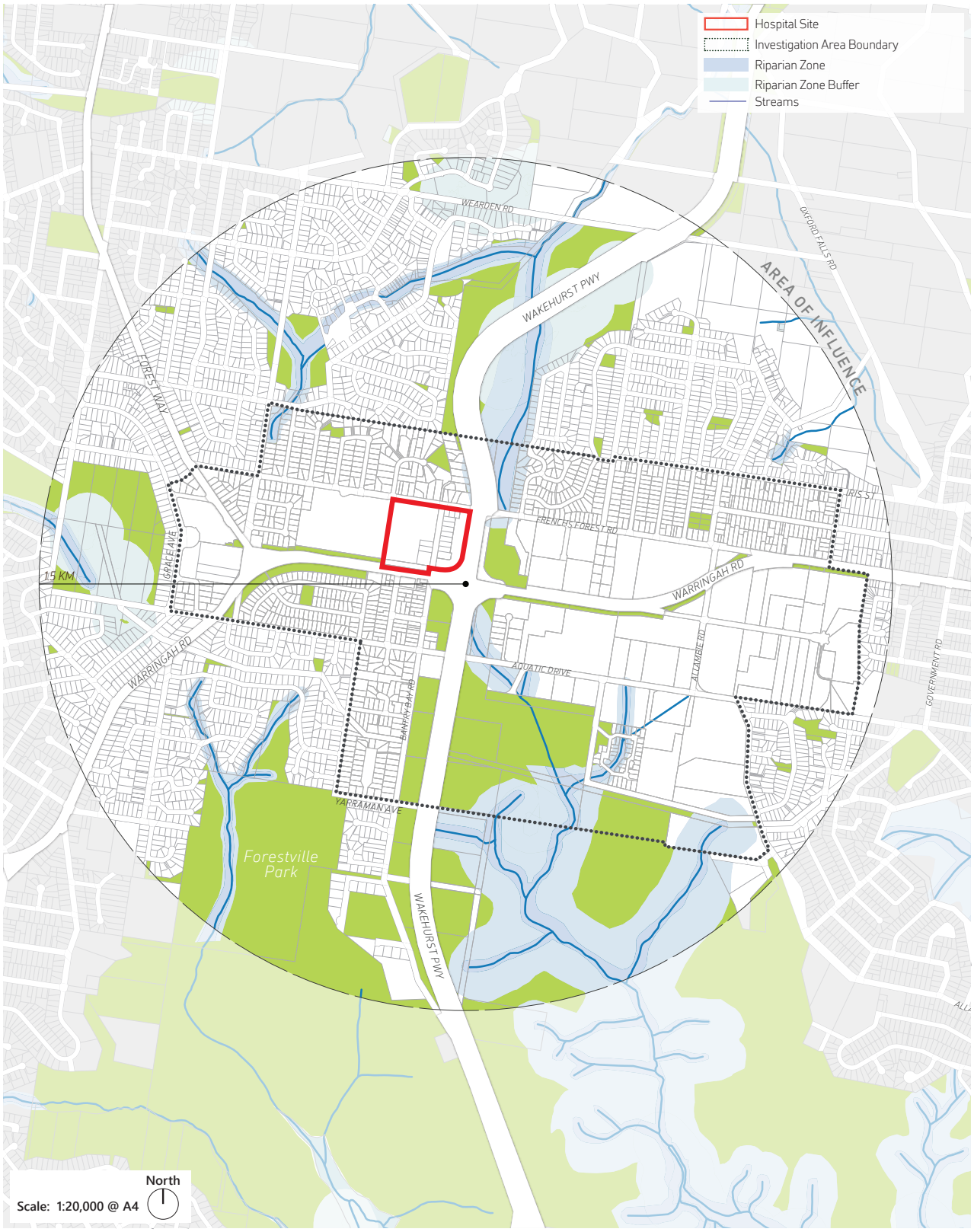


Hydrology - Regional

Narrabeen Lakes, Dee Why Lagoon, the Manly Reservoir, Crown Creek, Coal and Candle Creeks and the Tasman Sea are the defining hydrology features of the Warringah LGA. In general, the hydrology networks are connected to the open space network providing landscape across the LGA which contributes to its identity as a lifestyle area of Sydney.

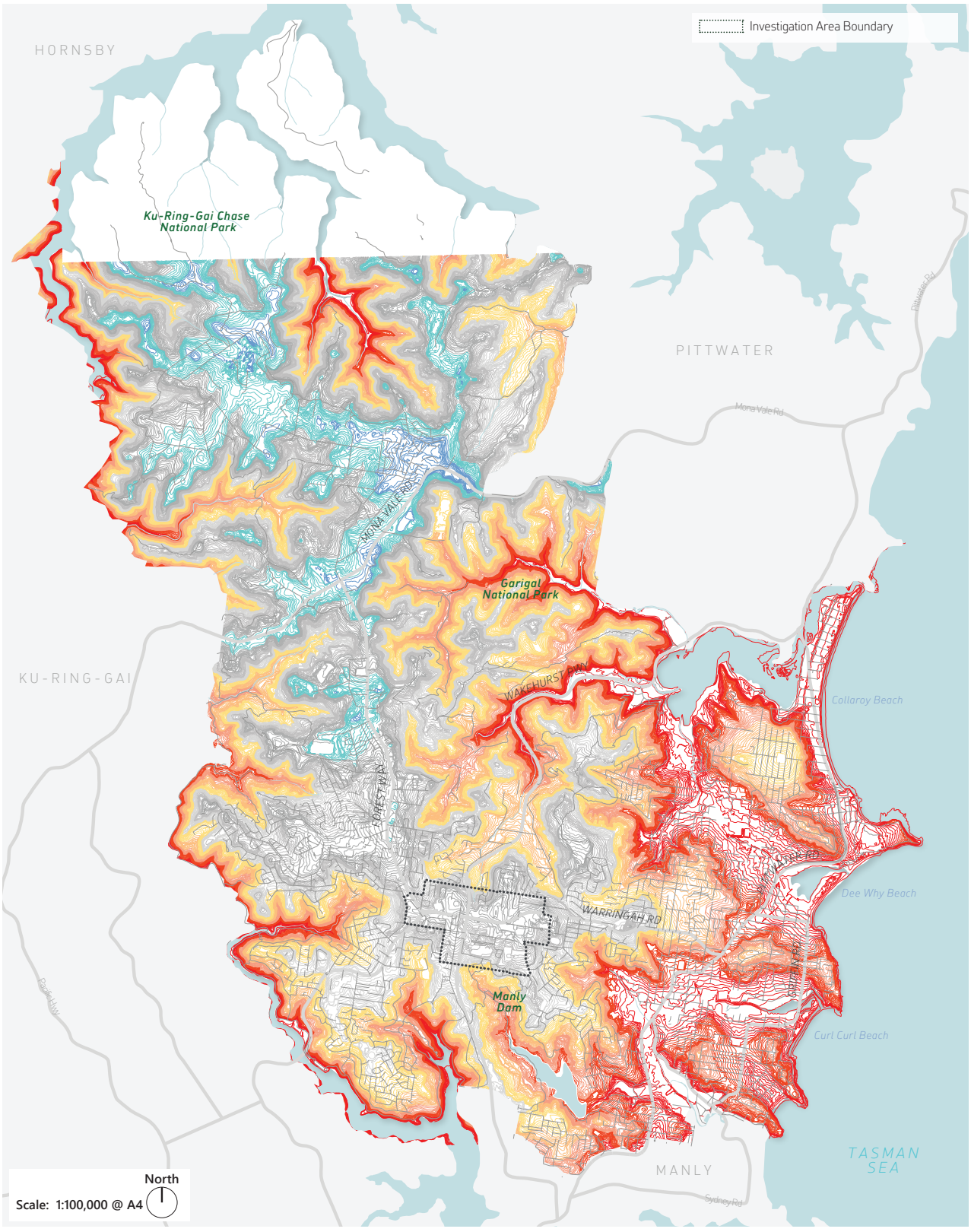
Hydrology - Precinct

The investigation area is relatively unaffected by riparian zones, except for streams to the north and south running into the Manly Reservoir. However, water management and run off remains a significant consideration for the precinct. Currently, water management is achieved through a combination of open and piped hydrology systems.



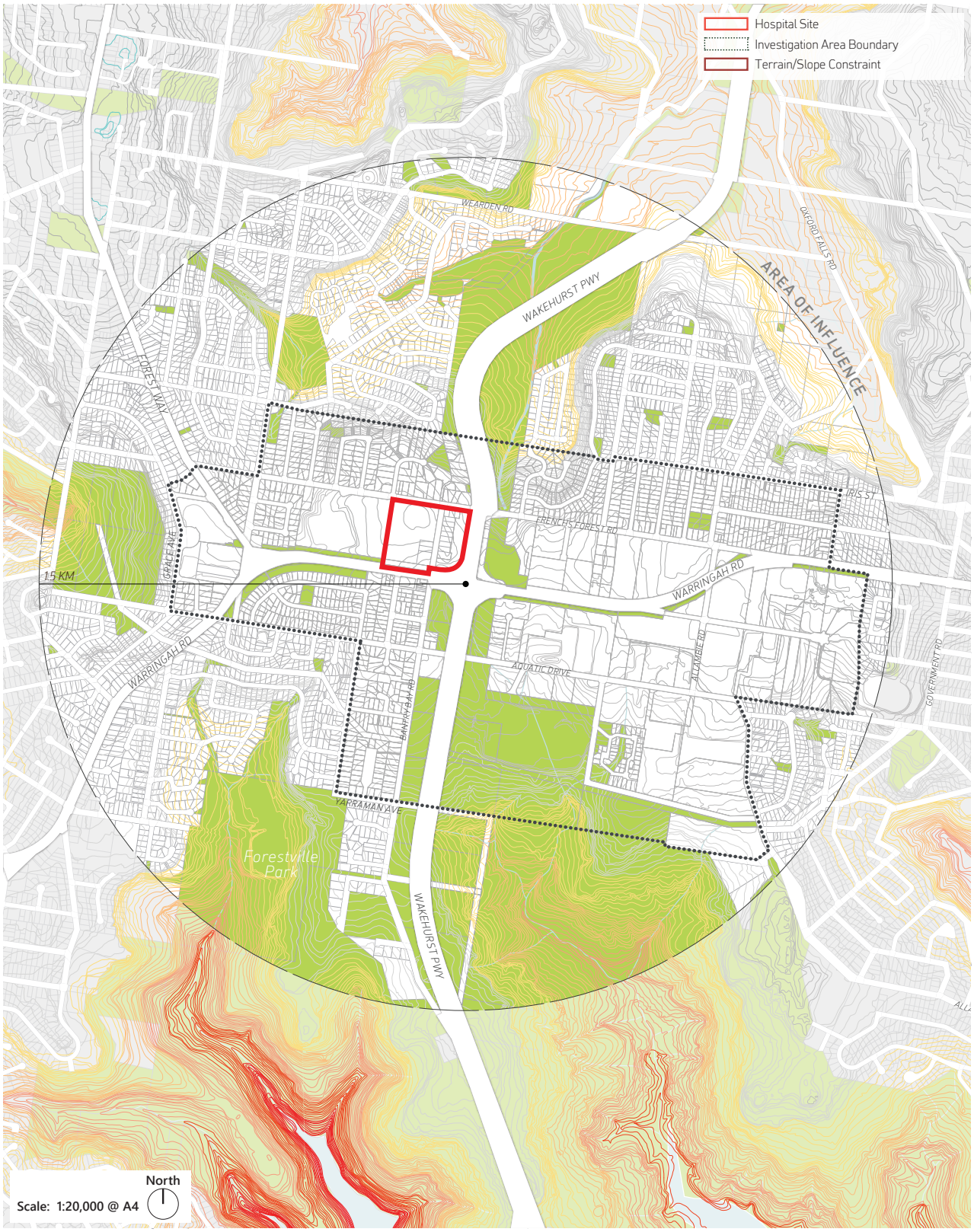
Topography - Regional

Topography is a distinctive feature of the Warringah LGA. Warringah Road, Wakehurst Parkway and Mona Vale Road are ridge roads that connect east-west and north-south. Significant topography changes can be found in the LGA's northern and western national parks. The coastal area is the least topographic of the region.



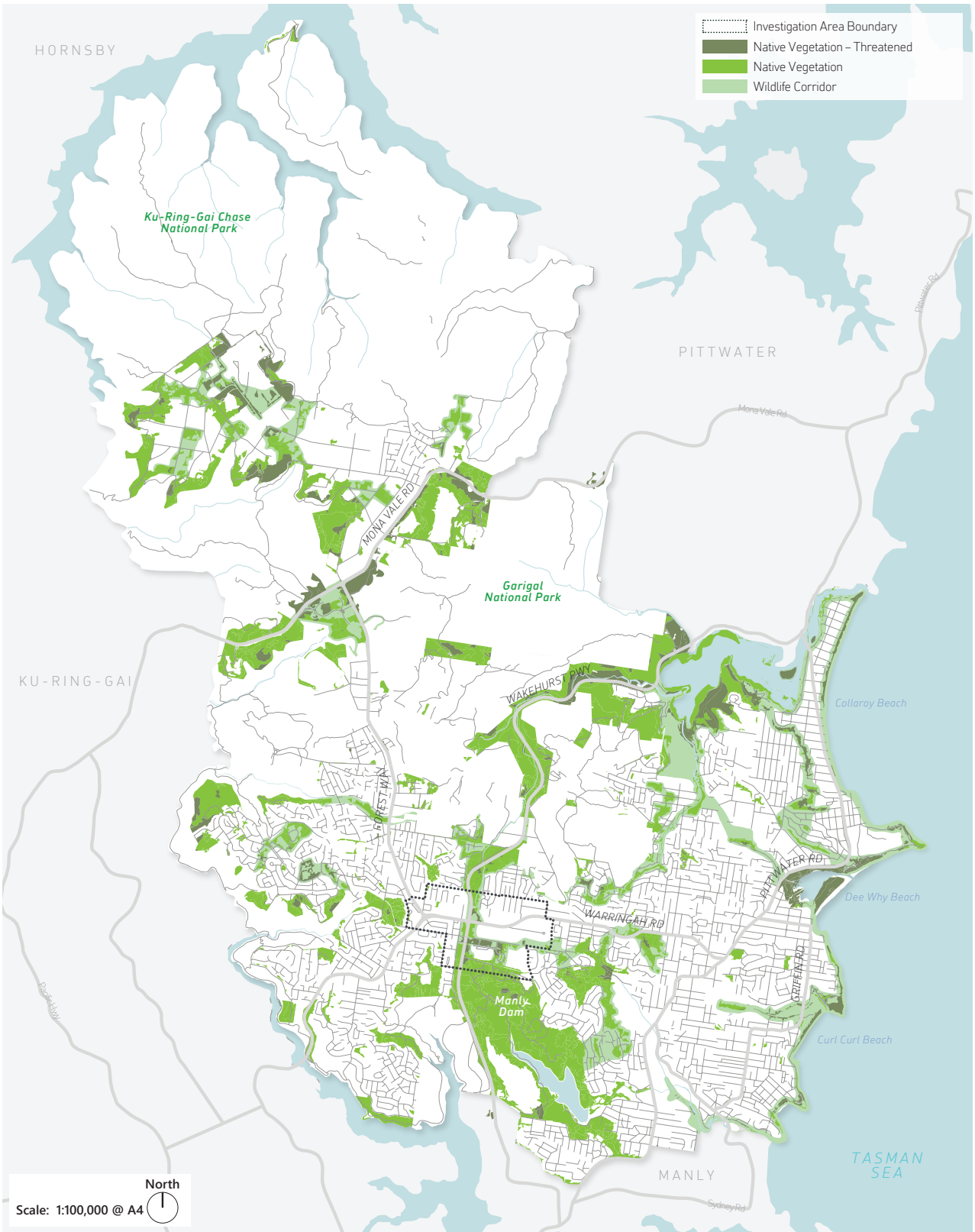
Topography - Precinct

The investigation area is located at the crossroads of east-west and north-south ridges and is characterised by a plateau at one of the highest topographical points of the LGA.



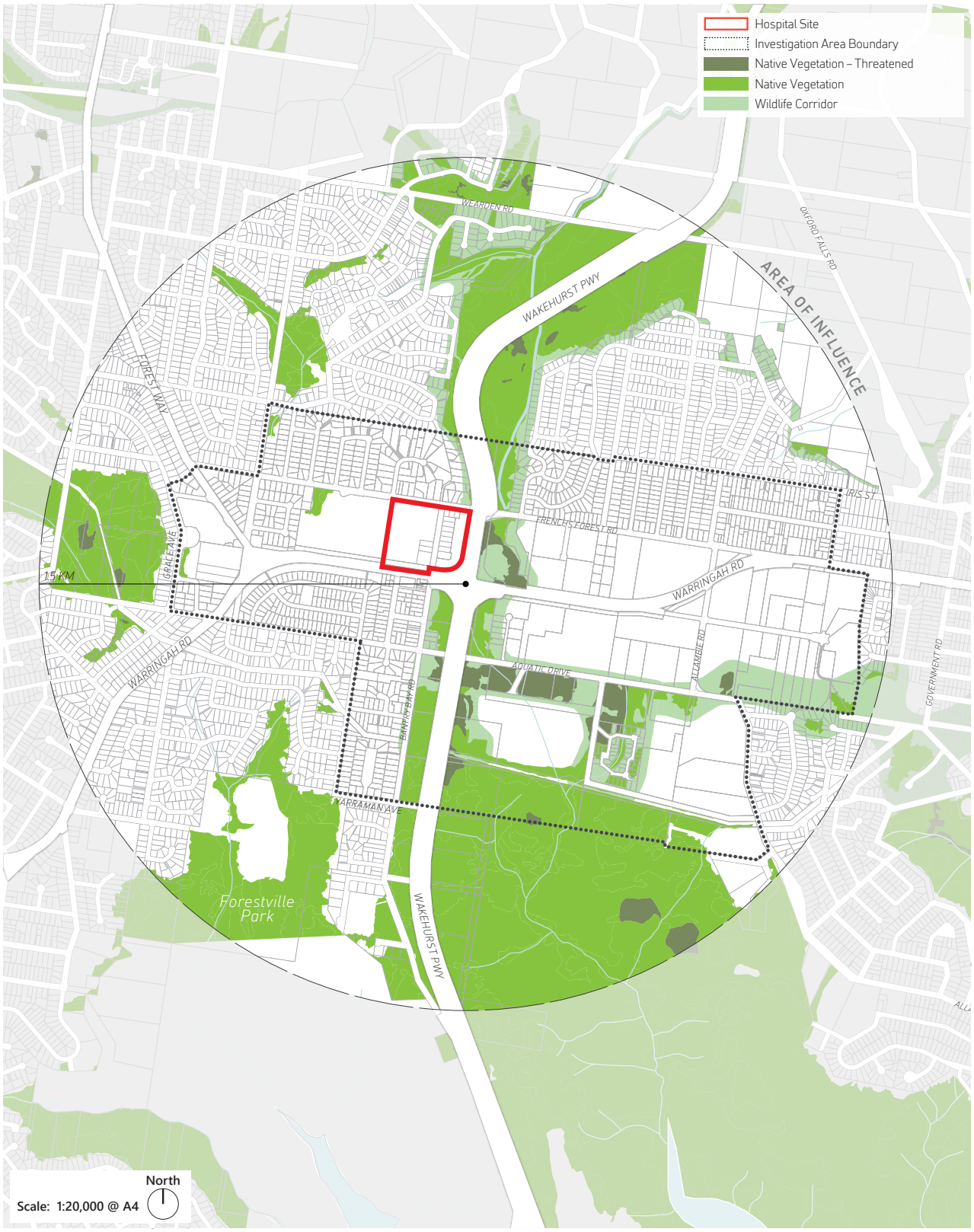
Vegetation - Regional

Warringah LGA is densely vegetated and contributes to its identify as a coastal and lifestyle destination and environment. Vegetation primarily responds to riparian corridors. Threatened vegetation is found primarily in the LGA around Dee Why Lagoon and Narrabeen Lakes.



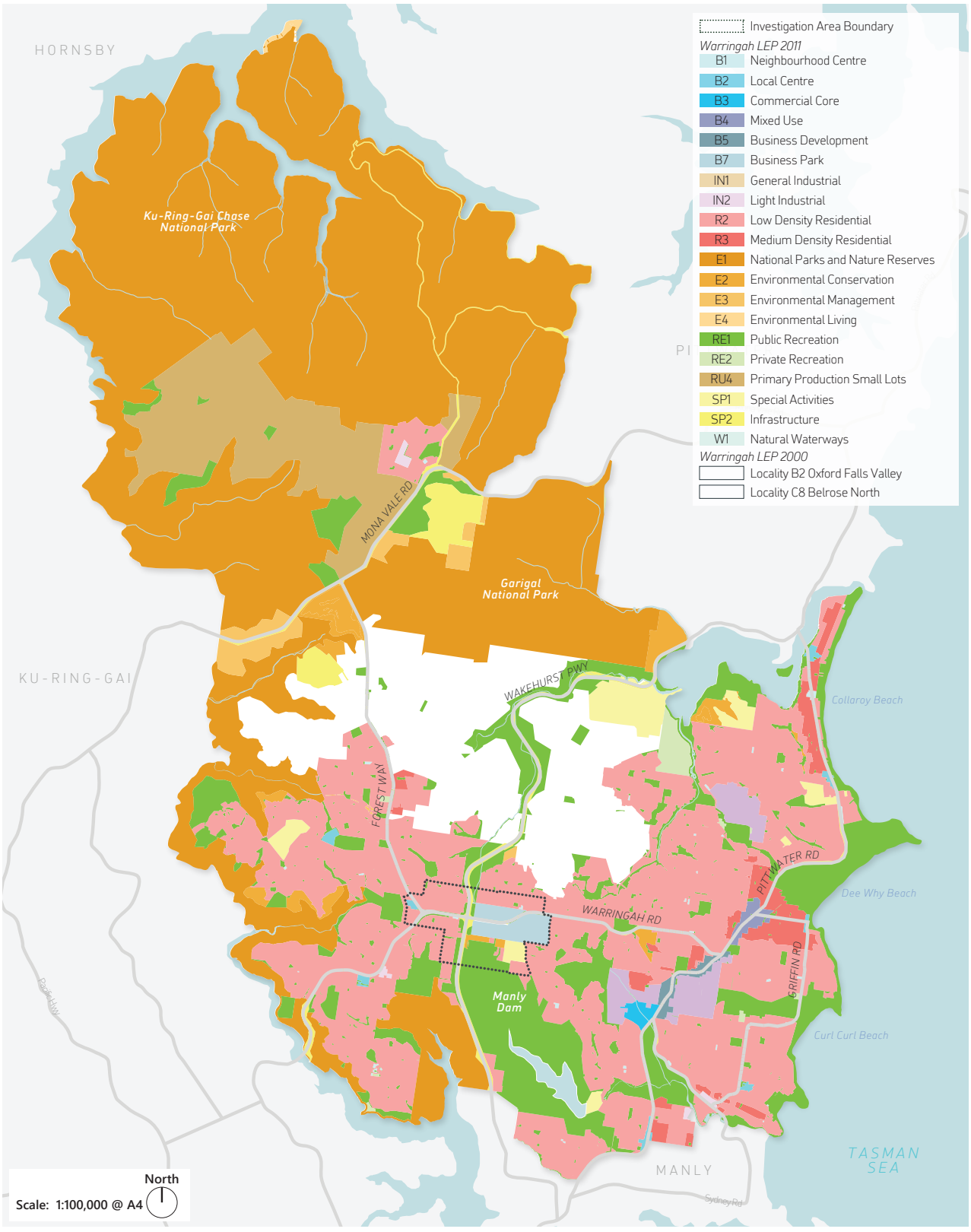
Vegetation - Precinct

The Wakehurst Parkway corridor is surrounded by native vegetation and is considered a wildlife corridor. This corridor contributes to a north-south regional open space network that links to the Northern Beaches.



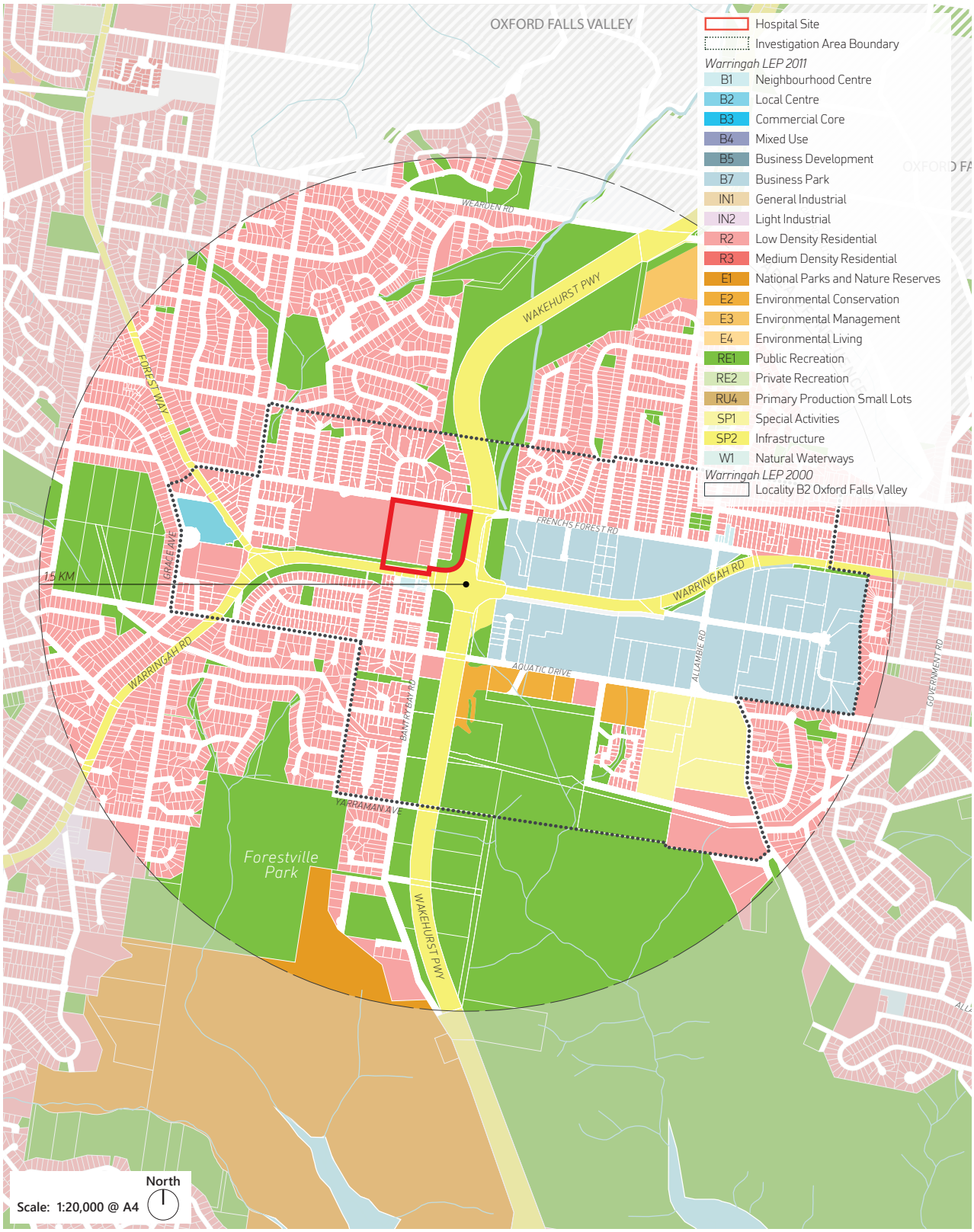
Zoning - Regional

Low Density Residential, National Parks and Reserves are the LGA's defining zoning classifications. Medium Density Residential is generally located to the east and within existing centres. The Business Park zoning at Frenchs Forest is of a significant scale with regional importance.



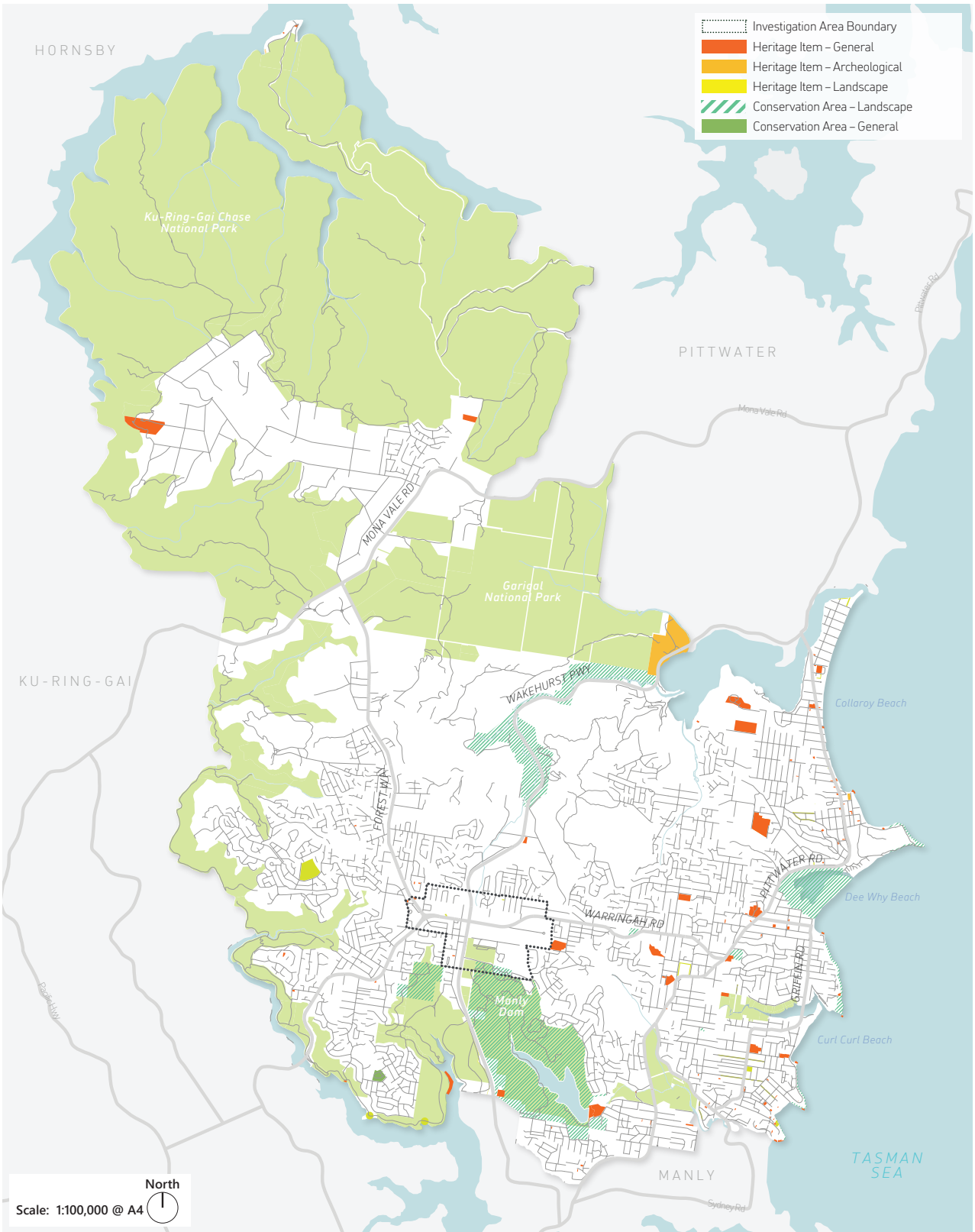
Zoning - Precinct

Existing zoning feature of the precinct is the Business Park. This is coupled with the neighbourhood centre at Forestway Shopping Centre and Special Activities in and around Sunnyfield. The dominant residential typology is low density residential. The new hospital will provide a significant catalytic land use to the precinct.



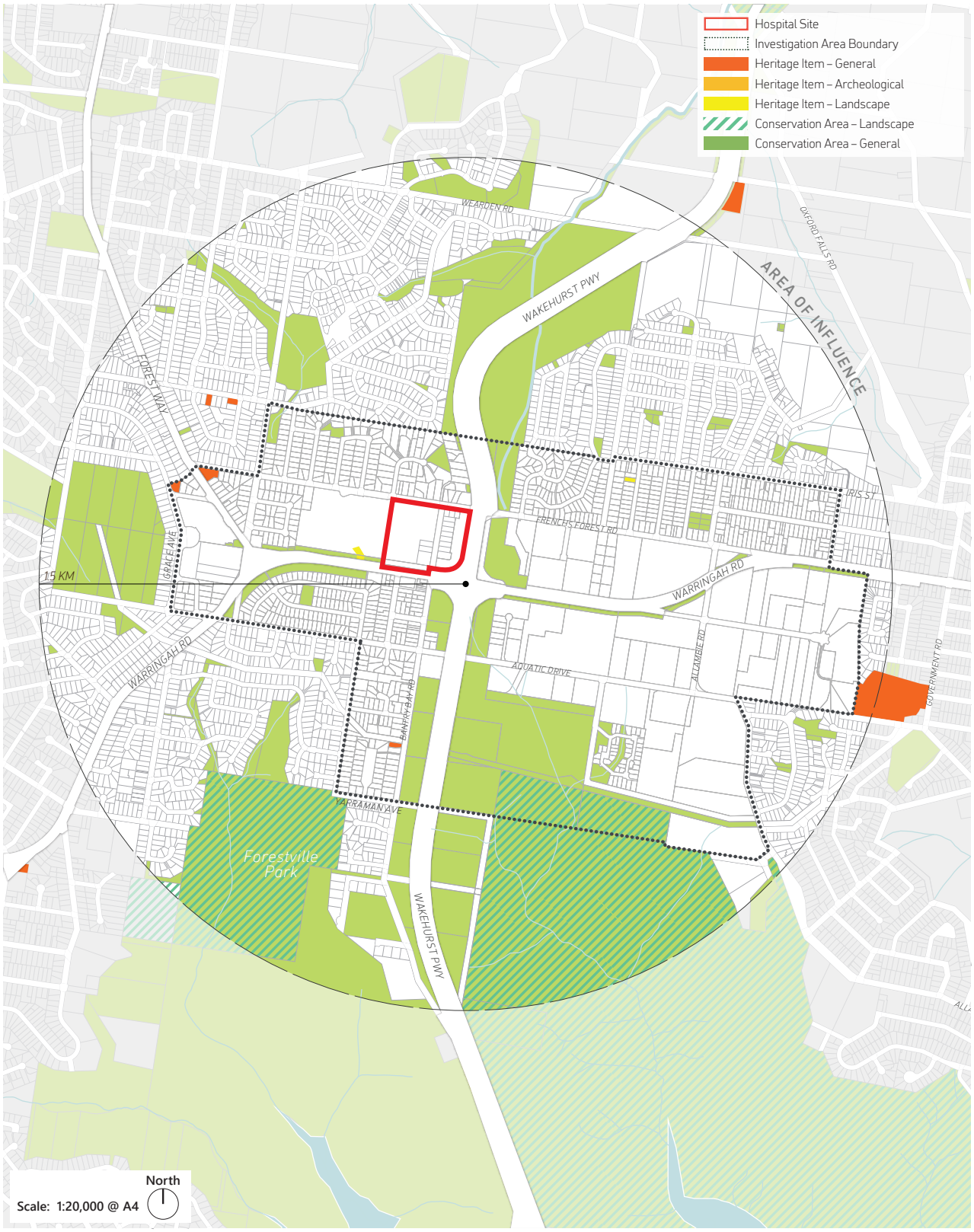
Heritage - Regional

Large scale heritage items within the Warringah LGA are generally associated with the National Parks. These include both archaeological and general classifications. Landscape conservation areas are also a dominant heritage feature of the LGA.



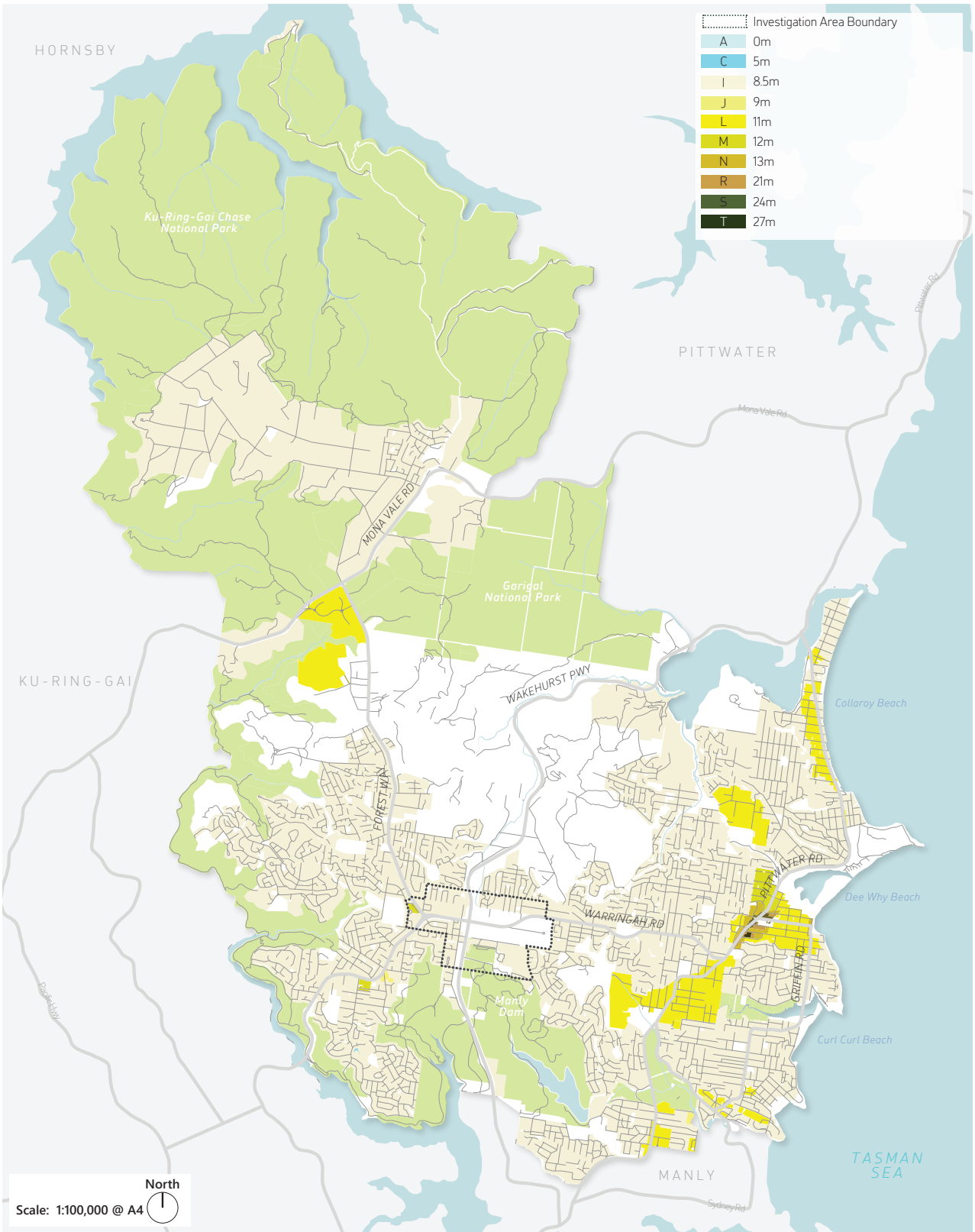
Heritage - Precinct

The precinct is bound to the south by landscape conservation areas which contribute to the identity of the precinct. General heritage items provide gateways and thresholds to the precinct to the east and west respectively. A number of heritage items, mostly landscape, are within the area of influence as well as a residential item.



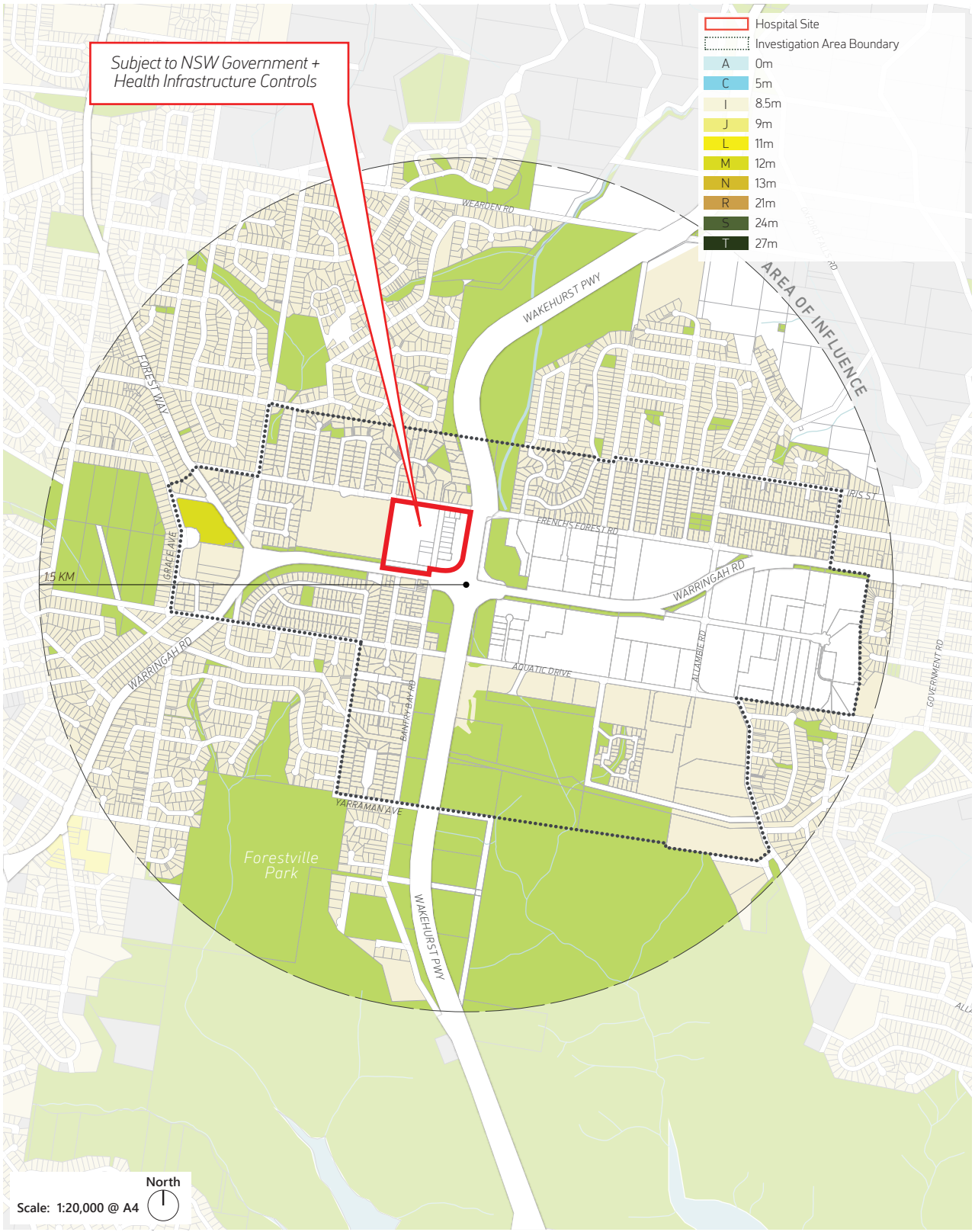
Building Height - Regional

Much of the LGA has low building height allowances. Taller building height is encouraged along Pittwater Road, including Brookvale and Dee Why. Other clusters of height are also permitted in and around existing economic centres and employment areas.



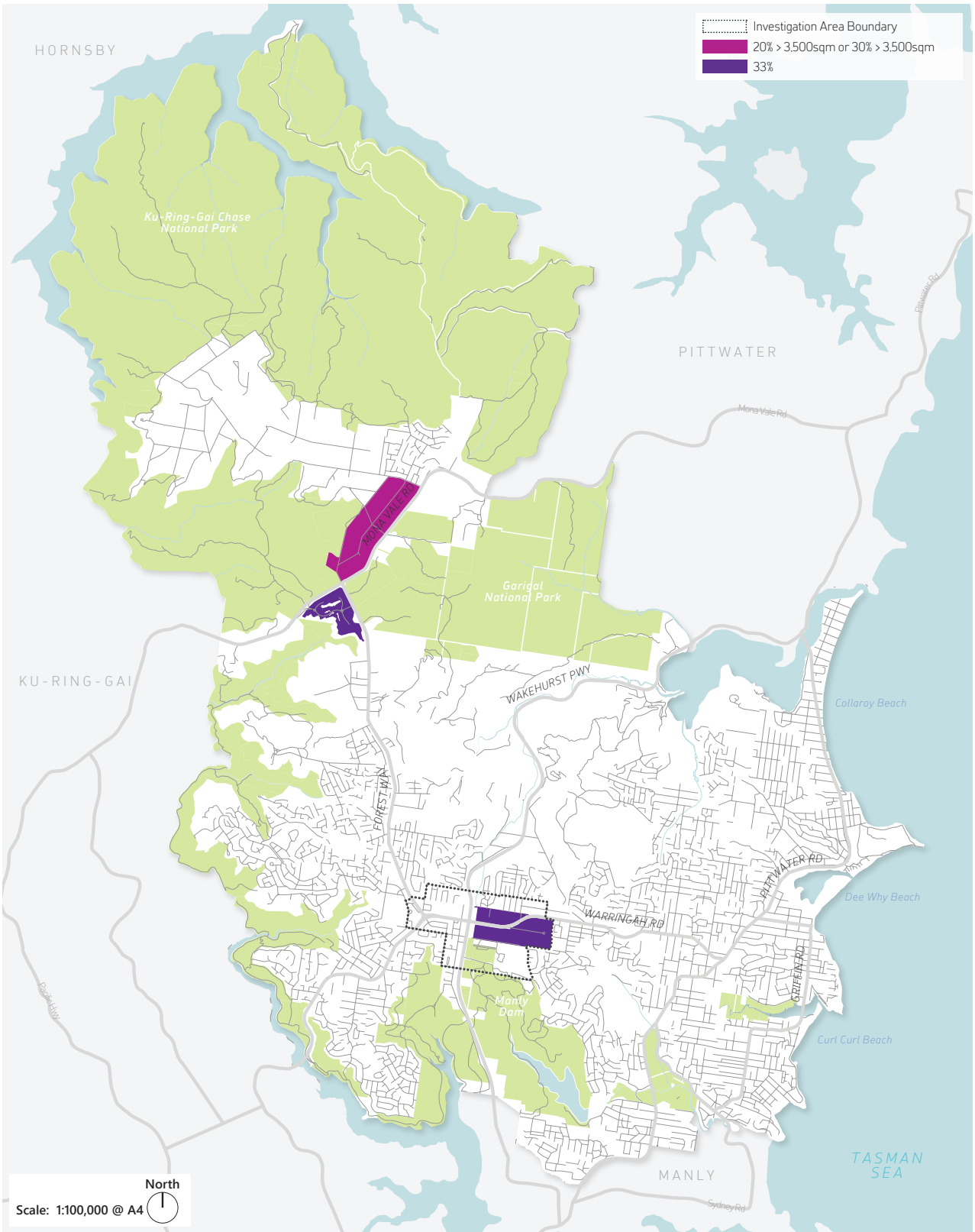
Building Height - Precinct

With the exception of the Forestway Shopping Centre, low building heights define the built character of the Investigation Area. Even the location of the precinct on a plateau at one of the highest topographical locations of the LGA, the opportunity exists to encourage building height without impact on surrounding areas and to take advantage of views. We note that there is no current height limit in the B7 Business Park Zone.



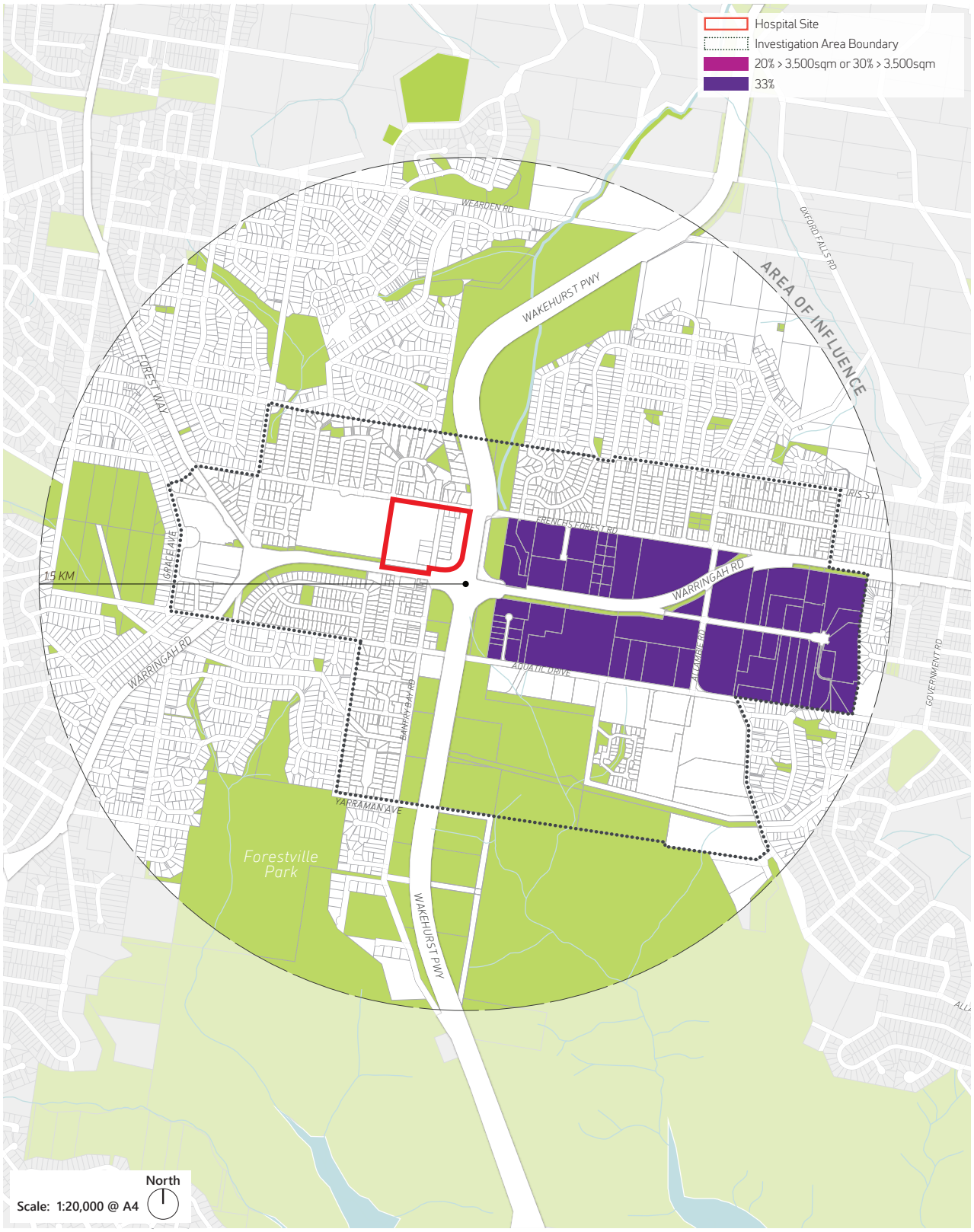
Site Coverage - Regional

The LGA regulates site coverage with respect to key features, notably along the Mona Vale Road wildlife corridor and at the Frenchs Forest business park and Austlink business park.



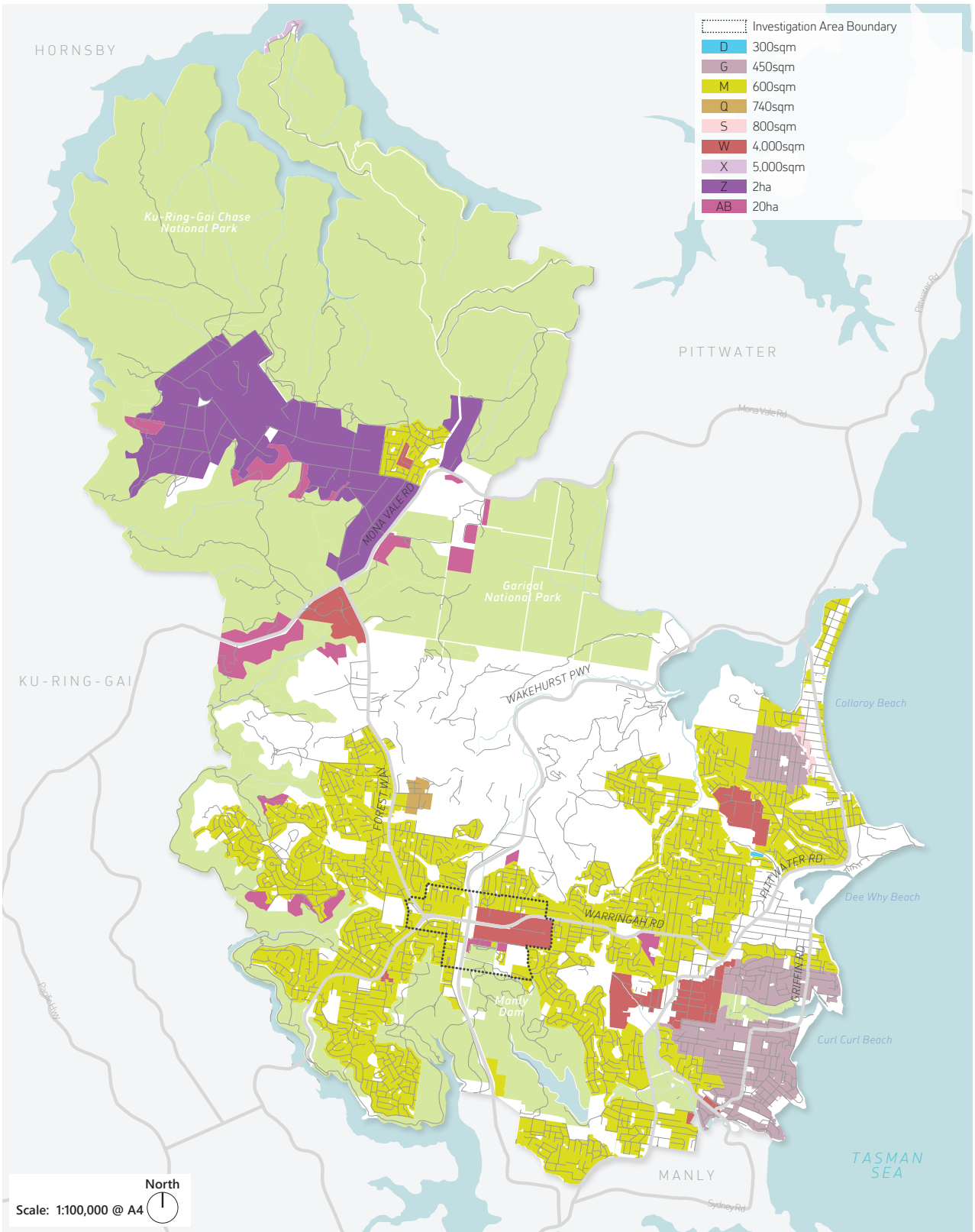
Site Coverage - Precinct

The Frenchs Forest business park features site coverage regulations of 33% reinforcing its suburban office park form currently. This corresponds with there being no height limit in the B7 Business Park Zone to encourage landscaping within the business park.



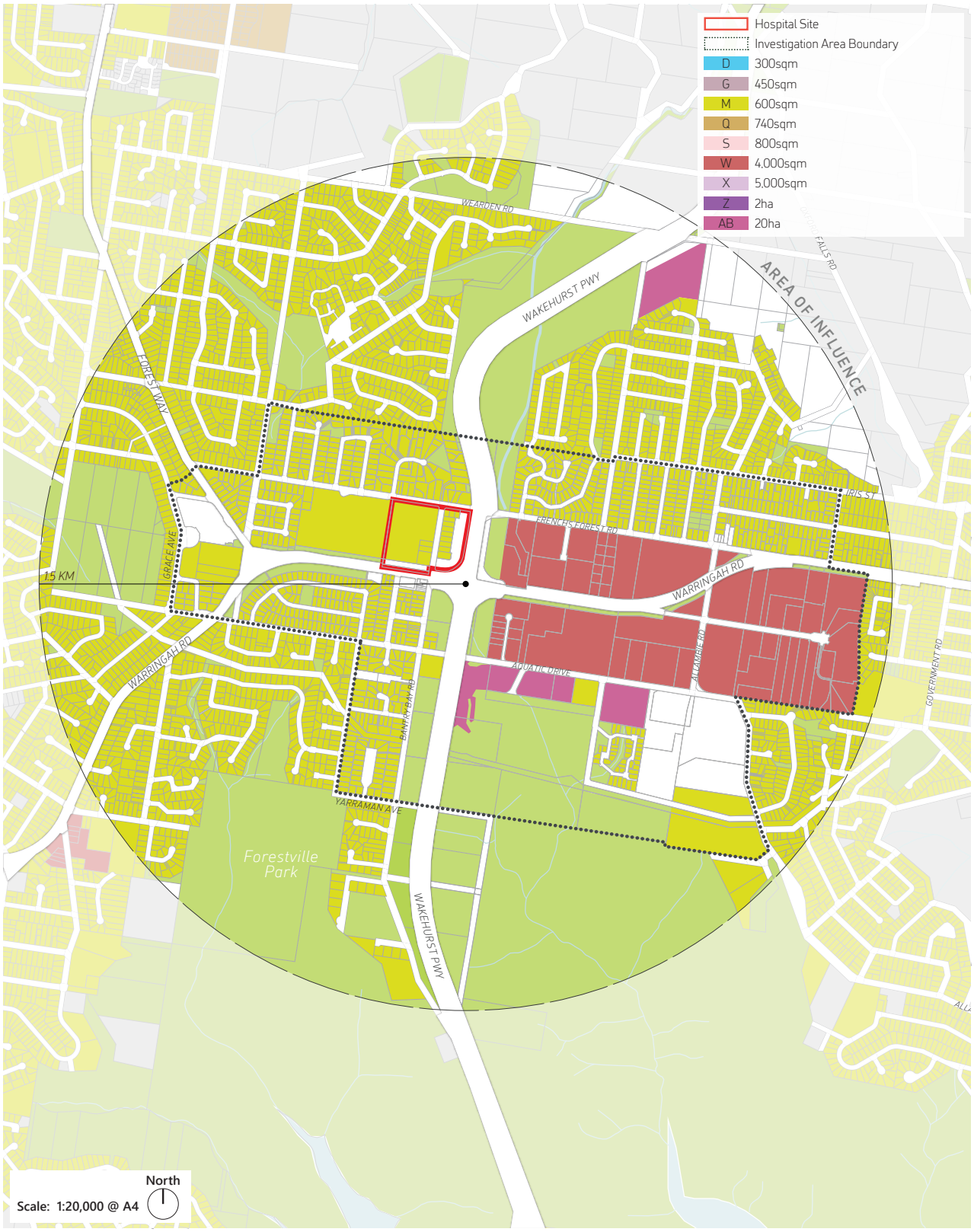
Lot Size - Regional

Larger lot classifications are concentrated in the north west amongst the national park system, while smaller lots are permitted along Pittwater Road to the east. The majority of lot size is 600sqm which provides a highly flexible structure for the LGA.



Lot Size - Precinct

Residential (600sqm) and business park (4,000sqm) lot sizes define the investigation area. This provides flexibility within the precinct.

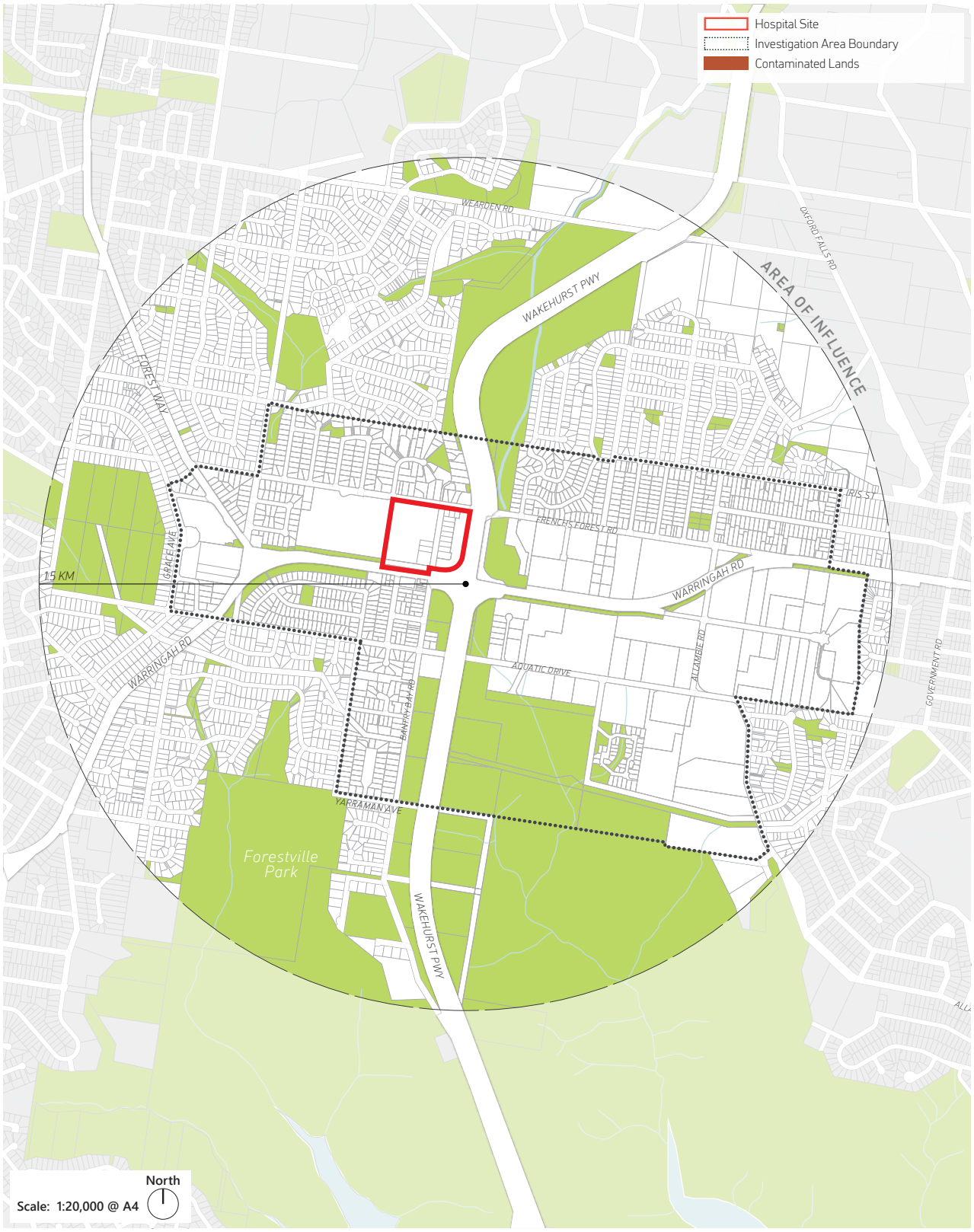


Contaminated Lands - Regional

A lack of contaminated lands in the Warringah LGA means the area's natural assets likely don't have historical legacies of being threatened by contamination. However, notable large parcels by Narrabeen Lakes are classified as contaminated, something particularly troublesome considering this area's designation as a Wildlife Corridor and Landscape Conservation Area.

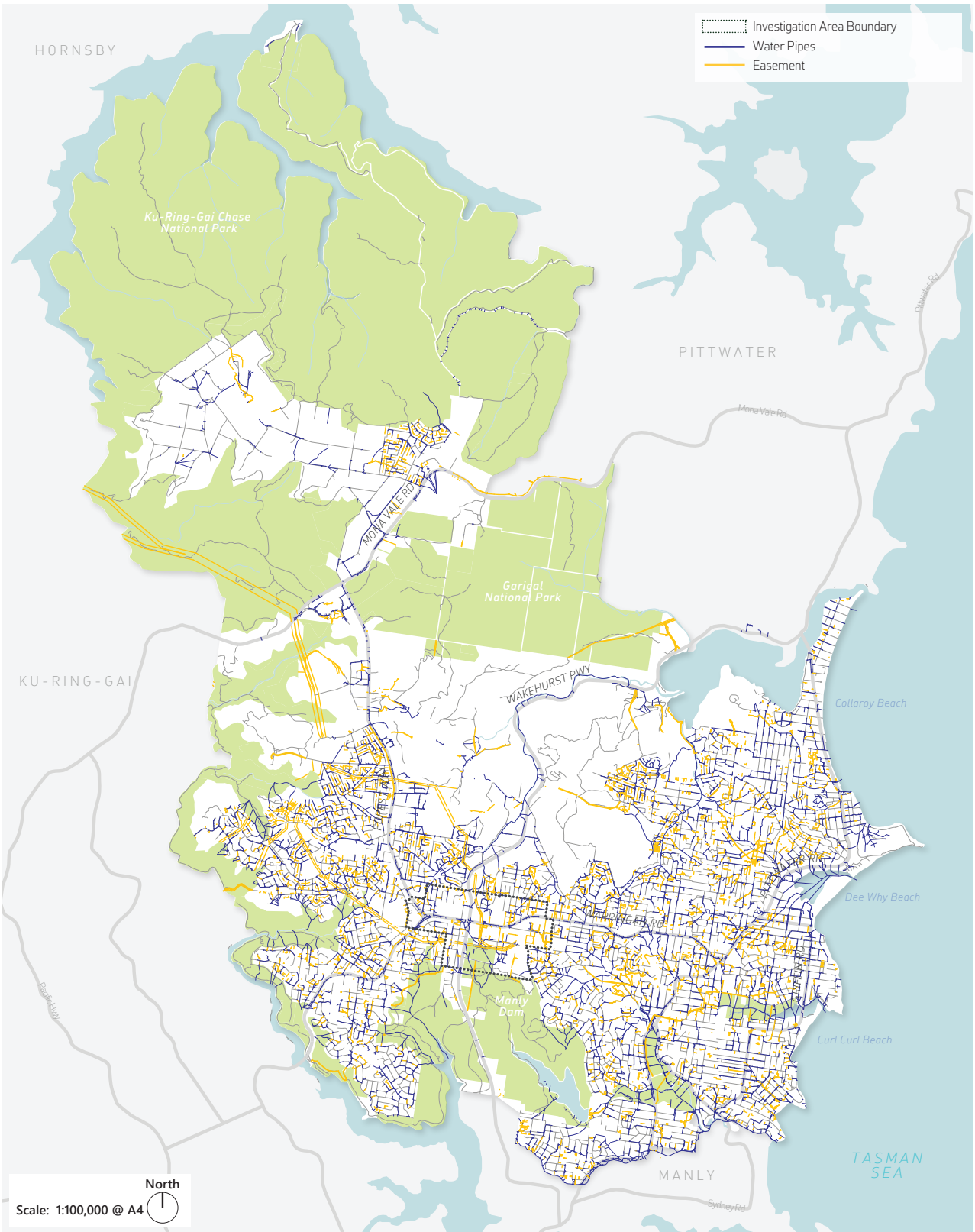
Contaminated Lands - Precinct

The Frenchs Forest area does not feature any contaminated lands parcels within its area of influence. There are three relatively small parcels of contaminated along Warringah Road to the south west of Frenchs Forest, approximately 2-2.5km from the hospital site.



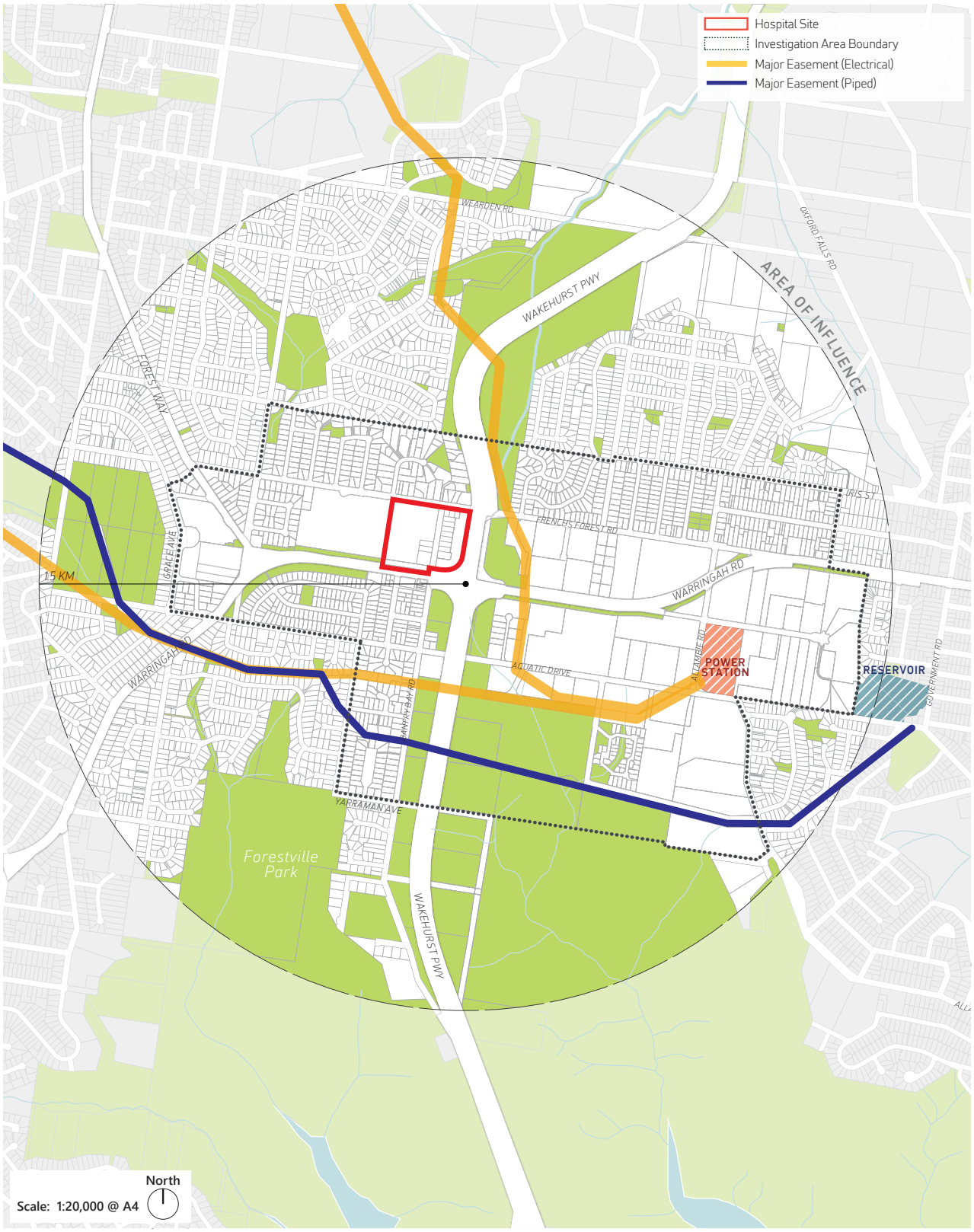
Major Utilities - Regional

Warringah's water pipe network adequately serves the residential and commercial precincts of the LGA, including all of Frenchs Forest. Major easements run throughout the entire LGA as well, but unlike the water pipe system, they do extend into the LGA's natural areas. Major easements can be found running through Ku-Ring-gai National Park and along Wakehurst Parkway near Frenchs Forest.



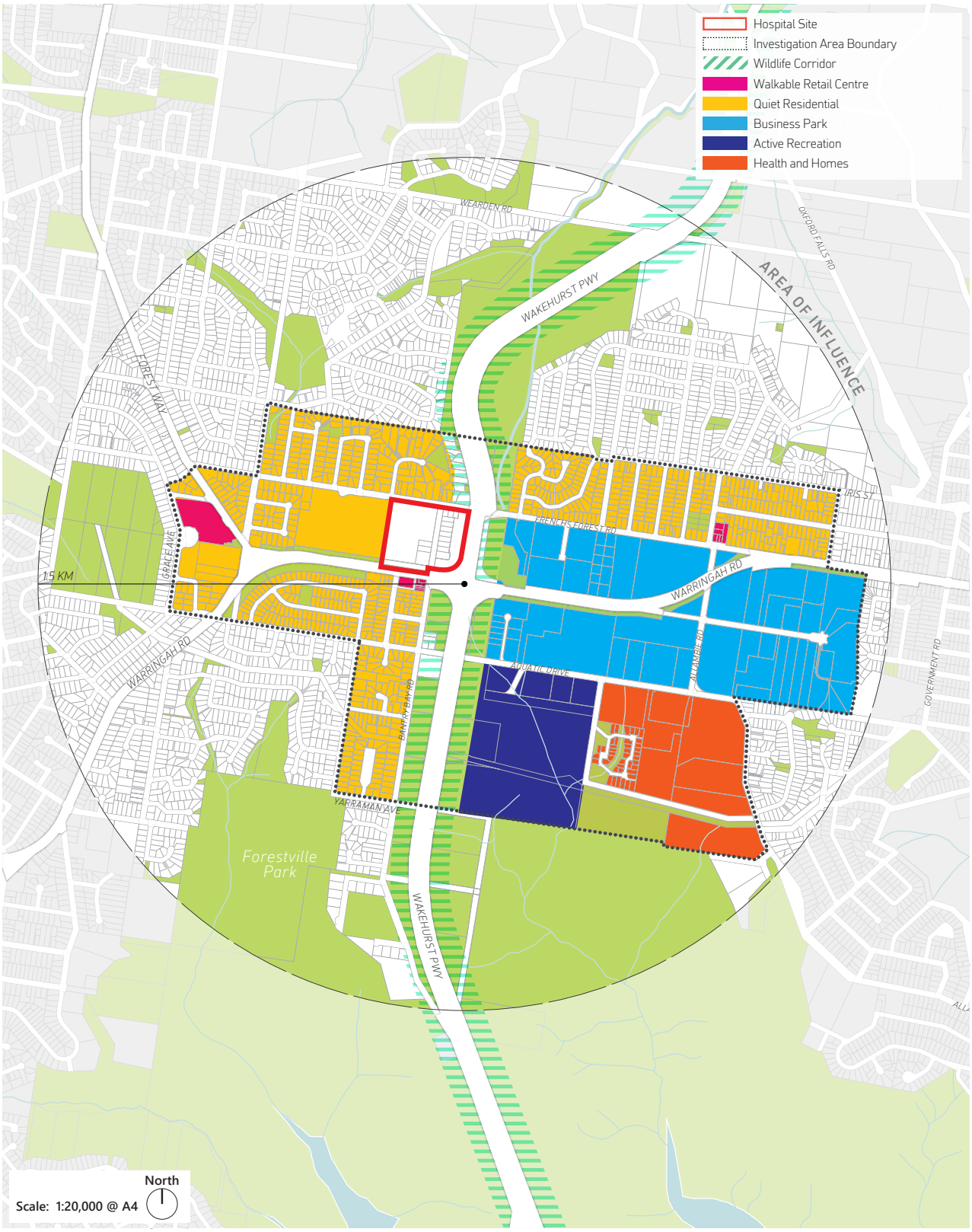
Major Utilities - Precinct

Electric easements emanate out of the power station at the northeast corner of Aquatic Drive and Allambie Road. Major easements run due west just south of Aquatic Drive as well as northwest along Wakehurst Parkway. The water pipe network takes on a typical pattern, serving the residential and commercial uses of the precinct.



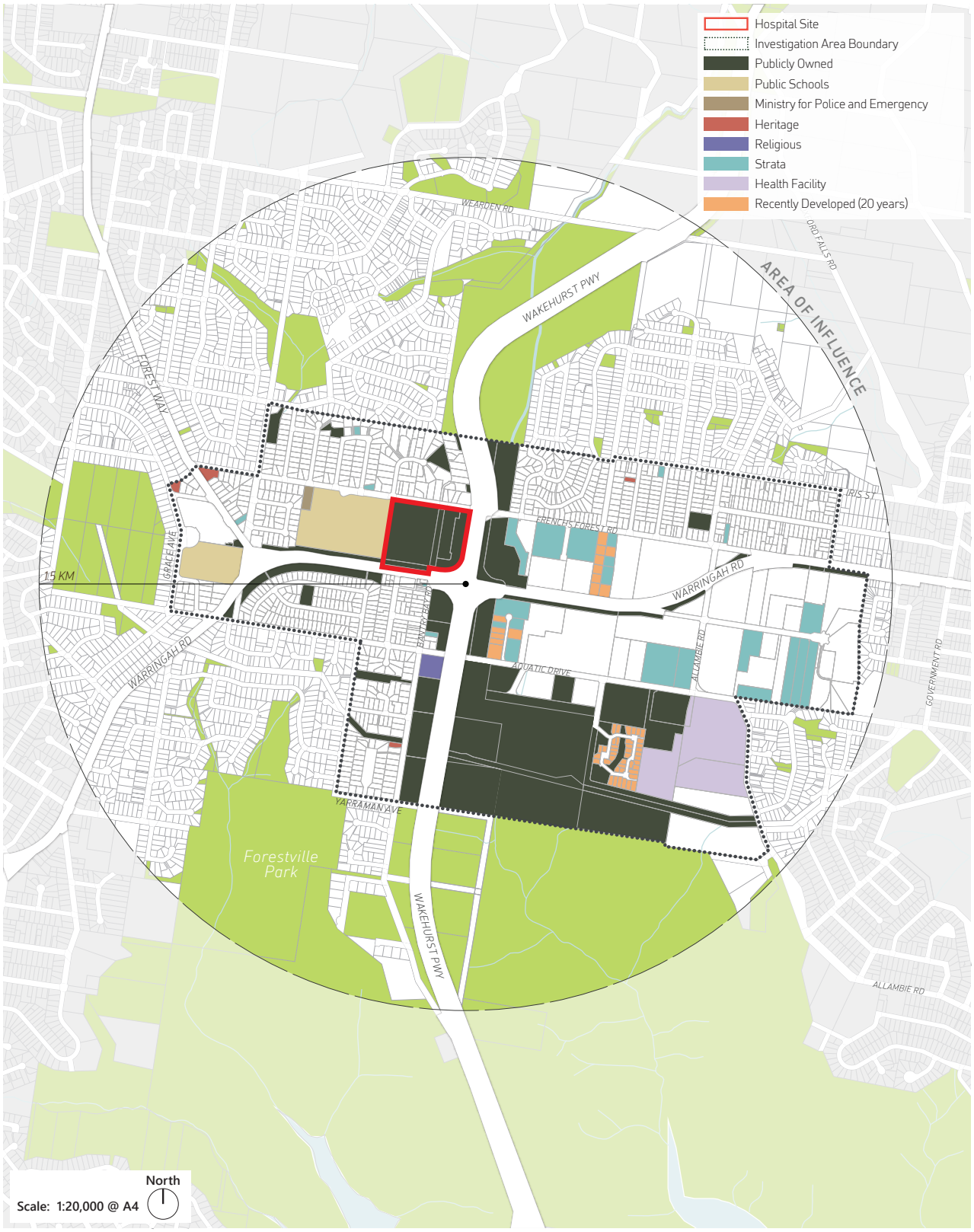
Character - Precinct

The character of the precinct is not uniform - various precincts within the investigation area have resulted in the planning of individual areas. The opportunity exists to introduce a precinct character that provides an holistic identity to the place.



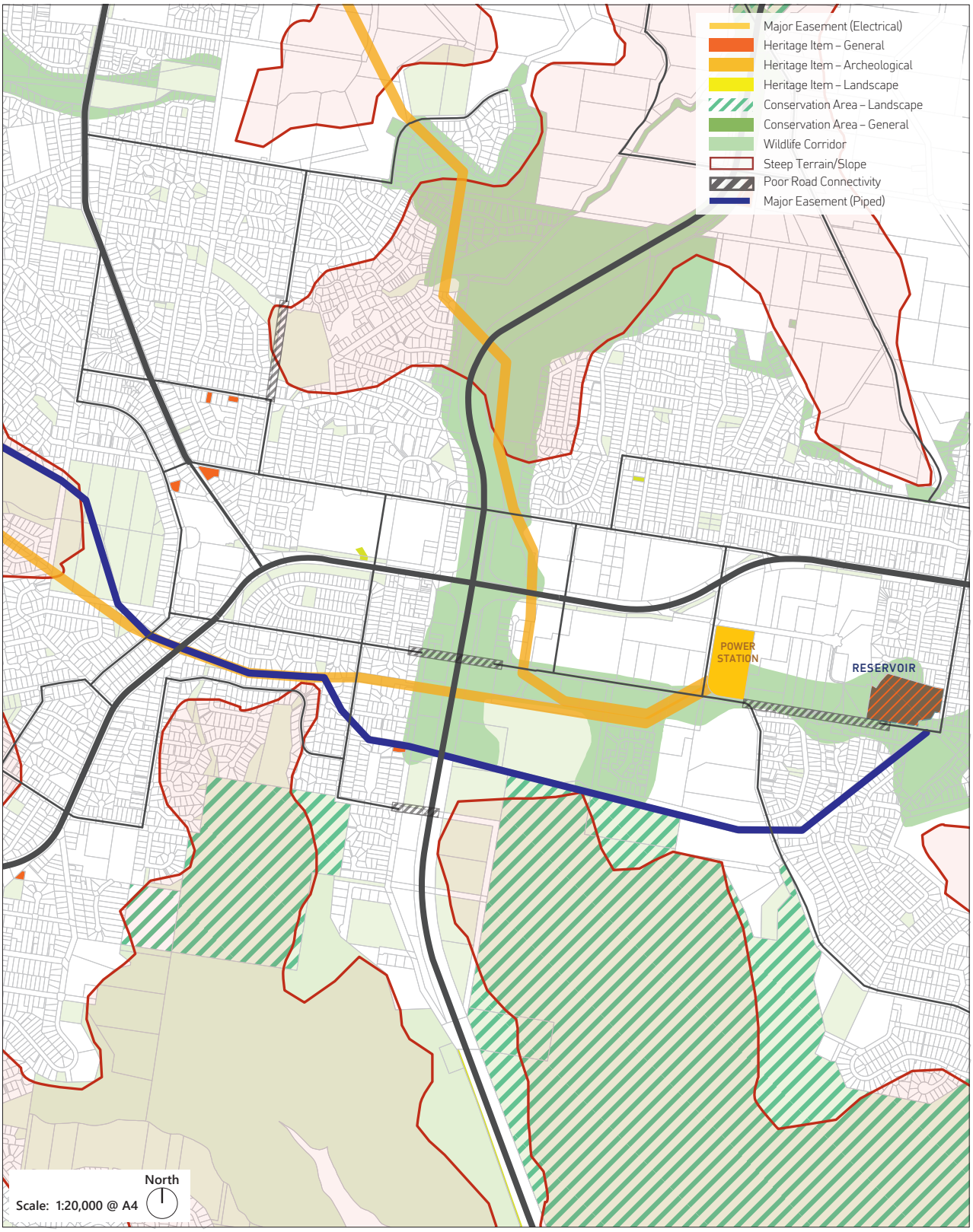
Ownership - Precinct

Dominating the ownership structure is Wakehurst Parkway and its associated publicly owned lands. Evident from the ownership mapping is the degree to which stratification exists within the business park. This needs to be carefully considered within the structure planning process.



Development Constraints

The intersection of Warringah Road and Wakehurst Parkway sits in the middle of a relatively flat plateau at one of the highest points in the LGA. Topographical challenges exist in all directions, most notably to the north and south along Wakehurst Parkway. The study area is also inhibited by growth due to numerous wildlife corridors, notably along Wakehurst Parkway, as well as numerous heritage items.



2.3 Hospital Context

This section provides an overview of the current context for the Northern Beaches Hospital. This includes information regarding the services to be provided, the operation model, the current planning status and the delivery time frame.

BACKGROUND

The Northern Beaches Hospital promises to be a world class health care facility. When completed in 2018, it will provide surgical, medical, maternity, paediatric, inpatient mental health services, and ambulatory care, as well as a large, modern emergency department.

Building a large centrally located hospital at Frenchs Forest means that more complex health care can be delivered to patients on the Northern Beaches. The hospital will be a long term partnership between Health Infrastructure and a successful hospital operator to establish the hospital as the foundation of health services provision in the Northern Beaches community.

This project is part of a broader Northern Beaches Health Service redevelopment project which will retain and redefine the existing Mona Vale Hospital to provide services complementary to those offered at the Northern Beaches Hospital and reconfigured Community Health Services to the region.

SERVICES

The Northern Beaches Hospital will accommodate around 488 beds and provide a range of services including:

- Emergency care and medicine;
- Critical care;
- Operating theatres;
- Maternity and neonatal services;
- Paediatric care;
- Mental health and drug and alcohol services;
- Renal medicine;
- Oncology;
- Ambulatory care;
- Primary health care; and
- Clinical and other support and associated administration.

A range of other services will also be available at the Northern Beaches Hospital including radiology, pathology, pharmaceutical and allied health services, as well as teaching, training and research.

OPERATION

The development of the Northern Beaches Hospital is being coordinated by a NSW health sector integrated delivery team made up of representatives from the Northern Sydney Local Health District, Ministry of Health, Health Infrastructure and NSW Treasury.

In May 2014, Ramsay Healthcare and Healthscope submitted proposals to design, construct, operate and maintain the hospital and the successful tenderer will be selected in late 2014. The preferred design will form the basis of the detailed Stage 2 application which will be lodged with the Department of Planning and Environment.

The successful hospital operator will contract with the NSW Government to design, build, operate and maintain the Northern Beaches Hospital. The successful private tenderer will enter into a long term contract with the NSW Government to deliver clinical and support services for public patients. Building construction is scheduled to start in 2015, with operation expected to commence in the second half of 2018.

The new hospital allows for the rationalisation and reconfiguration of community health services on the Northern Beaches, consistent with the North Sydney Local Health District's Strategic Plan. This will involve the establishment of a new community health centre at Mona Vale (presently a Level 4 Hospital) and new community health centre at Brookvale in the south, and enhanced child and family specialist services at Dalwood in Seaforth. The existing Level 4 Hospital at Manly will close.

Existing hospital services that service the Northern Sydney Local Health District are listed in the table below.

Table 2.3.1: Northern Sydney Local Health District Hospitals

Local Health District	Hospital	Emergency Service Level
Northern Sydney	Royal North Shore	Level 6
Northern Sydney	Hornsby Ku-ring-gai	Level 4
Northern Sydney	Manly	Level 4
Northern Sydney	Mona Vale	Level 4
Northern Sydney	Ryde	Level 3

PLANNING STATUS

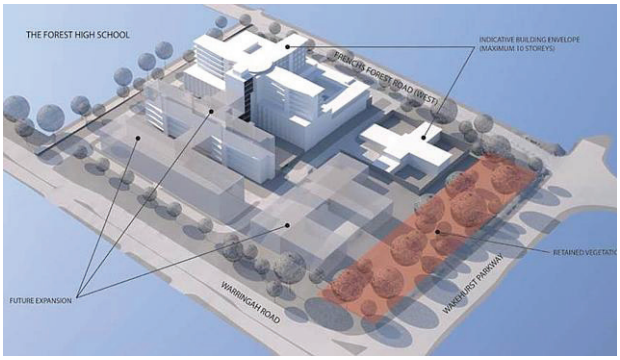
The Northern Beaches Hospital site has been declared as 'state significant infrastructure' and extends across all four quadrants of the Warringah Road and Wakehurst Parkway intersection. Approval for the hospital is being sought in two stages:

- The Stage 1 application, which has been approved by the NSW Department of Planning and Environment, sought approval for a concept proposal for the hospital and for biodiversity management work, which includes clearing the site and preparation for any future building. The Stage 1 application was released for public comment from 30 October to 28 November 2013. Health Infrastructure responded to feedback from submissions, particularly to do with biodiversity and traffic issues, in its final proposal.
- The Stage 2 application will seek approval for the detailed design, construction and operation of the hospital itself. This application has not yet been lodged with the department.

The Stage 1 concept plans for the Northern Beaches Hospital proposes development at the north western quadrant of the designated site only. This quadrant will accommodate the main hospital, mental health facilities and car parking. The developable portion of the north western quadrant is approximately 6.5 ha. This quadrant has been recently cleared, in readiness for construction.

An ability to expand the hospital's bed capacity by 30% is incorporated within the private operator contract. There is provision within the hospital grounds for future expansion, either in a vertical sense or along its Warringah Road frontage.

Figure 2.3.1: Northern Beaches Hospital Reference Scheme



DELIVERY TIME LINE

The successful hospital operator is due to be selected by Health Infrastructure in November 2014. Their Stage 2 application will go on public exhibition in February 2015 prior to being lodged with the Department of Planning and Environment. The successful hospital operator will be responsible for the design, construction, commissioning, operation and maintenance of all aspects of the Northern Beaches Hospital.

It is Health Infrastructure's expectation that the project will involve:

- A development phase during which the design and construction of the hospital will take place with construction scheduled to start in 2015 and operation expected to commence in the second half of 2018.
- A 40 year period which is comprised of an operating term during which the operator will deliver services to all patients for 20 years followed by a further period of 20 years during which the operator will continue to be entitled to deliver services from a portion of the facility to provide patients.

ASSOCIATED TRANSPORT UPGRADES

The NSW Government is planning to invest $400 million in road upgrades around the Northern Beaches Hospital with works scheduled to be completed in time for the hospital opening.

The road upgrades will provide a better travelling experience for vehicle and bus customers and increase road capacity. Roads and Maritime Services (RMS) is planning to deliver the road upgrades in two stages:

- Stage 1 – Essential access to the Northern Beaches Hospital.
- Stage 2 – Increase capacity of the surrounding road network and reduce congestion.

More detailed information on these improvements are outlined in Section 2.5 Transport Context.

CONTEXT WITH THIS REPORT

For the purposes of this report, analysis has been undertaken with respect to publicly available information at the time of writing and collaboration with health infrastructure as part of the formal stakeholder engagement process and working parties.

2.4 Economic Context

This section provides an overview of the economic context for the Hospital Precinct. This includes an analysis of what role the Northern Beaches Hospital can be expected to play in the precinct, a comparative analysis of other relevant hospitals as well as an economic framework for the current performance of the Frenchs Forest Business Park.

THE ROLE OF THE NORTHERN BEACHES HOSPITAL

In NSW, Local Health Districts (LHDs) and Specialty Networks are responsible for determining the appropriate role delineation of services for health care facilities. Role delineation responds to the needs of the population and takes into account the clinical networks within the LHD.

The role delineation level of a service describes the complexity of clinical activity undertaken by that service, and is significantly impacted by the presence of medical, nursing and other health care personnel who hold qualifications compatible with the defined level of service.

Levels range from Level 1 (the lowest complexity level of care) to Level 6 (the most complex of care). A clinical service must be supported by the presence of the related and necessary support services, e.g. a Level 6 neurosurgery service requires the support of Level 6 diagnostic imaging, anaesthetics, ICU and operating suites; Level 5 pathology, pharmacy, nuclear medicine; and a Level 4 coronary care unit.

The recently approved concept plan for the Northern Beaches Hospital comprises a Level 5 Hospital with a gross floor area of approximately 70,000sqm over six to ten storeys with ancillary retail floor space and car parking facilities.

JOBS IN THE PRECINCT

Warringah Council's Economic Development Plan suggests that the Hospital Precinct may accommodate up to 12,000 to 17,000 additional jobs (including 5,000 hospital jobs). This indicative job target represents a tripling of the current jobs provision within the Frenchs Forest Business Park, which accommodated about 6,400 jobs as at the 2011 Census.

The approved concept plans for the Northern Beaches Hospital suggest that the project will support around 1,000 operational jobs. It is likely this number will be slightly higher, in line with other similarly sized hospitals and with regard to the full range of ancillary services expected to be offered.

Additionally, about 300 to 400 mental health staff presently located at Mona Vale Hospital will transfer across to the Northern Beaches Hospital. It is therefore likely that an operational level of employment at the Northern Beaches Hospital to be in the order of 1,500 – 1,900 full time equivalent (FTE) employees.

COMPARISON WITH OTHER HOSPITALS

A range of established, new and developing hospital precincts from around Australia can be compared with the Northern Beaches Hospital to better understand the likely operational nature of it and the likelihood of ancillary medical uses to be attracted to its precinct.

Generally, most major hospitals across metropolitan Sydney comprise a land take of less than 20 hectares. The same applies to metropolitan hospitals in Melbourne and South East Queensland. The Royal North Shore Hospital Precinct at St Leonards, including both private and public hospitals, occupies around 11 hectares of land. The Westmead Campus, which includes public, private, specialist facilities and accommodation, occupies a site of almost 60 hectares in area.

Typically, supporting medical uses are located within the defined boundaries of specific medical and hospital precincts. This includes outpatient services, private hospitals, medical consulting suites, mental health facilities and other allied health services.

New state-of-the-art hospitals do not typically set aside surrounding land for supporting ancillary services. For example, the 20 hectare Kawana Health Campus will incorporate the Sunshine Coast Public University Hospital and its related Skills, Academic and Research Centre (SARC), a collocated Sunshine Coast University Private Hospital and opportunities for health related commercial developments. The Sunshine Coast Public University Hospital will open with about 450 beds in 2016, with an ability to grow to over 730 beds. It can be expanded to 900 beds beyond 2021 if needed.

A land area comparison with other relevant hospital precincts is provided on the next page and details the level, land area, number of floors, number of beds and services provided in the hospital precinct.

Table 2.4.1: Hospital Precincts in Metropolitan Sydney

Hospital	Grade or Level^	Land Area (Ha)*	No. of Floors**	No. of Beds	Health Precinct
Northern Beaches Hospital	L5	21.5	n/a	488	Emergency, critical care, acute inpatient, maternity, neonatal, paediatrics, mental health, outpatient and subacute services
Westmead***	L6	59.2	7-8	925	Burns, cancer, coronary, dialysis, elective surgery, emergency, geriatric, hospice, intensive care, neonatal intensive care, obstetrics, outpatient, psychiatric and rehabilitation
Nepean	L5	13.9	3-5	500+	Cancer, coronary, elective surgery, emergency, geriatric, intensive care, neonatal intensive care, obstetrics, outpatient, paediatrics, psychiatric and rehabilitation
Hornsby Ku-ring-gai	L4	6.6	8-10	200-500	Cancer, coronary, elective surgery, emergency, geriatric, intensive care, obstetrics, outpatient, paediatrics, psychiatric and rehabilitation
San Hospital	L4	14.8	8-10	500+	Chemotherapy, coronary, dialysis, elective surgery, emergency, hospice, geriatric, intensive care, obstetrics, oncology, paediatrics and rehabilitation
Liverpool	L6	15.1	7-8	500+	Cancer, coronary, dialysis, elective surgery, emergency, geriatric, intensive care, neonatal intensive care, obstetrics, oncology, outpatient, paediatrics, psychiatric, and rehabilitation
Ryde	L3	5	2-3	100-200	Cancer, coronary, elective surgery, emergency, geriatric, obstetrics, outpatient and rehabilitation
Royal North Shore****	L6	11.1	5-12	800-1,000	Burns, cancer, coronary, dialysis, elective surgery, emergency, geriatric, intensive care, neonatal intensive care, obstetrics, outpatient, paediatrics, outpatient and rehabilitation
Prince of Wales #	L6	13.3	6-10	800+	Emergency, obstetrics, oncology, intensive care, elective surgery, neonatal intensive care, paediatrics, outpatient and rehabilitation
Norwest Private ##	L3	2.4	3-4	200+	Emergency, angiography, intensive care, cardiac, oncology, special care nursery, obstetrics, plastic surgery, outpatient
Average	**-**	**16.6**	**n/a**	**n/a**	

* *Areas are approximate, measured from aerial images.*
** *Number of floors are approximate, measured from photos.*
*** *Includes Westmead Hospital, Westmead Private, Skin and Cancer Foundation of Australia and the Children's Hospital.*
**** *Includes Royal North Shore Public and Private Hospital.*
\# *Includes Prince of Wales Public, Prince of Wales Private, Sydney Children's Hospital and the Royal Hospital for Women.*
Includes Norwest Private, Resimed medical manufacturer, medical and dental suites.
^ *Hospital level / grade was derived from the NSW Health Role Delineation Levels publication.*

Source: MacroPlan Dimasi and NSW Health.

SURROUNDING LAND USES

The typical mix of land uses surrounding hospitals across metropolitan Sydney is quite broad and generally includes only limited medical related businesses. Table 2.4.2 shows the mix of land uses that surround established hospital precincts across Sydney. The mix is varied and includes residential; regional or subregional shopping centres; strip retail; bulky goods retail; industrial; office and commercial centres; schools and universities; and small scale medical services.

Hospital related services (e.g. cleaning services, catering, accommodation) outside the hospital precincts are quite sporadic and their land/space requirements tend to be minor in comparison to the nearby hospital precinct.

A summary of surrounding medical uses at four selected hospitals across metropolitan Sydney is provided to describe how the areas surrounding these hospitals include a range of small scale medical services, cumulatively providing between 5,000sqm and 7,000sqm of floor space.

Many of these uses would typically be attracted to their respective locations regardless of a hospital presence, as medical services and supplies will tend to gravitate to well located business precincts that offer a catchment or distribution advantage.

It is worth nothing, for instance, the presence of several medical related services and supply facilities proximate to the Northern Beaches Hospital. Even without a hospital, several medical services have chosen to locate at Frenchs Forest. The location of these businesses within the adjacent Frenchs Forest Business Park is also mapped.

Table 2.4.2: Surrounding Land Uses for Hospital Precincts in Metropolitan Sydney

Hospital	Grade or Level^	Land Area (Ha)*	No. of Floors**	No. of Beds	Surrounding Land Uses
Northern Beaches Hospital	L5	21.5	n/a	488	Commercial (e.g. Skyline Business Park), light industrial (e.g. Enterprise Industrial Estate), and residential
Westmead***	L6	59.2	7-8	925	Business services (e.g. real estate), industrial (e.g. Coca Cola), general retail (e.g. takeaway store), prison, education, mixed use and residential
Nepean	L5	13.9	3-5	500+	Industrial (e.g. pool and spas), ancillary medical services (e.g. general practitioner), general retail (e.g. supermarket) and residential
Hornsby Ku-ring-gai	L4	6.6	8-10	200-500	Ancillary medical services (e.g. physiotherapist), industrial and residential
San Hospital	L4	14.8	8-10	500+	Business services (e.g. real estate), school, general retail (e.g. supermarket), retirement living and residential
Liverpool	L6	15.1	7-8	500+	Retail (e.g. Westfield Liverpool), industrial (e.g. Scrivner Street Industrial Park), education (e.g. Liverpool Boys High School) and residential
Ryde	L3	5	2-3	100-200	Residential
Royal North Shore****	L6	11.1	5-12	800-1,000	Business services (e.g. Australia Post), ancillary medical services (e.g. general practitioner), industrial, office, bulky goods (e.g. Reece Plumbing), general retail (e.g. supermarket) and residential
Prince of Wales #	L6	13.3	6-10	800+	General retail (e.g. Royal Randwick Shopping Centre), school (e.g. Randwick Girls High School), ancillary medical services (e.g. general practitioner), tertiary education (e.g. University of NSW) and residential
Norwest Private ##	L3	2.4	3-4	200+	General retail (e.g. Circa Retail Centre and supermarket), medical product manufacturers (e.g. Resmed), ancillary medical services (e.g. doctors and orthodontics centre), bulky goods (e.g. Bunnings), business park and residential
Average	**-**	**16.6**	**n/a**	**n/a**	

* *Areas are approximate, measured from aerial images.*
** *Number of floors are approximate, measured from photos.*
*** *Includes Westmead Hospital, Westmead Private, Skin and Cancer Foundation of Australia and the Children's Hospital.*
**** *Includes Royal North Shore Public and Private Hospital.*
\# *Includes Prince of Wales Public, Prince of Wales Private, Sydney Children's Hospital and the Royal Hospital for Women.*
Includes Norwest Private, Resimed medical manufacturer, medical and dental suites.
^ *Hospital level / grade was derived from the NSW Health Role Delineation Levels publication.*

Source: MacroPlan Dimasi and NSW Health.

Table 2.4.3: Surrounding Medical Related Uses for Select Hospitals in Metropolitan Sydney

Hospital Precinct	Address	Services	GLA (sqm)
Royal North Shore Hospital*			**5,050**
Forum Medical Centre	Forum Herbert Street, St Leonards	Doctors-Medical Practitioners	350
RNS Community Health Centre	2C Herbert Street, St Leonards	Doctors-Medical Practitioners	300
St Leonards Medical Centre	34 Pacific Highway, St Leonards	Doctors-Medical Practitioners	450
Medical Suites	60 Pacific Highway, St Leonards	Imaging Centre / Doctors-Medical Practitioners	600
Castlereagh Imaging	61 Pacific Highway, St Leonards	Imaging Centre	700
North Shore Medical Centre	66 Pacific Highway, St Leonards	Doctors-Medical Practitioners	2,000
Dr Michael O'Shea	110 Pacific Highway, St Leonards	Doctors-Medical Practitioners	300
Dr Allan Young	201/156 Pacific Highway, St Leonards	Shoulder Surgeon	350
Prince of Wales Hospital			**6,850**
Randwick Hand Surgery	227 Avoca Street, Randwick	Doctors-Medical Practitioners	450
Medical Suites	30 High Street, Randwick	Doctors-Medical Practitioners	1,850
Medical Suites	35 High Street, Randwick	Doctors-Medical Practitioners	200
Medical Suites	50 High Street, Randwick	Doctors-Medical Practitioners	300
Randwick Vein Centre	60 High Street, Randwick	Doctors-Medical Practitioners	350
Private Office	66 High Street, Randwick	Doctors-Medical Practitioners	2,850
Rhinoplasty Clinic	70b/73 Belmore Road, Randwick	Doctors-Medical Practitioners	250
Dr Simon Chalkley	151 Belmore Road, Randwick	Doctors-Medical Practitioners	250
Randwick Eye Centre	24 Blenheim Street, Randwick	Doctors-Medical Practitioners	350
Hornsby Hospital			**6,350**
Wahroonga Podiatry	87 Burdett Street, Hornsby	Doctors-Medical Practitioners	450
Naturopath	1/41 Palmerston Road, Hornsby	Doctors-Medical Practitioners	500
Audio Centre	42 Palmerston Road, Hornsby	Doctors-Medical Practitioners	500
Private Office	44 Palmerston Road, Hornsby	Imagining / Medical Centre	1,000
Specialist Rooms	46 Palmerston Road, Hornsby	Doctors-Medical Practitioners	850
Connect Radiology	47 Palmerston Road, Hornsby	Imagining Centre	600
AMSC Live Better	49 Palmerston Road, Hornsby	Doctors-Medical Practitioners	450
San Day Surgery	1a Northcote Road, Hornsby	Private Hospital	2,000
Nepean Hospital			**6,650**
Dr Sulman Ahmed	1 Hope Street, Penrith	Doctors-Medical Practitioners	450
Medical Suites	58 Derby Street, Penrith	Doctors-Medical Practitioners	1,150
Medical Suites	59 Derby Street, Penrith	Doctors-Medical Practitioners	500
Medical Suites	60 Derby Street, Penrith	Doctors-Medical Practitioners	500
Medical Suites	61 Derby Street, Penrith	Doctors-Medical Practitioners	500
Medical Suites	62 Derby Street, Penrith	Doctors-Medical Practitioners	500
Medical Suites	63 Derby Street, Penrith	Doctors-Medical Practitioners	500
Medical Suites	64 Derby Street, Penrith	Doctors-Medical Practitioners	500
Medical Suites	65 Derby Street, Penrith	Doctors-Medical Practitioners	500
Medical Suites	66 Derby Street, Penrith	Doctors-Medical Practitioners	500
Medical Suites	67 Derby Street, Penrith	Doctors-Medical Practitioners	500
Derby Street Medical Centre	68 Derby Street, Penrith	Doctors-Medical Practitioners	550

** Includes area along Herbert Street and Pacific Highway.*
Source: MacroPlan Dimasi.

Figure 2.4.1: Existing Medical Facilities in the Hospital Precinct

FRENCHS FOREST BUSINESS PARK

The Frenchs Forest Business Park is an important commercial and industrial area for the Northern Beaches locality. Major land owners within the estate include Goodman, Mirvac, LGSS, CVC Trinity, AIMS and some smaller private groups. Some of the major occupiers/ owners include Miele, Kellogg, Kennards, Yum, Starbucks, Virgin Active, Outotec, Dell, Australia Post, Infotech, Sky Channel, Ramsay Healthcare and Gotch and Gotch.

Although serviced by several bus routes, public transport links to the business park are relatively poor. Also, the park is distant from Sydney airport. The business park's poor connection to public transport undermines its ability to draw and retain labour resources from broader Sydney. As such, the business park is often overlooked by potential national and international business tenants. It is regarded by most major investors and occupiers as a 'secondary' location.

Tenants who are considering Frenchs Forest will also consider surrounding areas such as Brookvale, Macquarie Park, Belrose, Cromer, Chatswood and Mt Kuring-gai. Two prominent occupiers who have recently relocated out of Frenchs Forest include NEC and Ricoh.

In its present state, whilst accommodating some large manufacturers and office tenants, the Frenchs Forest Business Park primarily functions as an important business incubator location for small-medium (SME) sized businesses. 74% of estate tenancies occupy space of less than 2,000sqm. Generally, these SMEs have a local employee base and service a local market.

Importantly, as these small businesses grow, they tend to move to more centrally located employment areas, e.g. Chatswood, Gordon, St Leonards, Macquarie Park and Norwest.

Some key statistics for the Business Park include:

- 39% of occupied businesses (50% of floor space) at Frenchs Forest are industrial related (i.e. warehousing/wholesaling/ manufacturing). 25% are office/commercial, with medical related (16%) and technology/research (13%), the next largest current uses within the estate.
- About 87.5% of office businesses are SMEs; about 85% of medical businesses are SMEs.
- About 60% of large floor plate businesses are industrial related.

Figure 2.4.2: Size of Businesses (%)

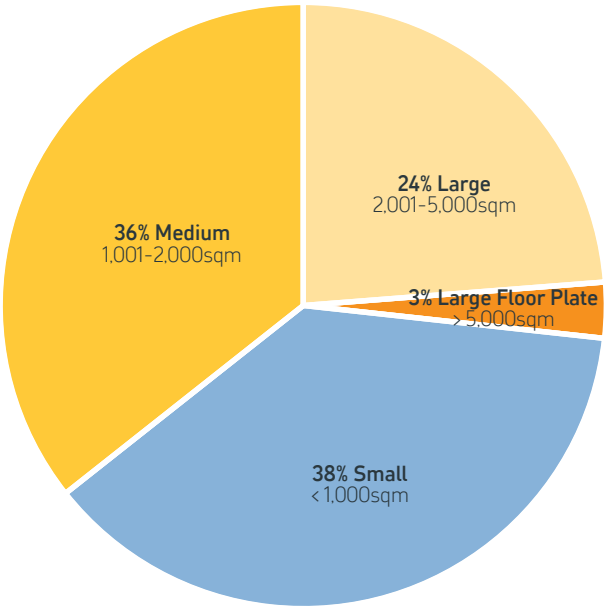
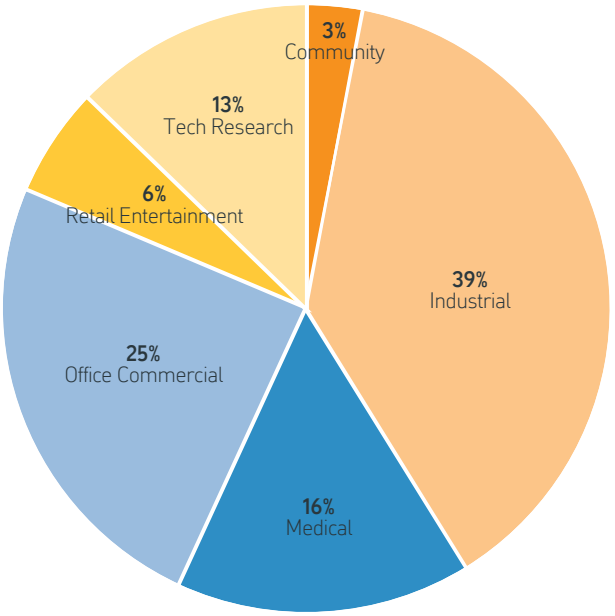


Figure 2.4.3: Mix of Businesses by Industry Type



OFFICE FLOOR SPACE IN THE BUSINESS PARK

Approximately 15-20% of floor space in the Frenchs Forest Business Park is for lease, of which approximately 25,000sqm is vacant office floorspace. In a soft suburban market generally, demand for office accommodation at Frenchs Forest has also tended to be soft over the past decade – this is primarily attributed to the estate's lack of regional accessibility, its lack of public transport, rail and airport access as well as the age and amenity of current stock.

Redevelopment of existing stock is generally commercially unviable given the relatively low rents that can be realised by property owners in the precinct. Historical net absorption within the precinct has been negative over the past 10-15 years, with the current vacancy rate of about 15-20% being higher than the historical rate of around 5-10%, and a clear decline in office and white collar employment over the latest inter-census period. If historical absorption rates continue, there is sufficient available office and commercial space to meet future demand for the next few decades.

For office type uses, the precinct primarily functions as an incubator, where businesses come and go, as they move through their business lifecycle.

Given the role and function of the Frenchs Forest Business Park, the major office and business park precincts of Northern Sydney (e.g. North Ryde) are expected to continue to attract the lion's share of office demand from larger or more regionally focussed companies. These estates are much better serviced (dedicated rail and airport access); more centrally located to labour, customers and markets; and benefit from agglomeration.

INDUSTRIAL FLOOR SPACE IN THE BUSINESS PARK

There is also approximately 25,000sqm of industrial floor space within the Frenchs Forest Business Park that is currently vacant. Much of the estate's industrial building stock is aged and not built for specific user purposes. The types of industrial users attracted to the estate include small scale product manufacturers, small scale warehousing and a diverse range of wholesalers.

Although the estate has become more industrial in nature, Frenchs Forest has no real 'identity' as an industrial precinct. While the majority of stock is industrial related, this stock is distributed across a range of industry types with very different functions.

Employment data clearly demonstrates the precinct's shift towards a more industrial focus. The increase in industrial related jobs has not necessarily required additional land/stock. While some additional development has occurred in this time period, there has also been a transformation of the tenant mix and business composition within the estate, within existing premises. There is still a significant amount of vacant industrial space for lease within the precinct, in the order of 15-20%.

Frenchs Forest Business Park competes with the surrounding industrial and employment land precincts of Cromer, Brookvale and Balgowlah. These precincts are identifiable as dedicated industrial estates, rather than the hybrid business park that Frenchs Forest presents. They tend to provide relatively affordable industrial land/stock. It is expected that traditional industrial uses will continue to locate to these recognisable 'industrial' hubs in the future as many businesses will seek to co-locate with other similar users.

Current available industrial floor space at Frenchs Forest is expected to be sufficient to accommodate future demand for the foreseeable future.

Table 2.4.4: Frenchs Forest Business Park Workforce – Industry of Employment (2006-2011)

	2006		2011			
Industry of Employment	Number	Share	Number	Share	**Total Change**	**Growth p.a**
Agriculture, Forestry and Fishing	9	0%	5	0%	-4	-11%
Mining	4	0%	4	0%	0	0%
Manufacturing	566	9%	678	10%	112	4%
Electricity, Gas, Water and Waste Services	36	1%	33	0%	-3	-2%
Construction	149	2%	86	1%	-63	-10%
Wholesale Trade	1,507	25%	2,136	31%	629	7%
Retail Trade	527	9%	672	10%	145	5%
Accommodation and Food Services	296	5%	312	5%	16	1%
Transport, Postal and Warehousing	280	5%	241	3%	-39	-3%
Information, Media and Telecommunications	308	5%	333	5%	25	2%
Financial and Insurance Services	150	3%	113	2%	-37	-6%
Rental, Hiring and Real Estate Services	40	1%	5	0%	-35	-34%
Professional, Scientific and Technical Services	740	12%	573	8%	-167	-5%
Administrative and Support Services	182	3%	141	2%	-41	-5%
Public Administration and Safety	39	1%	53	1%	14	6%
Education and Training	182	3%	202	3%	20	2%
Healthcare and Social Assistance	619	10%	796	12%	177	5%
Arts and Recreation Services	75	1%	132	2%	57	12%
Other Services	417	2%	206	3%	59	7%
Inadequately Described*	120	2%	136	2%	16	3%
Not Stated*	9	0%	58	1%	49	45%
Total Employment	**5,985**	**100%**	**6,915**	**100%**	**930**	**3%**

In 2006, Frenchs Forest Business Park defined as Transport Destination Zone 2909
In 2011, Frenchs Forest Business Park defined as Transport Destination Zone 2139 and 2153
* *N.B. Inadequately described, or not stated, includes workers who recorded their place of work at Frenchs Forest but their industry of employment was not clearly recorded on their census form, or not stated. It is logical to assume that the composition of these workers is broadly consistent with the industry of employment mix across Frenchs Forest.*

Source: MacroPlan Dimasi and ABS Census of Population and Housing.

KEY FINDINGS

This analysis of other hospital campuses around Australia has confirmed that most ancillary medical services tend to be located on site. At most, around 7,000sqm to 10,000sqm of additional associated floor space could be expected to be attracted to collocate with the Northern Beaches Hospital.

It is expected that a Level 5 hospital such as the Northern Beaches Hospital will be supported by the presence of related and necessary services within the hospital building (or campus) itself. It is noted that there is capacity for expansion that the hospital site presents.

Notwithstanding, this analysis of existing business operations within the adjacent Frenchs Forest Business Park demonstrates that there are several existing medical related services and suppliers that have chosen to operate from the Frenchs Forest locality, even without the presence of a hospital. This reflects the location's centrality to the Northern Beaches catchment and its accessibility by the region's major road network. Medical related businesses (both service and supply oriented) are scattered throughout the estate but are well represented at the far east of the estate and north of Warringah Road. It tends to locate in strata buildings.

This analysis of the Frenchs Forest Business Park has also highlighted that:

- The estate is becoming more industrial in nature, demonstrated by a clear bulk of building stock, an abundance of SME wholesale trades and reflected in a notable shift in the estate's employment focus.
- There are a large number of small businesses occupying premises of less than 2,000sqm. Much of this space is strata titled and will present as a barrier to land use change.
- The estate has no clear character – it is a hybrid business park that is becoming more industrial, but without a dominant typology.
- Current office and industrial vacancies represent over 20% of stock. These are scattered throughout the estate.
- Much of the current stock is old but is unlikely to be redeveloped under current zonings given commercial feasibilities.

Given the scattered nature of current medical uses and the general age of building stock throughout the estate, there could be a case for new forms of medically oriented office premises to be built in close proximity to the Northern Beaches Hospital to attract current tenants. Such development would be best located at the north west quadrant of the Warringah Road and Wakehurst Parkway intersection, which represents the shortest walking distance from the new hospital.

Ultimately, this analysis informs the strategic context in which the Hospital Precinct Structure Plan can be considered. It is anticipated that the likely extent of hospital and ancillary development is most unlikely to directly affect the bulk of the existing Frenchs Forest Business Park (except perhaps in a consolidation manner and through the attraction of new, but limited, ancillary services). It is also noted that the capacity of Frenchs Forest to perform a higher order employment function is constrained by its distance from labour markets, Sydney airport and from a centralised public transport network. The Frenchs Forest Business Park, however, performs an important local employment and business incubator function and could be expected to continue to do so.

CONTEXT WITH THIS REPORT

For the purposes of this report, analysis has been undertaken with respect to publicly available information at the time of writing and collaboration with Warringah Council as part of the formal stakeholder engagement process and working parties.

2.5 Transport Context

This section provides an overview of the current transport context for Warringah and the Hospital Precinct. It details the existing travel patterns for Warringah LGA and the Hospital Precinct, describes road access in, out and through Warringah LGA and the Hospital Precinct then outlines the existing public transport infrastructure through the Hospital Precinct. The Bureau of Travel Statistics (BTS) population and employment forecasts are then provided as a framework against which future growth in the precinct may impact transport in the future.

WARRINGAH TRAVEL PATTERNS

A review of daily trips patterns for Warringah LGA derived from the Household Travel Surveys for 2011/12 by TfNSW revealed the following key issues:

- The largest numbers of trips undertaken in the LGA (27%) are for social and recreational purposes. However, they are relatively short in distance (6.8km).
- Commuter or work related trips represent less than 21% of all daily trips. However, on average they are the longest trips undertaken in the LGA.
- Serve passenger accounts for up to 16% of all trips in the LGA, demonstrating the reliance on private vehicles to travel about the LGA..
- The length of commuter trips in the LGA are on average shorter in length (12.7km) compared to the rest of Sydney (14.9km). This suggests some self containment (i.e. locals are tending to work closer to home).
- The average shopping trip in the LGA is less than 4.2km in length. They represent 17% of all daily trips.
- Private car trips, as a driver or passenger, are the dominating mode for all trips purposes (75%). The dominance of the private car is even higher for commuter trips (up to 83% for inbound trips)
- 16% of all LGA trips were walk only. Yet walk trips only account for some 4-5% of commuter trips. This suggest that walking plays an important role for non-commute trips e.g. social, recreational, shopping and education.
- The average length of walk trips is about 700m (just under 10 minutes duration). This is about half the average distance recorded in the rest of Sydney.
- Warringah based residents commuting to work rely on bus transport more (15%) than external residents travelling into the LGA to work (7%). This demonstrates the importance of public transport to Warringah residents.

The following tables provide details of travel mode and purpose in Warringah LGA for all trips and for commuter trips.

Table 2.5.1: Purpose of Travel in the LGA

Purpose	LGA % Trips	LGA Avg. Distance (km)	GMA Avg. Distance (km)
Commute	13%	12.7	14.9
Work Related	8%	11.9	15.6
Education	7%	6.7	7.1
Shopping	17%	4.2	5.5
Personal Business	8%	6.3	7.1
Social Recreation	27%	6.8	8.3
Serve Passenger	16%	5.4	6.4
Other	3%	3.1	4.6

Source: 2011/12 Household Travel Survey (TfNSW)

Table 2.5.2: Mode of Travel for All Trips in the LGA

Purpose	LGA % Trips	LGA Avg. Distance (km)	GMA Avg. Distance (km)
Driver	53%	8.2	10.
Passenger	22%	6.6	8.3
Train	1%	13.2	18.3
Bus	7%	8.5	6.8
Walk Only	16%	0.7	1.4
Other	3%	9.1	6.8

Source: 2011/12 Household Travel Survey (TfNSW)

Table 2.5.3: Mode of Travel for Commuters Travelling to/from Warringah LGA for Work

Mode	Inbound Trips to Work	Outbound Trips to Work
Driver	77%	69%
Passenger	6%	5%
Train	2%	2%
Bus	7%	15%
Walk Only	5%	4%
Other	3%	5%
Total %	**100%**	**100%**
Total Trips	**50,123**	**71,908**

Source: 2011 Journey to Work Statistics (BTS)

CURRENT HOSPITAL PRECINCT TRAVEL PATTERNS

A review of commuter trips patterns to and from the Hospital Precinct, based on 2011 Journey to Work Statistics from the Bureau of Transport Statistics (BTS), revealed the following:

- External residents travelling into the precinct to work rely more on private vehicles (87%) than residents of the precinct travelling to work (79%).
- Precinct residents rely more heavily on buses to commute to work (12%) compared to external residents travelling in to work (5%).
- Less than 3% of workers in the precinct walk to work.
- The precinct is primarily a destination for commuters.
- Up to 46% of workers commuting to the precinct come from Warringah itself, which suggest a reasonable level of self containment. This would also explain the relatively shorter distance of LGA commute trips (12.7km) as compared to the rest of Sydney (14.9km).
- Up to 33% of precinct residents commuting to work had a destination in Chatswood, North Sydney or the Sydney CBD.

The following tables provide details of travel mode, origin and destination for commuters travelling to and from the Hospital Precinct to work.

Table 2.5.4: Travel Mode of Commuters Travelling to/from the Hospital Precinct to Work

Mode	Inbound Trips to Work	Outbound Trips to Work
Driver	82%	74%
Passenger	5%	5%
Train	2%	3%
Bus	5%	12%
Walk Only	2%	3%
Other	4%	3%
Total %	**100%**	**100%**
Total Trips	**8,501**	**4,734**

Source: 2011 Journey to Work Statistics (BTS)

Table 2.5.5: The Origin and Destination of Commuters Travelling to/from the Hospital Precinct to Work

Statistical Area	Origin of Inbound Trips to Work	Destination of Outbound Trips to Work
Warringah	46%	40%
Pittwater	8%	4%
Manly	5%	4%
Ku-ring-gai	4%	2%
Chatswood/Lane Cove	4%	9%
North Sydney/Mosman	3%	7%
Ryde/Hunters Hill	3%	3%
Sydney	2%	17%
Other	25%	14%
Total %	**100%**	**100%**
Total Trips	**8,501**	**4,735**

Source: 2011 Journey to Work Statistics (BTS)

Figure 2.5.1: Origin and Destination of Commuters

CURRENT HOSPITAL PRECINCT TRAFFIC

Road access in, out and through the Warringah LGA is provided by just three major arterial roads, namely:

- Mona Vale Road (east-west).
- Warringah Road (east-west).
- Pittwater Road/Condamine Street (north-south).

Compared to many other LGAs in Sydney, Warringah has very limited road and public transport network options. The capacity of these three road corridors is critical to the future accessibility of the LGA. Traffic volumes on key roads within the Warringah LGA are presented in Table 2.5.6.

The Hospital Precinct is located at the crossroads of a number of major arterials. At this point in the network, flows on Warringah Road are in excess of 80,000 vehicles per day. This makes it one of the busiest roads in Sydney.

RMS is looking at improvements for Frenchs Forest Road, Warringah Road, Wakehurst Parkway and Forest Way. These upgrades will be planned and delivered in two stages:

- Stage 1 will provide essential access to the Northern Beaches Hospital.
- Stage 2 will help increase capacity of the road network and reduce congestion.

The latest detail of the proposal is presented in the RMS July 2014 Community Update and included in this section of the Analysis Report.

To support the EIS for the road project, RMS has developed a detailed VISSIM micro-simulation model of the precinct. The growth assumptions in this model are based on the BTS population and employment assumptions listed in Tables 2.5.9 and 2.5.10. of this section. Preliminary advice from RMS is that there is little capacity to increase precinct growth beyond these levels without compromising the performance of the arterial road networks even after completion of the Stage 2 upgrades.

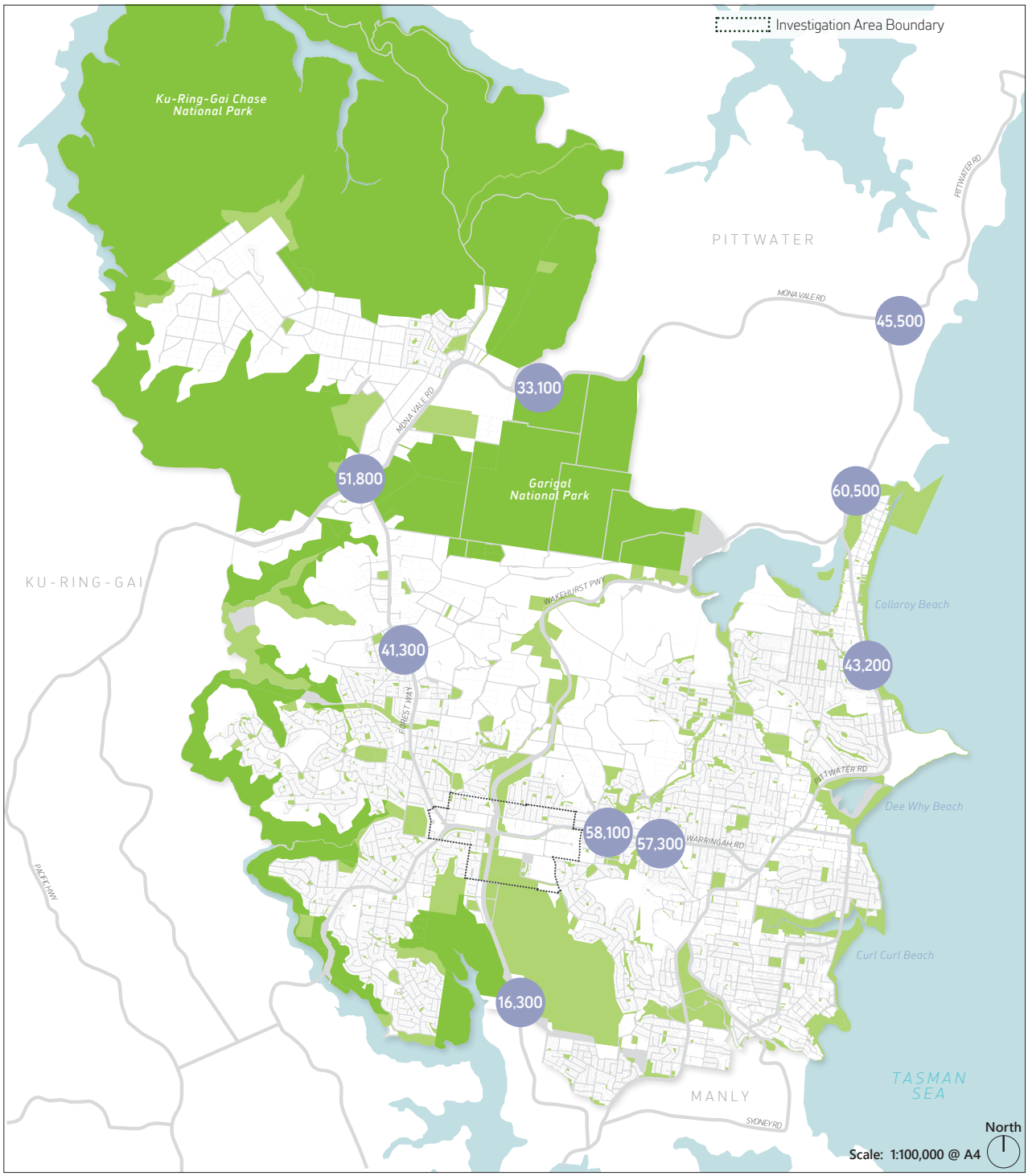
These localised upgrades are aimed to help reduce congestion and service the immediate Hospital Precinct. They do not address capacity constraints further west along Warringah Road towards Chatswood.

Table 2.5.6: 2012 Average Daily Traffic Flows

ID	Location	Weekday Average	Weekend Average
57025	Forest Way, near Ralston Road	41,300	32,500
55036	Warringah Road, east of Daines Parade	57,300	44,400
55050	Warringah Road, west of Daines Parade	58,100	44,800
34029	Wakehurst Parkway, near Judith Street	16,300	15,100
55052	Wakehurst Parkway, north of Oxford Falls Road	25,100	18,800
57011	Mona Vale Road, west of Forest Way	51,800	41,900
57024	Mona Vale Road, east of Kimbirki Road	33,100	26,500
55028	Pittwater Road, North Narrabeen	60,500	50,400
55049	Pittwater Road, Collaroy	43,200	37,600

Source: http://www.rms.nsw.gov.au/about/corporate-publications/statistics/traffic-volumes/map/index.html

Figure 2.5.2: Average Daily Weekday Flows



Source: http://www.rms.nsw.gov.au/about/corporate-publications/statistics/traffic-volumes/map/index.html

HOSPITAL PRECINCT TRAFFIC – AM PEAK

Figure 2.5.3 presents the modelled distribution of all AM Peak traffic using the Warringah Road link between the Wakehurst Parkway and Forest Way. This select link analysis was derived from Arup's calibrated strategic model which was developed on the CUBE modelling platform. This analysis reveals:

+ Relatively balanced east-west directional flows on during the AM peak.
+ Heavy flows continuing on from the precinct towards Chatswood. Localised upgrades within the precinct will release more demand onto the lower capacity links further west. The benefits of localised widening could be undermined by traffic queuing back from these bottlenecks.

Figure 2.5.3: Origin and destination of traffic using Warringah Road through the precinct in the AM peak

THE ARUP MODEL

Arup has developed a traffic network model for Sydney's Greater Metropolitan Area (GMA). The model utilises inputs from the STM to provide a high level indication of volumes on key links. Arup's Sydney Traffic Network Model has been developed in CUBE. It builds on elements of the STM and the RMS models, incorporating calibration to observed data and a more detailed representation of intersections. In addition it can be adapted to function as a sub-area model, providing more accurate results for defined regions. A key feature of Arup's model is its calibration to observed data. The model also features a sophisticated turn delay model.

The model does have assumptions and limitations worth noting, such as its reliance on inputs from the STM and the RMS model:

- Road network files - for each study year (2011, 2016, 2021, 2026, 2031, 2036) and time period (AM, PM);
- Vehicle origin-destination matrices (private, light commercial, rigid, articulated) - for each study year and time period;
- Turn bans list.

Arup's model is maintained on a project by project basis. The current version of Arup's Sydney Traffic Network Model includes inputs and assumptions that may not be current.. It is important to note that model outputs are always an approximation or a forecast of what can be expected in the real/built environment..

CURRENT PUBLIC TRANSPORT

There are two major bus corridors passing through the Precinct:

+ Warringah Road
+ Forest Way / Wakehurst Parkway

Frenchs Forest Road and Allambie Road operate as minor bus corridors connecting local roads to major bus corridors.

These routes through the NBH precinct are serviced by Sydney Buses and Forest Coach lines. A listing of the services and their frequencies is presented in Tables 2.5.7 and 2.5.8.

Most bus routes are concentrated on arterial roads and provide the Hospital Precinct with public transport links to destinations such as Chatswood, the city, Manly, Dee Why and Brookvale.

Table 2.5.7: Existing Sydney Buses Services

Route	Description	Frequency
136	Manly to Chatswood via Frenchs Forest	+ 4 per hour AM peak + 4 per hour PM peak + 2 per hour off peak
142	Frenchs Forest to Manly via Allambie	+ 1 per hour
169	Manly to City via Frenchs Forest	+ 2 per hour
173	Narraweena Cromer to Milsons Point via Frenchs Forest	+ 3 per hour inbound to Milsons Point AM peak + 3 per hour outbound to Narraweena
E69	Manly to City via Frenchs Forest (Express)	+ 12 per hour inbound to City AM peak + 6 per hour outbound to Manly PM peak
L60	Mona Vale to Chatswood via Frenchs Forest (Limited Stops)	+ 4 services at 40 minute intervals inbound to Chatswood AM peak + 4 services at 40 minute intervals outbound to Mona Vale PM peak

Table 2.5.8: Existing Forest Coach Services

Route	Description	Frequency
270	Terry Hills to City via Frenchs Forest	+ 4 per hour AM peak + 4 per hour PM peak + 2 per hour off peak
279	The Esplanade to Chatswood	+ 2 per hour inbound to Chatswood AM peak + 2 per hour outbound to Esplanade PM peak
280	Warringah Mall to Chatswood	+ 2 per hour
281	Davidson to Chatswood via Frenchs Forest	+ 6 per hour inbound to Chatswood AM peak + 1 per hour all other times
282	Belrose to Chatswood via Frenchs Forest/ Davidson	+ 2 per hour PM peak
283	Chatswood to Belrose Loop	+ 2 per hour
284	Duffys Forest to Chatswood via Frenchs Forest	+ 4 per hour AM peak + 4 per hour PM peak + 1 per 2 hours off peak

Figure 2.5.4: Sydney Buses and Forest Coaches Services

FUTURE BUS RAPID TRANSIT

The Draft North East Subregional Strategy identifies Warringah Road as strategic bus corridor. The Long Term Transport Master Plan identifies east-west kerbside BRT facilities along Warringah Road as one of six shortlisted options to address the future demands on the Northern Beaches transport system. Meanwhile, the Northern Beaches Transport Action Plan recommended a public transport interchange at the Hospital Precinct.

The introduction of Bus Rapid Transit to the Northern Beaches is a long term strategy of Sydney's Bus Future. However, the Warringah Road bus route is only classified as a major suburban bus route and is not nominated for BRT. Under the plan, Warringah Road will have:

- A mix of frequent 'turn up and go' and timetabled services.
- Stops every 400m.
- Bus priority targeted at key pinch points to speed up services.

TfNSW has provided RMS with the following preliminary bus planning advice to inform road upgrade options:

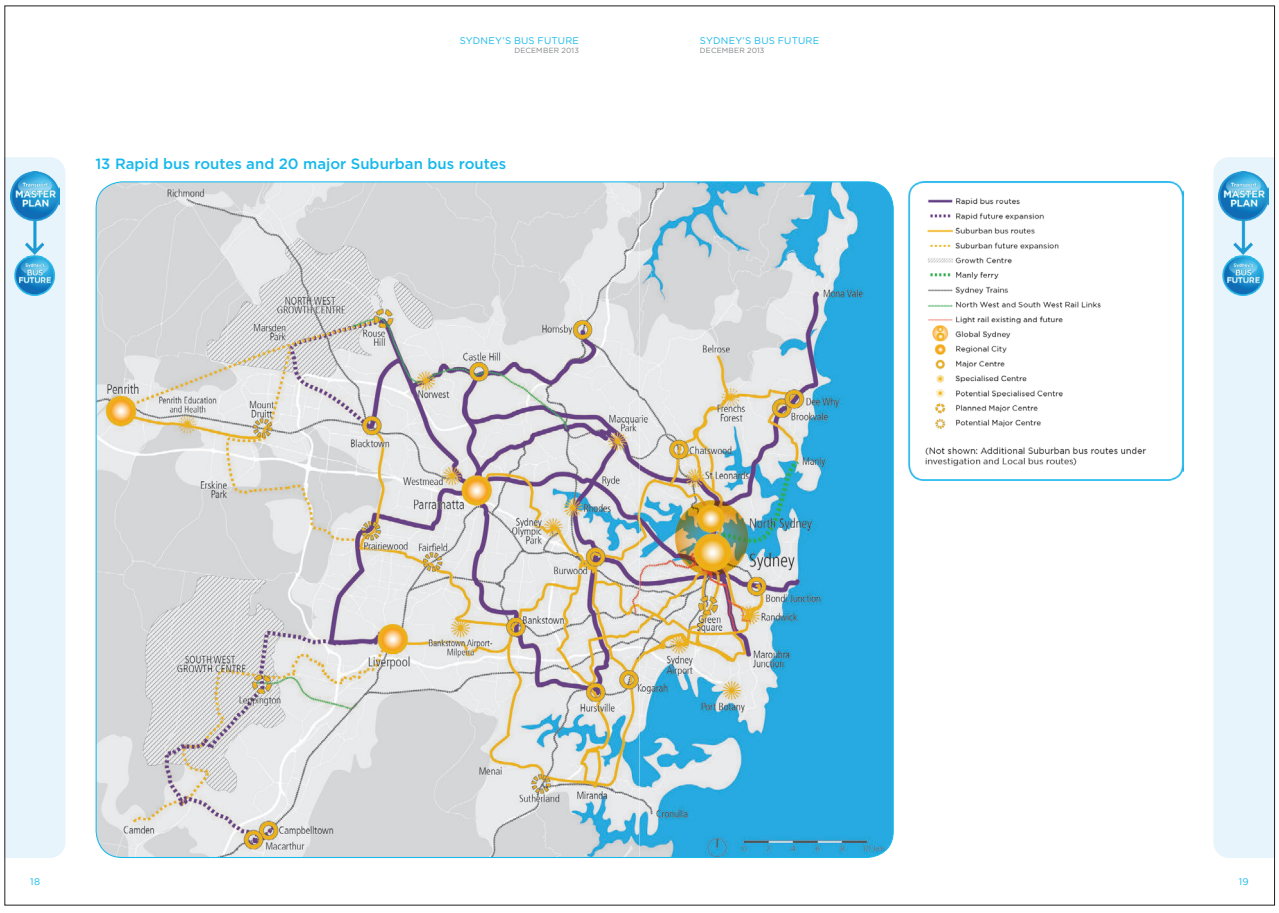
- Diversion of regional bus services off Warringah Road onto Frenchs Forest Road East to better serve the current Hospital Precinct land use.
- Modest growth in bus services to match a forecast 10% increase in bus patronage over the next 20 years.
- Provision of 6 regional or BRT services per hour in each direction between Dee Why and Chatswood increasing to 7 per hour by 2036. These would be supported by targeted bus priority and more diverse local services.

A review of preliminary RMS drawings for the Stage 2 upgrades of Warringah Road includes no provision for future dedicated BRT corridors or BRT interchange facilities along Warringah Road and/or Frenchs Forest Road East. Failure to include provision for BRT corridors along new infrastructure will introduce another constraint on future expansion of BRT along Warringah Road.

Given the need to allocate sufficient space to stage Warringah Road traffic operations during construction of the Stage 2 upgrades, there may be an opportunity to provide dedicated BRT corridors without significant impact on the proposed design.

SYDNEY'S BUS FUTURE

This diagram from Sydney's Bus Future illustrates 13 rapid bus routes and 20 major suburban bus routes for Sydney. BRT is not identified for the Chatswood to Dee Why corridor.



PRECINCT GROWTH

BTS population and employment forecasts for the precinct are presented in Tables 2.5.9 and 2.5.10. The forecasts reveal the following:

- Overall, the population of the precinct is forecast to grow some 23% over the next 20 years.
- Most of the population growth is in TZ 2902 and 2901.
- Overall, the employment in the precinct was forecast to grow 37% over the next 20 years. With the addition of the Northern Beaches Hospital, that growth will increase to 48% over the next 20 years.
- Most of the employment growth is in TZ 2909 (Allambie industrial precinct) and 2914 (Northern Beaches Hospital site).

These growth forecast were adopted for the RMS micro-simulation modelling undertaken to test the design for the proposed Stage 2 upgrade of Warringah Road, Forest Way and Wakehurst Parkway.

The traffic associated with an additional 3,108 jobs in the Allambie industrial precinct (TZ 2909) will put significant pressure on the access roads in and out of the employment zone. It will be essential that the proposed RMS upgrades of Warringah Road and Wakehurst Parkway include improvements to the accessibility of this critical zone.

Table 2.5.9: Hospital Precinct Population Growth

Zone	2011	2021	2031	20 Year Growth
2909	928	942	993	+ 65
2902	2,781	3,358	4,316	+ 1,532
2905	719	759	811	+ 92
2901	4,014	4,568	4,607	+ 593
2914	2,442	2,486	2,634	+ 192
Total	**10,884**	**12,113**	**13,361**	**+2,477**

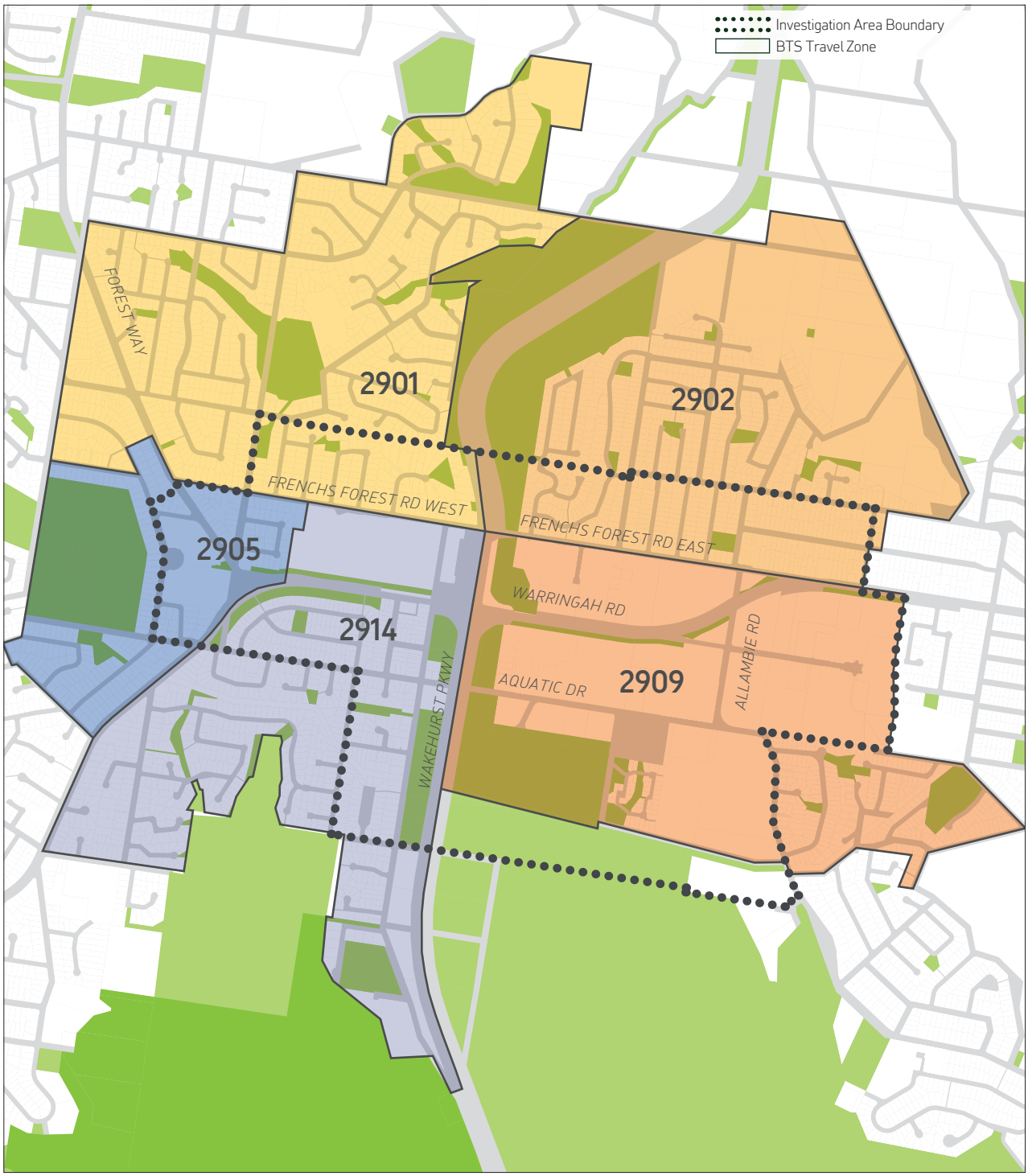
Source: August 2012 BTS Forecast

Table 2.5.10: Hospital Precinct Employment Growth

Zone	2011	2021	2031	20 Year Growth
2909	7,532	9,160	10,640	3,108
2902	439	499	542	103
2905	741	831	894	153
2901	417	485	531	114
2914	571	658	725	154
2914*	0	800	1,000	1,000
Total	**9,700**	**12,433**	**14,332**	**4,632**

Source: August 2012 BTS Forecast

Figure 2.5.5: BTS Travel Zones



STAGE 1 ROAD UPGRADES – CONNECTIVITY WORK

This diagram from the RMS July 2014 Community Update illustrates the Stage 1 road upgrades associated with connectivity improvements for the Northern Beaches Hospital.

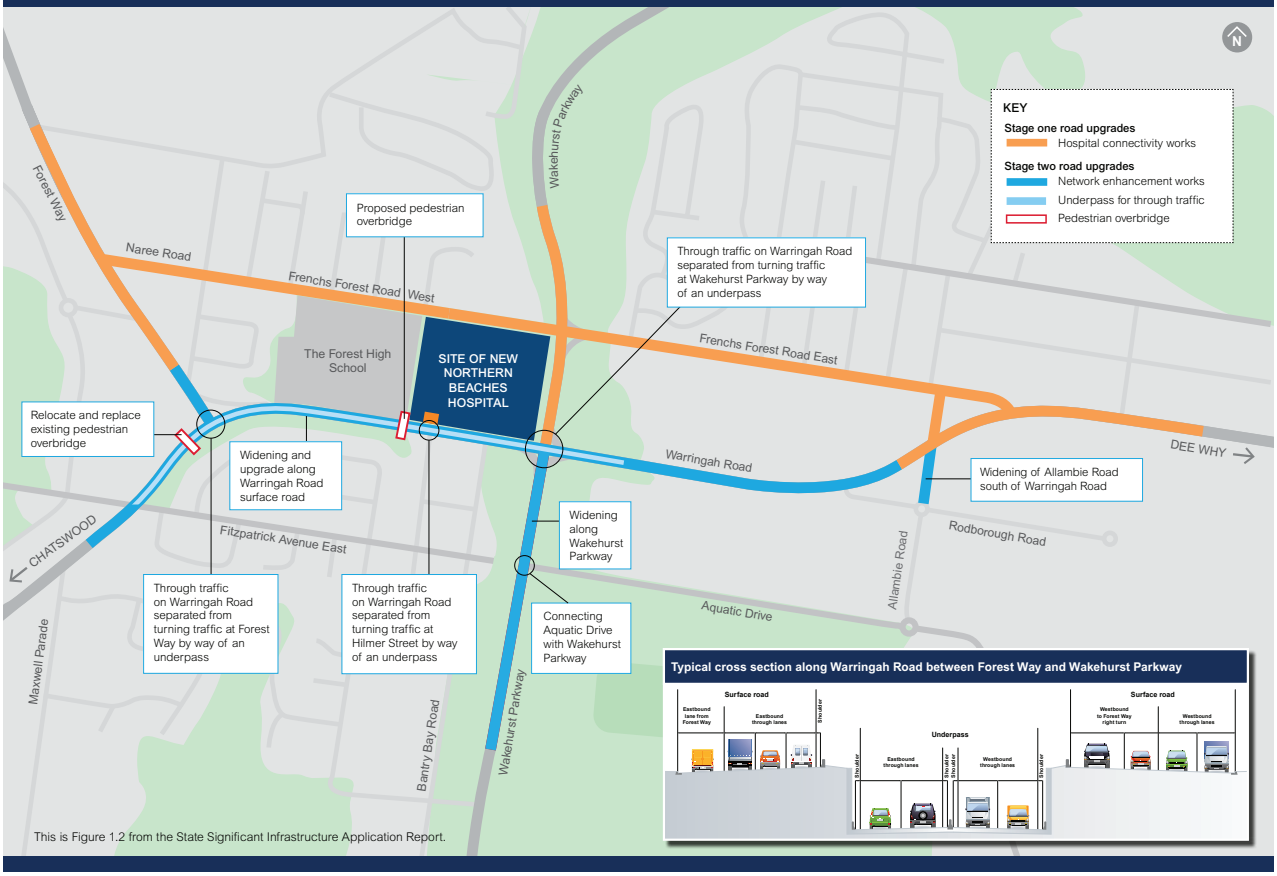
STAGE 1 ROAD UPGRADES – CONNECTIVITY WORK

The connectivity improvements focus on Frenchs Forest Road West, its intersection with Wakehurst Parkway as well as Frenchs Forest Road East and its intersection with Warringah Road.

STAGE 2 ROAD UPGRADES – NETWORK ENHANCEMENT

This diagram from the RMS July 2014 Community Update illustrates the Stage 2 network enhancements associated with the Northern Beaches Hospital, Warringah Road and Wakehurst Parkway.

Northern Beaches Hospital road upgrades – stage two (network enhancement work)



This is Figure 1.2 from the State Significant Infrastructure Application Report.

Northern Beaches Hospital road upgrades – stage two (network enhancement work)

CONTEXT WITH THIS REPORT

For the purposes of this report, analysis has been undertaken with respect to publicly available information at the time of writing and collaboration with RMS as part of the formal stakeholder engagement process and working parties.

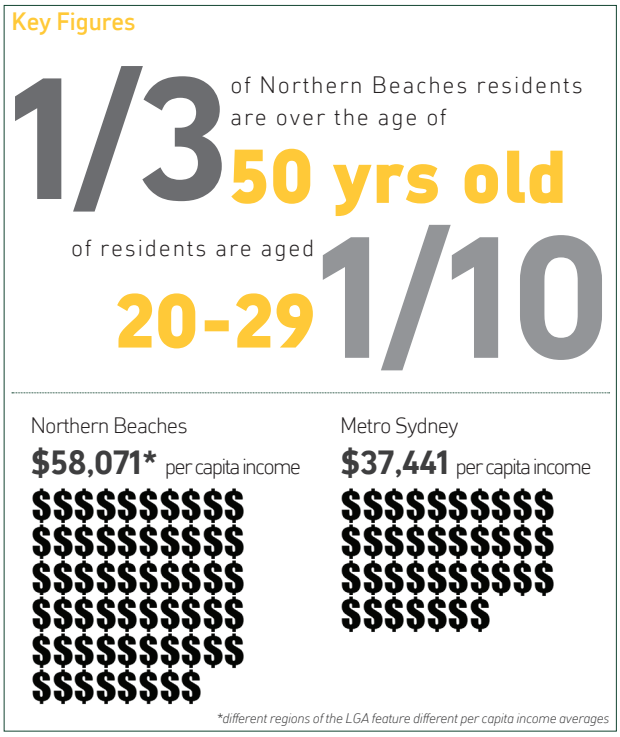
2.6 Community Context

This section provides an overview of the community context for the Northern Beaches. An analysis of demographics is provided for the Northern Beaches subregion of metropolitan Sydney which is defined as Warringah, Pittwater and Manly LGAs. This section then describes previous consultation undertaken with the community specifically for the Northern Beaches Hospital.

AGE AND INCOME

The average Northern Beaches resident is older than the typical Sydney resident, with over 33% of residents above the age of 50 compared to 30% regionally. Compared to the Northern Beaches subregion, Warringah has a below average retention of young Sydneysiders, particularly between the ages of 20-29, where the Northern Beaches trails the regional average (14.8%) by 4 percentage points. The Northern Beaches does have above average rates of children aged 0-14, indicating a strong presence of families.

The Northern Beaches has above average per capita income levels, particularly in Secondary South portion of the suburb where a per capita income of $58,071 exceeds that of the Sydney Metro's average of $37,441.



Source: ABS Census of Population & Housing, 2011; MacroPlan Dimasi

FAMILY STRUCTURE

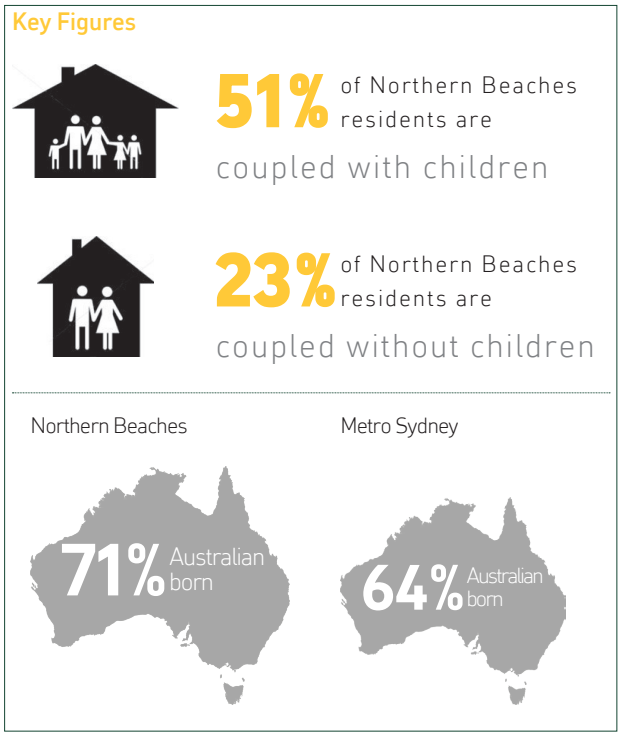
With regard to domestic versus foreign born populations, the Northern Beaches is less diverse than the typical suburb in Sydney. Only 29.1% of the area's population is foreign born, compared to 36.4% regionally. Further, nearly 71% of residents are Australian born, while 63.6% of the Sydney metro is.

The slight majority of family types found in the Northern Beaches is identified as a couple with dependent children (51%). 22.5% of residents identify as a couple without children, a 2.5% higher rate than Sydney metro, signalling the area's popularity to buy a starter home. 9.3% of residents live alone, similar to the metropolitan rate of 9.0%.

EMPLOYMENT

The most prolific industry in which the average Northern Beaches residents works in is professional, scientific and technical services (13%). Health care and social assistance (10%) is the second most typical industry in the Northern Beaches, which is below the Sydney metropolitan average of 11%. This signifies a shortage in the region that has potential to be filled through improved facility assets and health infrastructure.

30% of the typical Northern Beaches worker is described as a professional, above the metropolitan average of 25%. The next highest occupation is managers, equal to about 17% of the labour pool and 8% above the metropolitan average. Further, 15% are identified as clerical and administration workers, below the metropolitan average.



Source: ABS Census of Population & Housing, 2011; MacroPlan Dimasi

Source: ABS Census of Population & Housing, 2011; MacroPlan Dimasi

PREVIOUS COMMUNITY ENGAGEMENT

In November 2012, Urbis Public Policy was commissioned by the NSW Department of Planning and Infrastructure to consult with the community to support planning for the Northern Beaches Hospital Precinct. Between mid November and early December 2012, two visioning workshops with members of the local community were held to support initial planning for the precinct.

From this outreach process a series of key messages were developed that best represents how the community wants the Hospital precinct to develop over the coming years. The following information is a summary of the Urbis Public Policy report, Northern Beaches Hospital Precinct Outcomes Report, dated February 2013.

Figure 2.6.1: Northern Beaches Precinct Outcomes Report, Urbis

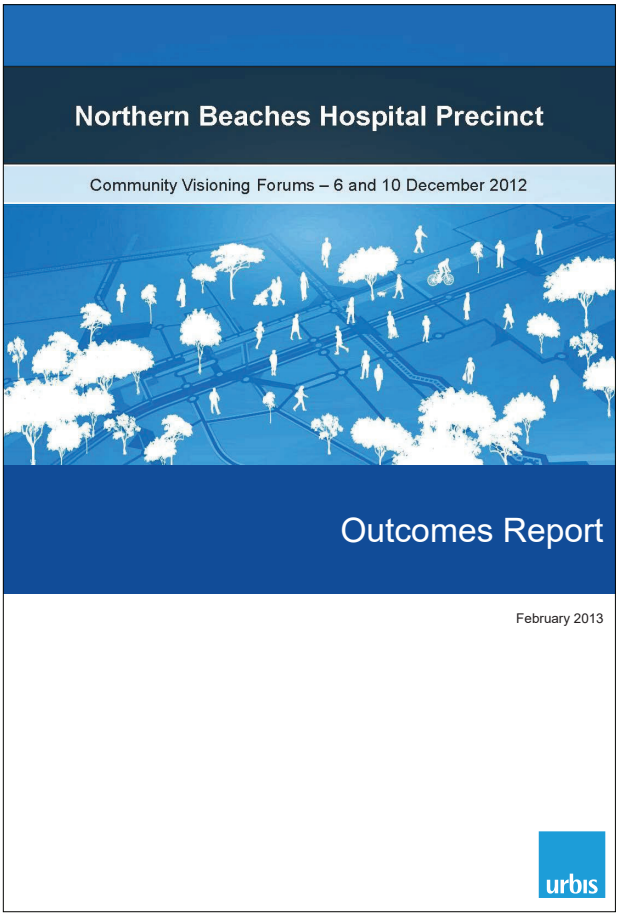


Figure 2.6.2: Vision Workshop Sessions

Source: Urbis Public Policy. 164 participants attended the two vision workshops, most of whom were residents living within Frenchs Forest and Forestville.

SUMMARY OF VISIONS FOR THE PRECINCT

When visioning the future of the precinct, a wide array of views and ideas were represented by the groups and individuals who participated in the outreach process. The following ideas summarise the many visions and issues raised by all groups across both forums.

+ **The look and feel of the Northern Beaches Hospital Precinct and the hospital campus is preferred as a village style hub.**
+ **Preferred uses should draw future residents and visitors to the precinct.**
+ **The precinct could be a catalyst for protecting and enhancing the area's unique character.**
+ **The precinct planning provides an opportunity to improve existing facilities and extend employment and healthcare opportunities across the local area.**
+ **The precinct could be a place where the quality of life and health services provided were of a high standard.**
+ **The precinct could be a world class centre of medical excellence supported by leading research, education and training facilities.**
+ **The precinct could offer benefits and shares potential impacts across the broader Northern Beaches region.**

KEY ISSUES TO CONSIDER IN FUTURE PLANNING

Participants of the vision workshops identified the key issues to be considered in future planning. These issues are outlined below.

+ **The most commonly identified issue amongst workshop participants was the desire for an integrated approach to traffic, public transport and land use planning.**
+ **Access to and movement within the precinct were key issues across most ideas, as was the role of infrastructure and road and public transport networks in its facilitation.**
+ **Participants expressed a desire for an increasing opportunity for spin off employment through diversification of the local industry base.**
+ **Participants expressed a preferred character for the hospital campus and surrounding area to have a village style atmosphere.**
+ **Participants believed numerous public transport options should be considered in future planning efforts, including active pedestrian and cycling, Bus Rapid Transit, light or heavy rail and metro style buses.**
+ **Supporting uses surrounding the new Northern Beaches Hospital were identified by participants to be primarily health related uses.**
+ **Participants expressed a need for an integrated future planning approach which balances proposed land uses with preservation of existing vegetation corridors.**
+ **Participants noted the need for affordable medium density housing for workers associated with the hospital campus.**
+ **Maintenance of privacy and amenity for immediate residents was another key concern for participants. Participants noted consideration of building setbacks and vegetative screening as solutions for potential adverse impacts from the new hospital.**

FRUITO

BENCHMARKING 3.0

BENCHMARKING

3.0 Benchmarking

The process of benchmarking can be used to investigate the success (or failure) of the delivery of existing projects based on similar planning methodology, typology, scale and quality.

The lessons learned from the relevant projects identified in this section focus on creating a strategic centre with a sense of place with respect to business clusters, health and wellness hubs, mixed use employment zones and residential communities. They also include innovations with respect to infrastructure, particularly public transport and road based initiatives.

These projects provide both a local and international range of examples of how others have achieved similar objectives as those posed for the Hospital Precinct Structure Plan, or provide insights into how to achieve the desired outcomes.

In the following pages, each project is described and the key lessons identified in order that the benchmark projects may inform the resulting design intentions.

They do not necessarily represent physical outcomes for the Hospital Precinct Structure Plan. Rather, they identify current and future directions, trends, and processes, by which the Northern Beaches Hospital Precinct can develop as a Strategic Centre for Warringah and Sydney.

The benchmarked cases have been assembled as a collaboration between Hames Sharley, Arup and MacroPlan Dimasi in order to ensure urban, infrastructure and economics imperatives are captured through the process.

3.1 Knowledge Precincts

The focus of this section is to understand how best to transition the Frenchs Forest area and the Northern Beaches Hospital Precinct Strategic Centre for Warringah and Sydney.

ENGAGE WITH THE CREATIVE ECONOMY

The economic welfare benefits of the knowledge economy are widely recognised around the globe. In planning terms, the creation of urban knowledge precincts has become a strategic focus for many governments seeking to take advantage of identified benefits:

- Economic prosperity.
- Generation of high value add products.
- Smarter communities.
- Increased competitiveness.

The opportunity exists for the Hospital Precinct Structure Plan to contribute to the creative economy of Sydney by leveraging the catalytic development of the hospital.

CONTRIBUTE TO KNOWLEDGE CITIES

There are common themes unique to successful knowledge centres, identified in 'Rising Knowledge Cities: the Role of Urban Knowledge Precincts' (Yigitcanlar, 2010):

- Centrality – agglomeration and proximity within an accessible centre
- Connectivity – internal networking and knowledge transfer
- Living and working – within flexible, high amenity, mixed use environments
- External links – operating within a global economic environment
- Learning and playing – creativity and social interaction
- Branding – creating an identifiable place with symbolic value and the use of design elements

These themes of connectivity and flexibility highlight the importance of interaction and networking facilitated by a creative and dynamic environment. This underpins the development of comprehensive and integrated activity centres rather than simple co-location of relatively isolated uses. Therefore, the urban design and spatial development of knowledge based urban precincts must begin with a good understanding of these essential elements.

The opportunity exists to integrate these diverse elements within the evolution of the Structure Plan to ensure the development of the Northern Beaches Hospital Precinct Strategic Centre.

ACHIEVE A STRATEGIC OR STRATEGIC CENTRE

Strategic Centres have been categorised in state planning to reflect employment hubs with existing regionally significant economic or institutional activities. These hubs are encouraged to develop complementary knowledge or export-based businesses in their areas of specialism. These types of precincts with high quality strategic employment, often require strategic infrastructure (such as ports, airports and universities) to support their activities and provide ready access to staff, customer base, supply chains and research/distributor networks.

Northern Beaches Hospital Precinct has been identified in 'A Plan for Growing Sydney' as a Strategic Centre. The criteria for achieving Strategic Centre status as outlined by the NSW Department of Planning and Environment is:

- **Act as an employment centre and location of essential urban services.**
- **Enable a minimum of 10,000 jobs,**
- **Perform vital economic, research and employment roles for the region and Sydney.**
- **Evolve over time to include greater mix of residential, retail and service uses.**
- **Connect to other strategic centre.**
- **Integrate with or be adjacent to public transport and associated corridors.**
- **Incorporate quality open space, public places and parks within the framework of the centre.**
- **Link with motorways, arterial and relevant freight networks related to the specialisation.**

The transition to achieving Strategic Centre status is the focus of this benchmarking study.

ACTIVITY CENTRE TYPOLOGIES

The following definitions categorise a number of activity centre typologies that can be considered in the evolution of the Hospital Precinct to a Strategic Centre.

KNOWLEDGE INTENSIVE CONSUMER SERVICES

Strategic Centres can be considered in terms of two economic typologies – those that provide knowledge intensive consumer services and those that are knowledge intensive export oriented.

Knowledge intensive consumer based employment refers to industries such as medical and education services or legal and accounting services which involve business to consumer transactions with high knowledge content.

The current business park at Frenchs Forest provides an established business to consumer transaction based economy in Warringah.

RETAIL AND CONSUMER SERVICES CENTRES

Consumer based centres have a strong retail focus and are distributed relatively evenly amongst the residential population for ease of access. The majority of jobs in these population driven centres will be supported by consumer based local or regional spending on services. This is the difference between population driven consumer based employment and strategic specialised employment.

Retail will provide an important role in the diversification of the Hospital Precinct.

KNOWLEDGE BASED CENTRES

Specially designed knowledge centres provide a spatial locus to encourage collaboration between innovative firms, academic researchers and policy makers to produce commercial outcomes. Although spatial collocation is an important starting point, much more is required to facilitate the generation, transmission and transfer of knowledge from practitioners and researchers through to students and knowledge workers and then to industry application.

Knowledge based centres with more specialised functions must be accessible by several forms of public transport and contain a more diverse mix of services and employment. This is important not only to enable choice of travel and multi-functional trips but it provides the high quality urban environment that attracts and retains high end staff. Therefore, the development of these centres will often need to be supported by strategic spending by government as well as interaction with other larger strategic centres with access to state, national and global markets.

The delivery of a new hospital at Frenchs Forest provides the catalyst for achieving a knowledge based centre for Warringah with a focus on health and wellness.

KNOWLEDGE INTENSIVE EXPORT ORIENTED SERVICES

Export oriented services do not involve regional consumer transactions, but instead attract income from external (national or global) markets. These export industries often locate at ports and airports to maximise transport efficiency, but are also found within CBDs and other Strategic Centres with large agglomerations of competing and complementary businesses.

A range of other land uses and businesses can complement the primary function of these centres. In the case of health, education and related research precincts, these would attract products and services which benefit from access to innovative thought and knowledge infrastructure. Additional activity in the form of retail and consumer services can provide the amenity required by the large employee, student, visitor and resident populations, without the need to attract convenience expenditure from further afield.

In evolving the Northern Beaches Hospital Precinct to a Strategic Centre through the mechanism of this Structure Plan, the opportunity exists to achieve a knowledge intensive export oriented services precinct for Warringah and Sydney.

3.2 Strategic Centre Benchmarks

European Strategic Centres

WARWICK UNIVERSITY CENTRE, UNITED KINGDOM

At Warwick University, the development of an International Manufacturing Precinct in an intimate business park environment was triggered by an engineering research programme by Jaguar Land Rover, linked into University programs. The University had also successfully diversified into the mass conferencing sector, campus retailing and recruitment markets. One of the key drivers was the campus location at the nexus of the British motorway network, providing high accessibility to the UK's two largest cities in London and Birmingham.

Warwick is an example of a specialised engineering development precinct on a greenfield campus that has been integrated within an existing academic environment, enabling cross pollination of education with research, training and production programs for both start up and high profile companies. It is relevant to Frenchs Forest and the Northern Beaches Hospital Precinct, in that it represents the evolution of a first generation business park to a second generation Strategic Centre, as a result of a catalytic knowledge land use.

AALTO UNIVERSITY CENTRE, HELSINKI, FINLAND

At Aalto University in Helsinki, the telecommunications giant Nokia has historically collaborated with the former technical college to develop research in electronics and communications technology at the University's Otaniemi campus. This has been the catalyst for the attraction of other high tech businesses to the University as well as a number of grass roots innovation programmes supporting student research and small scale start up companies within the setting of the beautiful forest campus designed by the famous Finnish architect Alvar Aalto. The government is supporting this new period of economic growth by extending the Helsinki Metro out to Otaniemi.

Aalto University's post war development from an outlying technical college campus into a collaborative research hub for international telecommunications companies and start ups is another example of the importance of building on the unique characteristics and specialised activities that are often already in place. Lik Aalto University's Otaniemi campus faced similar challenges in terms of physical site, landscape and geography. The arrival of a new station on Helsinki's Metro will also provide direct rapid transit links to central Helsinki to help foster the next stage of its evolution as a centre of excellence.

CROSSROADS, UNIVERSITY OF COPENHAGEN, DENMARK

In Copenhagen, the Crossroads project at the University of Copenhagen's Ørestad campus is an initiative to establish a centre for new technology research and development. The project is underpinned by a strategic alliance formed between the University of Copenhagen, the Danish Consumer Agency, the Royal Library, the Danish Broadcasting Corporation and the IT University of Copenhagen. A high quality campus setting has been provided in the form of a network of canals, community facilities and accommodation which support the principal activities. In addition, the campus is now a true TOD (Transit Oriented Development) owing to a recent extension to the city's Metro line – a driverless elevated monorail from Copenhagen City Centre via Ørestad to the airport.

The Ørestad campus has been developed to harbour a cluster of some of Denmark's leading media and IT institutions. However, this planned collocation is not just about proximity and the Crossroads project highlights the importance of interaction and networking facilitated within a creative and dynamic urban environment that can provide the urbanisation functions in support of the specialised activities.

KAROLINSKA UNIVERSITY HOSPITAL, STOCKHOLM

Karolinska Hospital is part of the extensive Hagastaden district of Stockholm, the vision for which is to establish a 'Science City' knowledge precinct. Urban renewal of this inner part of the city is underway, one of the largest urban development projects in Sweden. It is building on the impetus of the New Karolinska Solna (NKS) Hospital being constructed next to the Karolinska University Hospital. The NKS is also Sweden's first public private partnership (PPP) project in healthcare, due to be completed in 2015.

The Science City initiative is of relevance to the planning for the Northern Beaches Hospital Precinct. Hagastaden district seeks to bring together world class research, clinical development and innovative companies. The Stockholm Science City Foundation was set up by the three leading universities and the Cities of Stockholm and Solna to create a strong and attractive environment for life sciences in Stockholm. As with other health based knowledge precincts, the emphasis is not just on delivering the physical infrastructure and amenities required to support a broad health care community, but on promoting collaboration between the universities in Stockholm, industry and healthcare to foster development of innovative products and services.

Australian Specialised Centres

MURDOCH STRATEGIC CENTRE, WESTERN AUSTRALIA

Murdoch Health Precinct is home to an existing and unique collection of health and education institutions including hospitals, universities and colleges. Murdoch is a particularly unique example of activity centre strategic planning due to the sheer size of the project area and the available developable land within the designated centre under state control. As a result, the authorities and key institutions have the opportunity to shape Murdoch Health Precinct into one of the largest centres of specialist health activity and research in the country, attracting high value, knowledge based, economic opportunities to rival other centres of this nature.

Like the Hospital Precinct, the catalyst for strategic planning at Murdoch was the development of a new hospital, Australia's largest tertiary hospital Fiona Stanley. Furthermore, Murdoch has a similar environmental amenity to Frenchs Forest area, being set within an attractive natural bush landscape that makes it one of Perth's best locations to create quality jobs and high density residential living to help address some of the state's long term employment and population pressures.

GOLD COAST UNIVERSITY HEALTH PRECINCT, QUEENSLAND

The world class Gold Coast University Hospital was opened in 2013 as an extension to the 1970's Griffith University campus, the largest and best known of Gold Coast's three universities. The hospital complex overs 20 hectares and is now linked to the greater Gold Coast region by the new light rail service. Together with the hospital, the expanding university forms the heart of the new Health and Knowledge Precinct. The Precinct is the largest clinical and research facility in Australia for health students.

As with Northern Beaches Hospital, the catalyst for strategic planning at Gold Coast University Health Precinct was the development of a new hospital, though supported by transit investment in the form of Gold Coast's new light rail. The precinct also overlooks the site of the 2018 Commonwealth Games Village and is also likely to be one of the main legacies of the urban development program in preparation for the 2018 Games.

RANDWICK EDUCATION AND HEALTH STRATEGIC CENTRE, NEW SOUTH WALES

The Randwick Education and Health Strategic Centre is identified in the A Plan for Growing Sydney and Draft East Subregional Strategy as a Strategic Centre, based on its significant cluster of specialised health, education and research activities. This cluster is formed by several major institutions and destinations, including the University of NSW and the Randwick Health Campus which contains four major hospitals. Together with some of Australia's premier research institutions and Australia's largest complex of teaching hospitals, the Randwick Education and Health Precinct plays a vital economic and employment role within Sydney and beyond.

As with the Northern Beaches Hospital Precinct, Randwick Council has been planning around this nationally significant agglomeration of education, health and research institutions at Randwick. The precinct's large workforce, student and visitor population provide substantial local economic benefits to the nearby commercial centres and strategies are in place to foster greater collaboration and innovation in this sector. In addition to the employment and economic benefits, the precinct provides a variety of social, cultural and community facilities and services that are available to the local community.

JOONDALUP HEALTH CAMPUS, WESTERN AUSTRALIA

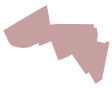
Joondalup Health Campus (JHC) was established in 1996 on the site of the old Wanneroo Hospital which has since been transformed into a modern health care facility. JHC comprises both public and private hospital facilities and a specialist medical centre accommodating leading specialists and diagnostic services. The campus serves the rapidly growing northern suburbs of Perth and is currently undergoing a significant redevelopment, including a new emergency department, to keep pace with local needs.

The JHC model is relevant to Northern Beaches Hospital because it is operated by one of Australia's largest private hospital operators – but staff at JHC treat private patients as well as public patients on behalf of the WA Government under a long standing and successful contract. The physical and landscape setting of Joondalup to the north of Perth CBD also has similarities to Frenchs Forest's situation relative to its local environment and travel distances to central Sydney. Linkages of the JHC to the regional open space also support active lifestyle initiatives and recreation.

3.3 Strategic Centre Scale Comparisons

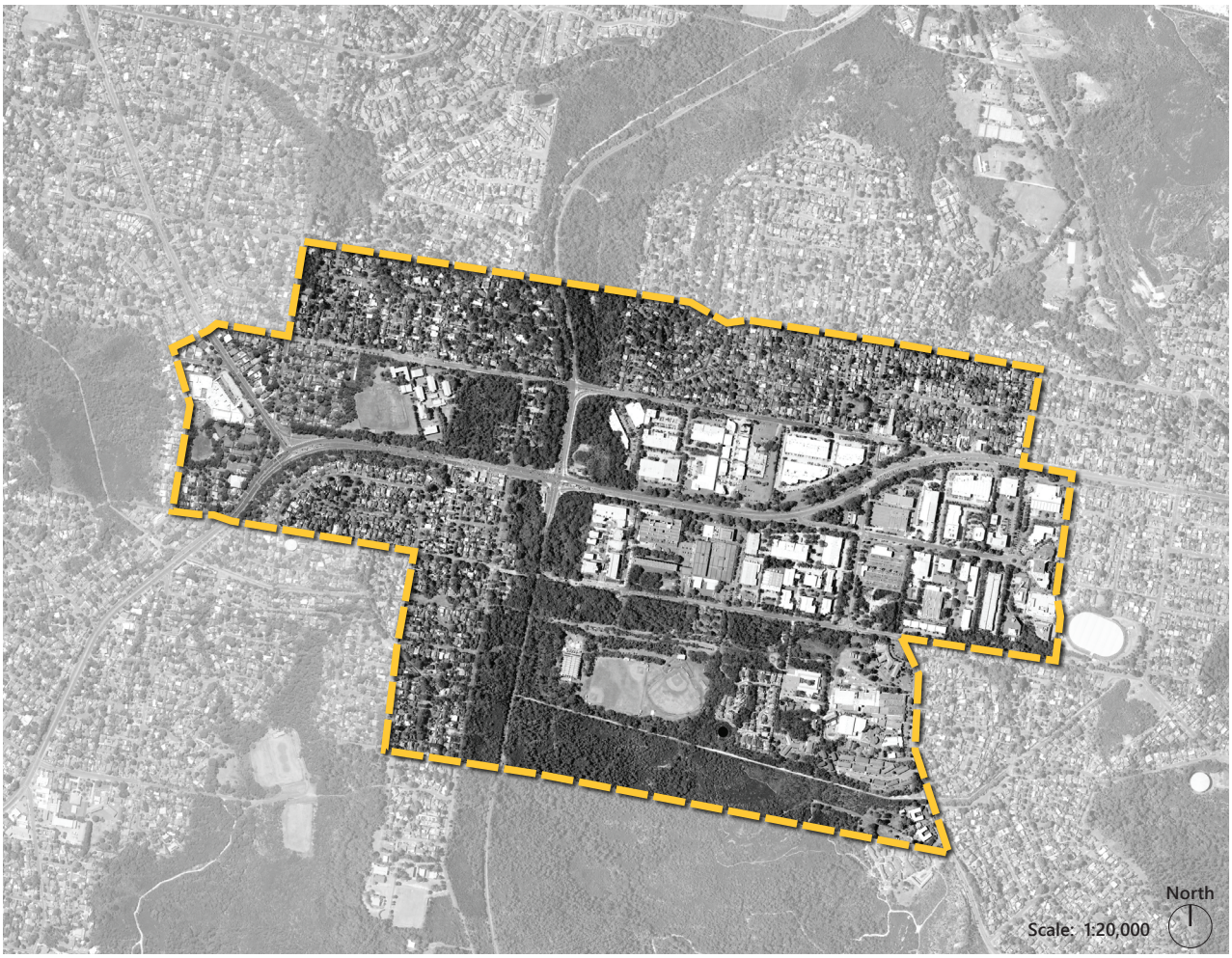
This section provides benchmarking examples of Strategic Centres across Sydney similar in typology to Northern Beaches Hospital Precinct. Due to its relevancy to the project, Murdoch Health Precinct is also included in this analysis. This level of analysis provides an understanding of existing expectations for geographic footprints related to specific land uses, resident population, job figures and infrastructure accessibility.

Table 3.4.1: Strategic Centres by the Current Numbers

Footprint	Precinct	Size	Evolution	Accessibility	Dwellings	Jobs
	Northern Beaches Hospital Precinct (in Frenchs Forest)	260 ha	< 10 years	Major Road Intersection	1,500	10,000
	Westmead Health Precinct	< 100 ha	10-25 years	Major Road Intersection and Transit Connections	5,500	17,000
	Macquarie Park	200 ha	> 25 years	Major Road Intersection and Transit Connections	2,800	45,000
	St Leonards	< 100 ha	> 25 years	Major Road Intersection and Transit Connections	2,500	8,500
	Sydney Olympic Park	> 300 ha	10-25 years	Major Road Intersection and Transit Connections	< 100	14,000
	Norwest Business Park	< 100 ha	> 25 years	Major Road Intersection	600	20,000
	Murdoch Health Precinct	> 300 ha	< 10 years	Major Road Intersection and Transit Connections	1,300	4,500

NORTHERN BEACHES HOSPITAL PRECINCT

+ 10,000 jobs
+ 1,500 dwellings
+ Emerging centre



Bantry Bay Road Shops

Warringah Road

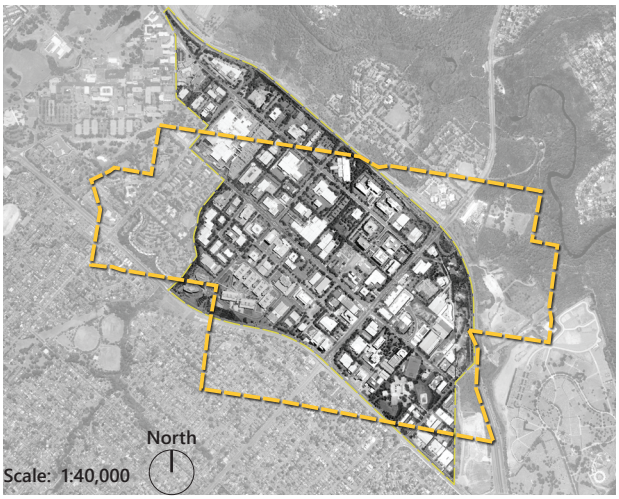
Frenchs Forest Business Park

WESTMEAD HEALTH PRECINCT

- 17,000 jobs
- 5,500 dwellings
- Mid-transition centre

MACQUARIE PARK

- 45,000 jobs
- 2,800 dwellings
- Mature centre



Westmead Children's Hospital

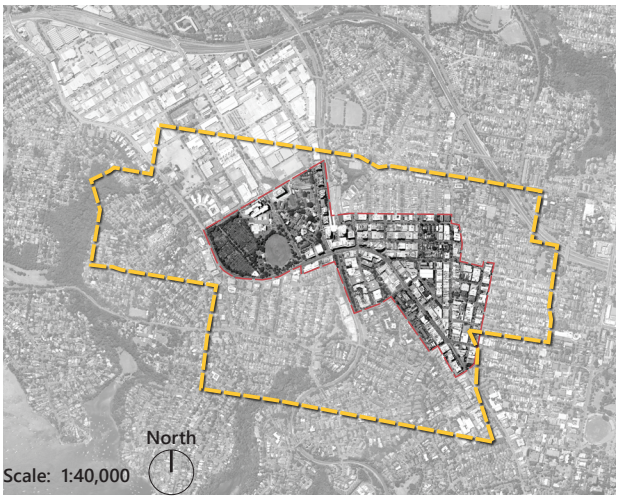
Westmead Hospital

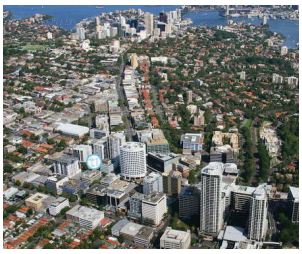
Macquarie Park

Optus Headquarters

ST LEONARDS

+ 20,000 jobs
+ 600 dwellings
+ Mature centre



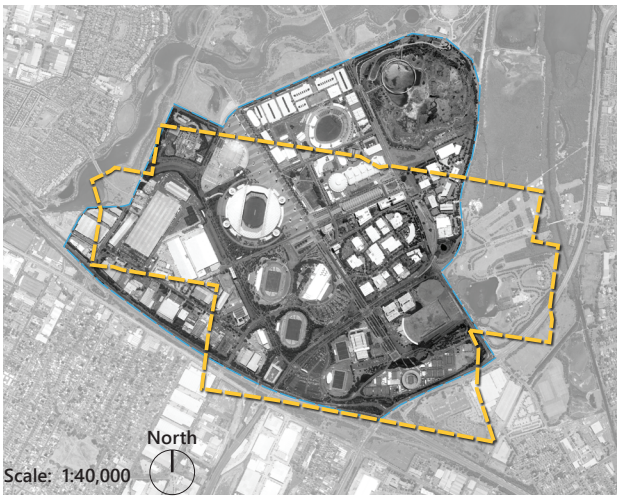


St Leonards

Pacific Highway

SYDNEY OLYMPIC PARK

+ 4,500 jobs
+ < 100 dwellings
+ Mid-transition centre

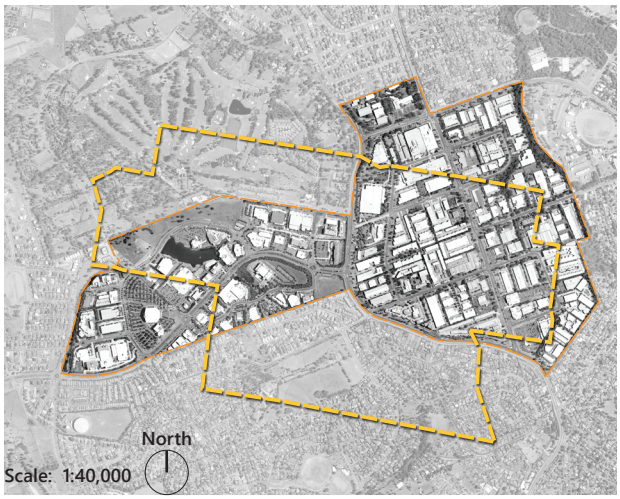


Olympic Boulevard

Novotel Sydney Olympic Park

NORWEST BUSINESS PARK

- 20,000 jobs
- 600 dwellings
- Mature centre



Norwest Lake

Norwest Business Park

MURDOCH HEALTH PRECINCT

- 4,500 jobs
- 1,300 dwellings
- Mature centre

Fiona Stanley Hospital

Murdoch Activity Centre

4.0 NEXT STEPS

4.0 Next Steps

This section identifies priority considerations to be integrated in the next stage of the Hospital Precinct Structure Plan process.

The next stage, Stage 3 – Draft Structure Plan, will assess the opportunities and constraints for the precinct, undertake a visioning workshop with key internal stakeholders then prepare principles and strategies for the precinct that will underpin a series of scenarios for the project. Concurrently, stakeholder and community engagement will occur through a series of drop in sessions and workshops.

The priority considerations listed in this section will guide the development of scenarios for the precinct. We welcome Council's review and comment of these considerations as we progress into the next stage.

PRIORITY CONSIDERATIONS

The following considerations arise from the analysis undertaken during Stage 2 – Research and Analysis. They respond to the planning, transport and economic analysis completed by the consultant team and build upon the key issues identified during previous engagement.

+ Transition to a strategic centre.
+ Reinforce an identity for the precinct that responds to the stakeholder and community vision for the precinct.
+ Enable a village style hub and atmosphere.
+ Establish the precinct as a centre of health and well being excellence supported by leading research, education and training facilities.
+ Complement the Northern Beaches Hospital with ancillary support uses.
+ Consider wellness as a land use.
+ Incentivise economic investment within the precinct.
+ Achieve a diversity of employment opportunities.
+ Provide public transport commensurate with a strategic centre.
+ Consider Bus Rapid Transit at the precinct.
+ Manage the regional road network.
+ Enhance access to and movement within the precinct.
+ Ensure a hierarchy of legible connectivity for the precinct.
+ Deliver greater housing choice, including medium density and affordable housing, within the precinct.
+ Integrate with regional open space networks.
+ Incorporate quality open space, public places and parks within the precinct.
+ Respond to topography.
+ Integrate water management systems.

HOSPITAL PRECINCT STRUCTURE PLAN

DRAFT SCENARIOS REPORT

Prepared for Northen Beaches Council

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MACROPLAN DIMASI + ARUP

NORTHERN BEACHES COUNCIL

OCTOBER 2016

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Ref: 50666

Revision Letter	Date	Reason for Issue
A	15/12/2014	Draft for discussion
B	28/07/2016	Final Draft
C	19/10/2016	Final

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TOWARDS A PREFERRED SCENARIO

This document was prepared before 12 May 2016, being the date of creation of the Northern Beaches Council pursuant to the Local Government (Council Amalgamations) Proclamation 2016.

The Northern Beaches Hospital Precinct Structure Plan Project was commissioned by the former Warringah Council and this Scenarios Report was prepared before 12 May 2016. Consequently, it makes reference to Warringah Council and Warringah Local Government Area.

It is acknowledged that the relevant local government authority since 12 May 2016, is the Northern Beaches Council.

All references to Warringah Council and Warringah LGA are to be read as references to "the former Warringah Council" and "the former Local Government Area of Warringah" respectively.

FRUITO

INTRODUCTION 1.0

THE CASE FOR CHANGE

1.0 Introduction

The Hospital Precinct Structure Plan describes the repositioning of Frenchs Forest to a Strategic Centre and guides future growth in the area over the next 20 years. Led by Hames Sharley, the process is supplemented by close collaboration with Arup for transport infrastructure and MacroPlan Dimasi for urban economics. More than simply describing a Structure Plan for the precinct, the following report results from coordination with Warringah Council and the Department of Planning and Environment to deliver a strategic methodology that underpins the integrated urban design, planning, transport and economic inputs that will lead to the sustainable and feasible development of the precinct.

INTRODUCTION

This report seeks to articulate Warringah Council's response to the Department of Planning and Environment's goal for a Strategic Centre that performs a vital economic and employment role for both the region and metropolitan Sydney. It will also demonstrate a capacity to evolve over time to include a greater mix of residential, retail and service uses. The precinct presents a unique opportunity due to the commitment of a new hospital and its location at the strategic intersection of Warringah Road and Wakehurst Parkway.

The Hospital Precinct Structure Plan intends to take advantage of the strengths of the precinct to create a synergy between a variety of uses and users that will ultimately inhabit this place. This project has the opportunity to deliver more than just the mix of land uses and health support industries associated with a major hospital. It can create localised employment opportunities to spur the economic evolution and redevelopment of Warringah as a region. In doing so, Warringah can become more dynamic, more prosperous and more liveable with the emerging injection of more industries and research associated with health, and therefore more jobs and people in Warringah.

This transition can be achieved through understanding the site, its region and its people. Engagement with key stakeholders and community members who will visit, work and reside there is essential.

This report builds upon the Analysis Report to prepare development scenarios for review and evaluation by the project team in order to select a preferred development scenario for the Structure Plan. This will guide development at Frenchs Forest for the next 20 years.

THE CASE FOR CHANGE

The Draft Scenarios Report is based upon a case for change. Analysis of the existing conditions and future delivery of the Northern Beaches Hospital and upgrades to Warringah Road and Wakehurst Parkway confirm that the precinct is constrained with respect to traffic and transport and therefore limited in its capacity to grow. The opportunity exists to bring to Frenchs Forest best practice integrated urban design development initiatives that enable the precinct to evolve beyond its current capacity. Moreover, this will enable the precinct to meet the criteria for a Strategic Centre as established by A Plan for Growing Sydney and enable the contribution of the activity centre to economy of the region and city.

The recently published "Better Public Transport, Better Productivity" Report (Tourism and Transport Forum Australia together with Price Waterhouse Coopers) finds that improved public transport is an essential part of national efforts to boost economic productivity. The focus of the report is people. People are the key inputs to production and therefore the ability to move these people to and between dense urban clusters of economic activity, be it for jobs, research, education, living or recreating, means establishing a successful service sector supply chain. At the same time, established cultural values are transitioning away from personal vehicle dependence in a trade-off with lifestyle, reduced commute times and 21st century modes of working. For Frenchs Forest, this means the opportunity to use the economic performance of the existing business park and leverage the catalytic hospital development to invest in infrastructure initiatives that support a 21st century integrated, mixed use precinct sustained and enabled by transit.

Underpinned by precinct visioning and development principles, the Draft Scenarios Report considers a number of infrastructure based scenarios to determine the capacity of the precinct for the future. The varying scenarios quantify different long term outcomes for the site with respect to housing density, diversity of uses and activation and infrastructure delivery, as well as qualitative aspirations for open space, built form and community events. The determination of a preferred scenario for the precinct is enabled through this analysis. This process ensures a robust and flexible approach to development of the area that can respond to changing market conditions and development opportunities as they arise.

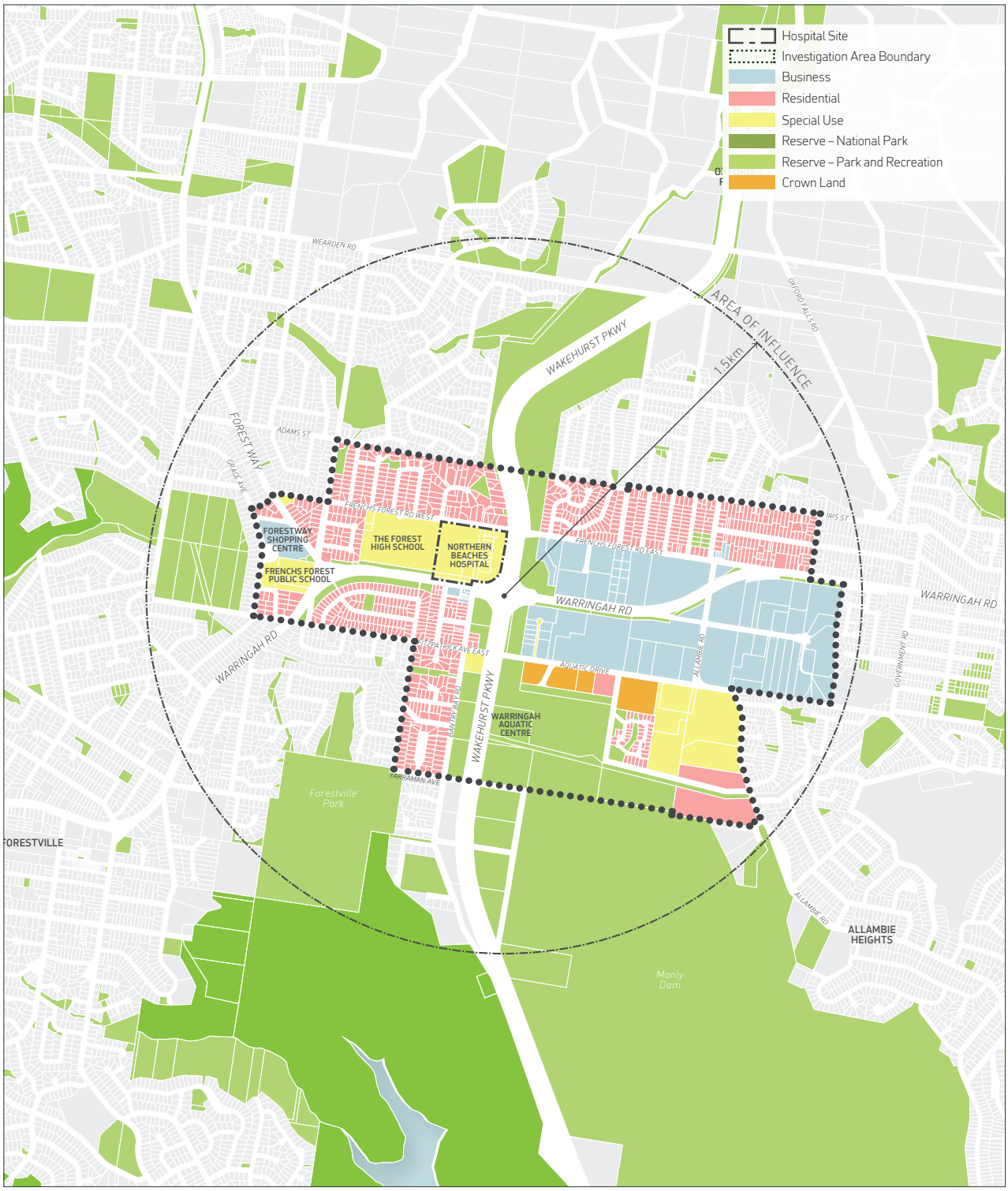
DEFINING THE INVESTIGATION AREA

The Hospital Precinct Structure Plan adopts a 200 hectare investigation area agreed with and confirmed by Warringah Council. The investigation area is located to the south of Warringah LGA in the suburb of Frenchs Forest and is intersected by two major thoroughfares, Warringah Road and Wakehurst Parkway, with Forest Way feeding into Warringah Road in the investigation area's north western end.

The purpose of the investigation area is to provide an area within which to test the long term objectives of a Strategic Centre at Frenchs Forest. This investigation area is supported by an area of influence, a 1.5 kilometre radial area from the crossroads of Warringah Road and Wakehurst Parkway.

The investigation area is bound by Iris Street to the north, Jones Street into Allambie Road to the east, Yarraman Avenue extending through Manly Dam lands to the south, and Rangers Retreat Road up to Grace Avenue to the west. It encompasses land that falls within the Frenchs Forest suburb and includes the Bantry Bay and Skyline Shops neighbourhood centres as well as the Forestway Shops Local Centre at the corner of Warringah Road and Forest Way.

The investigation area encourages continued coordination between neighbouring civic organisations and allows for the creation of a Precinct Structure Plan responsive to the investment of the Northern Beaches Hospital site currently underway.


Hospital Site
Investigation Area Boundary
Business
Residential
Special Use
Reserve – National Park
Reserve – Park and Recreation
Crown Land
AREA OF INFLUENCE
1.5km
WEARDEN RD
WAKEHURST PKWY
OXFORD FALLS RD
FOREST WAY
ADAMS ST
GRACE AVE
FORESTWAY SHOPPING CENTRE
FRENCHS FOREST PUBLIC SCHOOL
FRENCHS FOREST RD WEST
THE FOREST HIGH SCHOOL
NORTHERN BEACHES HOSPITAL
FRENCHS FOREST RD EAST
IRIS ST
WARRINGAH RD
WARRINGAH RD
WARRINGAH RD
FITZPATRICK AVE EAST
AQUATIC DRIVE
ALLAMBIE RD
GOVERNMENT RD
WARRINGAH AQUATIC CENTRE
WAKEHURST PKWY
DAN MORAL RD
MARGARAN AVE
Forestville Park
FORESTVILLE
ALLAMBIE RD
ALLAMBIE HEIGHTS
Manly Dam

FRUITO

ASPIRATIONS 2.0

TOWARDS A STRATEGIC CENTRE

2.0 Aspirations

This section identifies aspirations for the Hospital Precinct Structure Plan. These aspirations respond to an analysis of the existing context, outcomes of previous consultation undertaken including the Community Strategic Plan, comments received during the Drop In Sessions and Workshops at Forestville RSL as well as Strategic Centre Criteria outlined in A Plan for Growing Sydney.

This is coupled with key elements that constitute urban design excellence for Strategic Centres such as place creation, identity, movement networks, land uses, future proofing and social, economic, environmental and governance sustainability.

The intent for the delivery of the Hospital Precinct Structure Plan is described in the following aspirations as the first step to achieving a whole-of-project vision. This intent is then translated into possible future precinct typologies for the Hospital Precinct.

STRATEGIC CENTRE CRITERIA

In order to be a Strategic Centre, the Hospital Precinct must:

- Be an employment destination and/or the location of essential urban services;
- Contain either major airports, ports, hospitals, universities and metropolitan business parks and office clusters that perform vital economic, research and employment roles across the metropolitan area;
- Have a minimum of 8,000 jobs, with the potential for more than 12,000 jobs;
- Have an amount of employment that is of metropolitan significance, while other uses in the precinct are not necessarily at a scale currently of metropolitan significance;
- Be able to assume a greater mix of residential, retail and service uses over time, and potentially assume the role of a Major Centre;
- Balance the emergence of additional uses to ensure the employment function is not compromised so they can continue to serve their primary employment and economic development functions;
- Protect specialised functions for the long term and residential and other non-specialised but competing uses must not override the core employment activities in these precincts. Some, however, will plan for ancillary uses which are suitable, such as student or staff accommodation near universities and hospitals; and
- Provide high quality public places and parks for workers and nearby residents.

The following transport criteria are identified for a Strategic Centre:

- Transport catchments may be irregular and relate to the employment specialties of the precinct.
- As a key destination for workforce, they must be accessed by a strategic transit network, however transport servicing requirements depend upon the number and type of jobs in the precinct.
- They are linked with motorways, arterial roads and relevant freight network to industries related to their speciality.

ASPIRATION 01
TRANSITION FROM A BUSINESS PARK TO A STRATEGIC CENTRE

+ Optimise the development potential of the precinct.
+ Respond to the new Northern Beaches Hospital as a catalyst.
+ Provide a metropolitan scale employment destination.

ASPIRATION 02
CREATE A HEALTH AND WELLNESS PRECINCT

+ Leverage the Northern Beaches Hospital.
+ Respond to existing land uses.
+ Establish a destination that is more than a hospital.

ASPIRATION 03

REINFORCE THE PRECINCT AS AN ECONOMIC HUB FOR WARRINGAH

+ Formalise the precinct as an employment hub for the region.
+ Respond to new job opportunities.
+ Diversify employment activities.
+ Consider health and complementary uses.

ASPIRATION 04

ENHANCE THE IDENTITY OF THE PRECINCT

+ Contribute to a clear and legible identity for the precinct.
+ Work with the topography.
+ Integrate the natural environment.

ASPIRATION 05
CLARIFY THE STREET NETWORK

+ Work with RMS.
+ Consider the local street network hierarchy.
+ Enable active transport.

ASPIRATION 06
INTEGRATE PUBLIC TRANSPORT COMMENSURATE WITH A STRATEGIC CENTRE

+ Provide public transport commensurate with a Strategic Centre.
+ Consider bus rapid transit for long term precinct sustainability.
+ Refine the local bus networks.
+ Work with Sydney Buses and Forest Coaches.

ASPIRATION 07
EXTEND AND CONNECT TO THE EXISTING FABRIC

+ Enable a village-style hub, not a Chatswood.
+ Respond to the existing neighbourhoods.
+ Ensure local connectivity.
+ Introduce a pedestrian and cycle network hierarchy.

ASPIRATION 08
MAKE THE PRECINCT BIGGER

+ Maximise the proximity of the Northern Beaches Hospital.
+ Consider adjacent sites.

ASPIRATION 09
DEFINE THE MIX OF USES

+ Enable health plus wellness, retail, commercial, residential, education, civic, community, cultural, recreation and lifestyle activities.
+ Consider research and development.
+ Diversify residential choice.

ASPIRATION 10
CREATE A VIBRANT COMMUNITY DESTINATION

+ Ensure high quality and flexible public places.
+ Create a place for the everyday.
+ Overlay weekly activities.
+ Enable events.

ASPIRATION 11
LEVERAGE THE NATURAL ENVIRONMENT

+ Respond to topography.
+ Integrate water management.
+ Protect wildlife corridors.
+ Incorporate functional public open spaces and parks.

ASPIRATION 12
MAKE THE PRECINCT ACTIVE AND HEALTHY

+ Reinforce the existing community.
+ Provide for the new community.
+ Encourage activation.
+ Bring people to the streets.

ASPIRATION 13
DESIGN FOR THE FUTURE

- Identify key sites.
- Ensure staging and phasing.
- Focus on buildability.
- Manage infrastructure capacity.

ASPIRATION 14
CREATE A LEGACY

- Engage with the community.
- Work with stakeholders.
- Ensure a sustainable future facing precinct.
- Reinforce economic performance.
- Cement the precinct as an identifiable place within Warringah.

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PRECINCT TYPOLOGIES

3.0

DEFINING A PRECINCT TYPOLOGY

3.0 Precinct Typologies

Successful places have clear and recognisable identities. More than place making, the identity of a place is underpinned by its sustainable, successful urban economic model, and functional and managed infrastructure. Overlaid are distinctive visual characteristics that enable visitors to clearly and legibly navigate within the place, and, arguably more importantly, be drawn back to it to live, work or recreate or all of the above.

In the transition of Frenchs Forest to a Strategic Centre, the opportunity exists to clearly articulate an identity for the place that is true to the needs of the community and delivers more than simply a new hospital located next to an existing 1980s business park. The following section identifies contemporary precinct typologies considered relevant for the area through the stakeholder engagement process and through knowledge and benchmarking of other successful strategic centres in Australia and around the world. The outcome of this process is intended to be a combination of relevant elements that contribute to a strong and unique identity for Frenchs Forest as a Strategic Centre.

HEALTHY PRECINCT

A healthy precinct considers causes, effects and solutions that relate to population health and wellness, natural resource management, active transport, climate change and best practice urban design.

LIFESTYLE PRECINCT

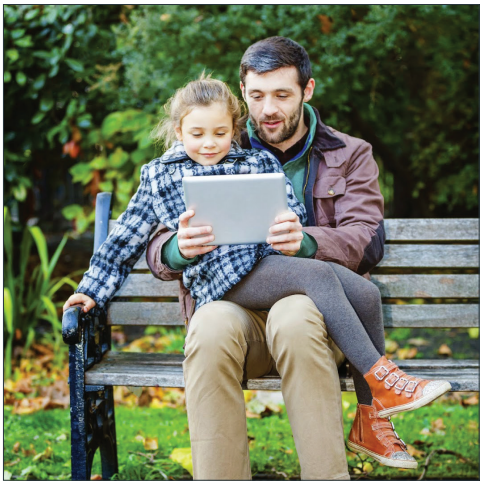
A lifestyle precinct has a focus on quality of life in the acceptance of the place as a good place to live.

CREATIVE PRECINCT

A creative precinct identifies, nurtures, attracts and sustains talent so it is able to mobilise ideas, talents and creative organisations.

KNOWLEDGE PRECINCT

A knowledge precinct provides for knowledge, possesses an economy that is knowledge based and provides an environment that fosters knowledge creation and dissemination.



DIGITAL PRECINCT

A digital precinct is a connected community that combines broadband communication infrastructure and innovative services to meet the needs of citizens, employees and businesses.

INNOVATION PRECINCT

An innovation precinct is at the forefront of inventing and introducing new ideas, methods or products to the way we live, work and play.

OPPORTUNITIES FROM PRECINCT TYPOLOGY ANALYSIS

Coupled with the benchmarking examined in the Analysis Report, the precinct typology analysis has identified the following opportunities for the Hospital Precinct Structure Plan. These opportunities build upon the visioning, briefing and aspirations identified for the project towards the ultimate delivery of a Strategic Centre at Frenchs Forest.

The following opportunities have been identified for the precinct and inform the following sections of this report:

- Create more than a hospital precinct.
- Define a health, wellness and lifestyle focus for the precinct.
- Evolve the business park function to a higher order.
- Integrate technology.
- Enable a diversity of commercial product and employment opportunities.
- Deliver appropriately located mixed use development.
- Reinforce the destination as a transport oriented development.
- Increase access and connectivity to and within the precinct, despite complex regional road networks.
- Create a local street network hierarchy.
- Preserve and orientate to conservation areas.
- Consolidate landscape initiatives to create public places.
- Identify appropriate building styles, massing and built form.

Coupled with opportunities defined by the Analysis Report, these opportunities provide a foundation for the identification of development principles in Section 4.0 Development Principles and the performance of scenarios proposed in Section 5.0 Development Scenarios.

Moreover, these opportunities provide the context for establishing a clear and unique identity for the precinct that can reinforce the place as a destination and maintain its competitive advantage in metropolitan Sydney.

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DEVELOPMENT PRINCIPLES

4.0

TOWARDS A DEVELOPMENT FRAMEWORK

4.0 Development Principles

The following development principles have been identified in order to transition the existing Frenchs Forest Business Park and future Northern Beaches Hospital area to a Strategic Centre for Warringah and metropolitan Sydney. These principles are to underpin the process towards establishing a preferred Structure Plan for the precinct, and to enable the consideration of a number of development scenarios based on projected demographic changes, urban economic drivers and traffic and transport initiatives.

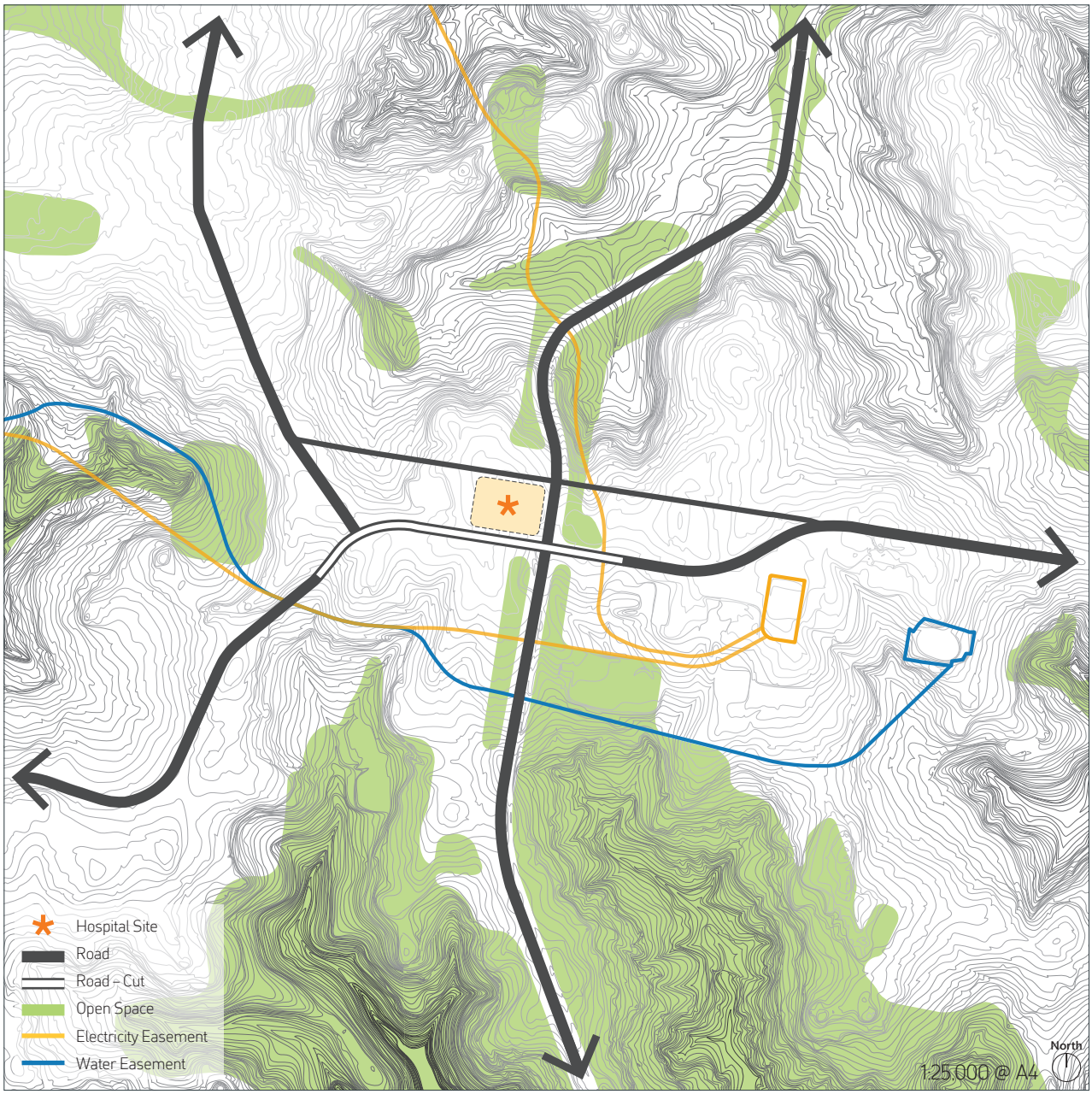
The development principles presented are intended to provide a flexible but robust approach to the long term delivery of a Strategic Centre at Frenchs Forest. Not mutually exclusive, the principles work together to establish a platform for change that can enable multiple development initiatives that will relate to time and market opportunities.

PRINCIPLE 01
WORK WITH THE FUTURE CONTEXT

- **Leverage the delivery of the Northern Beaches Hospital.**
- **Integrate RMS road upgrades.**
- **Strengthen Frenchs Forest's green identity.**

The proposed Frenchs Forest Strategic Centre is an established urban environment at the crossroads of Warringah Road and Wakehurst Parkway. It is located at the intersection of two ridge lines at one of the highest elevation points in Warringah. Construction of the new Northern Beaches Hospital is underway and due for completion in 2018. This construction is to be coupled with upgrades of Warringah Road and Wakehurst Parkway to manage the increased capacity of the precinct. Incumbent on the site are also significant constraints related to topography, water and power supply infrastructure.

The 2018 context of the site provides the framework for considering the potential evolution of the area to a Strategic Centre. The opportunity exists to work within this context and use the new hospital development as a catalyst to evolve the precinct to a high functioning activity centre. Job creation and higher density living are the essential criteria for a Strategic Centre, together with open space amenity, a highly functional road network and public transport initiatives.



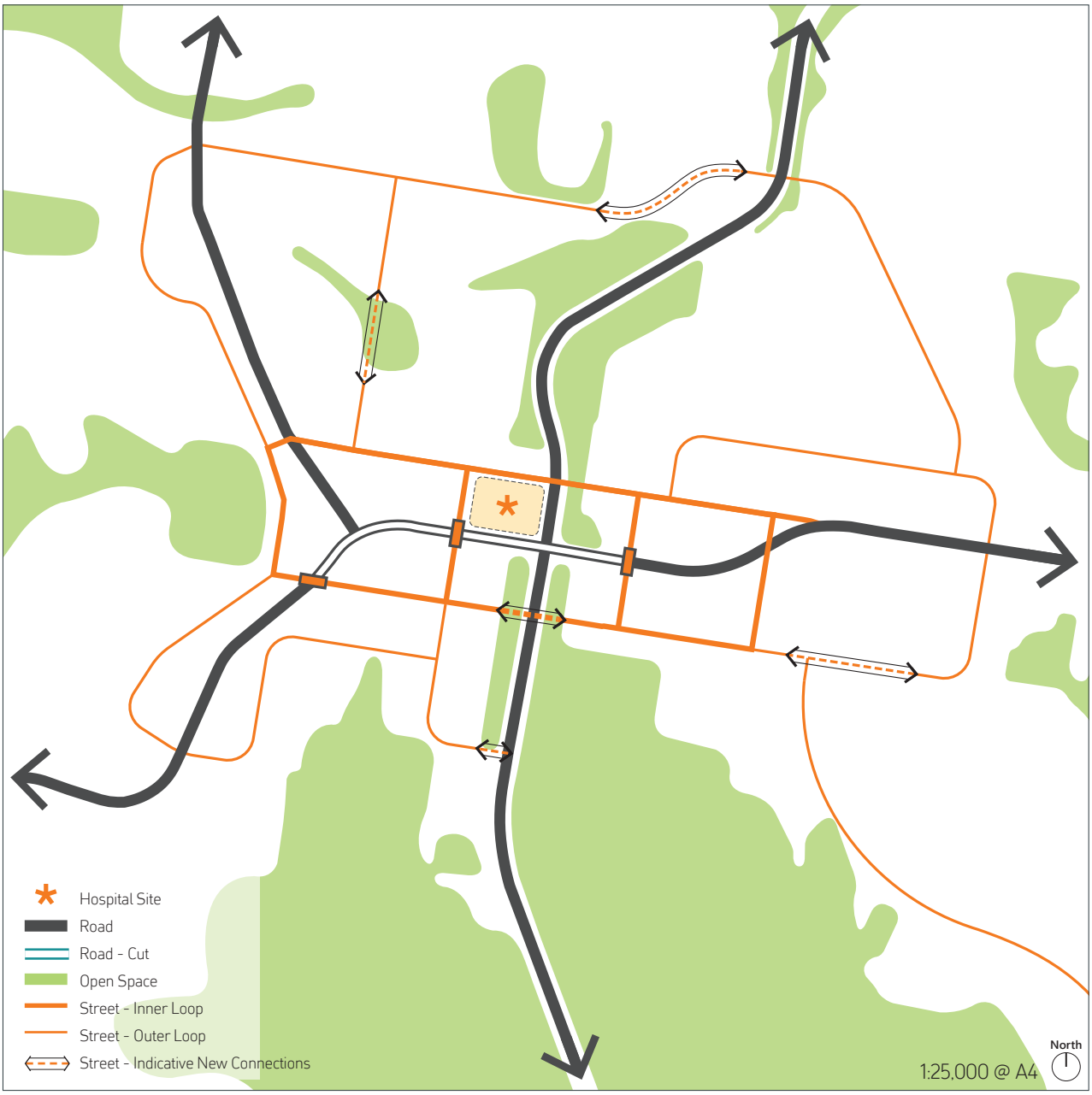
PRINCIPLE 02

CONFIRM A STREET NETWORK LOOP

+ **Build upon RMS regional road upgrades.**
+ **Clarify the local street network.**
+ **Introduce an inner network loop with "ladder" connectivity.**
+ **Enable the long term upgrade of an outer loop of the precinct.**

RMS are delivering road upgrades for the regional connectors Warringah Road and Wakehurst Parkway and the hospital address street Frenchs Forest Road. The extent of these road upgrades is significant including a cut tunnel for 1.5km across the precinct. This has an impact on the connectivity and legibility of the local street network in and around the new hospital and across the precinct. Following the upgrade of these roads, the capacity of the road network remains constrained particularly with regard to potential growth within the business park and the ability to deliver additional and higher density residential.

The opportunity exists to increase the capacity of the traffic network by introducing a number of local street initiatives. These initiatives are based on the elevation of existing streets to higher order streets within the network, and creating previously incomplete linkages. Many of these linkages relate to connections across topography and parkland and need to be further investigated with respect to environmental responsiveness, civil engineering, community acceptance and financial sustainability. These linkages enable the creation of an inner street network loop that services the Strategic Centre, as an outer peripheral loop that improves vehicular amenity for local residents.



PRINCIPLE 03

INTRODUCE NEW PUBLIC TRANSPORT

- **Deliver a regional Bus Rapid Transit on Warringah Road.**
- **Make the local bus network more efficient and reliable.**
- **Consider a shuttle service on the local loop.**
- **Provide for park and ride facilities.**

The inclusion of a strategic public transport system is an essential criteria for a Strategic Centre. Public transport currently exists at Frenchs Forest as a local bus service augmented by an inter-employment centre connector service to Chatswood operated by Forest Coaches. While a local system exists, it could be elevated to a strategic regional system and be better utilised by ensuring more efficient services. In turn, this outcome could contribute to a cultural change towards public transit as a viable and efficient transport mode for Warringah.

The opportunity exists to consider a Bus Rapid System (BRT) for Frenchs Forest that is integrated with the delivery of the new regional road infrastructure for the region. BRT can provide efficient connection between Chatswood and Dee Why Town Centre via Frenchs Forest. Up to three stops across the length of the Strategic Centre, particularly to service the new hospital, business park and residential areas, enables a 400m walking environment on the ridge line and associated with new street linkages created by the precinct loop network. Provision of public transport to the precinct facilitates accessibility of key workers to the hospital, attracts employees to the business park, and provides amenity to higher density living in the area.

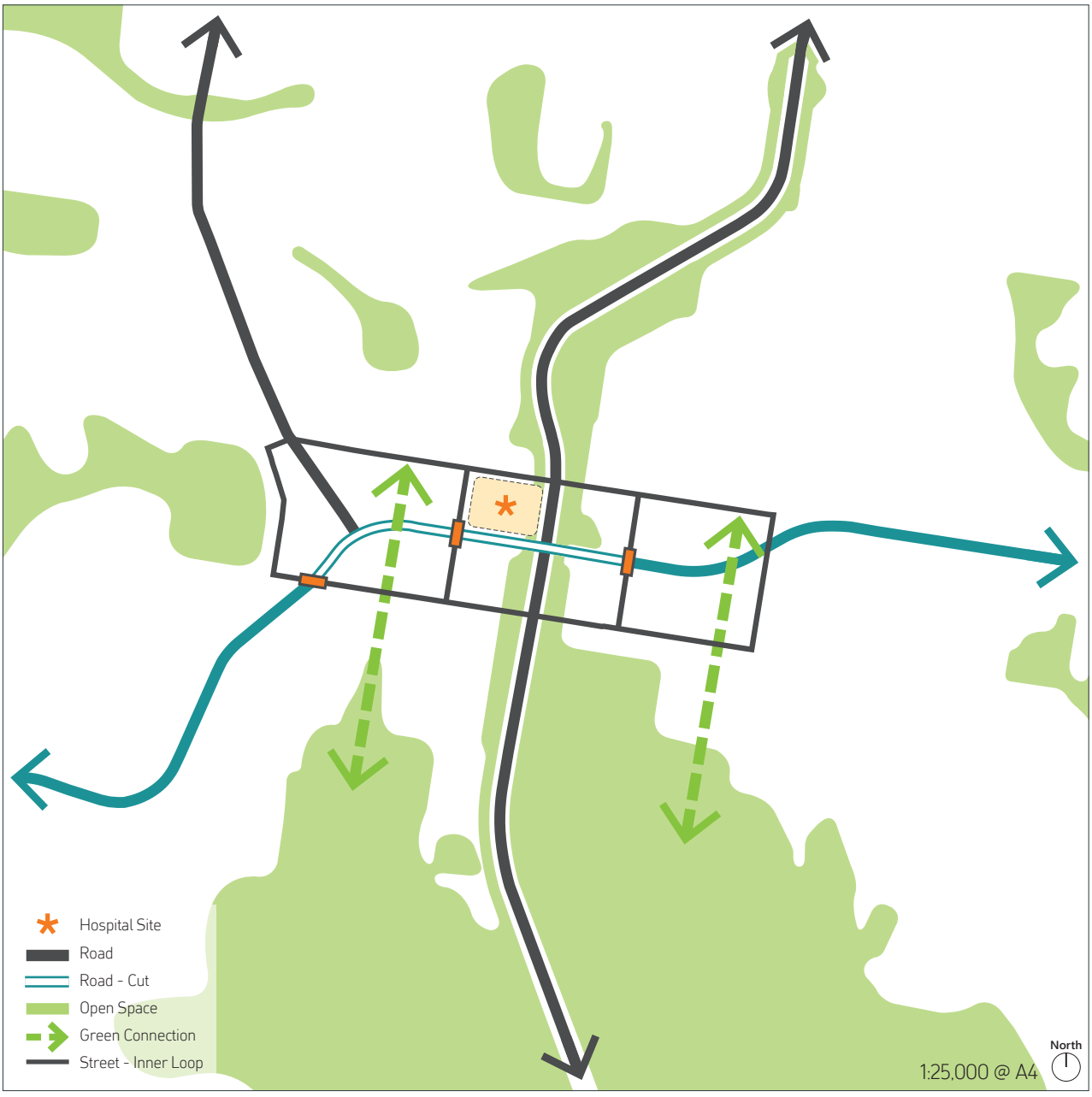
PRINCIPLE 04

BRING THE FOREST TO THE PRECINCT

+ **Reinforce the "forest" identity of Frenchs Forest.**
+ **Leverage the natural environment.**
+ **Work with and celebrate the topography.**

The beach and bush identity of Warringah as a whole, is supported at Frenchs Forest as a consequence of significant bushland and open space adjacent to and passing through the precinct. Of note, the Forestville Park, Garigal National Park and Manly Dam provide visual and physical open space assets for the region and contribute to the "green" identity of the area. These areas also have unique environmental and biodiversity values and are home to a number of threatened species. The Wakehurst Parkway, as a linear landscape corridor, also contributes to this identity.

The opportunity exists to create a formal connection between the 'forest' and the precinct. This can contribute to the character of the place by introducing a common landscape language to streets and public places that support and reference the broader landscape character of the region. It also assists in the resolution of topography and the connection of assets, such as the aquatic centre and playing fields, to their natural environment as well as the new and future residents and workers of the Strategic Centre.



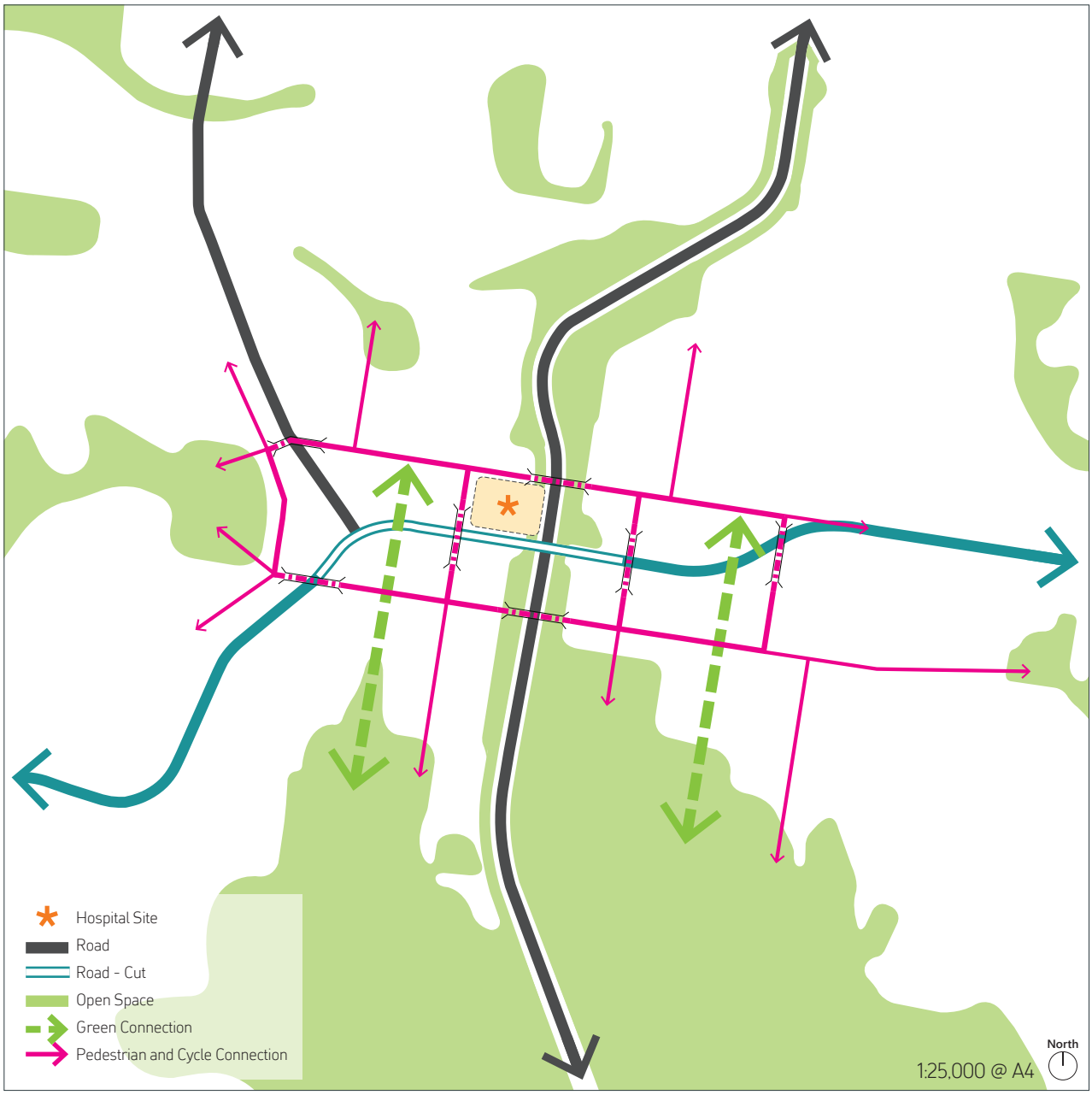
PRINCIPLE 05

ENSURE PEDESTRIAN AND CYCLIST CONNECTIVITY

- **Support a health and wellness precinct.**
- **Embrace active transport.**
- **Make topography accessible.**
- **Formalise recreational walking and cycling.**

The current urban environment of the precinct is dominated by the motor vehicle. Limited opportunities exist for pedestrians and cyclists to move about the area in safety and in a comfortable environment. Recreation is formalised within the adjacent regional open space network, including JJ Melbourne Hills Memorial Reserve adjacent to the Garigal National Park that includes an equestrian area, BMX track and field archery.

The opportunity exists to introduce pedestrian and cycle connectivity within the Strategic Centre in order to promote wellness and confirm the Strategic Centre as a walkable and connected environment to surrounding recreation areas including Narrabeen Lagoon and Lionel Watts Reserve. In order to achieve this, land bridges related to the "ladder" street network of the precinct are essential to ameliorate the regional road implementation. This can also connect to the regional open space. The opportunity also exists to create a cycle strategy that incorporates commuter and recreational cycling.



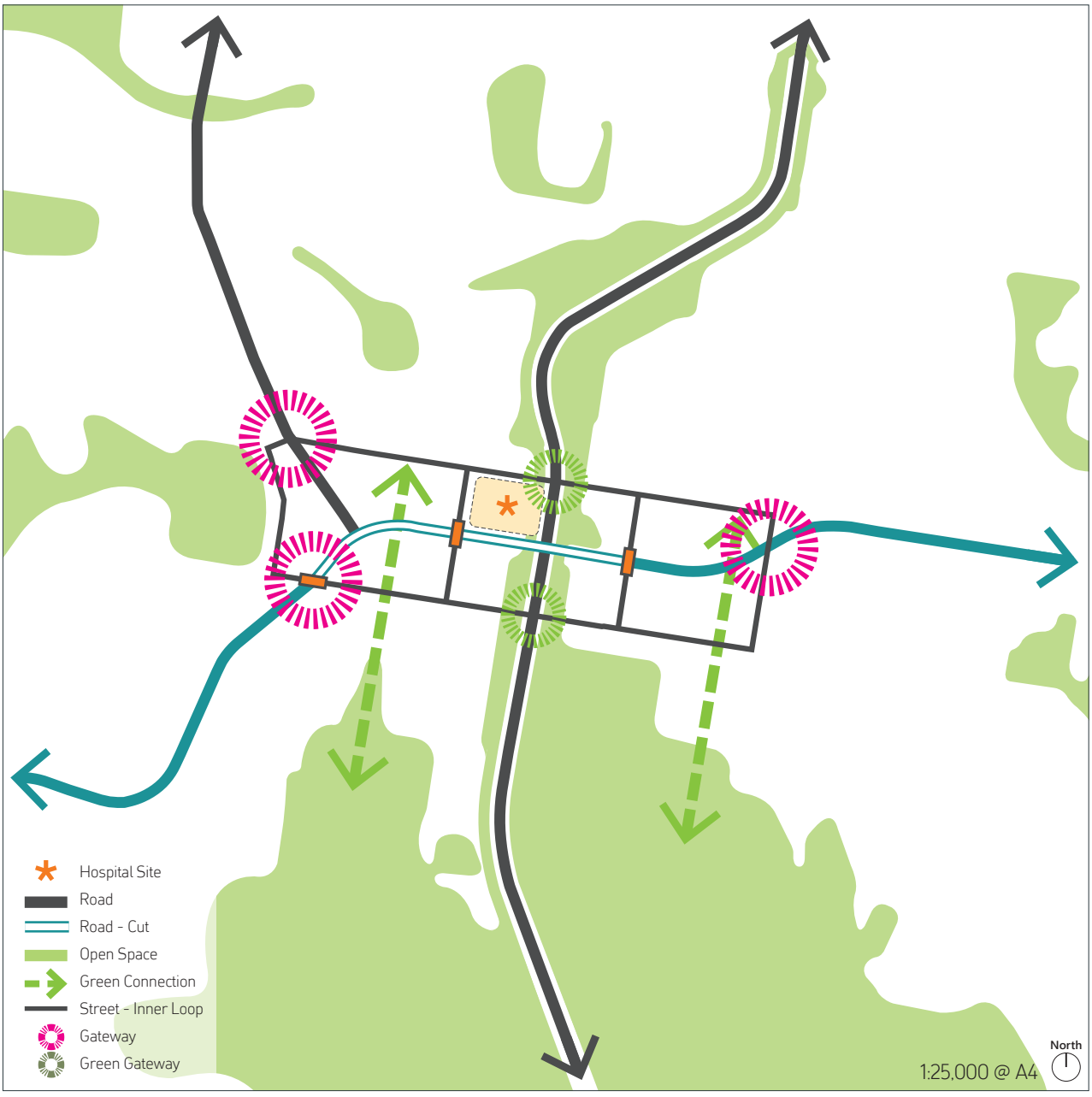
PRINCIPLE 06

IDENTIFY GATEWAYS AND THRESHOLD

+ **Identify gateway sites.**
+ **Define thresholds.**
+ **Consider signature architecture.**

The current urban form of Frenchs Forest does not provide a sense of address to the precinct. Land uses have assembled on individual land parcels without an holistic approach to planning and design for the area. The opportunity exists to elevate the identity of the precinct through a coordinated approach to design and built form guidelines. Gateway sites and thresholds provide a strategic way to strengthen the identity of the precinct.

The elevation of the regional road network enables the creation of gateway sites related to precinct address. These sites are the appropriate location for landmark architecture and increased height. Coupled with public transport initiatives, the additional density can be delivered. Moreover, the creation of vehicular bridges and land bridges to cross Warringah Road provides the appropriate location for designed thresholds that may include landmark building, signature landscape, or public art initiatives.



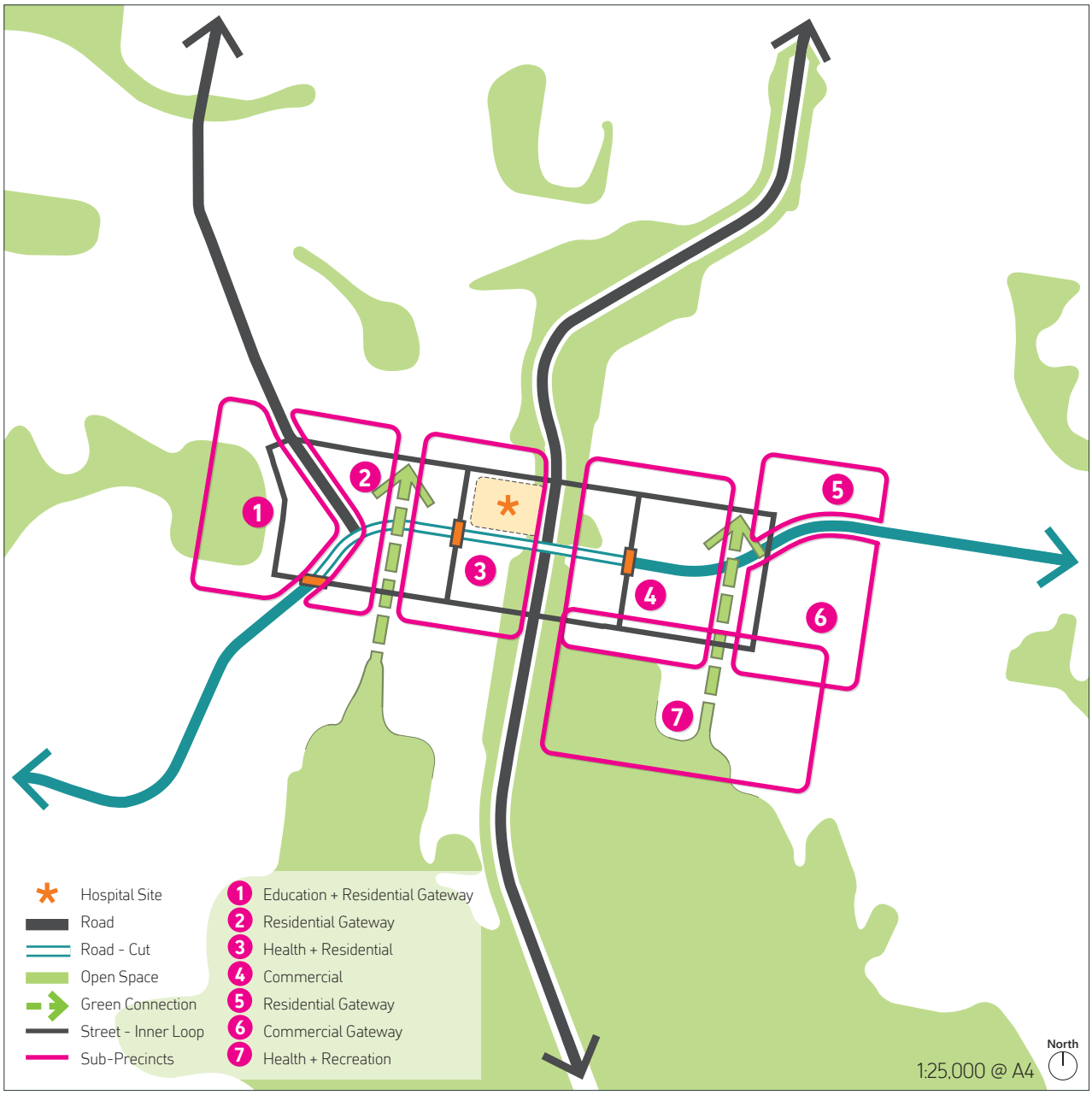
PRINCIPLE 07

CONFIRM LAND USES AND PRECINCTS

- **Establish a robust development framework for the precinct.**
- **Mitigate limited connectivity wherever possible.**
- **Collocate land uses for efficiency and functionality.**

The urban land pattern of the existing urban form at Frenchs Forest is disparate with a number of historical land uses occupying sites of convenience over time. The strongest urban pattern is that of the business park surrounded primarily by single lot housing and a constrained retail site. Three schools exist in the precinct including Frenchs Forest Public School, The Forest High School and the Arranounbai School servicing northern Sydney. None of these facilities are collocated. The Warringah Aquatic Centre is located on Aquatic Drive, adjacent to the Cerebral Palsy Alliance and regional open space.

The opportunity exists to consider a number of land use based precincts within the Frenchs Forest investigation area. These precincts can define the character and identify of various areas within the Strategic Centre. The Health + Residential, with the catalyst of the Northern Beaches Hospital, can provide a focus for lifestyle and wellness activities including higher density residential. The Commercial Precinct can reinforce and secure the existing business park function of the area and be supported by a mix of uses that improve the amenity of the precinct. An Education + Residential Precinct is proposed that collocates higher order primary, secondary and specialised education together with residential at the precinct thresholds. Gateways are proposed to enable higher density built form related to major transport and traffic corridors.



PRINCIPLE 08

APPLY AN OPEN SPACE HIERARCHY

+ **Confirm and strengthen a forest identity**
+ **Formalise open space destinations within the Strategic Centre**
+ **Ensure open space amenity for higher density activities**

The regional open space, linear landscape corridors and natural parks in and around the Frenchs Forest Strategic Centre contribute to the identity of the place. In its current form this is an informal identity with major green links providing a background to development. The opportunity exists to better connect the precinct with these established landscape areas and, conversely, introduce new open spaces and linkages within the precinct that contribute to the forest identity of the place.

An open space hierarchy is suggested for the precinct. At the highest order, regional and national parklands are to be maintained, protected and reinforced. This can be achieved through linkages that specifically connect the regional open space to the Strategic Centre. Forestville Park, adjacent to Garigal National Park, and recreation precincts adjacent to Manly Dam Reserve provide formal recreational focus for the precinct. These regional recreation facilities can be upgraded and confirmed as part of an open space hierarchy for the precinct. At a precinct scale, a number of smaller parklands and open spaces are suggested to complement each quadrant of the Strategic Centre, connect to regional and recreational open space, and provide venues for events such as food markets, open air cinema and facilities open days.

SUMMARY

The development principles identified in this section provide a flexible yet robust framework towards the establishment of a preferred Structure Plan for the precinct. Underpinned by best practice 21st century city making, they establish a criteria for the evaluation of the development scenarios in the following section, 5.0 Development Scenarios, of this report.

This evaluation is coupled with the Strategic Centre criteria, land use forecasts as well as traffic and transport allocations to assess how each of the development scenarios perform against one another in transitioning Frenchs Forest Business Park and the future Northern Beaches Hospital to a Strategic Centre for Warringah and metropolitan Sydney.

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DEVELOPMENT SCENARIOS

5.0

TESTING THE DEVELOPMENT PRINCIPLES

5.0 Development Scenarios

In conjunction with the research and knowledge presented in the Analysis Report, this section is underpinned by an understanding of the project's brief, land parcelisation, agreed project aspirations, potential precinct typologies, and established development principles. Coupled with the criteria for achieving a Strategic Centre identified by the A Plan for Growing Sydney, four development scenarios for the precinct have been considered.

The development scenarios test the capacity, land uses, densities, open space networks and connectivity aspirations in an holistic and informed way. This testing is then considered with respect to the knowledge learnt through the benchmarking process of the Analysis Report and Precinct Typologies (Section 3.0) in order to consider best practice design and development of a mixed use Strategic Centre for Frenchs Forest.

The following pages illustrate and describe four proposed development scenarios for the project. These represent four strategies, not four designs. Underpinning each scenario is the common intention to reposition the project from an isolated "hospital" and logistics based business park to a higher order precinct connected with the broader Frenchs Forest community and Warringah area. The scenarios consider initiatives for the Strategic Centre investigation area, supported by and contributing to the area of influence designated as a 1.5km radius from the intersection of Warringah Road and Wakehurst Parkway.

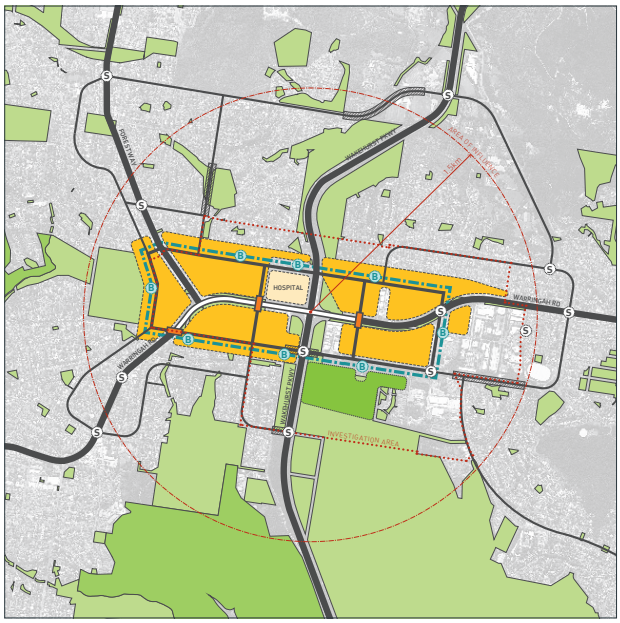
The four scenarios represent varying typological approaches to the project, rather than a time based evolution of the site. In this way the project intentionally contributes to a legacy of precinct making in metropolitan Sydney and posits opportunities for more sustainable and future facing urban delivery at Frenchs Forest. The common keystone for each scenario is the delivery of the Northern Beaches Hospital and associated Roads and Maritime Services (RMS) regional road upgrades by 2018. This provides the new context within which each scenario is to be considered. The significant road upgrades, by virtue of their scale and vertical separation, provide a significant challenge to delivering an integrated urban precinct. All scenarios seek to improve or resolve this urban condition as a priority.

With this framework as a basis, the four scenarios consider different development parameters in relation to investigation areas, land ownership, traffic and transport initiatives, as well as open space and pedestrian connectivity to best integrate with the broader area. These considerations are not designed outcomes, instead they are indicative diagrams to communicate a conceptual scenario. In summary, the scenarios are:

- Scenario 1, "Base Case," represents the 2018 redevelopment of the precinct including the completed Northern Beaches Hospital and RMS road upgrades.
- Scenario 2, "Local Street Network Upgrade," considers the possibility in 2036 of increased site capacity by introducing an inner loop road, elevating the role of some identified existing streets and creating new street connections to enable an outer loop road system. In this scenario the existing bus system is retained.
- Scenario 3, "Mode Shift," considers in 2036 a new focus on public transport initiatives and potential Bus Rapid Transit network (or similar). While an inner loop road is clarified for the precinct, the emphasis is on pedestrian amenity and connectivity associated with public transport initiatives.
- Scenario 4, "Strategic Centre Full Potential," considers in 2036 both local street upgrades and the integration of public transport initiatives commensurate with a strategic centre.

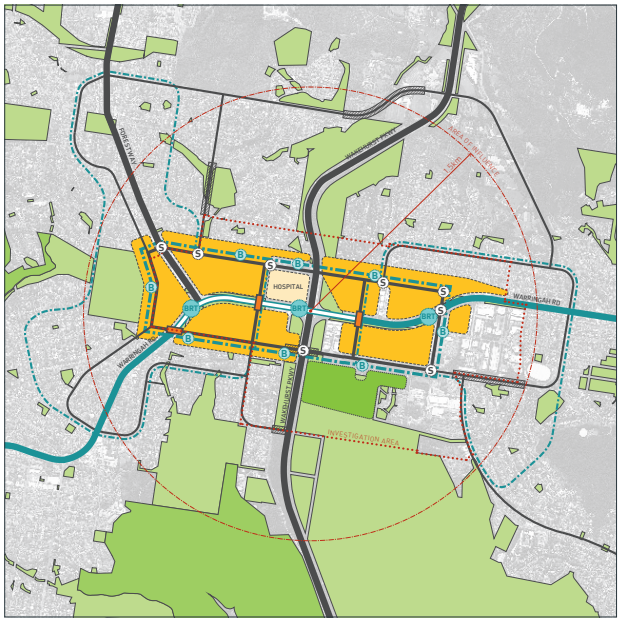
These scenarios are described in more detail in the following pages of this report. This provides a platform for discussion with the project team, Interagency Working Group, stakeholders and community towards agreeing a preferred development framework for the project moving forward.

Scenario 1 – Base Case



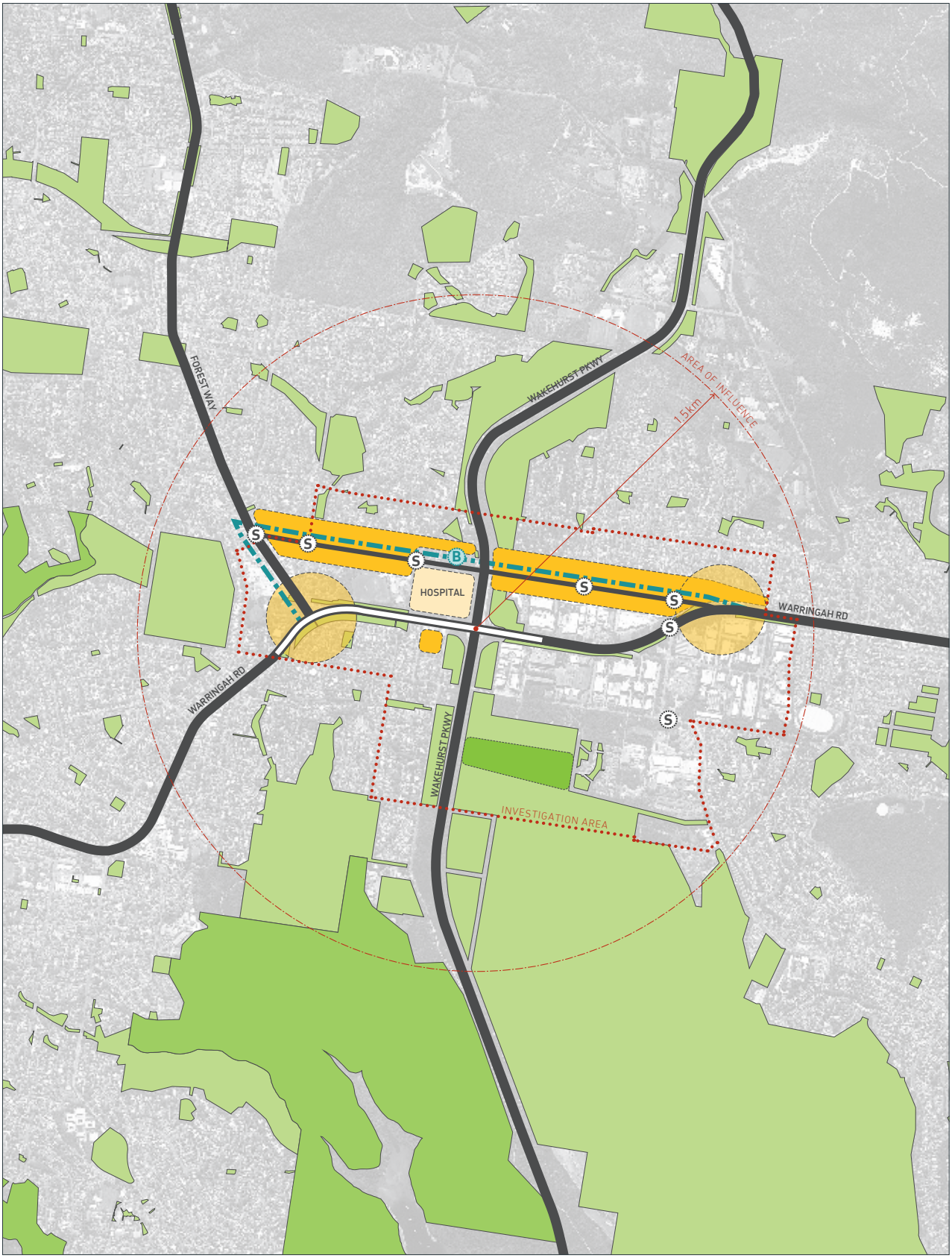
Scenario 2 – Local Street Network Upgrade (Including new streets)

Scenario 3 – Mode Shift (No change to local street network)



Scenario 4 – Strategic Centre Full Potential (Scenario 2 plus 3)

SCENARIO 1 – BASE CASE



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SCENARIO 1 – BASE CASE

ASSUMPTIONS

+ RMS Stage 1 and 2 road upgrades.
+ Upgraded signals and intersections.
+ Increased employment at Northern Beaches Hospital.
+ Business park remains with some capacity for additional uses at night and the weekend.
+ Upgrade to Aquatic Centre.
+ No additional education.
+ Improved open space and recreational facilities.
+ Potential to establish regional scale open space and complementary uses.
+ Requirement for 0.47 new primary school and 0.16 new secondary school facilities.

LAND USE FORECAST *(Source: Bureau of Transport Statistics 2014, MacroPlan Dimasi)*

Land Use	GFA	Additional Jobs
Northern Beaches Hospital	70,000 sqm	1,400
Business Park (including commercial and industrial)	47,135 sqm	670
Retail	4,000 sqm	115
Other	3,200 sqm	80
Total Employment	**124,335 sqm**	**2,265**
Residential	**704 dwellings**	**-**

TRAFFIC AND TRANSPORT ALLOCATION *(Source: Arup)*

The base case assumes that the road system improvements are being designed to accommodate the NBH and the BTS floor space and employment forecasts to 2021. For the non NBH uses, this equates to an additional 968 vehicles in the peak hour as below:

Land Use	Trip Generation Rate	% Mix	Traffic Increase	Land Use Increase
Residential	0.29	21%	204 vehicles	704 dwellings
Commercial	1.2	58%	564 vehicles	47,000 sqm GFA
Retail	5	21%	200 vehicles	4,000 sqm GFA
		100%	**968 vehicles**	

STRATEGIC CENTRE CRITERIA SCORECARD

- Be an employment destination.
- Contain a major hospital and business park.
- Have a minimum of 8,000 jobs with potential for 12,000.
- Assume a greater mix of uses over time.
- Balance emerging additional uses with employment uses.
- Ensure residential does not dominate core employment uses.
- Provide high quality public places and parks.
- Meet the transport needs of the specialised workforce.
- Ensure access by a strategic transit network.
- Link with motorways, arterial roads and freight networks.

SCORE: 5 / 10

DEVELOPMENT PRINCIPLES SCORECARD

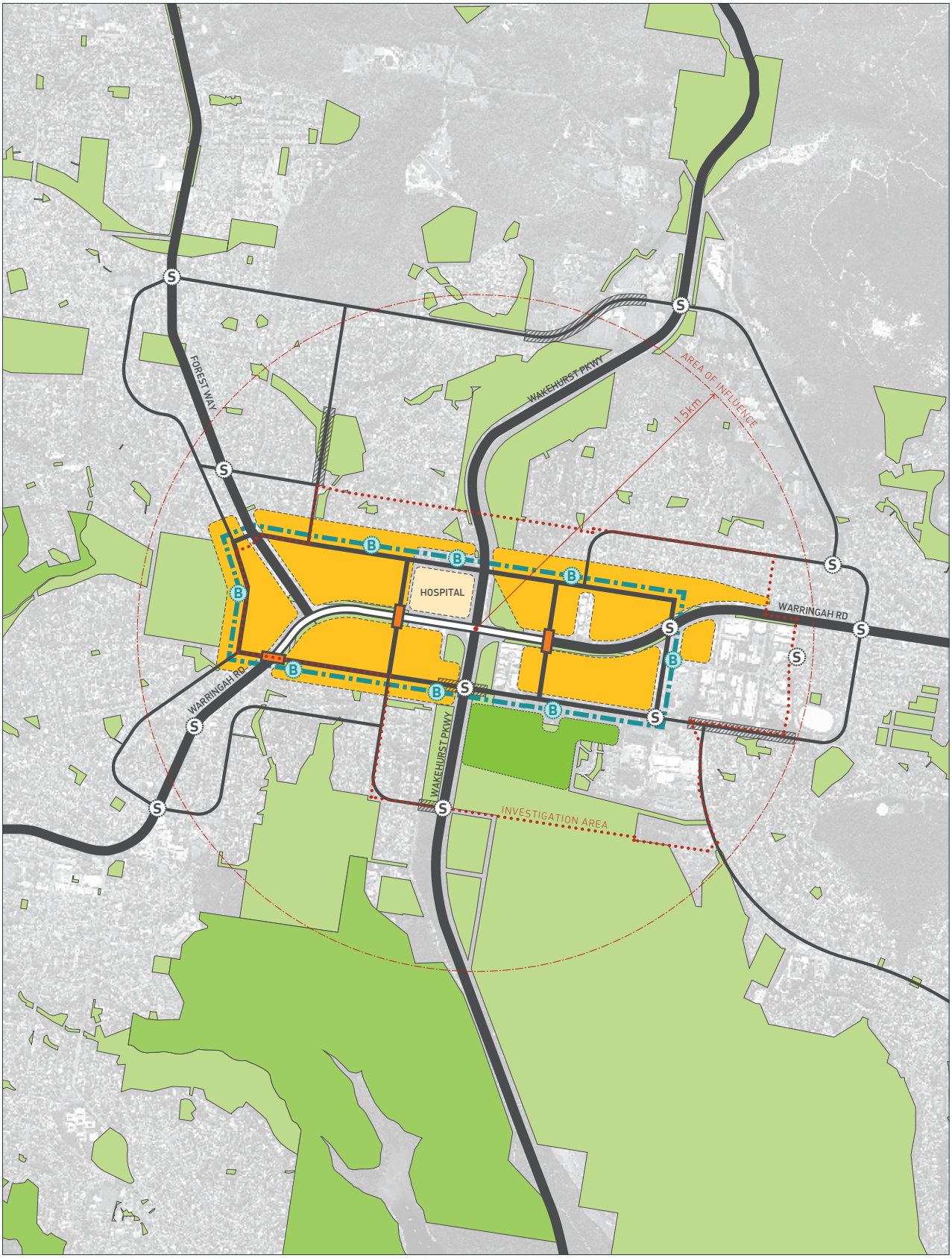
- Work with the future context.
- Confirm the precinct loop.
- Introduce new public transport.
- Bring the forest to the precinct.
- Ensure pedestrian and cyclist connectivity.
- Identify gateways and thresholds.
- Confirm an integrated urban model.
- Apply an open space hierarchy.

SCORE: 4 / 8

SUMMARY

+ **Limited capacity for growth.**
+ **Doesn't meet criteria for a Strategic Centre.**
+ **Does not deliver an integrated urban model.**

SCENARIO 2 – LOCAL STREET NETWORK UPGRADE (INCLUDING NEW STREETS)



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SCENARIO 2 – LOCAL STREET NETWORK UPGRADE (INCLUDING NEW STREETS)

ASSUMPTIONS

+ RMS Stage 1 and 2 road upgrades.
+ Upgraded signals and intersections.
+ Upgraded inner loop road with an active transport focus.
+ Upgraded inner loop network to provide improved local access in the precinct, focusing local traffic on local roads.
+ Upgraded outer loop network to provide improved local traffic movement to precinct periphery.
+ Increased employment at Northern Beaches Hospital and business park.
+ Potential to expand retail.
+ More opportunities for high density.
+ Improved open space and recreational facilities.
+ Potential to establish regional scale open space and complementary uses.
+ Requirement for 1.22 new primary school and 0.41 new secondary school facilities.

LAND USE FORECAST *(Source: MacroPlan Dimasi, Arup)*

Land Use	GFA	Additional Jobs
Northern Beaches Hospital	87,638 sqm	1,753
Business Park (including commercial and industrial)	78,295 sqm	1,224
Retail	20,346 sqm	527
Other	9,079 sqm	246
Total Employment	**191,358 sqm**	**3,750**
Residential	**2,546 dwellings**	**-**

TRAFFIC AND TRANSPORT ALLOCATION *(Source: MacroPlan Dimasi, Arup)*

An upgraded and expanded local street system would improve connectivity for people moving around the precinct as well as moving into and out of the precinct whilst avoiding the major road intersections. On the basis of street and intersection improvements in the four quadrants, an additional 625 vehicle movements per hour are considered possible spread across the quadrants. The Scenario 2 potential land use uplift over the base case is:

Land Use	Trip Generation Rate	% Mix	Traffic Increase	Land Use Increase
Residential	0.29	35%	219 vehicles	754 dwellings
Commercial	1.2	25%	153 vehicles	12,791 sqm GFA
Retail	5	40%	253 vehicles	5,055 sqm GFA
		100%	**625 vehicles**	

STRATEGIC CENTRE CRITERIA SCORECARD

- Be an employment destination.
- Contain a major hospital and business park.
- Have a minimum of 8,000 jobs with potential for 12,000.
- Assume a greater mix of uses over time.
- Balance emerging additional uses with employment uses.
- Ensure residential does not dominate core employment uses.
- Provide high quality public places and parks.
- Meet the transport needs of the specialised workforce.
- Ensure access by a strategic transit network.
- Link with motorways, arterial roads and freight networks.

SCORE: 6 / 10

DEVELOPMENT PRINCIPLES SCORECARD

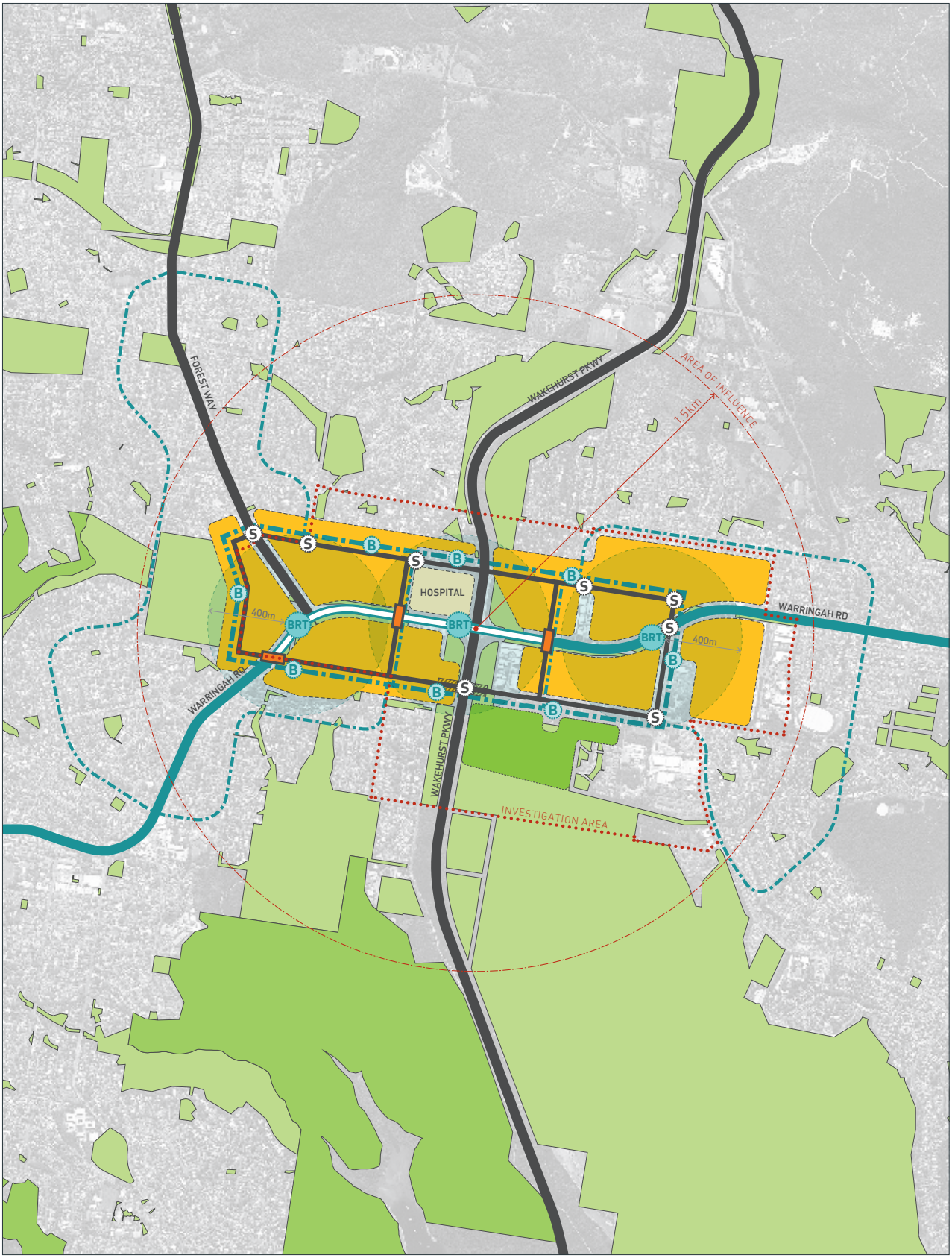
- Work with the future context.
- Confirm the precinct loop.
- Introduce new public transport.
- Bring the forest to the precinct.
- Ensure pedestrian and cyclist connectivity.
- Identify gateways and thresholds.
- Confirm an integrated urban model.
- Apply an open space hierarchy.

SCORE: 5 / 8

SUMMARY

+ **Moderate capacity for growth.**
+ **Fails to achieve public transport criteria for a Strategic Centre.**
+ **Does not deliver an integrated urban model.**

SCENARIO 3 – MODE SHIFT (NO CHANGE TO LOCAL STREET NETWORK)



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SCENARIO 3 – MODE SHIFT (NO CHANGE TO LOCAL STREET NETWORK)

ASSUMPTIONS

+ RMS Stage 1 and 2 road upgrades.
+ Upgraded inner loop road with an active transport focus.
+ Upgraded inner loop network to provide improved local access in the precinct, focusing local traffic on local roads.
+ Introduction of BRT on Warringah Rd from Chatswood to Dee Why.
+ Simplified local bus network for greater efficiency and frequency.
+ Increased employment at Northern Beaches Hospital and business park.
+ Potential to expand retail, tertiary education plus research and development.
+ Improved opportunities for high density and diversity of housing choice.
+ Improved open space and recreational facilities.
+ Potential to establish regional scale open space and complementary uses.
+ Requirement for 0.86 new primary school and 0.29 new secondary school facilities.

LAND USE FORECAST *(Source: MacroPlan Dimasi, Arup)*

Land Use	GFA	Additional Jobs
Northern Beaches Hospital	82,362 sqm	1,647
Business Park (including commercial and industrial)	68,975 sqm	1,059
Retail	12,654 sqm	403
Other	7,321 sqm	196
Total Employment	**171,312 sqm**	**3,306**
Residential	**1,995 dwellings**	**-**

TRAFFIC AND TRANSPORT ALLOCATION *(Source: MacroPlan Dimasi, Arup)*

Introduction of a BRT system on Warringah Road between Chatswood and Dee Why will lead to a mode shift. A BRT system with 10 buses per hour in each direction, with a capacity of 115 passengers/bus, has been used assumed with good loading in both travels of direction (i.e. residents leaving the precinct and employees arriving in the precinct). Assuming 60% of the available capacity to Chatswood and 30% of the available capacity to Dee Why is utilised from the precinct, then 2,070 BRT passengers would be accommodated in a peak hour. Based on a 1.05 passengers/car, this would provide the equivalent of 1,971 car trips. The Scenario 3 potential land use uplift over the base case is:

Land Use	Trip Generation Rate	% Mix	Traffic Increase	Land Use Increase
Residential	0.29	35%	690 vehicles	2,380 dwellings
Commercial	1.2	25%	484 vehicles	40,344 sqm GFA
Retail	5	40%	797 vehicles	15,945 sqm GFA
		100%	**1,971 vehicles**	

STRATEGIC CENTRE CRITERIA SCORECARD

- Be an employment destination.
- Contain a major hospital and business park.
- Have a minimum of 8,000 jobs with potential for 12,000.
- Assume a greater mix of uses over time.
- Balance emerging additional uses with employment uses.
- Ensure residential does not dominate core employment uses.
- Provide high quality public places and parks.
- Meet the transport needs of the specialised workforce.
- Ensure access by a strategic transit network.
- Link with motorways, arterial roads and freight networks.

SCORE: 8 / 10

DEVELOPMENT PRINCIPLES SCORECARD

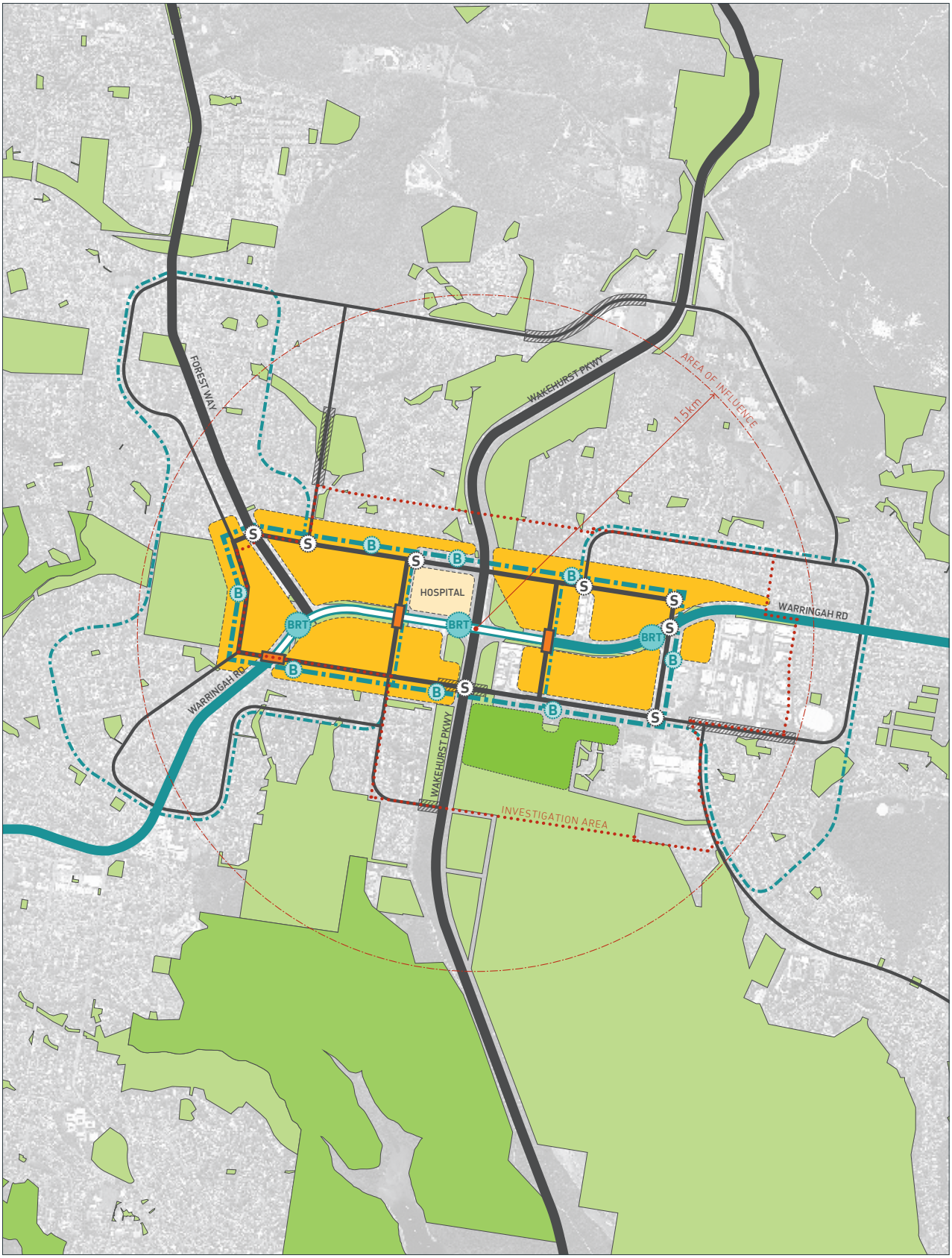
- Work with the future context.
- Confirm the precinct loop.
- Introduce new public transport.
- Bring the forest to the precinct.
- Ensure pedestrian and cyclist connectivity.
- Identify gateways and thresholds.
- Confirm an integrated urban model.
- Apply an open space hierarchy.

SCORE: 7 / 8

SUMMARY

+ **Moderate capacity for growth.**
+ **Meets public transport criteria for a Strategic Centre, but does not achieve land use capabilities in accordance with projections.**
+ **Does not deliver an integrated urban model.**

SCENARIO 4 – STRATEGIC CENTRE FULL POTENTIAL (SCENARIO 2 PLUS 3)



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SCENARIO 4 – STRATEGIC CENTRE FULL POTENTIAL (SCENARIO 2 PLUS 3)

ASSUMPTIONS

+ RMS Stage 1 and 2 road upgrades.
+ Upgraded signals and intersections.
+ Upgraded inner loop road with an active transport focus.
+ Upgraded inner loop network to provide improved local access in the precinct, focusing local traffic on local roads.
+ Upgraded outer loop network to provide improved local traffic movement to precinct periphery.
+ Introduction of BRT on Warringah Rd from Chatswood to Dee Why.
+ Simplified local bus network for greater efficiency and frequency.
+ Increased employment at Northern Beaches Hospital and business park.
+ Potential to expand retail, education, research and development.
+ More opportunities for high density and diversity of housing choice.
+ Improved open space and recreational facilities.
+ Potential to establish regional scale open space and complementary uses.
+ Requirement for 2.56 new primary school and 0.85 new secondary school facilities.

LAND USE FORECAST *(Source: MacroPlan Dimasi, Arup)*

Land Use	GFA	Additional Jobs
Northern Beaches Hospital	100,000 sqm	2,000
Business Park (including commercial and industrial)	100,135 sqm	1,615
Retail	25,000 sqm	815
Other	13,200 sqm	362
Total Employment	**238,335 sqm**	**4,792**
Residential	**3,838 dwellings**	**-**

TRAFFIC AND TRANSPORT ALLOCATION *(Source: MacroPlan Dimasi, Arup)*

The full potential of the precinct can be achieved with an upgraded and expanded local street system and introduction of a BRT system on Warringah Road between Chatswood and Dee Why. Scenario 4 assumes that scenario 2 & 3 are in place. The full potential land use uplift is:

Land Use	Trip Generation Rate	% Mix	Traffic Increase	Land Use Increase
Residential	0.29	31%	1,113 vehicles	3,838 dwellings
Commercial	1.2	34%	1,202 vehicles	100,135 sqm GFA
Retail	5	35%	1,250 vehicles	25,000 sqm GFA

STRATEGIC CENTRE CRITERIA SCORECARD

- Be an employment destination.
- Contain a major hospital and business park.
- Have a minimum of 8,000 jobs with potential for 12,000.
- Assume a greater mix of uses over time.
- Balance emerging additional uses with employment uses.
- Ensure residential does not dominate core employment uses.
- Provide high quality public places and parks.
- Meet the transport needs of the specialised workforce.
- Ensure access by a strategic transit network.
- Link with motorways, arterial roads and freight networks.

SCORE: 10 / 10

DEVELOPMENT PRINCIPLES SCORECARD

- Work with the future context.
- Confirm the precinct loop.
- Introduce new public transport.
- Bring the forest to the precinct.
- Ensure pedestrian and cyclist connectivity.
- Identify gateways and thresholds.
- Confirm an integrated urban model.
- Apply an open space hierarchy.

SCORE: 8 / 8

SUMMARY

+ **Growth capacity meets 2036 forecasts.**
+ **Meets public transport criteria for a Strategic Centre.**
+ **Achieves an integrated urban model.**
+ **Delivers a Strategic Centre.**
+ **This scenario is recommended for further development.**

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ENGAGEMENT OUTCOMES

6.0

TESTING THE DEVELOPMENT SCENARIOS

6.0 Engagement Outcomes

The development of the Hospital Precinct Structure Plan is underpinned by an engagement strategy that involves key stakeholders and the community. The aim of the consultation process is to obtain a good understanding of stakeholder and community issues and aspirations for the area, to inform stakeholders and the community about the planning study and to provide opportunities for stakeholder and community participation in the development of the Hospital Precinct Structure Plan. This section of the report describes engagement sessions undertaken to date and highlights key outcomes from these sessions.

There are three steps in the engagement process embedded within key stages of the overall project program:

- Step 1: Project Definition and Visioning
- Step 2: Scenario Development and Evaluation
- Step 3: Preferred Scenario Exhibition

Step 1: Project Definition and Visioning involved two drop in sessions at Forestville RSL on the evening of Thursday, 9 October and the afternoon of Saturday, 18 October. Approximately 150 stakeholder and community members attended each drop in session. These drop in sessions introduced the project to stakeholders and the community, then sought comments from attendees around topics including community facilities, open space, housing, jobs, businesses, access and transport. The comments informed the aspirations identified in Section 2.0 of this report.

Step 2: Scenario Development and Evaluation involved three workshop sessions at Forestville RSL on the afternoon of Saturday, 8 November, the afternoon of Wednesday, 19 November and the evening of Wednesday, 19 November. Approximately 40 stakeholder and community members attended each workshop. Each workshop followed the same agenda:

- A welcome and introduction by either Councillor Roslyn Harrison or Mayor Michael Regan.
- An overview of the project aspirations identified through the drop in sessions.
- An explanation of the four development scenarios identified for the precinct.
- An evaluation of the four development scenarios against topic areas including "Refining the Identity of the Precinct," "Living in the Precinct," "Working in the Precinct," "Getting Around," "Enjoying the Outdoors" and "Things To Do." This group task involved each table of attendees assessing all four scenarios against two topic areas, then voting on their preferred scenario for each topic area.
- A reporting back on the evaluation outcomes and voting scores for each table. The voting scores are provided in detail on the following page.

WORKSHOP VOTES FOR A PREFERRED SCENARIO

	Scenario 1	Scenario 2	Scenario 3	Scenario 4
Workshop 1				
Refining the Identity of the Precinct	1		10	1
Living in the Precinct		1	10	9
Working in the Precinct			8	3
Getting Around			1	11
Enjoying the Outdoors*				6
Things to Do				6
Total	**1**	**1**	**29**	**36**
Workshop 2				
Refining the Identity of the Precinct	2		3	6
Living in the Precinct	3		4	14
Working in the Precinct	2	1	2	3
Getting Around**		1	2	3
Enjoying the Outdoors				6
Things to Do			1	10
Total	**7**	**2**	**12**	**42**
Workshop 3				
Refining the Identity of the Precinct	1		2	1
Living in the Precinct	2		9	8
Working in the Precinct			6	3
Getting Around			6	6
Enjoying the Outdoors			3	5
Things to Do			1	4
Total	**3**		**27**	**27**
Grand Total	**11**	**3**	**68**	**105**
Percentage	**5.9%**	**1.6%**	**36.4%**	**56.1%**

This table tallies all the votes allocated towards a preferred scenario by topic area. It is evident that stakeholders and the community have a strong preference towards achieving Scenario 4 - Strategic Centre Full Potential with 56.1% of all votes across the three workshops awarded to this scenario. The second most preferred scenario was Scenario 3 – Mode Shift with 36.4% of all votes across the three workshops.

Most noticeably, stakeholders and the community do not have a strong preference towards Scenario 1 – Base Case (5.9% of all votes) or Scenario 2 – Local Street Network Upgrade (1.6% of all votes). This translates to a preference and ambitious appetite for change with a public transport focus as Frenchs Forest transitions to a Strategic Centre.

* *We note that at Workshop 1, one of the "Enjoying the Outdoors" tables elected not to vote for any scenario.*

** *We note that at Workshop 2, one of the "Getting Around" tables elected not to vote for any scenario.*

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THE WAY FORWARD

7.0

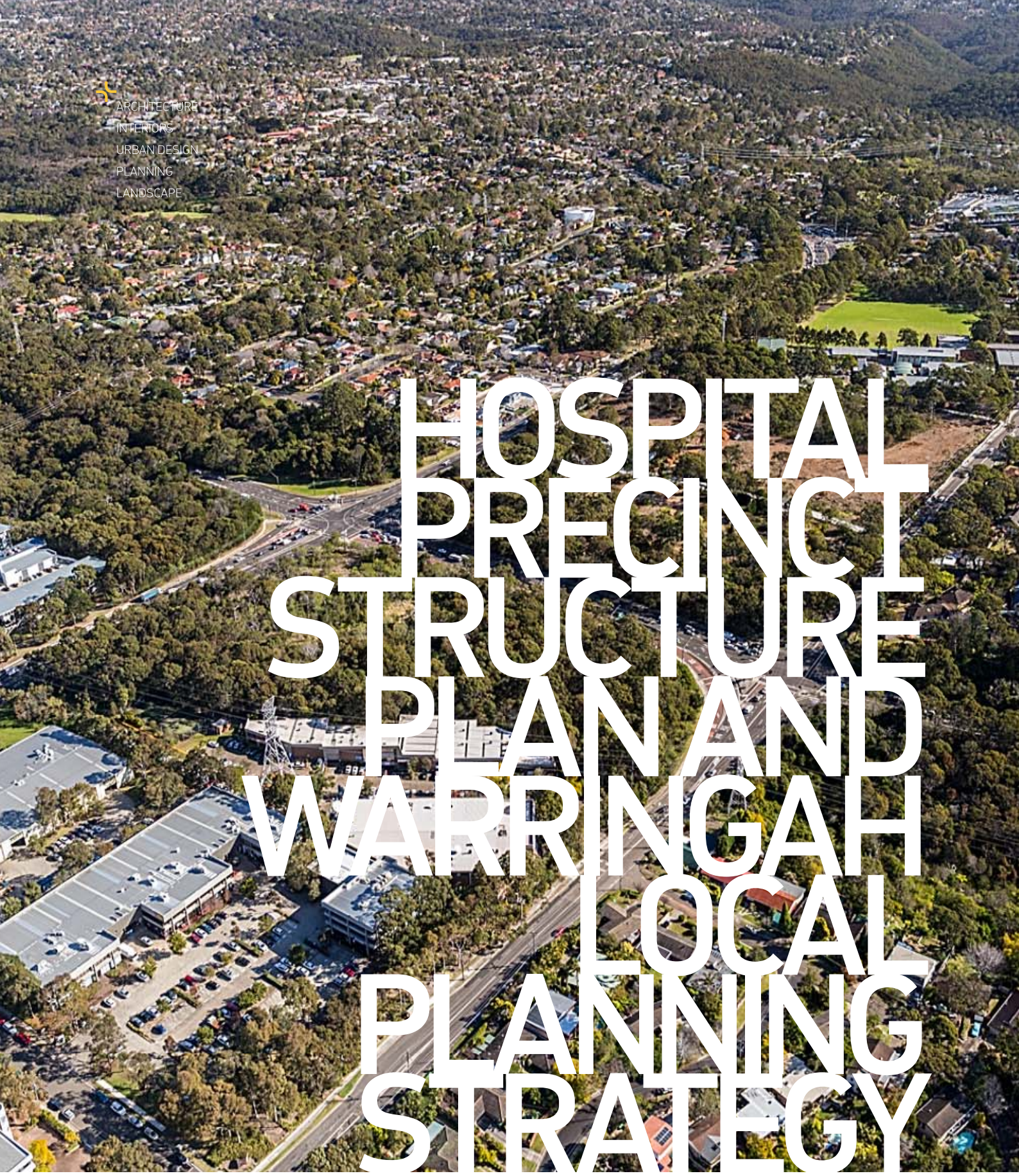
TOWARDS A PREFERRED SCENARIO

7.0 The Way Forward

The preceding section has described four distinct but achievable development scenarios for the Northern Beaches Hospital Precinct through a consultative process. These scenarios have been underpinned by consistent aspirations, typologies and development principles for the area.

The process has selected a preferred way forward with respect to the long term delivery of Frenchs Forest as a Strategic Centre for Sydney. The focus of this study has been on high level land use capacity, traffic and transport initiatives, diversity of built form and density, identity and place making. The consultative process has identified an urban typology that incorporates a mode shift to public transport and supports other transit orientated development initiatives, including mixed use, as the preferred way forward.

The purpose of selecting a preferred development scenario is to enable more concentrated testing of the urban development opportunities within a site specific and consistent framework. The next steps are to confirm agreement to proceed in more detail with Development Scenario 4 which will progress a preferred scenario into a Draft Structure Plan. Urban elements to be further considered in the refinement of Development Scenario 4 include public transport corridors and hubs, strategic car parking strategy, pedestrian connectivity and amenity, anchor development, built form type and scale, infrastructure needs, accessibility, residential density, streetscape quality, road and traffic management, open space, land use clustering, precinct connectivity, architectural considerations, land ownership and sustainability.



ARCHITECTURE
INTERIORS
URBAN DESIGN
PLANNING
LANDSCAPE

HOSPITAL PRECINCT STRUCTURE PLAN AND WARRINGAH LOCAL PLANNING STRATEGY

ENGAGEMENT STRATEGY

Prepared for Warringah Council

WARRINGAH COUNCIL

SEPTEMBER 2014

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Ref: 50666

Revision Letter	Date	Reason for Issue
A	23/07/2014	Preliminary Draft for Discussion
B	29/08/2014	Final Draft
C	11/09/2014	Final

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WARRINGAH COUNCIL

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INTRODUCTION 1.0

INTRODUCTION

1.0 Introduction

This Engagement Strategy supports a consultancy study commissioned by Warringah Council in collaboration with NSW Planning and Environment to prepare a Precinct Structure Plan for the area around the future Northern Beaches Hospital at Frenchs Forest and a Local Planning Strategy for the Warringah Local Government Area. Hames Sharley, together with MacroPlan Dimasi and Arup, have been engaged to undertake this work. This strategy has been prepared by the project team in consultation with Warringah Council.

PLANNING CONTEXT

A new major hospital for the Northern Beaches was announced on May 2, 2013, by the NSW Minister for Health, The Hon. Jillian Skinner MP. Expressions of interest have since been invited from the private sector to design, construct, operate and maintain a world class hospital at a 6.5 hectare site at Frenchs Forest.

In parallel, the NSW Government has released the Draft Metropolitan Plan for Sydney 2030. This document identifies key drivers for the metropolitan area of Sydney, including a 'Potential Specialised Precinct – Frenchs Forest Health Precinct' in and around the site of the Northern Beaches Hospital.

While NSW Health has given consideration to the local and regional context, primarily focused on existing development, the opportunity exists to harness and leverage the health investment towards positioning the precinct as a world class activity centre.

PURPOSE AND AIM

The purpose of this Engagement Strategy is to describe an approach to involving key stakeholders and the community in the study and identify how this will inform the planning of the precinct around the new Northern Beaches Hospital and the preparation of the Warringah Local Planning Strategy. The aim of the consultation process for this project is to:

- Obtain a good understanding of stakeholder and community issues and aspirations for the area.
- Inform the public about this planning study and expected progress.
- Clarify the role of this study in the context of other significant projects being undertaken in parallel, namely the Northern Beaches Hospital and the road upgrades by RMS.
- Build relationships with key stakeholders and the local community around the new hospital.
- Provide opportunities for stakeholder and public participation in the development of the Precinct Structure Plan and Local Planning Strategy.
- Help realise project outcomes which meet strategic goals and local needs.

Figure 1: Northern Beaches Hospital Site, Frenchs Forest

The engagement strategy set out in this document incorporates and updates the initial consultation plan set out in the project proposal and overall program, taking account of key milestones, further information on plans and developments in the locality and known stakeholder groups. It describes arrangements for informing, consulting and reporting on project ideas and progress, including anticipated publication dates. It identifies where feedback from the community and stakeholders as well as advice from the state and local authorities will be collected, taken into account and reviewed during the planning study.

Principal stakeholder groups and community audiences are identified in Chapter 3 – Engagement Framework and Chapter 4 – Project Audience. Key stages in the engagement strategy for the project are outlined in Chapter 5 – Project Phasing and Milestones and Chapter 6 – Engagement Program. The program for this project extends over 2014 and 2015.

The consultation process will support the development of a precinct plan and wider planning strategy which responds positively and appropriately to the new hospital development at Frenchs Forest.

As part of the management of the stakeholder and community engagement process, the strategy will undergo periodic monitoring and review and may be subject to change according to issues or new circumstances that may arise. This is relevant in light of the long term timetable for the project and the complexity of planning studies of this nature.

THE PROJECT

2.0 THE PROJECT

2.0 The Project

The study commissioned by Warringah Council comprises two components: the first objective is to prepare a Precinct Structure Plan for the area around the new Northern Beaches Hospital. The second part of the project is to develop a Local Planning Strategy for the Warringah Local Government Area.

PROJECT CONTEXT

Given the scale of the proposed hospital development, it is imperative that appropriate consideration is given to land use planning implications for the area surrounding the site, including future growth, economic opportunities, environmental conditions and transport.

Designation of the area surrounding the hospital site as a Potential Specialised Precinct represents a unique opportunity for this part of Sydney to capitalise on the growth potential of hospital and health related uses along with associated research and business park development. The stimulation of new jobs is a specific outcome of the state government's broader strategies to manage population growth, provide appropriate housing and create employment opportunities across the metropolitan region.

PROGRAM AND TEAM

The Hospital Precinct Structure Plan and Warringah Local Planning Strategy are programmed over an 18 month period. Key stages in the preparation of the Precinct Structure Plan and Local Planning Strategy are outlined in Chapter 5 – Project Phasing and Milestones and Chapter 6 – Engagement Program. The program commenced in July 2014 following the appointment of the consultant team comprising:

- Hames Sharley – responsible for urban design, strategic planning and architecture.
- MacroPlan Dimasi – responsible for urban economics.
- Arup – responsible for transport planning and engineering.

The project team will be led by Hames Sharley supported by MacroPlan Dimasi and Arup (Figure 2). Hames Sharley are nationally recognised activity centre specialists with expertise in health precincts, retail centres and economics led master planning. MacroPlan Dimasi are experts in Sydney's specialised economic structure, whilst Arup are renowned engineers in the field of urban infrastructure and transportation. This team will ensure that a research based, design led strategy will be delivered at both the precinct and regional scales of the project.

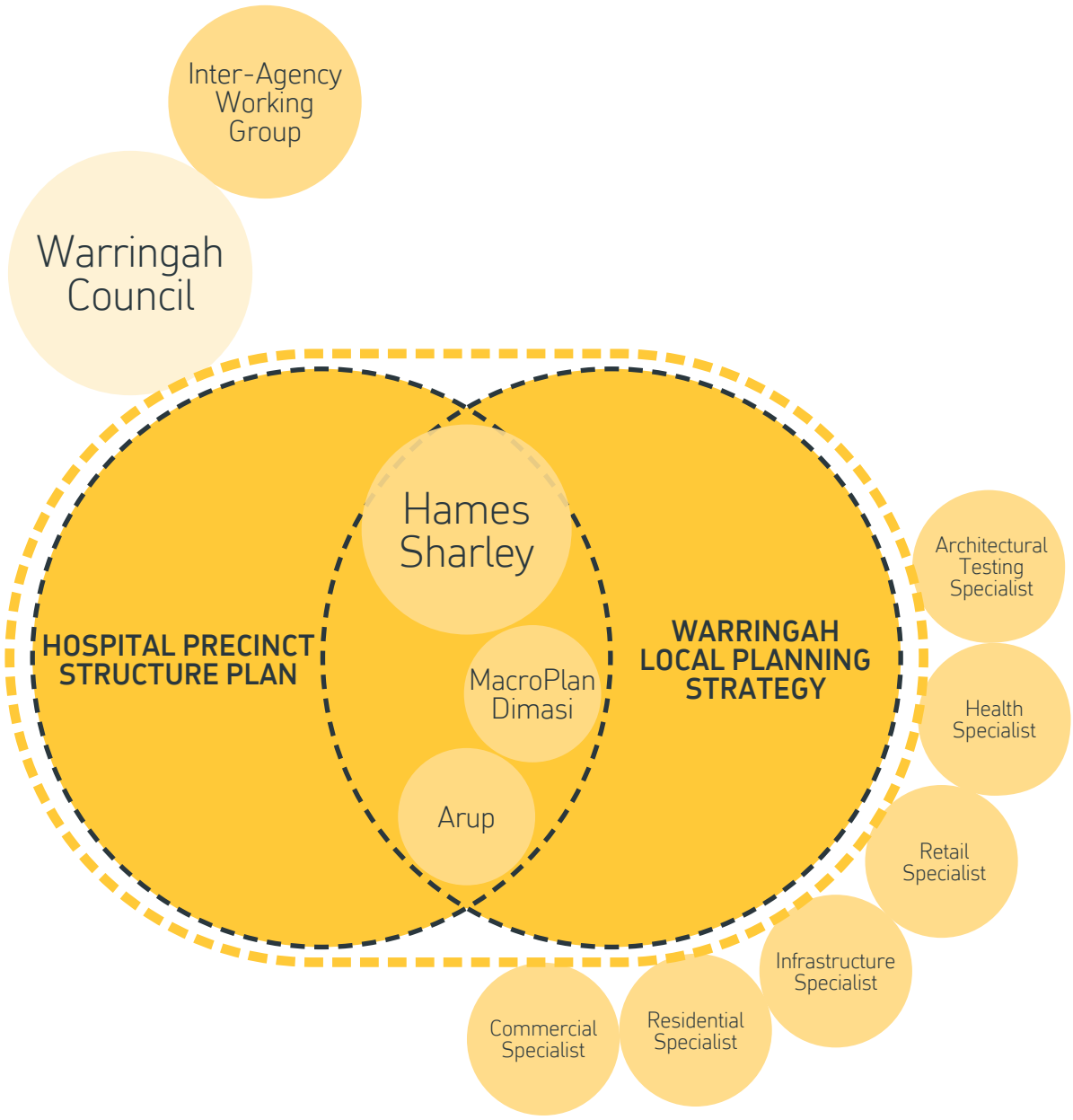

Figure 2: Project Team for the Hospital Precinct Structure Plan and Warringah Local Planning Strategy

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ENGAGEMENT FRAMEWORK 3.0

ENGAGEMENT FRAMEWORK

3.0 Engagement Framework

The Hospital Precinct Structure Plan and the Warringah Local Planning Strategy have been identified in the Level 1 Category (High Impact) in terms of Warringah Council's Community Engagement Matrix in that it has implications for the whole of the Warringah area.

Level 1 Category (High Impact) projects are required to include a full range of appropriate community participation on the engagement spectrum, from information to collaboration. From a community perspective, impacts must be weighed and considered in terms of positive changes to the area which may result from development (additional employment, more housing choice, new shops and facilities). As impacts and benefits may arise over short and long terms horizons, it is also important to recognise that the effects of a project of this nature could be 20 years ahead or more.

ENGAGEMENT FRAMEWORK

The engagement framework for the project recognises that all interaction with client, stakeholder and community groups forms part of the engagement strategy for the project, albeit that the consultation/reporting relationship varies according to key accountabilities (Figure 3).

PRIMARY REPORTING CHANNEL

A primary reporting channel to the client has been established in the form of the Project Management Group (PMG) and related briefings to councillors of Warringah Council. The Council's officers will receive monthly reports via the Project Management Group as well as other regular exchanges on project progress. Councillors will be briefed at strategic points in the program via a forum or presentation style event.

The PMG will in turn report to the Inter-Agency Working Group (IWG) formed of officers from Warringah Council and various NSW State Government Departments including the Department of Planning and Environment, the Department of Education and Communities, NSW Health Infrastructure, NSW Office of Environment and Heritage, plus Roads and Maritime Services. The IWG is considered under the primary reporting channel.

PRIMARY CONSULTATION CHANNEL

The primary consultation channel will engage with key stakeholders from public and private sectors. This area of the engagement strategy involves more direct interaction with the broader community and stakeholder groups. These stakeholders are largely situated outside of the formal reporting structures for the Precinct Structure Plan and will be identified at the project outset and agreed with Warringah Council. However, some of these stakeholders form part of the IWG and can be readily consulted through this part of the project's governance structure.

Other interested parties may come forward over the course of the project that may merit additional consultation as part of this primary group. This will be reviewed and agreed with the Council as required.

In respect of the Warringah LPS, a broader extent of community consultation will take place – either channelled through existing community structures and groups and/or via general publicity and open community events.

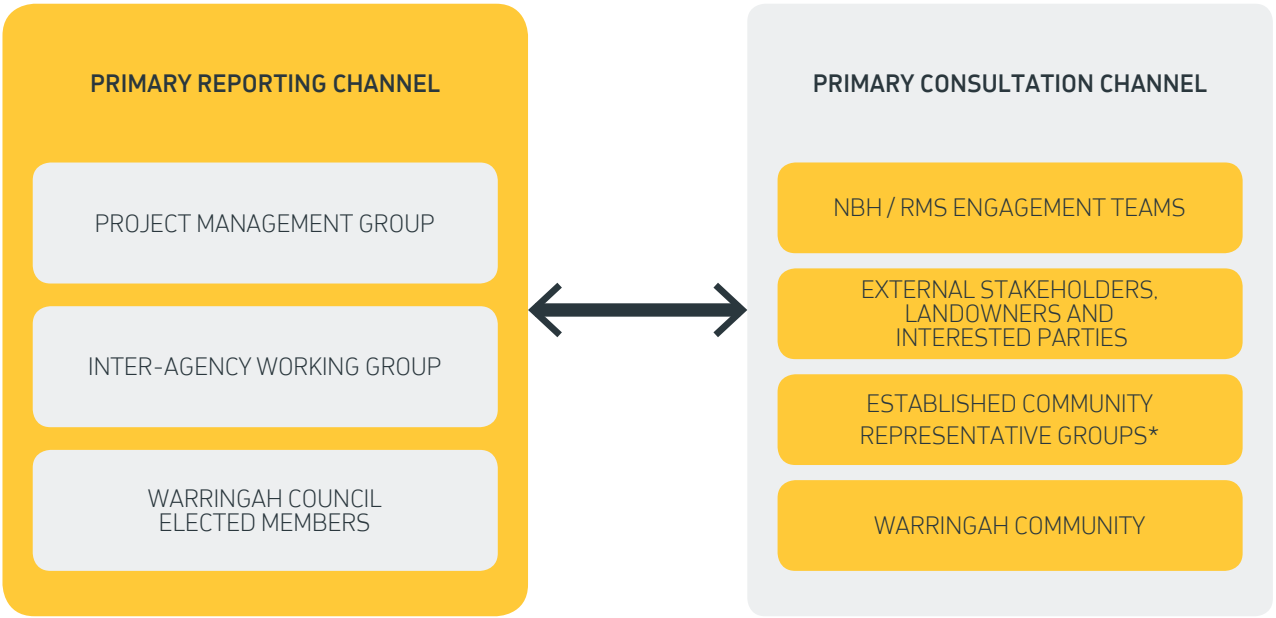

Figure 3: Engagement Framework

Notes:

* *To be agreed with the PMG. The SRGs may be appropriate to Warringah Local Planning Strategy.*

PROJECT AUDIENCE 4.0

PROJECT AUDIENCE

4.0 Project Audience

This Engagement Strategy will advise and involve a number of key target groups: With respect to key stakeholders, an initial list has been drawn up and agreed with Warringah Council along with appropriate methods/forums for engaging these diverse groups. Warringah Council are the custodians of this list and it may be updated during the course of the project. Where possible, the consultant team will utilise existing distribution and stakeholder networks.

With respect to community interests, it has been identified that the engagement program will include events and forums that are, as far as possible, open to all rather than restricted to specific local community groups. However, it is recognised that the community engagement approach for the Local Planning Strategy, covering the whole of Warringah Local Government Area, is set at a broader level than that adopted for the Hospital Precinct Structure Plan.

Group	Reference Forums
Client Warringah Council in collaboration with Department of Planning and Environment (DP&E)	Project Management Group (PMG) Councillor Briefings Strategic Reference Groups
State Government Agencies Roads and Maritime Services (RMS) Health Infrastructure (HI) Transport for NSW (TfNSW) Office of Environment and Heritage (OEH) Department of Education and Communities	Project Management Group (RMS and DP&E) Inter-Agency Working Group (Council, DP&E, RMS, HI, TfNSW, OEH, Department of Education and Communities) Inter-Agency Communications Group
Federal and State Elected Representatives Federal: + Hon. Tony Abbott (Warringah) + Hon. Bronwyn Bishop (Mackellar) State: + Hon. Brad Hazzard (Wakehurst) + Hon. Jonathon O'Dea (Davidson) + Hon. Rob Stokes (Pittwater) + Hon. Mike Baird (Manly, NSW Premier)	Ministerial Briefings
Potential Hospital Operator Ramsay or Healthscope (decision yet to be made)	Meetings (once operator is chosen)
Other State Agencies / Utility Providers NSW Police, Ausgrid, Jemena, Australia Post, Forest Coaches	Letter Notification
Council – Internal Business Units Warringah Aquatic Centre, Natural Environment Unit, BPSI, Parks, Reserves and Foreshores, Roads, Traffic and Waste	Internal Consultation
Other Local Government SHOROC, Adjoining Councils (Manly, Pittwater, Mosman, Willoughby)	SHOROC Meetings Northern Planners Group Meetings
Key Stakeholders and Warringah Community Community Reference Group (CRG) Owners of residential and business land within the study area Operators of businesses within the study area Schools within the study area Known developer interests Relevant community groups Chambers of commerce Community engagement register Housing affordability forum	Project Web Page (Your Say) Individual Letters to Owners and Operators Individual Contact with Schools Individual Letters to Known Developer Interests Manly Daily (media releases and adverts) Distributed Project Information Flyers Email Updates Exhibitions Online Forums Community Drop In Sessions Structured Workshops

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PROJECT PHASING AND MILESTONES

5.0

PROJECT PHASING AND MILESTONES

5.0 Project Phasing and Milestones

This Engagement Strategy has been developed around a number of core consultation events and milestones set out in the original project program. There are three broad steps in the engagement process embedded within key stages of the overall project program:

1. Project Definition and Visioning
2. Scenario Development and Evaluation
3. Preferred Scenario Exhibition

PRELIMINARY STEP

The commencement of both the Hospital Precinct Structure Plan and the Warringah Local Planning Strategy will be accompanied by appropriate publicity and information about each scope of work, with the consultant team meeting with relevant stakeholders and community representatives.

STEPS 1, 2 AND 3

These steps will be repeated for both the Precinct Structure Plan and the Local Planning Strategy. The Preferred Scenario for the Precinct Structure Plan will inform the Final Draft Precinct Structure Plan and the Preferred Scenario for the Local Planning Strategy will inform the Final Draft Local Planning Strategy.

At the conclusion of this engagement process, the consultant team will finalise the Precinct Structure Plan and the Local Planning Strategy and present them as Final Drafts to Warringah Council for feedback and, lastly, approval of the documents.

HOSPITAL PRECINCT STRUCTURE PLAN

Engagement Step	Corresponding Stage from Original Project Program	Corresponding Tasks from Original Project Program	Output
Preliminary Step (Initial Publicity and Consultation)	Stage 2 – Research and Analysis	Task 2.2 – Meet with State Agencies	Analysis Report
Step 1 – Project Definition and Visioning	Stage 3 – Draft Structure Plan	Task 3.3 – Undertake Visioning Workshop	Confirmed Vision
Step 2 – Scenario Development and Evaluation	Stage 3 – Draft Structure Plan	Task 3.6 – Develop Three Scenarios	Scenarios Report
Step 3 – Preferred Scenario Exhibition	Stage 5 – Engagement	Task 5.1 – Present Scenarios to Community	Community Engagement Report, Preferred Scenario and Draft Precinct Structure Plan

WARRINGAH LOCAL PLANNING STRATEGY

Engagement Step	Corresponding Stage from Original Project Program	Corresponding Tasks from Original Project Program	Output
Preliminary Step (Initial Publicity and Consultation)	Stage 2 – Research and Analysis	Task 2.2 – Meet with State Agencies	Analysis Report
Step 1 – Project Definition and Visioning	Stage 3 – Preparation of Draft WLPS	Task 3A.1 – Undertake Visioning Workshop	Confirmed Vision
Step 2 – Scenario Development and Evaluation	Stage 3 – Preparation of Draft WLPS	Task 3C.1 – Present Scenarios to Community	Community Feedback, Community Engagement Report and Draft WLPS
Step 3 – Preferred Scenario Exhibition	Stage 4 – Delivery of Draft WLPS	Task 4B.1 – Present Draft WLPS to Community	Community Feedback, Community Engagement Report and Final Draft WLPS

ENGAGEMENT PROGRAM

6.0

ENGAGEMENT PROGRAM

6.0 Engagement Program

The Engagement Strategy for this project is founded on a simple principle of building in participation and involvement throughout the planning process, from scoping of issues and visioning to option development and definition of a clear strategy for the area. This approach is considered best tailored to the strategic issues associated with a project of this nature and responds to the aspirations of Warringah Council as set out in the original project brief.

PRECINCT STRUCTURE PLAN

The engagement program for the Hospital Precinct Structure Plan is structured according to the three engagement steps in support of the development of the major project deliverables and key milestones (refer to Figure 4 as well as Warringah Council's Community Engagement Matrix). These phases will involve various types of engagement and offer a range of opportunities for both stakeholder, community and Council member participation.

LOCAL PLANNING STRATEGY

The engagement program for the Local Planning Strategy phase of work in 2015 follows a similar structure to that for the Precinct Structure Plan (refer to Figure 5) and will be confirmed with Warringah Council at the commencement of the project, taking on board evaluation of and feedback on the consultation exercise for the Precinct Structure Plan.

COMMUNITY FEEDBACK

Community feedback is built into the subsequent scenario development and draft planning strategy stages of the Precinct Structure Plan and Local Planning Strategy. It is important that the public events are held at a convenient time(s) and in a location accessible to the majority of the community.

EVENT DETAILS

Dates and times for key events undertaken during the Precinct Structure Plan engagement process are identified in Figure 4. Venues are to be confirmed by Warringah Council. The same level of detail for the Local Planning Strategy engagement process will be confirmed at the commencement of the project.

The format and structuring of engagement events will be planned in advance in consultation with the PMG and with advice from the Council's Community Engagement Manager. The events will have different purposes and outcome according to the stage in the overall project. However, the key objective of engaging with stakeholder and the community will be to identify the local issues and strategic opportunities as well as the spectrum of ideas and opinions on the proposed development scenarios for the area. These will be captured in summary reports of each event (refer to Chapter 8 – Reporting and Review).

Figure 4: Engagement Program – Hospital Precinct Structure Plan

Engagement Step	Preliminary Step – Project Launch	Step 1 – Project Definition And Visioning	Step 2 – Scenario Development and Evaluation	Step 3 – Preferred Scenario Exhibition
Engagement Type	Inform	Inform and Consult	Involve and Collaborate	Consult
Proposed Format	Publicity	Drop In Sessions	Workshops	Exhibition
Proposed Content	+ Project launch page including FAQs. + Online project registration form. + Media adverts. + Project flyer. + Warringah Matters item. + Posters and displays. + Introduction to Precinct Structure Plan, project team, project scope and objectives. + Information provided regarding the drop in session times, dates and locations.	+ Presentation on a screen and display stands at local venue. + Introduction to Precinct Structure Plan, project team, project scope and objectives. + Definition of a specialised precinct. + Presentation of consultant team's initial findings. + Presentation of preliminary aspirations for the precinct. + Opportunity for attendees to provide feedback on project aims, aspirations and findings. + Display stands manned by the project team and key agencies for Q&A.	+ Workshops with targeted groups. + Key stakeholders to be invited and selected from local community. + Other interested parties to register for each session. + Workshop groups to be determined by potential topic areas. + Presentation of vision for the precinct. + Presentation of 3 scenarios for the precinct. + Assessment of 3 scenarios against the vision for the precinct. + Identification of emerging preferred scenario.	+ Display focused on Preferred Scenario and Final Draft Precinct Structure Plan. + Exhibition to include the 3 scenarios from workshop event. + Opportunity to present Preferred Scenario and Final Draft Precinct Structure Plan to community at exhibition opening (NB: follows briefings to PMG, IWG and Council in late November 2014). + Coordination with proposed public exhibitions by NSW Health Infrastructure (NBH Plan) and RMS (Stage 2 EIS).
Proposed Complementary Online Content	Project launch page including FAQs, online project registration form and details about drop in sessions.	Website to include same presentation material and feedback forms (as an online form) as provided at the drop in session.	Website to include same presentation material and workshop tasks (as an online form) as provided at the workshops.	Website to include same presentation material as that on display at the public exhibition.
Proposed Date and Time	September 2014	Thurs 9 Oct, 2014 6:00pm – 8:30pm, Sat 18 Oct, 2014 2:30pm - 5:00pm	Sat 8 Nov, 2014 2:30pm – 5:00pm, Wed 19 Nov, 2014 2:30pm – 5:00pm, Wed 19 Nov, 2014 6:00pm – 8:30pm	February 2015 for 4 weeks
Proposed Venue	–	Forestville RSL	Forestville RSL	WC to confirm
Actions Prior To Event	Hames Sharley to provide Warringah Council with content for project launch page.	Hames Sharley to provide Warringah Council with presentation material and feedback forms for their review, approval and upload to website.	Hames Sharley to provide Warringah Council with presentation material and workshop tasks for their review, approval and upload to website.	Hames Sharley to provide Warringah Council with exhibition material for their review, approval and upload to website.
Actions After Event	Warringah Council to collate details from project registration form.	Hames Sharley to review feedback forms and provide concise summary of drop in session outcomes.	Hames Sharley to review online forms and provide concise summary of workshop outcomes.	Hames Sharley to prepare submissions summary and response (recommendations) report.
Output	Project Profile	Confirmed Vision	Scenarios Report	Community Engagement Report and Preferred Scenario

Figure 5: Engagement Program – Warringah Local Planning Strategy

Engagement Step	Preliminary Step – Project Launch	Step 1 – Project Definition And Visioning	Step 2 – Scenario Development and Evaluation	Step 3 – Preferred Scenario Exhibition
Engagement Type	Inform	Inform and Consult	Involve and Collaborate	Inform and Consult
Proposed Format	Publicity	Drop In Sessions	Workshops	Public Forum/Exhibition
Proposed Content	+ Project launch page including FAQs. + Online project registration form. + Media adverts. + Project flyer. + Warringah Matters item. + Posters and displays. + Introduction to Local Planning Strategy, project team, project scope and objectives. + Information provided regarding the drop in session times, dates and locations.	+ Presentation on a screen and display stands at local venue. + Introduction to Local Planning Strategy, project team, project scope and objectives. + Presentation of consultant team's initial findings. + Presentation of preliminary aspirations for the precinct. + Opportunity for attendees to provide feedback on project aims, aspirations and findings + Display stands manned by the project team and key agencies for Q&A.	+ Workshops with targeted groups including key stakeholders, interested parties and broader community representatives. + Workshop groups will assist with identification of priority growth areas. + Presentation of the vision for the Local Planning Strategy. + Presentation and assessment of scenarios for growth of the Warringah area with opportunity for attendees to rank or rate alternatives.	+ Open forum with display material on preferred scenario and Draft Local Planning Strategy. + Exhibition to run for several weeks and include scenarios from workshop event . + Presentation of Draft Local Planning Strategy to community for feedback (recorded/ collected at event). + Briefings to be schedules with PMG, IWG and Council.
Proposed Complementary Online Content	Project launch page including FAQs, online project registration form and details about drop in sessions.	Website to include same presentation material and feedback forms (as an online form) as provided at the drop in session.	Website to include same presentation material and workshop tasks (as an online form) as provided at the workshops.	Website to include same presentation material as per forum presentation/display. Online comment form to be available.
Proposed Date and Time	Upon project commencement	To be confirmed with WC and to include one mid-week evening session and one weekend afternoon session (2.5 hours each)	To be confirmed with WC and to include mid-week and weekend sessions (approx. 2.5 hours each)	To be confirmed with WC and to include a 4 week exhibition period
Proposed Venue	–	WC to confirm	WC to confirm	WC to confirm
Actions Prior To Event	Hames Sharley to provide Warringah Council with content for project launch page.	Hames Sharley to provide Warringah Council with presentation material and feedback forms for their review, approval and upload to website.	Hames Sharley to provide Warringah Council with presentation material and workshop tasks for their review, approval and upload to website.	Hames Sharley to provide Warringah Council with presentation and exhibition material for their review, approval and upload to website.
Actions After Event	Warringah Council to collate details from project registration form.	Hames Sharley to review feedback forms and provide concise summary of drop in session outcomes.	Hames Sharley to review online forms and provide concise summary of workshop outcomes.	Hames Sharley to prepare submissions summary and response (recommendations) report.
Output	Project Profile	Confirmed Vision	Community Feedback, Community Workshop Report (Draft WLPS)	Community Feedback, Community Engagement Report (Final Draft WLPS)

NB: The above outline program will be reviewed and finalised with Warringah Council at the commencement of the WLPS stage of work.

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COMMUNICATION STRATEGY

7.0 COMMUNICATION STRATEGY

7.0 Communication Strategy

This chapter is concerned with public and communication strategies with external stakeholders and the broader community.

STAKEHOLDER COMMUNICATION

Governance arrangements for this project have previously been referred to as part of the engagement framework, where a primary reporting channel will ensure that regular communication is maintained between the consultant team, the client and the PMG. The PMG will be responsible for reporting on regular progress to the bi-monthly meetings of the IWG, with the consultant team's assistance.

In terms of Warringah Council members, a number of the key reporting/presentation dates are built into the project engagement plan. However, Councillors will also be invited to attend the community engagement events. In addition to elected members, local Members of Parliament will be informed of community events and encouraged to participate in the process of shaping the precinct and planning strategies for the Warringah area.

COMMUNITY COMMUNICATION

It is envisaged that the specific engagement events for this project will be underpinned by a baseline of initiatives that will inform and consult with the local community. These initiatives will make use of established media, community advertising and distribution networks and through information drops located at recognised public venues in the Warringah area.

Warringah Council will be responsible for baseline community publicity including databases, publications, emails, community notices and other relevant engagement tools. Council also proposes to create a specific project website which will be used to provide periodic updates. The website can carry a 'latest news' section and highlight consultation events in advance. It can also be used to upload documents or provide links to various online forms and sources of information as part of the wider process of public/stakeholder engagement for the project. The consultant team will assist by providing images and text for project promotion and display material.

REPORTING AND REVIEW

8.0

REPORTING AND REVIEW

8.0 Reporting and Review

This chapter articulates the roles and responsibilities of Warringah Council and the consultant team in the reporting and reviewing during the engagement process.

ROLES AND RESPONSIBILITIES

Warringah Council, as the principal client, is managing the consultants for the Hospital Precinct Structure Plan and Warringah Local Planning Strategy as part of a wider team of professional advisers.

Hames Sharley, as lead consultant for the two projects, is responsible for preparation of the consultation strategy and managing the consultation process. Hames Sharley's Consultation Coordinator will be the primary point of contact and will liaise with Warringah Council's Project Manager.

Hames Sharley will work in partnership with Council to produce relevant publicity material about the project and assist with the project's promotion. However, Hames Sharley is not responsible for producing communications resources or public displays.

Warringah Council will be responsible for organising and managing all venues and facilities required as part of the engagement process for the project, as well as the publicity and direct invitations associated with these events.

REPORTS AND SUPPORTING MATERIALS

Hames Sharley will prepare presentations to the PMG, IWG and Council meetings and will also prepare other materials for stakeholder meetings and community workshops. Hames Sharley will lead the facilitation of the community workshops. Summaries or meeting notes which reflect the main outcomes of public and stakeholder events will be prepared by Hames Sharley and circulated to the client group for comments, prior to being finalised.

The reports on stakeholder workshops and other major consultation events will be initially for the information of the client and PMG and will be available to relevant parties who attend each stakeholder forum. It may be intended to make available the stakeholder workshop reports to external parties, including the wider community.

PROJECT MANAGEMENT GROUP

The Project Management Group will determine publication of any supporting material for external viewing. It may also have to assess any requests for project documents and reports in the spirit of maintaining a free flow of information during the study.

EVENTS AND PRESENTATIONS

The outcomes of the community events and presentations will, as with all the public forums, be written up into a note of proceedings reported to the client and PMG. The PMG may consider making these summaries publicly available (e.g. uploaded onto the project website).

PROCESS REVIEW

This Engagement Strategy also provides for a review of the engagement process as it evolves and at its conclusion. The consultant team can also meet with the client to review the engagement process and discuss its effectiveness and key outcomes, as well as refine the process as a consequence of any changed parameters that may occur.

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CONTINGENCY 9.0

CONTINGENCY

9.0 Contingency

This chapter reviews the proposed engagement process in term of risks and program management. It highlights which elements of the plan should have contingency arrangements in place to respond to unexpected outcomes or influences out of the control of the project team, particularly in respect of the community consultation exercises.

RISK IDENTIFICATION AND MITIGATION

Any engagement strategy is susceptible to risks associated with a process with uncertain outcomes. These risks can be several fold and may include:

+ Project Audience: maintenance of an appropriate engagement list.
+ Engagement Plan: managing evolving project information and communicating complex project attributes.
+ Engagement Response: ensuring community and stakeholder participation, managing popular events, and responding appropriately to criticisms as they arise.
+ Engagement Outcomes: achieving constructive and useful feedback that is clear, valuable and achieves consensus.
+ Project Outcomes: ensuring key party's aspirations are achieved and community needs are addressed.
+ Each of the above scenarios merit due consideration in the engagement strategy for this project as they pose risks to programming, the delivery of a successful study and a robust final plan.

Contingency arrangements that have been identified and discussed with Council for this project are:

1. Project Audience

- Keeping the project's stakeholder engagement list under periodic review i.e. the study should be fully accessible to all and should not exclude or prejudice any groups or parties.
- Ensuring that broad publicity about the project is maintained through the life cycle of the study via staged release of information and project updates.

2. Engagement Plan

- Review of presentation content and material by the Council's project officers in advance of events.
- Briefings to Council members, as required, to obtain feedback on options, presentation material or project proposals.

3. Engagement Response

- Ensure there is clarity in project media about the key formal stages of plan preparation through draft, final draft and final plan and the consultation opportunities at each stage.
- Ensure that this project has clarity of purpose and an identity that is clear and distinct from other projects in the area.
- Develop and present a range of options and opportunities during engagement events that are conveyed in layman terms and appeal to diverse interests in the community.

4. Engagement Outcomes

- Ensure that feedback is adequately recorded and analysed following main events or reliably collected via online/ interactive feedback methods.
- Enable review of the engagement process to respond to changing needs and consider additional consultation as required by Council.

5. Project Outcomes

- Ensure the project program affords opportunity between preparation of draft and final stages of plan preparation to consider how community/stakeholder aspirations have been met.
- Consider whether further consultation opportunities should be afforded or a revision to the plan should be contemplated to address unforeseen issues raised that are unmet in the plan's proposals.
- Undertake a (online/direct mail out) survey at the project close to obtain feedback on the engagement process, project accessibility and the study's outcomes as part of an overall evaluation.

6. Engagement Program

- The Engagement Program is embedded within, rather than separate to, overall project program. This ensures that the two processes work in collaboration towards mutually agreeable outcomes. It also enables project review points to be coordinated with stakeholder engagement events which ensures efficiency and transparency at every stage and phase of the project.

These measures have been identified and put in place to address risks at each step of the process. In this respect, it is proposed to review the engagement strategy with Warringah Council (if required through the project's governance structures) after each main step to ensure that the program and outcomes are satisfactory, prior to progressing on to the next stage of the process.

EVENT SCHEDULING AND ARRANGEMENTS

A commitment has been made to deliver single venue public events to cover key preparation stages of the project. The events will be repeated at different times of the week and at weekends to maximise public accessibility to the project. Multiple events in the current plan will also assist with mitigating the risk of a single public event being over subscribed (e.g. due to unexpected popularity of the topic). The addition of reserve dates for additional consultation can also be considered with Council as required.

Drop in sessions or forums will be held at a suitable venue and location accessible within the Warringah project area. The opportunity exists for stakeholder engagement events to be spread around various project clients and sponsors in order to extend the consultation process to the doorstep of a number of key stakeholders, including sharing the costs of venue hire and catering. However, at this stage, the preference is to locate most if not all events within the offices or community venues of Warringah Council for simplicity and ease of facility management.

This points to the need to source a suitable community venue(s) in the area with a large capacity, accessible by public transport, comfortable meeting rooms for people of all ages, rooms with IT capability, PA system, catering facilities, rest rooms, parking, public transport services and disabled access to the building. A well-known community building in a central location that meets all of these requirements will not guarantee a successful event but a suitable venue choice can be helpful to the engagement process.

Event scheduling is paramount. Early publicity and/or invitations with RSVP requests will allow for an awareness of availability and direct control of numbers attending. In the event that community participants exceed indicative capacity of the venue, alternative measures can be agreed with the PMG to minimise impact on the project program. This may include the parallel on-line consultation process or additional sessions as agreed by Council. Identification and finalisation of participant lists for smaller events in advance of the event day will enhance the prospects of achieving a good attendance e.g. stakeholder workshops. This will also allow subsequent invitations and agendas for workshops and meetings to be issued promptly.

The project program extends over an 18 months period with a number of public holidays that need to be taken into account. The schedule has been prepared in accordance with the Council's agreed policy in relation to community engagement and school holidays. As such, a robust engagement program is in place with agreed dates and milestones that will assist with minimising uncertainty and knock on effects on the engagement process.

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10.0 SUMMARY

10.0 Summary

The future planning for the Frenchs Forest precinct and wider Warringah area represents an important stage in the strategic planning response to the new Northern Beaches Hospital. Warringah Council has engaged a project team, led by Hames Sharley, to help consult with the local community and shape long term plans that will guide the physical, social and economic growth of the area.

An engagement program has been proposed for the Precinct Structure Plan and Local Planning Strategy, set around a triple stage structure. The events at each stage of the process seek to strike a balance between the extent of engagement and efficient progress through the overall timetable agreed for the study. The program and engagement framework have been developed in close consultation with Warringah Council to ensure it responds to the project's objectives and expectations from key stakeholders and partner agencies, as well as meeting Council's obligations to consult appropriately with its local community.

Hames Sharley looks forward to undertaking this engagement process for the Hospital Precinct Structure Plan and Warringah Local Planning Strategy with Council. We welcome the opportunity to review and reflect upon the process undertaken for the Precinct Structure Plan and refine it accordingly for the Local Planning Strategy.

1.0 APOLOGIES

Nil

2.0 DECLARATION OF PECUNIARY INTEREST AND CONFLICTS OF INTEREST

Nil

8.0 ENVIRONMENT & INFRASTRUCTURE DIVISION REPORTS

Nil

NOTE: The Administrator acknowledged the presence of former Mayor of Warringah, Michael Regan, and former Councillors Sue Heins, Roslyn Harrison, Cathy Griffin, Jose Menano-Pires, Hugh Burns, Duncan Kerr and Alex McTaggart.

8.0 PLANNING & COMMUNITY DIVISION REPORTS

8.1 DRAFT NORTHERN BEACHES HOSPITAL PRECINCT STRUCTURE PLAN

NOTE: Tim Pace addressed Council on the Item.

NOTE: Former Mayor of Warringah, Michael Regan addressed Council on the Item.

167/16 **RESOLVED**

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That Council:

A. Endorse the Draft Northern Beaches Hospital Precinct Structure Plan for the purposes of public exhibition.

B. Commence immediate exhibition of the Draft Northern Beaches Hospital Precinct Structure Plan to conclude on 28 February 2017.

C. Hold a Community information/drop-in meeting within the next 14 days.

D. Engage with the Community and Stakeholders as per the Engagement Strategy (Attachment 5).

E. Meet with the Minister for Planning, The Hon. Rob Stokes, to explore the possibilities of accelerating the rezoning process.