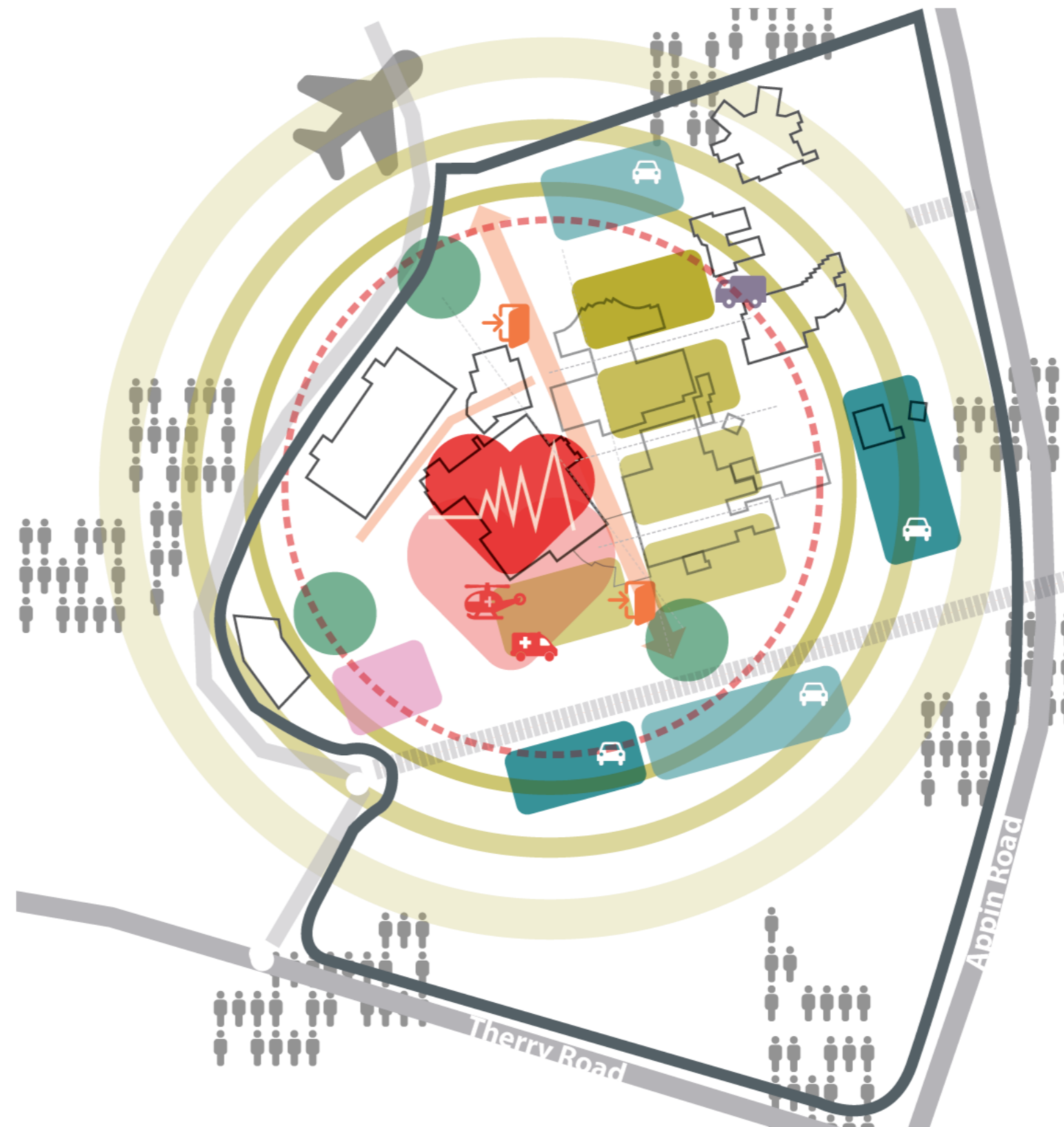


# Campbelltown Hospital Redevelopment Stage 2 Masterplan Report

24<sup>th</sup> January 2018



## Document Control

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### 17075 - Campbelltown Hospital Redevelopment Masterplan Report

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**Certified by:**

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**Principal Consultant**

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**Date**

**Endorsed by:**

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**Consultant Project Manager**

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**Date**







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### Glossary of Terms

ABBREVIATION	TERM
BLP	Billard Leece Partnership (Architects)
HI	Health Infrastructure
CSP	Clinical Services Plan
LHD	Local Health District
DCP	Development Control Plan
CSSD	Central Sterile Services Department
RMS	Roads And Maritime Services
ED	Emergency Department
BVN	Bligh Voller Nield ( Architects)
WSU	Western Sydney University
MCS	Macarthur Clinical School
CTC	Cancer Therapy Centre
SWSLHD	South Western Sydney Local Health District
SOA	Schedule Of Accommodation
CRG	Clinical Reference Group
CRWG	Clinical Reference Working Group
PDC	Planning And Development Committee



### Visual History & Context

Figure 1 Extract from Heritage report - 1986



Figure 2. View of new Building D from Birunji Creek



Figure 3. Newest Additions to Campbelltown Hospital



Figure 4. Opening Day image - 1977



1.0

Executive Summary

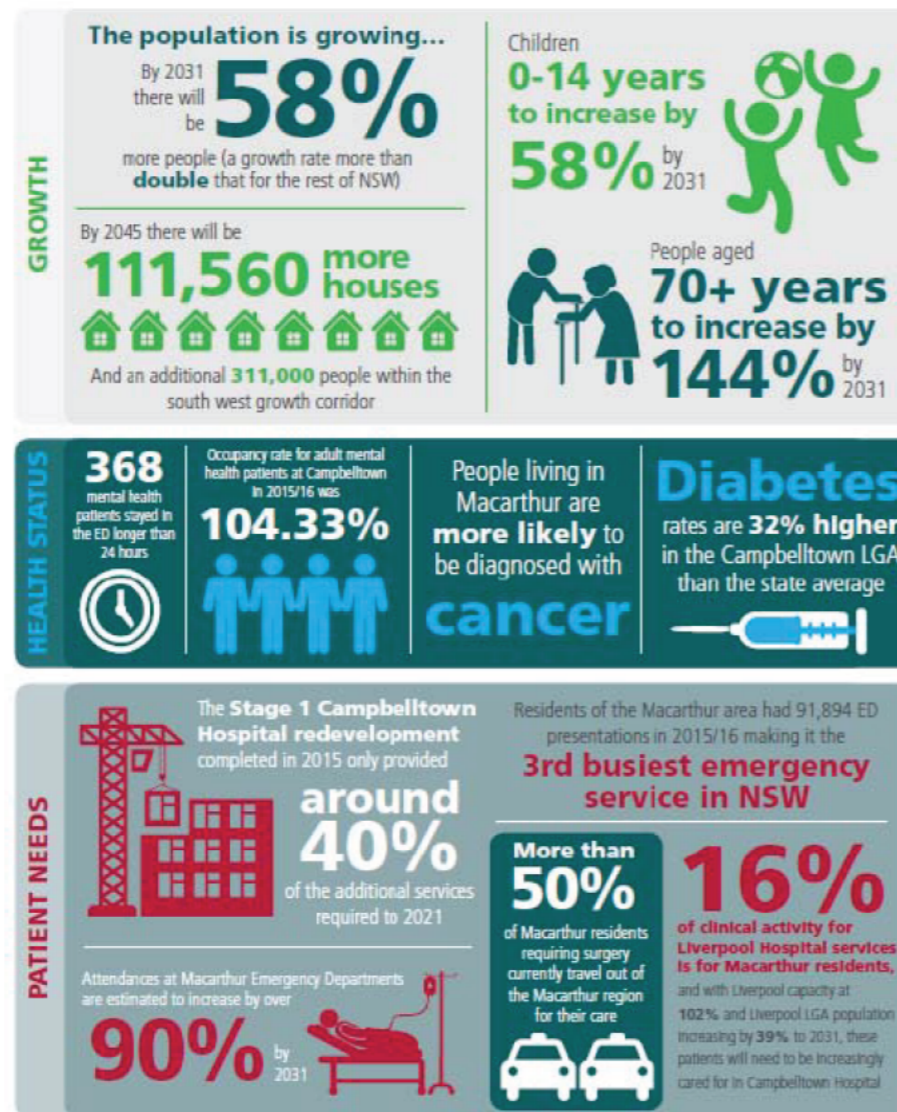


Figure 5. CSP infographic depicting areas of growth, from 'Macarthur - The Challenges Facing Health'

1.1 Project Brief

Billard Leece Partnership (BLP) was commissioned by Health Infrastructure (HI) to complete a Masterplan Review for the Campbelltown Hospital site. As part of this commission BLP has undertaken an extensive review of the future masterplan potential of the site for development alongside a review of the Abridged Clinical Services plan for the Macarthur region up until 2031/32. This review has culminated in a site zone recommendation that would meet the future needs of the hospital and other possibilities for further expansion beyond 2032. The review includes taking into account the existing hospital assets and site constraints in order to deliver the most effective outcome for providing expanded health facilities for a rapidly expanding community which is expect to grow by approximately 58% over the next 15 years.

A number of master planning investigations have previously been conducted, with the most recently undertaken by BVN and occurring in 2010 and 2014. The 2014 Masterplan report was reviewed most recently in October 2017 by BLP (refer to Appendix D). The review was focused upon the new 2017 Abridged Clinical Services Plan (CSP) and provided a comparison, or gap analysis, with that of the 2014 masterplan proposal. In addition to this review report, BLP undertook reporting on existing site infrastructure and reporting on site car parking, including traffic access and recommendations for new multi-deck car parking facilities and locations.

The 2014 masterplan undertaken by BVN was for a development with a funding allocation of \$300m, in context, the current funding was increased substantially to \$600m. The increase has come about from changes to the LHD and government priorities specifically an integration of paediatric and mental health services at Campbelltown

1.2 Campbelltown Hospital Site

The Campbelltown Hospital site is located approximately 1.5 km south/west of the Campbelltown city centre. The site is bound by roadways on the eastern, southern and western sides of the site with high density residential units along the northern boundary. Birunji Creek is located directly adjacent to the western boundary of the site.

Campbelltown Hospital is within walking distance from Macarthur train station and the Macarthur Square shopping complex approximately 10 min walk. The Campbelltown Private Hospital along with other small commercial and retail shops are located directly to the north. The main hospital buildings occupy the northern center of the site with on grade car parking facilities scattered around the extremities of the main buildings. The south eastern corner of the site has no development on it as the topography is not level but undulating in this location. There is a steep 30m incline from the main entry of the hospital to the highest point on the site.

## 1.0 Executive Summary

### 1.3 Methodology

The process undertaken by The Project Team for the masterplan phase was focused on identifying a preferred masterplan development option for the site.

The selection review process involved a detailed review and analysis including:

- Review of current documentation including site plans, service plans and other relevant documents.
- Review and consultation with Campbelltown Hospital, South Western Sydney LHD and HI regarding health service planning assumptions.
- Development and testing of options for funded and future stages of the project.

All options were presented to the Campbelltown Hospital executive as well as South Western Sydney Local Health District and NSW Health Infrastructure including the Expert Review Group (ERG). On conclusion of the various presentations, it was determined that Masterplan Option 1 provided the most optimal redevelopment strategy for the site.

The development of the Masterplan was undertaken in consultation with representatives including:

- Campbelltown Hospital service
- South Western Sydney Local Health District
- NSW Health Infrastructure, including the Expert Review Group
- NSW Health
- Root Partnerships - Project Manager
- Billard Leece Partnership – Architects and Clinical Health Planners
- Aecom – Cost planning

The group interaction at masterplan design phase was kept at an executive level to ensure that the information was strategic in nature and focused on a whole of hospital approach.

### 1.4 Key Assumptions

To progress with the development of the masterplan, a series of key project assumptions were compiled and are listed under the following 2 category headings:

#### Services

- Deliver on Government's commitments
- Support the SWSLHD network and Macarthur Health Neighbourhood
- Provide clinical capacity to 2026/27 as per the CSP and address the clinical priorities (rank order of priorities)
- Provision of educational & research capacity and spaces (distributed and shared models)
- Medical imaging has a mix of centralised and decentralised modalities to support patient access

#### Infrastructure

- Enable an integrated services solution
- Masterplan to optimise road access, consolidate building stock, provide primary access / clinical zones (integrated model), facilitate the primary circulation spine and future development
- Must maintain business continuity and provision of services through redevelopment phases.
- Retain / repurpose high value buildings, i.e. Buildings A, B, D & CTC location
- IPU planning of 60:40 single/double bed rooms

### 1.5 Guiding Principles

A series of guiding principles in the context of developing a tertiary hospital were established with the SWSLHD at an early stage of the masterplan project programme. The 6 principles outline key objectives for the project team to align to as follows:

- Deliver the best outcomes and experience to the Macarthur community.
- Hub for health and wellbeing.
- Innovation, research and education underpin everything we do.
- Flexibility to adapt to future needs.
- Community driven.
- The hospital is a community leader (not just a health leader).

### 1.6 Planning and Design Principles

A series of planning and design principles were compiled to provide specific guidance for project outcomes as follows:



#### Patient focused

Through a co-design approach, continually assess whether the planning (e.g. models of care) and design (campus and facilities) is aligned to the current and future needs of the whole community, and is capable of adapting to changes in community needs and expectations over time.



#### Integrated

Consider how the health services and facilities' built form and surrounding physical environment will enable the integration of services around the "whole person needs" for all patients. This extends to the family and carer needs to support the patient.



#### Accessible

Make health services more accessible for the public, patients, staff and for researchers – in relation to both physical 'in-person' and virtual methods.



#### Resilient

The design should be agile and provide flexibility and optionality to account for how service delivery, accessibility and technology will be different to what we see today (e.g. modular versus fixed spaces; physical versus virtual care opportunities).



#### Responsive to changes in technology

How we can better utilise technology to support the interface between clinicians and patients / carers / families and new models of care to deliver better health outcomes.



#### Grounded in research that enables practice translation & Supported through teaching and education

Connect research and practice to improve outcomes through organisational and facility design that enables physical connection, collaboration and integration for the benefit of patients. Create the platform to become known for innovation and clinical integration through education, research & training.

Figure 6. Extract from Macarthur Health Neighbourhood Visioning Workshop Outcomes. Dated NOV 2017



**1.0 Executive Summary**

**1.7 Ideas and Opportunities**

An aspirational list of ideas and opportunities for the Campbelltown Hospital Redevelopment project was agreed with and are outlined as follows:





<p><b>Technology</b></p> 	<ul style="list-style-type: none"> <li>• Be proactive and become an early adopter and innovator</li> <li>• Integrate information across the whole ecosystem                             <ul style="list-style-type: none"> <li>◦ Buy the right technology so we can interoperate</li> <li>◦ Ensure clear standards so that we're consistent</li> <li>◦ Link our information into research</li> </ul> </li> <li>• Participate in the trends                             <ul style="list-style-type: none"> <li>◦ Move from the 'spatial form' to the 'virtual form' (block chain)</li> <li>◦ Big data to inform us!</li> </ul> </li> </ul>
<p><b>Built Environment</b></p> 	<ul style="list-style-type: none"> <li>• Place for co-design and for collaboration</li> <li>• Different types of access (cycling, walking, cabs &amp; other inbound vehicles, automated)</li> <li>• Places for care                             <ul style="list-style-type: none"> <li>◦ Consider the conditions / cases that will need to come to hospital and those that won't (can be cared for in the community)</li> <li>◦ Enable after hours care</li> </ul> </li> </ul>
<p><b>Integrated Care / Models of Care</b></p> 	<ul style="list-style-type: none"> <li>• Hospital avoidance                             <ul style="list-style-type: none"> <li>◦ Use of telehealth (links with technology)</li> <li>◦ Potential for call centres</li> <li>◦ Upskill primary care</li> </ul> </li> <li>• Co-location of health professionals in the community</li> <li>• Flexibility to meet differing needs and expectations</li> <li>• New models of care in the community and hospital                             <ul style="list-style-type: none"> <li>◦ Partnerships with ED and Primary Care</li> </ul> </li> </ul>
<p><b>Research &amp; Education</b></p> 	<ul style="list-style-type: none"> <li>• Break down the silos                             <ul style="list-style-type: none"> <li>◦ Interdisciplinary focus</li> <li>◦ Linked boards</li> <li>◦ Agendas on every committee</li> </ul> </li> <li>• Population focus                             <ul style="list-style-type: none"> <li>◦ Full spectrum of research to translation (and loop)</li> <li>◦ Inclusivity with the broader community</li> <li>◦ Better outcomes should be a core focus</li> </ul> </li> </ul>

Figure 7. Extract from Macarthur Health Neighbourhood Visioning Workshop Outcomes. Dated NOV 2017

**1.8 Background and Reference Documents**

There have been a number of documents that have helped inform the consultant team on developing the masterplan for the Campbelltown Hospital Site, These documents include:

- BVN - Masterplan 2010
- BVN - Masterplan 2014
- BVN - Feasibility Design Report 2014
- BLP - Campbelltown Hospital Redevelopment: Existing Site Information Update Report
- BLP - Campbelltown Hospital Redevelopment: Car Parking Demand Study and Traffic Management
- BLP - Campbelltown Hospital Stage 2 Redevelopment: Plan Review and Recommendations
- PTC - Parking Demand Study and Traffic Assessment October 2017
- Umow Lai – Site Services Review and Car Park/Stage 2 Requirements Report
- SWSLHD – Abridged Clinical Services Plan for Macarthur to 2031
- Enhanced Paediatric Capacity Plan 2031 (Draft September 2017)
- Carramar – SoA Version 4 Draft (4th November 2017)

Notes:

1. The Functional Brief for the Campbelltown Hospital Redevelopment project had not been completed/issued at time of reporting
2. Additional works associated with the Car Park and Engineering Department relocation are currently ongoing and are not completed/included in detail in this report.



Figure 8. Extract from Report 3: Campbelltown Stage 2 Redevelopment prepared by BLP. Appendix D

## 2.0

## Role and Function Review

### 2.1 Service Plan

In December 2016, the Ministry of Health requested SWSLHD to undertake an accelerated planning exercise to revise previous clinical services planning to meet a new time frame to 2031 and to inform planning for the revised CHR Stage 2 and planning for the Oran Park Integrated Health Hub. Notably the Plan highlighted the needs for a substantial enhancement of paediatric services; expansion of the range of surgical, medical, maternity and diagnostic services; and, integration and expansion of mental health services.

Based on the 2016 SWSLHD services planning, the Campbelltown Hospital Redevelopment Stage 2 (CHRS2) Investment Decision Submission was prepared by the LHD and presented to NSW Treasury in May 2017. This set the path for renewing Government's commitment to increasing the range and level of hospital services at Campbelltown to meet the specific health needs of the Macarthur region and the latter gaining NSW Treasury support for the Campbelltown Hospital Redevelopment.

On 17 June 2017, it was announced the NSW Government will deliver a \$632 million upgrade for the Campbelltown Hospital in the upcoming Budget, including a boost to paediatrics and mental health services.

Stage 2 will include:

- Expanded paediatric services including more inpatient beds
- Enhanced mental health inpatient and community support services
- Additional emergency department capacity
- More medical imaging equipment
- Additional capacity in intensive care
- More medical, surgical and maternity beds
- More clinical rooms and treatment spaces for ambulatory care

The Service Plans were completed in September 2017 comprising:

- *The Abridged Clinical Services Plan for Macarthur to 2031*, provides a graphic 'snap shot' for the Macarthur region over the 2016-2031 period and examines the drivers for change, the main one being the lack of clinical capacity on and around the Campbelltown Hospital Campus.
- *The Enhanced Paediatrics Capacity Plan 2031* focuses on improving health outcomes for all children and adolescents in South Western Sydney Local Health District (SWSLHD) with Campbelltown Hospital as the core hospital for paediatric service capacity enhancement.

The CHR project will enable Campbelltown Hospital to:

- Respond to the projected population growth and significant increase in clinical service demand in the future
- Contribute to improving the Health status of the Macarthur community
- Provide a wider range of patient care services to benefit patients, carers and their families
- Explore new and enhanced models of care and new ways of doing things
- Enable innovation and organisational transformation
- Provide opportunities to embrace new technologies
- Facilitate a wider range of treatment modalities
- Improve health outcomes to the benefit of the Macarthur community.

In essence, the Case for Change is not about replacing physical facilities at Campbelltown Hospital but rather providing additional health infrastructure and technologies aimed at addressing significant population growth and related health service needs, improving best practice, and developing a capable and effective workforce able to meet the health challenges in Macarthur over the coming years.

The key drivers in Macarthur for change are:

- Significant population growth
- Poor health status of the broader population
- Increase in patient needs across a range of services
- Increase in role delineation and services capability
- Provision of contemporary models of care
- Services integration and collaboration
- Changing technology
- Investment in education & research

**2.0 Role and Function Review**

**2.2 Care Streams**

The CSP (2031) lists the Core Clinical Service Development Directions and Key Infrastructure Priorities to 2031. The Project Scope is based on the endorsed Clinical Service Priorities and enhancing the service capacity and capability of the Hospital in the following areas:

- Emergency Department (Adults, Paediatrics, Mental Health)
- Intensive / Critical Care
- Surgical Services (Operating Theatres/Procedural Rooms, subspecialty Inpatient Units, High Volume Surgical Short Stay Unit and Surgical Day Unit)
- Medical Services (Procedural Rooms, Inpatient, Short Stay / Day Only Units)
- Cancer Services (Medical and Radiation Oncology)
- Maternity Services (Birthing Unit, SCBU, Inpatient, Day Only, Ambulatory Care/ Outpatients)
- Paediatrics (Inpatient, Day Only, Ambulatory Care/Outpatients)
- Mental Health (PECC, Intensive Care, Inpatient, Ambulatory Care/Outpatients for Adolescents, Youth, Adults and Older Persons)
- Medical Imaging / Interventional Radiology (wide range of modalities)
- Nuclear Medicine - New Service (wide range of modalities)
- Plus: Expansion to range of 'front and back of house' services

Care Type Beds	Clinical Unit / Specific Modalities	2016/17	2026/27	
Acute	Emergency Short Stay	10	25	
	ICU	12	30	
	Surgical	83	105	
	High Volume Short Stay Surgical Unit	0	20	
	Medical	159	223	
	Maternity	30	68	
	Paediatric	22	71	
	SCN	16	31	
	<b>Sub-Total Overnight Acute</b>	<b>332</b>	<b>573</b>	
	Surgical	9	26	
	High Volume Short Stay Surgical Unit	0	15	
	Medical	29	52	
	Maternity	0	2	
	Paediatric	3	18	
	<b>Sub-Total Day Only Acute</b>	<b>41</b>	<b>113</b>	
Adults: Hospital-in-The Home (HiTH)	15	31		
Paediatrics: Hospital-in-The Home (HiTH)	6	9		
<b>Total Acute</b>	<b>394</b>	<b>726</b>		
Mental Health	Acute Adolescent	10	16	
	PECC	6	6	
	Acute Adult – Gender Specific	8	16	
	Mental Health Intensive Care Unit	0	5	
	Acute Adult	22	22	
	Acute Youth	20	20	
	Acute Older Persons	0	10	
	Mental Health Total	66	95	
	<b>Total Beds</b>	<b>460</b>	<b>821</b>	
	Total Beds	Renal Dialysis	13	22
Clinic/Treatment Rooms		34	45	
Dental Chairs		0	15	
Emergency Department		50	82	
Operating Theatres		7	12	
Procedure Rooms		4	4	
Cardiac Catheter Laboratories		2	3	
Endovascular & Interventional Vascular		0	1	
Interventional Radiology		0	2	
Delivery Suites		10	15	
Chemotherapy		10	24	
Radiotherapy Linacs		2	4	
Medical Imaging		MRI	1	4
		CT	2	5
		Ultrasound	3	5
		Fixed Fluoroscopy	1	2
		Interventional Imaging – Ultrasound	1	1
	Image Intensifiers	2	4	
	Mobile Units	2	10	
	General Units	3	10	
	CR Units	2	2	
	ERCP	0	2	
	Mammography	0	1	
	CPG	0	2	
	Pain Clinic CT	0	1	
	<b>Total Medical Imaging Modalities</b>	<b>17</b>	<b>49</b>	
	PET CT	0	1	
	PET / MRI	0	1	
	SPECT / CT	0	2	
	Orthovoltage Unit	0	1	
	Stress Testing Facility	0	1	
	Bone Mineral Densitometry	0	1	
Therapy Room	0	2		
In-Vivo and In-Vitro Imaging and Diagnostics	0	1		
<b>Total Nuclear Medicine Modalities</b>	<b>0</b>	<b>9</b>		
<b>Total Treatment Modalities</b>	<b>17</b>	<b>58</b>		

Figure 9. Campbelltown Hospital - Projected Infrastructure Requirements - 2016/17 to 2026/27

**2.0****Role and Function Review****2.3 Key Clinical Priorities**

The CSP identified key infrastructure priorities but these were not given a rank-order of priority of delivery. An exercise was undertaken to identify the rank-order against four selected evaluation criteria for their ability to meet future service requirements given known and existing infrastructure constraints:

- Capability: meet nominated future role delineation
- Capacity: meet projected demand for services
- Services Quality and Safety: implement / sustain contemporary models of care
- Service Integration: delivery integrated services sustainably

**2.4 Service Integration**

A key project objective for the CHR project is the enhancement of service integration across the site and between services. Integration requires effective collaboration with other service providers in support of new models of care or service delivery.

Service integration and collaboration provide unique opportunities to undertake joint planning; share core services and resources; strengthen working relationships and service partnerships; and, leverage the use of resources (staff, facilities, equipment and technologies).

The case for change underscores the need to:

- Remove barriers to service integration: physical separation of some services is undermining opportunities for improved collaboration (i.e. Mental health services)
- Refine models of care and service delivery
- Challenge and improve the organisational culture; refine organisation-wide operational policies; enhance strengthen team building, joint research and education activities; and, encourage new ways of doing things.



3.0

Assessment of Existing Assets

3.1 Clinical

The 2017 Asset Strategic Plan for SWSLHD provides a comprehensive assessment of the needs of the District over the next 10 years, identifying the particular services and facilities gaps. Facilities that cannot be adapted to support efficient delivery of services and/or contemporary models of care are identified under a full asset portfolio assessment across all SWSLHD facilities.

The existing Campbelltown building assets have been reviewed to assess their ability to respond to key drivers of capability (role delineation), capacity (growth), service quality (contemporary models of care) and services integration. The existing assets are challenged to respond to the substantial capital investment which requires a significant increase in space (GFA M<sup>2</sup>) to meet the project objective.

The summary assessment indicates that:

- Building D (delivered in 2016) and the Cancer Treatment Centre (CTC) respond well to the service demands and should continue in use noting subject to refurbishment (fit-out of shell space) or expansion (connection to new clinical infrastructure).
- Building A and B though not currently able to meet the capacity demand are of a clinical standard to continue in use requiring refurbishment (i.e. for re-purposing) and expansion (connection to new clinical infrastructure).
- Buildings C, Waratah House, Birunji and Gna Ka-lun are rated poorly against the majority of clinical requirement and hence from a clinical perspective alternative infrastructure should be considered.

Project Future Service and Associated Infrastructure Requirements

BUILDING	NO. LEVELS	APPROX. FLOOR AREA (M2)	CURRENT DEPARTMENT/FUNCTION	CAPABILITY	CAPACITY	SERVICE QUALITY	SERVICE INTEGRATION
Building A	5	13,000	ED/Imaging/Theatres/Clinical/ICU-HDU/CSSD/DOSA/Dialysis	M	L	M	M
Building B	4	10,000	Admin / BoH / IPU / Allied Health / Kitchen / Loading Dock / Stores	M	L	L	M
Building C	3	9,000	Paediatrics / Birthing / Maternity / Stroke / Cardiac / CCU	L	L	L	L
Building D	6	15,000	Pathology / Allied Health / Ambulatory Care / Medical Records / Surgical IPU / Shell	H	H	H	M
Cancer Treatment Centre	1	1,700	Medical Oncology / Radiation Oncology (Bunkers)	M	M	M	M
Waratah House	2	2,600	Psychiatric Unit	L	L	L	L
Birunji	1	1,800	Youth Mental Health	L	L	L	L
Gna Ka-Lun	1	1,500	Adolescent Mental Health	L	L	L	L

L = low rating, M = medium rating, H = high rating

The rating system is based upon asset score on functionality and compliance with a low rating reflecting a low level of efficiency in the deliver of care and quality of the asset.

3.2 Non-Clinical

The original facility opened in 1977 and has been progressively developed over the past 40 years from a single main complex to one that now comprises in excess of four major buildings.

Building B is the original facility and has been expanded in a number of stages with Building C (Maternity, Birthing, Paediatrics) completed in 1986, Building A (Emergency, Theatres/Imaging/CSSD) completed in 2004 and more recently the completion of Building D (IPU/Allied Health/Pathology) in 2014.

Condition of Buildings

Facilities are well maintained and generally in good condition. The primary construction method has been concrete slab and column construction with intermediate block work walls with predominately steel framed roof construction.

A structural assessment of existing building assets concluded that Buildings A, B, C and D are all in good condition. The report notes that there is some evidence of water ingress to both Buildings A, B and C.

The following table provides a summary of current building facility function, including age and year of completion and rise in levels:

Figure 10: Project Future Service And Associated Infrastructure Requirements

## 4.0 Site Investigation

### 4.1 Existing Conditions

Campbelltown Hospital occupies a site located approximately 1.5km south west of the Campbelltown city centre. The original facility opened in 1977 and has been progressively developed over the past 40 years from a single main complex to one that now comprises in excess of four major buildings.

Building B is the original facility and has been expanded in a number of stages with Building C (Maternity, Birthing, Paediatrics) completed in 1986, Building A (Emergency, Theatres/Imaging/CSSD) completed in 2004 and more recently the completion of Building D (IPU/Allied Health/Pathology) in 2014.

#### Condition of Buildings:

Facilities are well maintained and generally in good condition. The primary construction method has been concrete slab and column construction with intermediate block work walls with predominately steel framed roof construction.

A structural assessment of existing building assets concluded that Buildings A, B, C and D are all in good condition. The report notes that there is some evidence of water ingress to Buildings A, B and C.

Further investigations are to be examine way finding strategies to manage multi-level access to buildings, and the change of levels across the site.

The following table provides a summary of current building facility function, including age and year of completion and rise in levels:

Note: Refer to Appendix H for further commentary and analysis on the structural condition of existing building assets.

Building	No. Levels	Current Department/Function	Completion Date
Building A	5	ED/Imaging/Theatres/Clinics/ICU/ HDU/CSSD/DOSA/Dialysis	2004
Building B	4	Admin/BoH/Med. IPU/Allied Health/ Kitchen/Loading Dock/Stores	1977
Building C	3	Paediatrics/Birthing/Maternity/ Stroke/Cardiac/CCU	1986
Building D	6	Pathology/Allied Health/Ambulatory Care/ Medical Records/Surgical IPU/Shell	2016
Cancer Centre	1	Oncology/Bunkers	2004
WSU Clinical School	4	Education	2017
Waratah House	2	Psychiatric Unit	1986
Birunji	1	Youth Mental Health	2004
Gna Ka-Lun	1	Adolescent Mental Health	2003

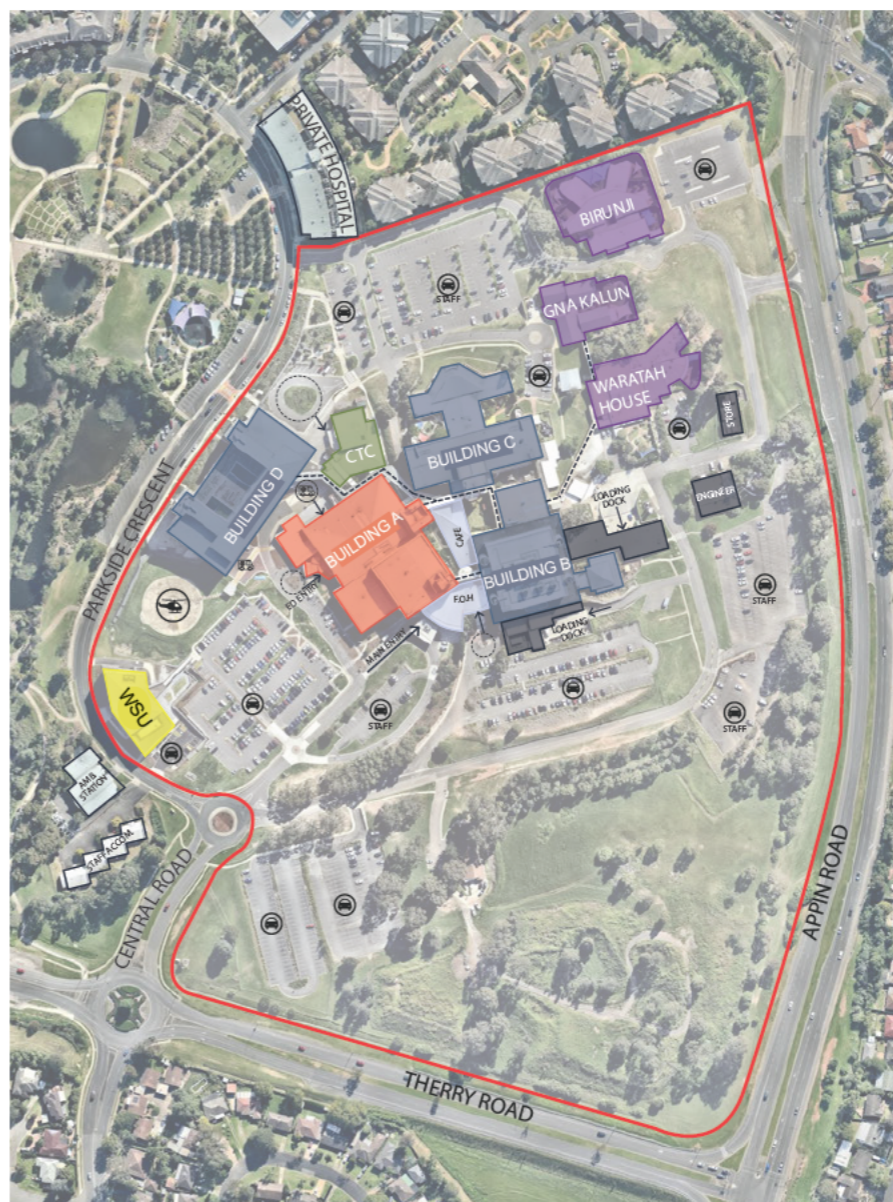


Figure 11. Existing Site Plan - 2017

- Key:
- Clinical Services
  - Wards
  - Education
  - Mental Health
  - Cancer Treatment
  - BOH/Services



**4.0 Site Investigation**



Figure 12. Existing Site Access and Entries Plan - 2017

- Bus
- Loading
- Car
- Ambulance
- Public Entry
- Emergency Entry

**Civil**

The site is affected by a 1 in 100 year flood event due to overland flows. This condition has been managed through civil works located adjacent to Appin Road completed in 2011. There are currently no storm water detention tank facilities on the site. Master planning options will need to be evaluated to determine impact upon the existing overland flow paths. Initial master planning studies suggest that an extensive site cut will be required south of Building B. Site stabilisation and drainage mitigation measures will be required.

The existing site conditions study included:

- Assessment of building types, construction and condition
- Services infrastructure facility provision, including condition and capacity assessment
- Vehicular access, including site circulation
- On site car parking for both staff and public
- Open space, including public interface

**Site Access and Entries**

The main hospital entry is located at the interface of Buildings A and B with access being from the south. This area consists of the public drop-off as a bus stop and taxi lay-by areas. A secondary entry through the recently completed Building D is available.

Vehicles, including ambulances, are encouraged to access the site from Central Road which connects directly onto Therry Road. Access is also available from Appin Road and Parkside Crescent, but control measures such as left in and left out restrictions have been applied. Traffic calming measures have been applied to Parkside Crescent as the council wants to discourage high volume use of this road.

There are 2 loading docks that service the current facility. Both are connected to Building B. The kitchen has a dedicated loading dock for food delivery. The other dock is used for all other deliveries and dispatches and is located to the east of Building B.

The hospital's engineering department offices and workshops are located directly east of the main loading dock

Note: The engineering department requires relocation as part of the 1st stage multi-deck car park project. New location had yet to be determined at time of reporting.



**4.0 Site Investigation**

**Public Transport**

There are 4 bus routes that service the hospital and link the site to Liverpool, Glenfield, Wollongong and St. Helens Park. Frequency varies from 4 at peak to 2 in off-peak. Bus services will double in frequency according to a recent ministry of transport announcement.

There are 2 train stations within a reasonable walking distance. Macarthur Station is the closest at 25 minutes, whilst Campbelltown Station is an approximate 35 minute walk.

**Helipad**

There is an on-grade helipad facility located 80 metres south/west of the Emergency Department.

The facility has low frequency use and does not meet current standards.

No undercover access is provided. It is anticipated that this facility will be replaced with the proposed redevelopment work.

**Car Parking:**

There is 6 main on-grade car parks that service the site. A new multi-deck facility is proposed as part of the enabling works to allow for commencement of the main build construction.

Of the total existing 1298 spaces, a majority are reserved for staff use (approx. 975) only, with the remainder allocated for the public (& others).

Campbelltown Hospital has the highest percentage car commuter usage rate of all the public hospitals in New South Wales.

Note: Refer to Campbelltown Hospital Redevelopment Car Parking Demand Study and Traffic Management (October 2017) for further commentary and analysis on existing and proposed car parking demand

**Ambulance and Patient Transfer**

Ambulance entry is via Central Road, and is currently shared with the public traffic route. This current configuration of shared road access may cause traffic congestion, and hinder ambulance access to the hospital and emergency department. Refer to Figure 13.

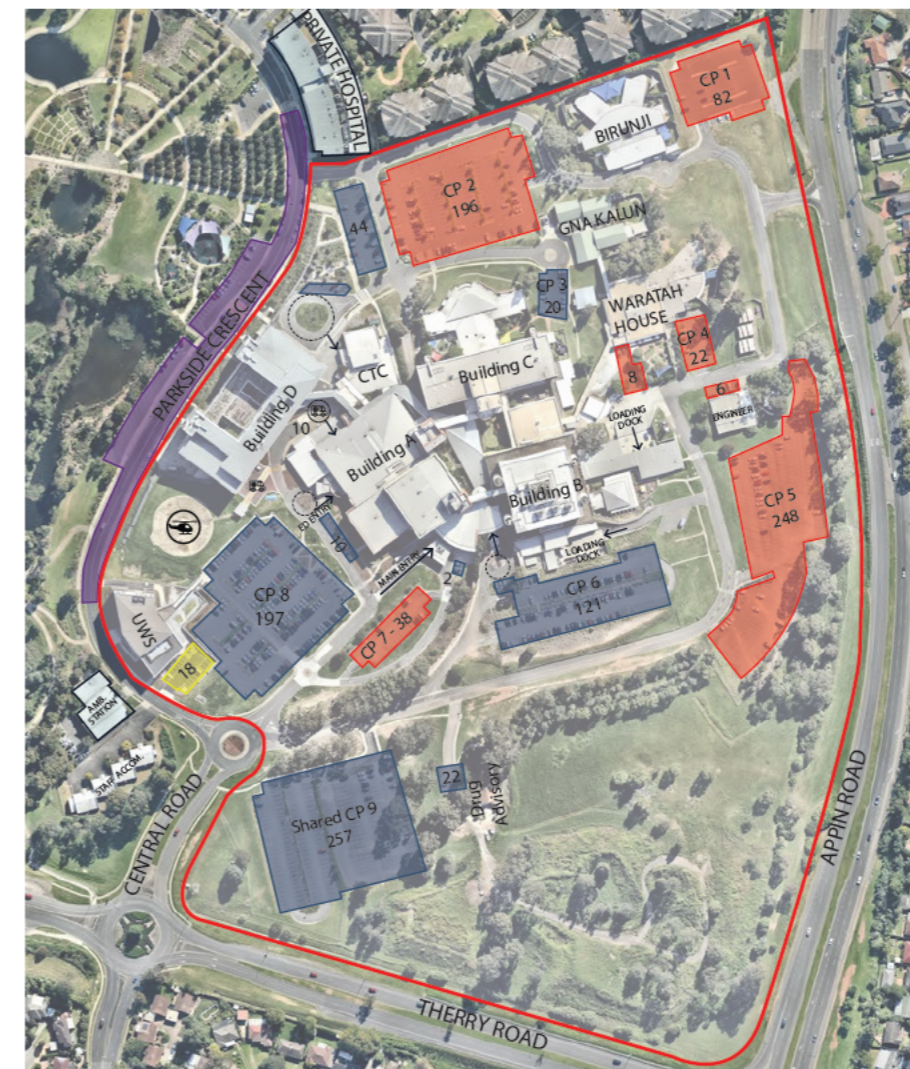


Figure 13. Existing Car parking - 2017

Key:

- Existing Visitor Parking
- Existing Staff Parking
- On street 3P
- Existing UWS Parking
- Existing Emergency Parking



## 4.0 Site Investigation

### 4.2 Services Impact Assessment

Services consultant engineering advice, concerning the review of master planning option impact upon existing site services infrastructure was not available at time of reporting.

Earlier infrastructure investigations associated with the provision of the multi-deck car park have indicated that most site services are in good to reasonable condition and that any required upgrading can occur with minimal impact upon the existing facility operation. The following commentary is based upon information available at the time of reporting.

Note: Detailed reporting by consultants will occur at Concept/Feasibility stage.

#### Hydraulic/Fire/Medical Gas

A hydraulic ring main services the site and includes potable water, gas, fire sprinkler and fire hydrant water supply. A section of the main, located toward the north east of the site, has yet to be constructed, but once completed, will form a full ring main around the site. A majority of which is located below the services roads.

The main hydrant booster pump connection is located on site adjacent to the roundabout intersect of Central Road and Parkside Crescent.

A Liquid oxygen tank compound is located adjacent to the main loading dock. This facility service the whole site. A dedicated refuelling vehicle lay by area is provided.

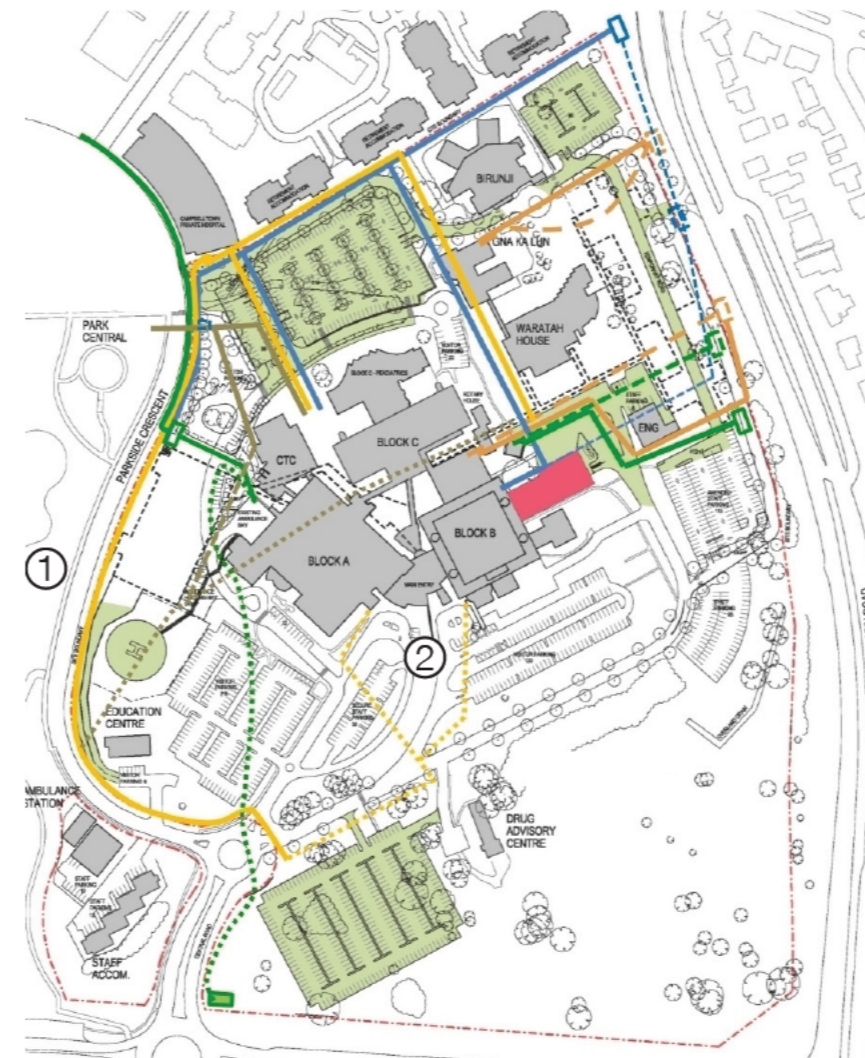


Figure 14. Site Services Works - Extract from 2014 Masterplan

**4.0 Site Investigation**

**Electrical/Comms**

The hospital is serviced by two main electrical feeds into the site. Sub-stations are located north of Building A and north of Building B. High voltage lines enter the site from the east and north. A separate sub-station services Building D.

The main central energy plant is located within the basement level of Building B. The plant in this area mostly consists of chillers and boilers.

Main communications infrastructure is located in Building B. Communications aerials are located on the roof of this building and provide for emergency services communication for the local health district network. There are also numerous Telstra mobile telephone aerials installed.

**Main Plant**

The main central plant servicing the site is located within the basement of Building B and houses large chiller units and associated mechanical plant. Back-up emergency generators are also collocated. Building B plant services a majority of the buildings on site with the exception of Building D. A plant room housing water tanks is located on the roof of Building B. Cooling towers are also mounted on the roof.

The acute services Building A has a roof plant that houses equipment to service the operating theatres as well as the CSSD on the floor level below.

Building D is a recently completed ward and ambulatory services complex and contains both plant at lower ground and on the roof. This facility is essentially independent of the main hospitals central services plant located within Building B.

Further determination on specific load and upgrade requirements will be made once assessment has been undertaken by each consultant discipline.

Note: Refer to Report 1 of Appendix D for further commentary and analysis of site services infrastructure.

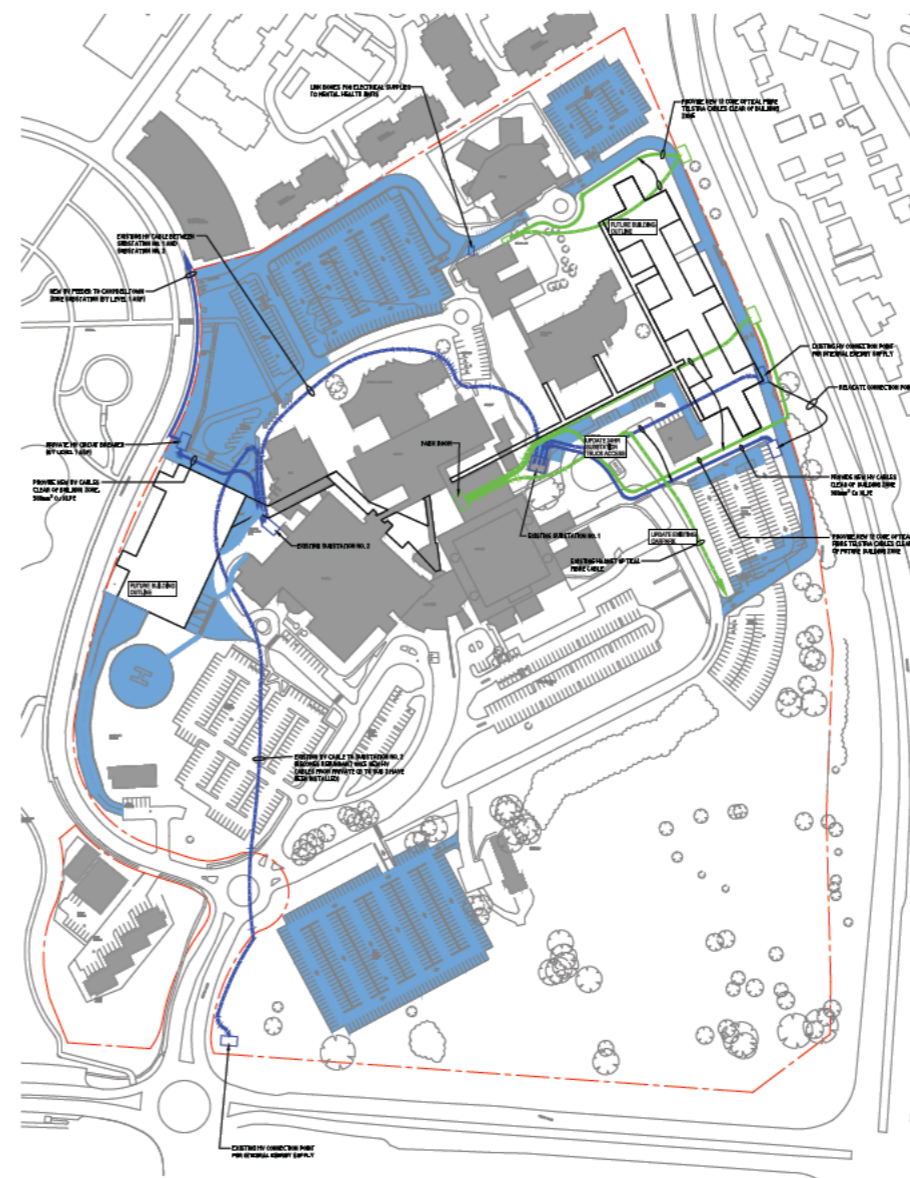


Figure 15. 2011 Electrical Report

- Key:
- Extent of early works
  - Existing underground HV cables
  - New underground HV cables
  - Existing underground comms. cables
  - New underground comms. cables
  - Future building outline



**4.0 Site Investigation**

**4.3 Environmental Analysis**

The Environmental Analysis looked at:

- Local climatic conditions such as prevailing winds, solar aspect and the likely impact upon building design and site placement.
- Localised Flora and Fauna
- Adjacent parklands and amenities
- Site topographical condition, including site lines and views across and beyond the subject site.
- Overland flow paths, including Impact upon existing and proposed facility assets.

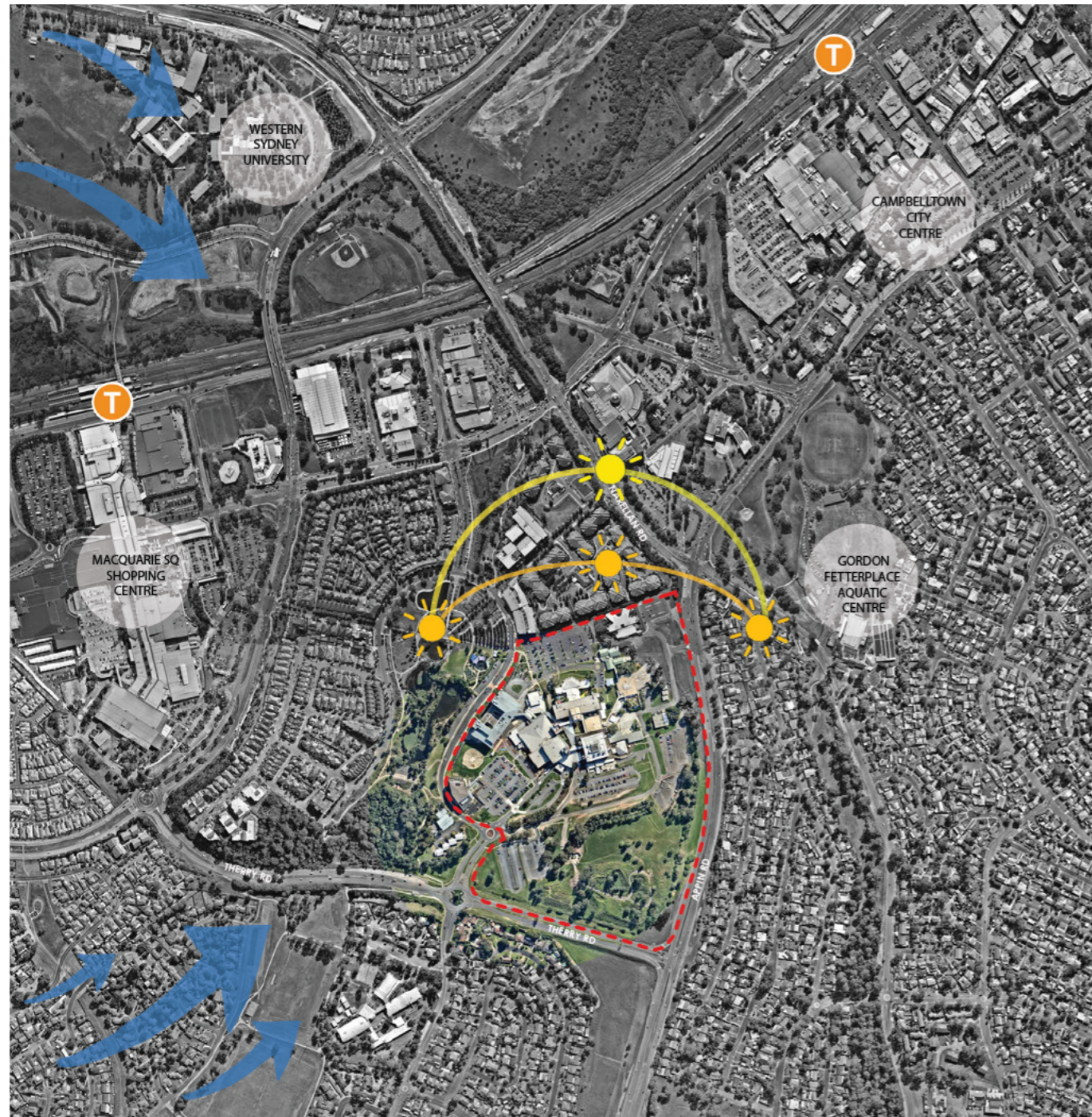


Figure 16. Site Analysis



## 4.0 Site Investigation

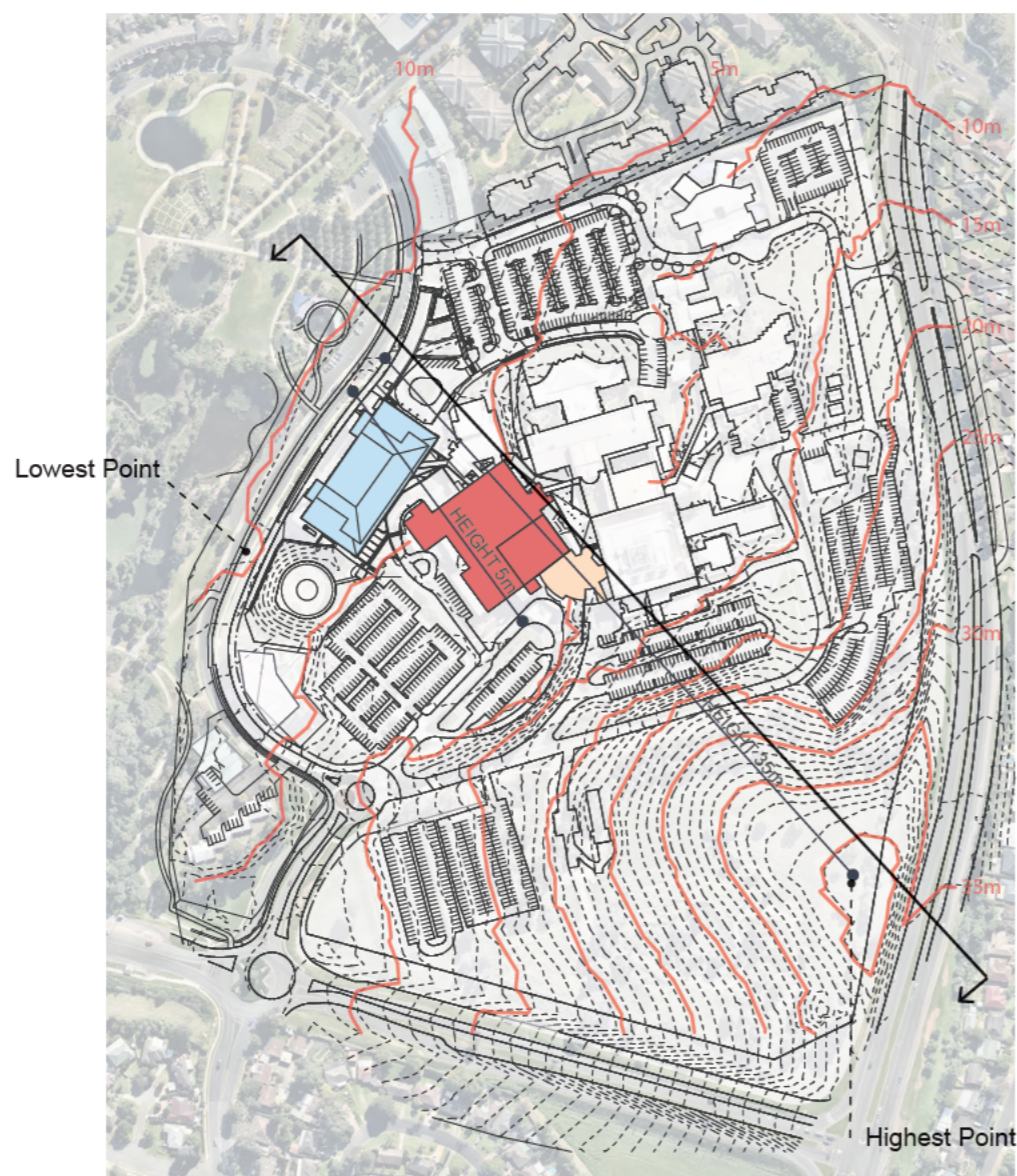


Figure 17. Terrain Analysis

Key:  
Contour Interval At 5m

### 4.4 Site Constraints

A site analysis has identified the following constraints as follows:

#### Topography

The site topography condition generally slopes down from a high point in south/east corner and falls approximately 35 metres toward the north/west over a distance of 480 metres. Within the vicinity of the main hospital complex, there is a terrain fall of around 15 metres. Development of the site toward the south/eastern corner would be problematic and costly as extensive site excavation would be required if levels and linkages to the existing hospital are to be maintained.

#### Traffic Access

Vehicular access from both Appin Road and Parkside Crescent into and out of the hospital site is restricted as follows:

- Appin Road access is restricted to left in and left out. The RMS has imposed conditions on the access amenity in order to minimise impact upon the current speed and operation of this arterial road.
- Parkside Crescent has had traffic calming measures implemented by council which reduces speed, traffic volume and use. Measures include restricted access to the site (left in and left out), installation of speed humps, including pedestrian crossings and localized narrowing of road width. Speed limit is in place. The council wants to discourage use of Parkside Crescent as an access point to the hospital.
- Access to the existing main entry is via a one way loop road connection to Central Road. The road is used by public and emergency vehicle services. It is also the primary access point to the main public car park. The public transport buses also use this access road. The road is exposed to potential congestion and has minimal expansion possibilities.

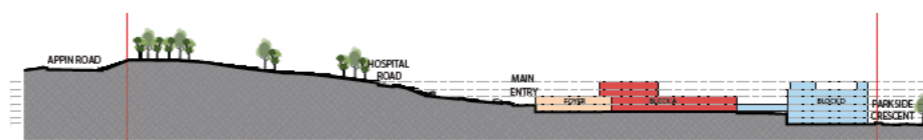


Figure 18. Section Through Whole Site Looking West



**4.0 Site Investigation**

**Planning**

The hospital site is located within the City of Campbelltown and is zoned SP2 Infrastructure (Health Service Facility) under the Campbelltown Local Environment Plan 2015. The future development of the hospital will need to take on board the following planning guidelines and policies:

- State Environmental Planning Policy (Sydney Region Growth Centres) 2006 (SEPP)
- State Environmental Planning Policy (State Significant Precincts) 2005.(SEPP)
- Campbelltown Local Environment Plan 2015 (LEP)
- Campbelltown (Sustainable City) Development Control Plan 2015 (DCP)
- Engineering Design for Development
- Scenic Hills Preservation Policies

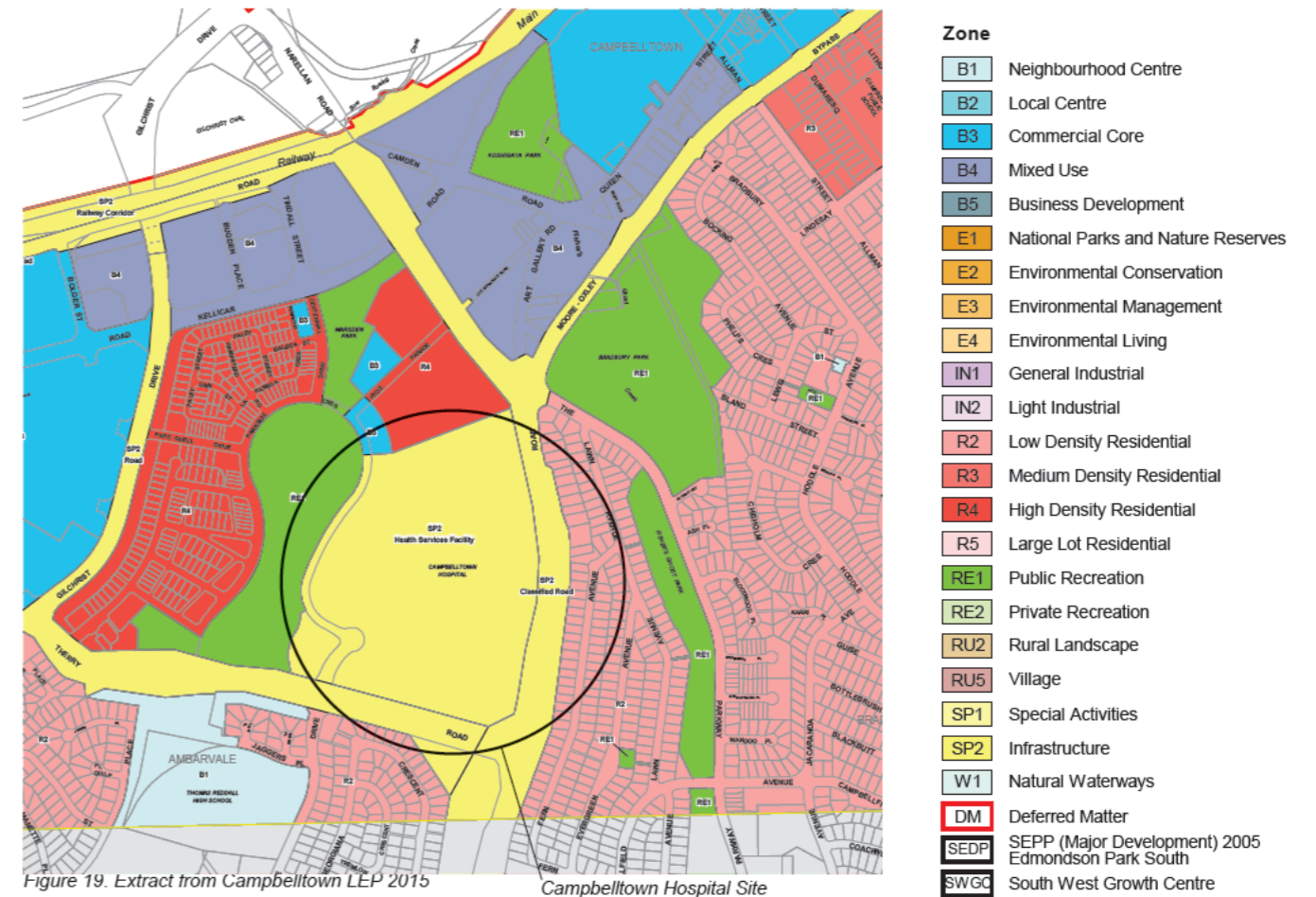
The Campbelltown City Council policy is to promote the recreational use of Park Central. Concerns have been raised previously with regard to hospital redevelopment works, in particular the development of Building D and its visual impact upon the amenity of the park. Any future redevelopment works at Campbelltown Hospital will need to consider views and sight lines from the park.

**Architectural Heritage**

Earlier heritage reporting associated with the Building D development has identified that there are no significant heritage issues that would impact upon the redevelopment of the Campbelltown Hospital site. The heritage report compiled by Tanner Architects provides detail on the potential architectural significance of Building B, which was designed by Yunken Freeman and completed in 1977. The report notes that Building B has not been registered as significant under local, state or national heritage registers.

**Archaeological Assessment**

A heritage report produced by Godden Mackay Logan has reported that due to the site containing no significant topographical land features, the likely presence of aboriginal artifacts being found on the site, such as stone fragments, is dramatically reduced. It is anticipated that additional archaeological reporting on the site will occur at concept design/feasibility stage.



**5.0 Area Allocation**

**5.1 Schedule of Accommodation Summary**

**Notes and Assumptions**

A Schedule of Accommodation (SoA) has been prepared by Root Partnerships/ Carramar Consulting and is summarised in the table under Item 3.2. These areas represent net and gross department areas (i.e. including intra-departmental circulation) with travel and engineering listed as a separate building wide percentage line item below.

The SoA has been developed through consultation with project user groups including representatives from SWSLHD and HI. The SoA summarised here is a draft working version. The final version will be subject to final feedback from the project user groups and confirmation of affordability within the available capital budget.

The SoA has been developed based on the Australasian Health Facility Guidelines (AusHFG).

**Notes and Assumptions**

- Intra-departmental circulation percentages have been based on those within the AusHFG. Where circulation percentages were not available, they are based on like departments and/or previous experience.
- Travel and Engineering has been included at 35% - to be determined by Architect and Engineer.
- Central Energy Plant allowance has not been included.
- The SOA is a very high level and is not to be utilised for other than Master Planning, blocking and stacking purposes
- Work remains ongoing in the LHD in regards to the requirements of all areas
- All ward areas are 60% single and 40% double - 2 larger rooms and 2 negative pressure. 35% circulation - above AusHFGs
- High Volume short stay 50% single and 50% double. No ante rooms

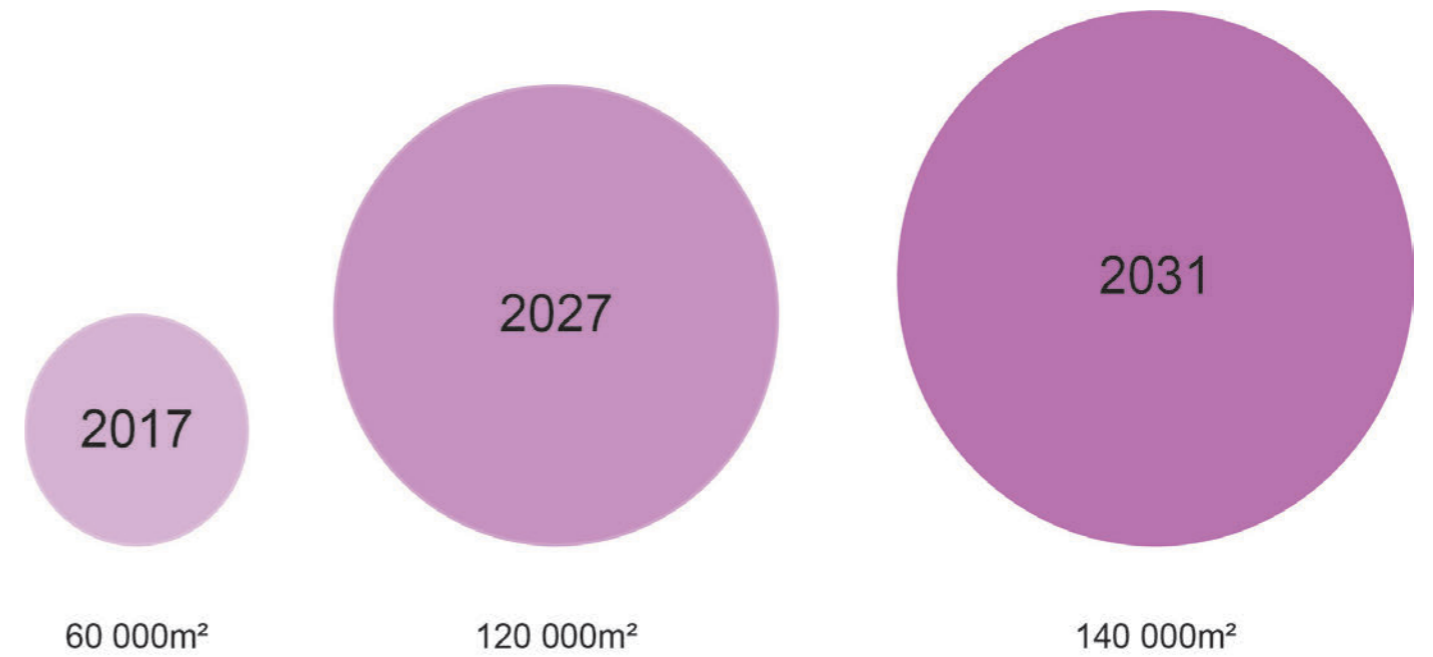


Figure 20. Growth of Campbelltown Hospital

**5.0**

**Area Allocation**

**5.2 Departmental Areas  
SOA Version 0.5 - 13/12/2017**

Current M2 allocation may not be correct as it was base on approx input and so not provided for any version

Functional Area	Current Area	Treatment Spaces 2027	Net Area m2 2027	Circulation	Current	Gross Area 2027	Over AusHFGs
Emergency Department							
EDSSU							
Psychiatric Emergency Care Centre (PECC)							
Helipad							
Medical Assessment Unit - MAU							
Ambulatory Adult							
Medical - Inpatient Accommodation Unit							
Renal Dialysis Unit							
Chemotherapy Chairs							
Radiotherapy Linacs							
Surgical - Inpatient Accommodation Unit 1							
Surgical - Inpatient Accommodation Unit 2							
Surgical - Inpatient Accommodation Unit 3							
High Volume Short Stay Surgical Unit							
Cardiac Catheter Labs							
Operating Rooms							
CSSD							
Surgical Day only / Stage 2							
Paediatric Ward(s)							
Paed Day							
Birthing Suite							
Maternity Ward							
Antenatal OP / Day							
Special Care Nursery - SCN							
Intensive Care Unit - ICU							
Mental Health Adult Acute							
Mental Health Intensive Care Unit							
Mental Health - Observation unit - Gender Specific							
Mental Health - Acute Older Persons							
Mental Health - Adolescent Acute							
Mental Health Acute Youth							
Outpatient Clinic Rooms							
Paediatric Clinic Rooms							
Dental							
Clinical Measurements							
Medical Imaging							
Nuclear Medicine							
Kitchen							
Linen							
Supply / Materials							
Waste							
Facilities Management							
Mortuary							
ICT							
Biomedical							
Front of House Services							
End of Trip							
Medical Records							
Clinical Offices							
General Admin							
Allied Health							
Retail							
Pathology							
Pharmacy							
Education							
<b>Subtotal Campbelltown</b>							
Travel and Engineering							
Central Energy Plant							
Planning Contingency							
<b>GROSS BUILDING AREA CAMPBELLTOWN</b>							





**6.0** Review of 2014 Masterplan

The previous masterplan proposal prepared by BVN in 2014 was reviewed with reference to the SWSLHD – Abridged Clinical Services Plan for Macarthur to 2031 (Appendix F) and Enhanced Paediatric Capacity Plan 2031 (Appendix G). Refer to “Report 3: Campbelltown Hospital Stage 2 Redevelopment Plan Review and Recommendations” prepared by BLP for further analysis and detail on the 2014 Masterplan(Appendix D).

The pros and cons identified are listed below:

Pros:

- Clinical care is consolidated
- Takes advantage of existing infrastructure
- Central spine link

Cons:

- Heavy reliance on existing main entries which puts additional traffic and pressure on Parkside crescent which goes against council recommendations
- Cross over of ambulance and public vehicles
- Cross over of ambulance and pedestrian paths
- Congested main front entry
- Limited accessible green space
- Future expansion capabilities are compromised
- \*Mental health precinct is remote and not integrated within the main hospital buildings
- Staging would be problematic

This masterplan proposal was therefore dismissed as a potential option due to the main factors that the clinical services building and main hospital entry restricted the future expansion possibilities for the site. The vehicles crossover and congestions create by placing the main entry in this location would also put additional stress onto the hospital function. The main beneficial drivers within the 2014 masterplan were however, taken into consideration with the new proposal and aided in establishing the central circulation spine and other connections back to Building D. The location of a potential future logistical zone was also taken into consideration.

\*Note: Current models of care require that the mental health services be integrated with in the main health service facility. The 2014 masterplan was based upon mental health service provision being segregated/stand alone.

Refer also to Report 3 in Appendix D

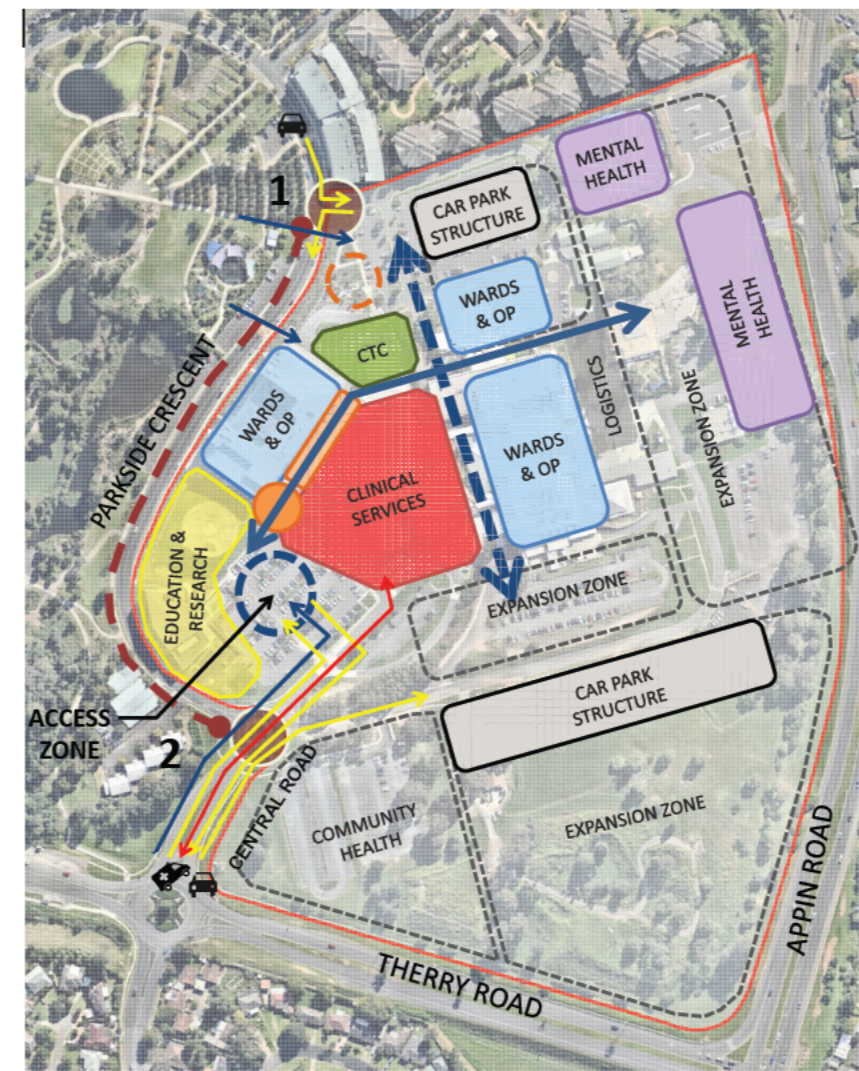
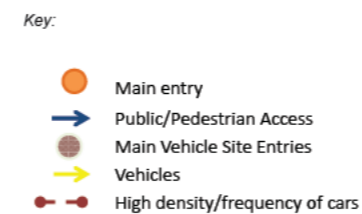


Figure 23. 2017 Base Case Investigation





## 7.0 Development Study Options

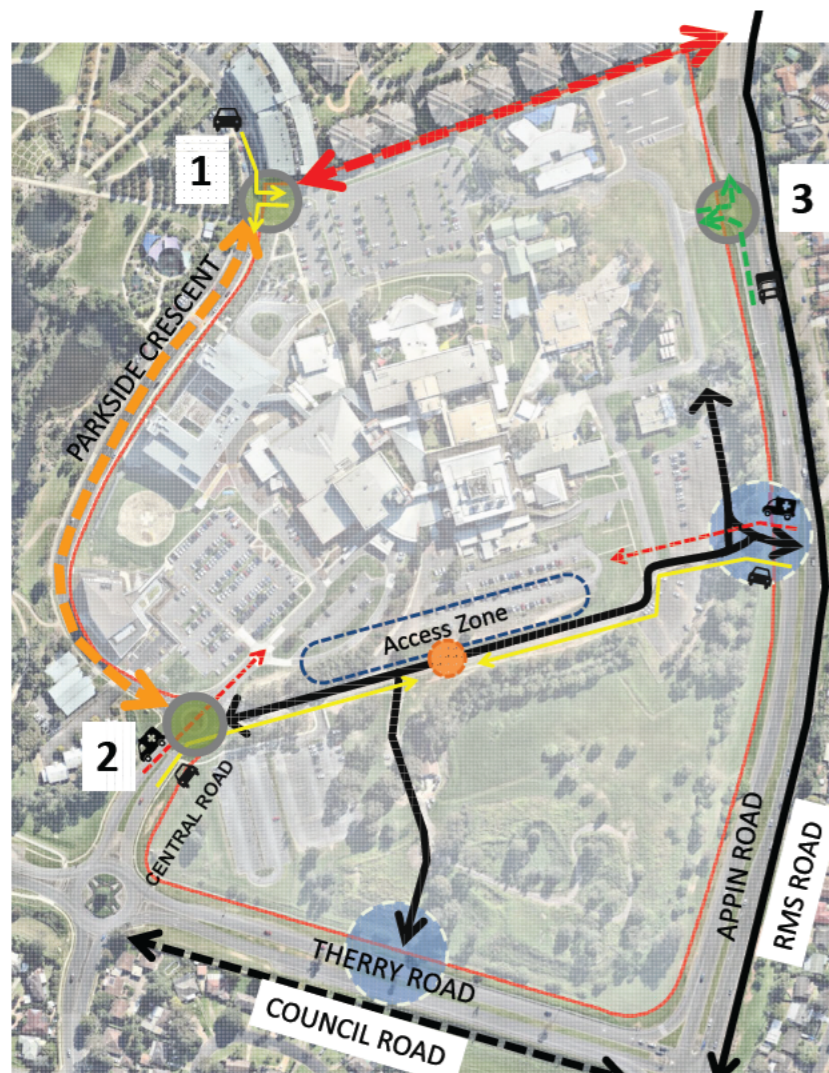


Figure 24. 2017 Site Access Analysis

- Key:
- No ability for vehicle entry along axis
  - Limited ability for vehicle entry along axis
  - RMS Road
  - Council Road
  - Main entry
  - Existing entry
  - Potential ED access/main entry
  - Potential Emergency zone due to adjacency to main access points
  - Link Road
  - Cars
  - Emergency Vehicles

### 7.1 Site Access Opportunities

The proposed site access is aimed at creating dedicated and separate circulation flows into and out of the site for public/private vehicles, emergency vehicles and services vehicles. By separating these various flows this would reduce the likelihood of on site traffic congestion and ease of flow and access into the site overall enhancing the visitor experience, reducing stress and improving the general way finding of the hospital site.

Site access opportunities are currently limited by the surrounding built context. A row of medium density residential aged care units along the north boundary of the site limits access to allow for pedestrians only.

The local council has advised that Parkside Crescent running along the western boundary of the site should not be used as a main primary vehicular access to the hospital site should remain as a limited vehicular left in left out entry and be designated for use as a shared 'community' road due to interface between the hospital and the adjoining parkland.

Appin Road running along the eastern boundary of the site is a main RMS arterial road servicing the greater Campbelltown community. There is current limited site access through a left in left out entry primary used by service vehicles. There are preliminary investigations underway that are reviewing upgrading the access to Appin Road as well as a potential new public access and entry that would act as a main hospital loop however the current entry condition would be maintained.

In addition to a need access point from Appin Road, a new link road connection to Therry Road is being considered. Therry Road is maintained by the local council.

The most appropriate site access is from the existing southern entry via Central Road which is accessed directly off Therry Road. This main entry would require upgrading to allow for the future projected influx of public vehicles, busses, ambulance vehicles and pedestrians. Current roadway configuration requires traffic to loop in and out which can result in congestion at peak times of the day with potential impact upon ambulance access to the Emergency Department.

Site access options have been developed with consideration to alleviating traffic conflict and congestion. Traffic studies have identified that the current access arrangement off Central Road will not have suitable capacity to handle the anticipated growth projected through to 2031/32.

Master planning has recommended that a new multi-level acute services building, incorporating a new public entry will be situated directly south of Building B. The new entry will be accessed via a dedicated roadway that will link back to a reconfigured extension to Central Road. Public access to the Emergency Department will be segregated. This is achieved via utilisation of the current building levels. Public entry will be located at ground level, whilst public ED entry will be located on the lower ground floor level below. As indicated in the accompanying plan, a slip road connection off Central Road may be used for public drop off. A reconfigured Central Road may be used for public bus services as well as forming a through road connection to areas of the hospital site beyond.



## 7.0 Development Study Options

### 7.2 Entries and Connections

The site access investigation has determined that the most suitable 'access zone' for the hospital would be to the south of Building B and front the adjoining service road (as shown in the adjacent diagram). It is proposed that the service road be realigned and upgraded to provide suitable capacity and gradient to service the new acute facility building. The Masterplan identifies an opportunity to provide a north/south circulation spine or 'Hospital Street' through the centre of the site. The 'Hospital Street' has the flexibility to be multi-levelled and the ability to connect a majority of buildings and departments across the campus.

Main entries would be provided at both the northern and southern ends. The southern entry provides the primary entry to the hospital and would incorporate public drop-off as well as public transport service connection. Short term public car parking would be provided within close proximity to this entry. A segregated entry for public Emergency Department and ambulance access would be provided at a lower level. The northern entry will be secondary and provide access for ambulatory services. Current pedestrian circulation patterns indicate that the majority of movements into the site are from the north via Parkside Crescent. Campbelltown Private Hospital and mixed retail/office precinct is located within close proximity of the sites northern access point.

#### Pedestrian/Ambulatory

Access will remain to the north as there are dedicated pedestrian networks within the adjacent parklands and off street pedestrian links to the two surrounding train stations and community shops/services to the north.

#### Vehicular/Main Entry

Would be maintained to the south existing entry from Central Road with the main entry drop off located within the access zone. There is also future potential to create another site entry directly off Appin road to the east creating a primary traffic thoroughfare for vehicles and busses.

#### Logistics Access Zone

Would be located towards the eastern side and would utilise current back of house functions such as the loading dock, stores access, waste management and medical gas/oxygen tanks storage. Access to the logistics zone would be maintained via current use of the Appin Road connection located toward the north east of the site

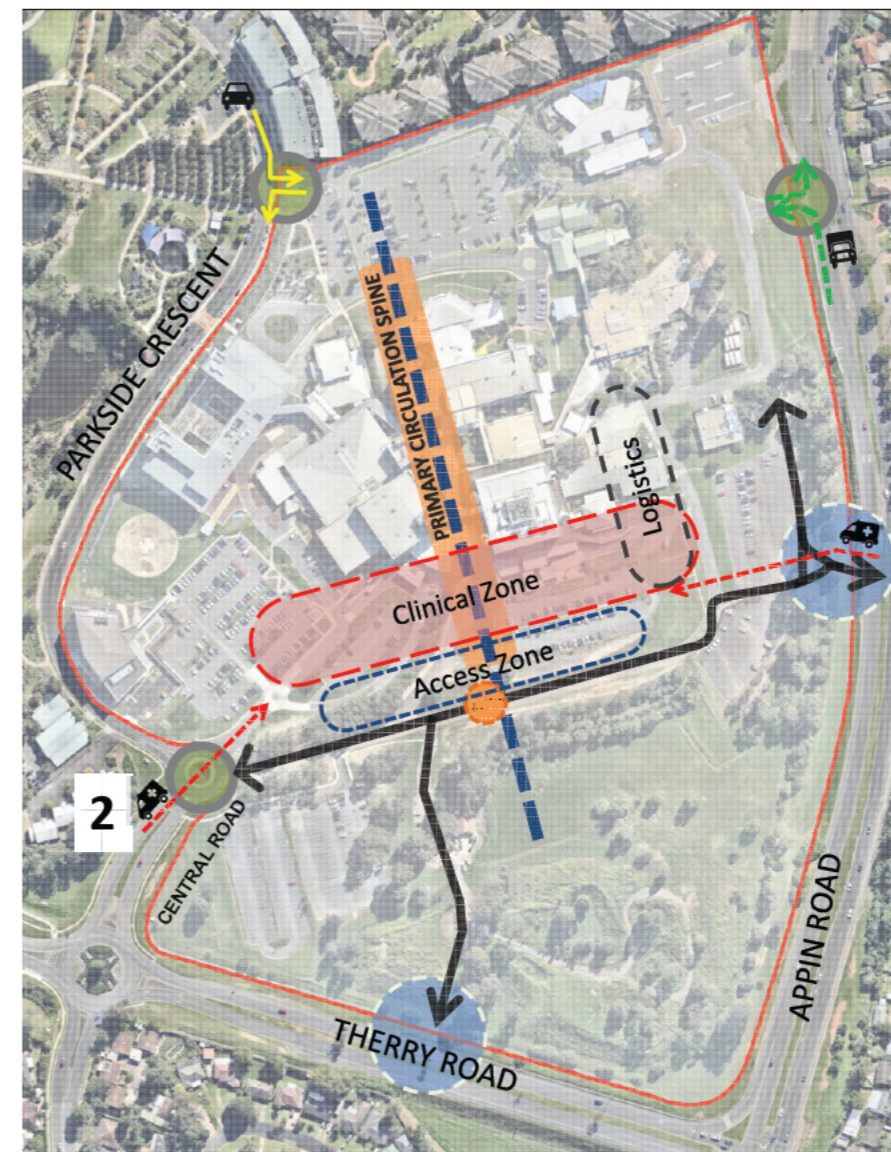


Figure 25. 2017 Site Access Opportunities

Key:

- Main entry
- Clinical Zone
- Existing entry
- Potential ED access/main entries
- Potential Emergency zone due to adjacency to main access points
- Link Road



**7.0 Development Study Options**

**7.3 Proposed Site Zoning Options**

Early establishment of the Site Structure Plan provides a planning guidance template which informed the development of various site zoning studies that have been tested against available briefing documentation and criteria assumptions identified at the time of reporting. Developed options have been subjected to rigorous client and peer workshop evaluation. This process has culminated in the selection of a number of key options which are investigated in further detail in sequential sections of this report.

The site zoning options took into consideration the site access considerations and from this three main zones were formed, these include:

- Integrated Clinical Zone
- Interaction collaboration zone
- Support zone

**Option 1**

This option places the access and integrated clinical zones to the south of the site, retaining the support zone where it currently is with access in from the east. The interaction collaboration zone is located to the west of the site with intentions of integrating the Western Sydney University Macarthur Clinical School with the main hospital and creating links to the wider community and adjoining parklands to the west.

**Option 2**

This option places the access and integrated clinical zones to the east of the site, this would place a heavy reliance on additional entries from Appin Road. The support zone is placed to the south of the site and would make use of the existing central road connection for service vehicle deliveries. The interaction collaboration zone is located to the west of the site with intentions of integrating the Western Sydney University Macarthur Clinical School with the main hospital and creating links to the wider community and adjoining parklands to the west.

Both options identify the need for the establishment of a new multi-level acute services. The study also identified the need to maintain Building B for the interim period as it contains a central plant and communications infrastructure that services a majority of the site. Other existing facility assets have also been evaluated for retention and incorporation.

A key principle planning criteria has included how best to provide direct linkages between the relatively new Building D facility and the proposed acute services complex. Investigations into the current Building D departmental occupation and longer term strategic re-purposing have been undertaken.

Additionally, options for decommissioning Building C provide for future expansion stages, some of which have been identified in this report.

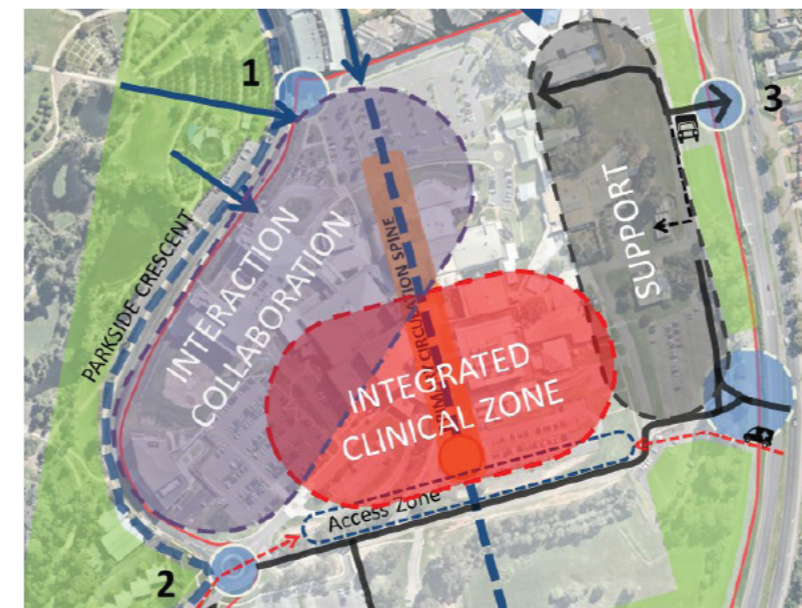


Figure 27. Site Zoning Strategy Option 1

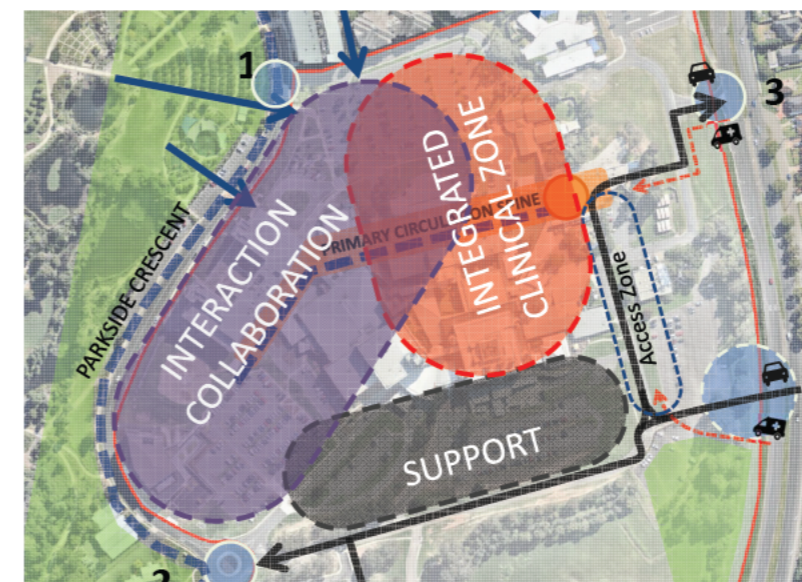


Figure 28. Site Zoning Strategy Option 2

Key:

- Green Space
- Public/Pedestrian Access
- Existing/Potential ED access/main entries
- Clinical Zone
- Interaction/Collaboration Zone
- Support Zone
- Link Road





**7.0 Development Study Options**

**7.4 Option 1 Developed**

**Option 1 main entry from the southern boundary**

Masterplan Option 1 looks at orientating the site structure running north/south, with the primary 'Hospital Street' circulation spine dissecting the site. This option maintains the existing vehicular site entry to the south and would benefit from an additional entry off Appin Road to create an internal vehicular circulation loop. This option places the main access zone, main entry and integrated clinical zone to the south with the primary spine linking the existing pedestrian thoroughfare from the main entry to the café and further north through the site.

This option makes good use of the site by using existing building stock, terrain and assets to its advantage by enforcing more efficient and functional relationships with consideration to access and flows.

**Pros:**

- Efficient functional relationships
- Community access/permeability
- Separation of flows
- Future flexibility/ expansion potential
- Efficient use of the site
- Continuity of service – staging possible maintaining ED operations

**Cons:**

- Use of recent Building D to be investigated

**Notes:**

- The 'Clinical Zone' is inclusive of Acute Adult, Mental Health and Paediatric Services and assumes an integrated development
- The proposed Civil Secure Mental Health facility to be determined



Figure 29. Option 1 Zonal Masterplan

**Key:**

- Green Space
- Public/Pedestrian Access
- Existing/Potential ED access/main entries
- Clinical Zone
- Community Interface Zone
- Support Zone
- Link Road

**7.0** Development Study Options

**7.5 Site Structure**

A Site Structure Plan was developed to provide master planning guidance for the on-going built form development of the Campbelltown Hospital site. The Site Structure Plan is aligned with the current masterplan options being evaluated. It also investigates strategic staging opportunities that project beyond the 2031/32 reporting period.

Key elements of the Site Structure Plan include:

- Establishment of north/south circulation spine – ‘Hospital Street’
- Defined main front entry
- Outline sequential staging opportunities aligned with current master planning options
- Defined clinical, access and logistic/BoH support zone (access zone)
- Identifies key entry points, both vehicular and pedestrian, including new connections
- Emergency department, including public and ambulance vehicle access
- Investigates multi-deck car parking locations
- Open space opportunities

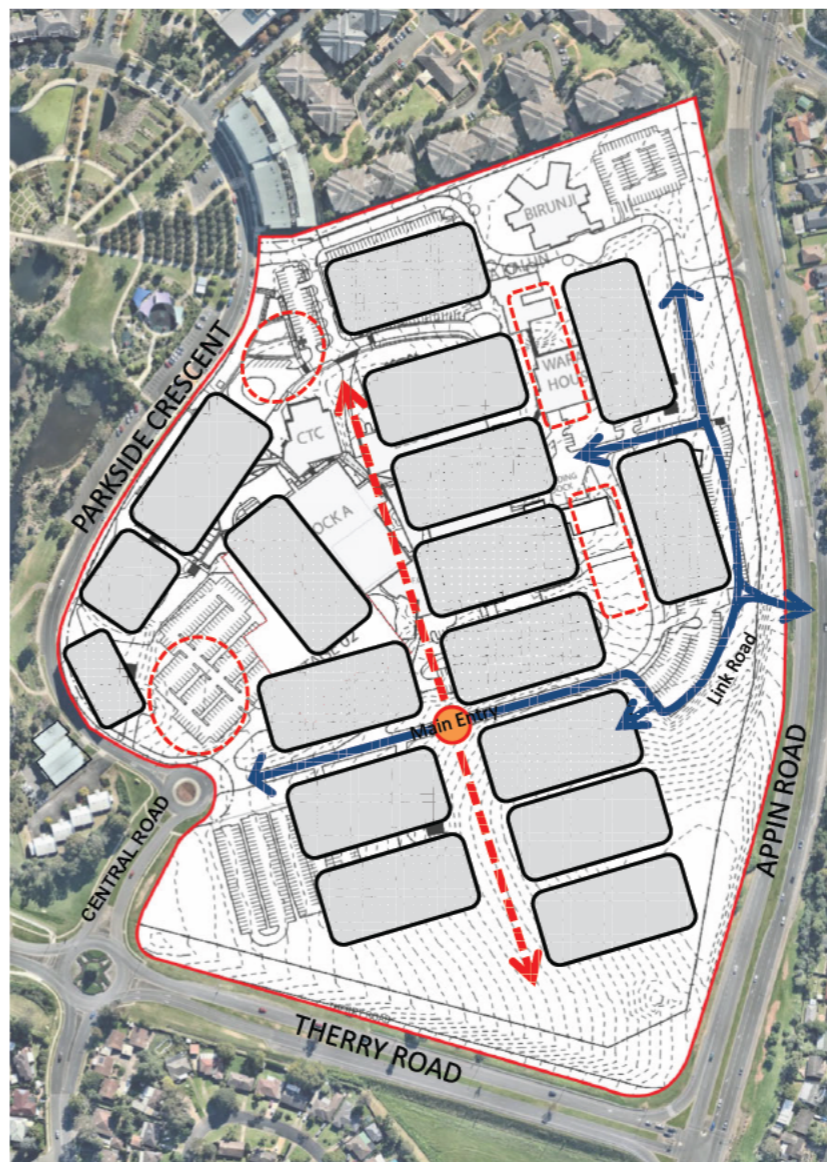


Figure 26. Site Structure Investigation

Key:

- Potential Building zone
- ▭ Potential Drop off/Access zone
- Main Entry
- Hospital Street Circulation Spine
- Potential Link Road



## 7.0 Development Study Options

### Option 1 Site Structure

The site structure for Option 1 shows the full potential for the hospital expansion along the primary circulation spine.

Further multi-deck carparks could then be constructed on the extremities of the site around future hospital expanded buildings with direct vehicular access off an internal hospital loop road.

Building D would be retained and integrated with future hospital expansions.

Due to the orientation of the site structure and the main circulation spine makes for greater use of the site proportions in this option allowing for a greater future expansion capability.

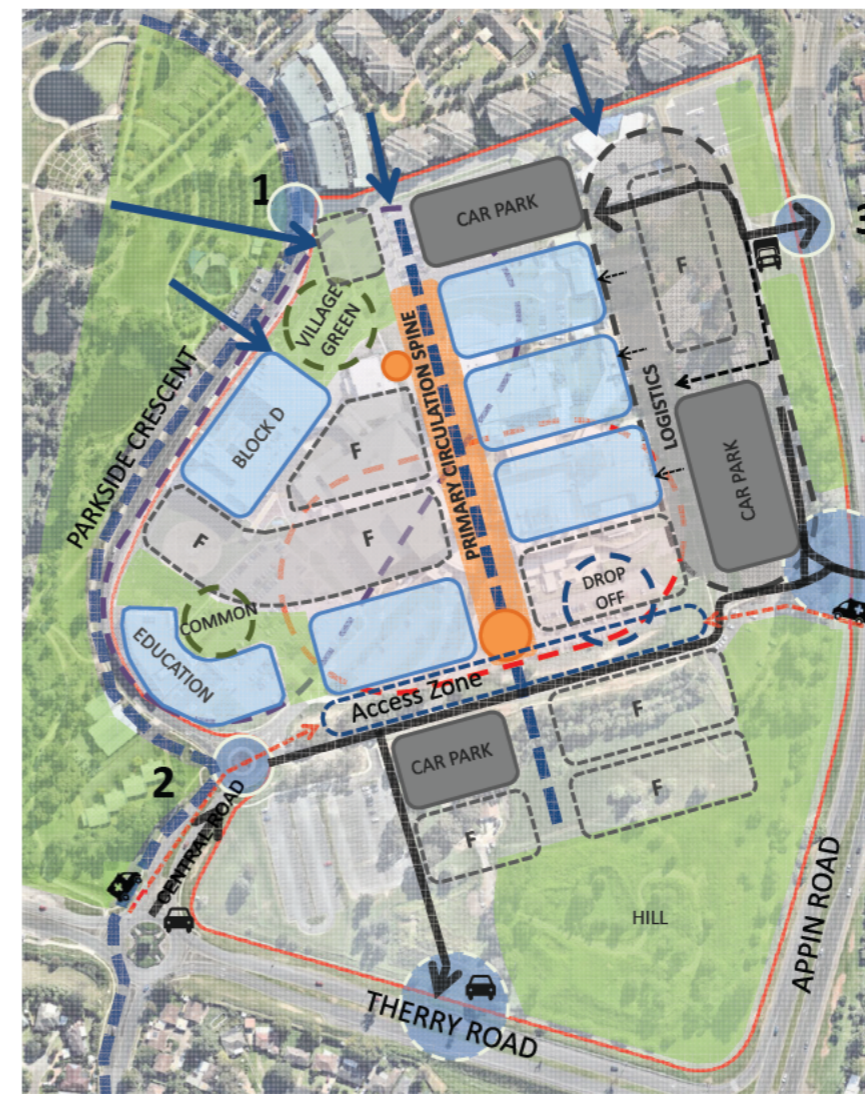


Figure 30. Option 01 Site Structure

- Key:
- Main entry
  - Hospital building
  - Other/support
  - Green Space
  - ➔ Public/Pedestrian Access
  - Existing/Potential ED access/main entries
  - Acute Zone
  - ➔ Link Road
  - F Future Expansion

**8.0****Summary/ Recommendations****8.1 Recommendation**

The Masterplan Executive Working Group recommended Masterplan Option 1, includes the following advantages and opportunities:

- Opportunity to develop an integrated new build
- Maximises available investment
- Establish linkages and future connectivity with retained facilities and future development
- Opportunity for future proofing / sequencing
- Minimise disruption and maintain business continuity
- Establish identifiable main entry
- Separation of flows
- Established activated zones for green space / interaction between services and community
- Flexible and adaptable for initial and subsequent design solutions/staging
- Continuity of service – potential staging allows hospital to maintain and expand on existing ED & Peri Operative operations
- Efficient site use and consolidation of existing assets



**8.0 Summary/ Recommendations**

**8.2 Preferred Option**

The preferred Masterplan Option 1 was presented at further Masterplan Review workshops attended by PDC/PPT members and executive representatives to address the following:

- Strengthen clinical link to existing Building D
- Identify development options for ongoing operations in Building D

Adjustments were made to this masterplan option and subsequently presented and endorsed by the HI Expert Review Group (ERG) in November 2017.

Based on this process, it was agreed that Masterplan Option 1 was the preferred option to develop into the Feasibility Concept Design stage of the planning process.

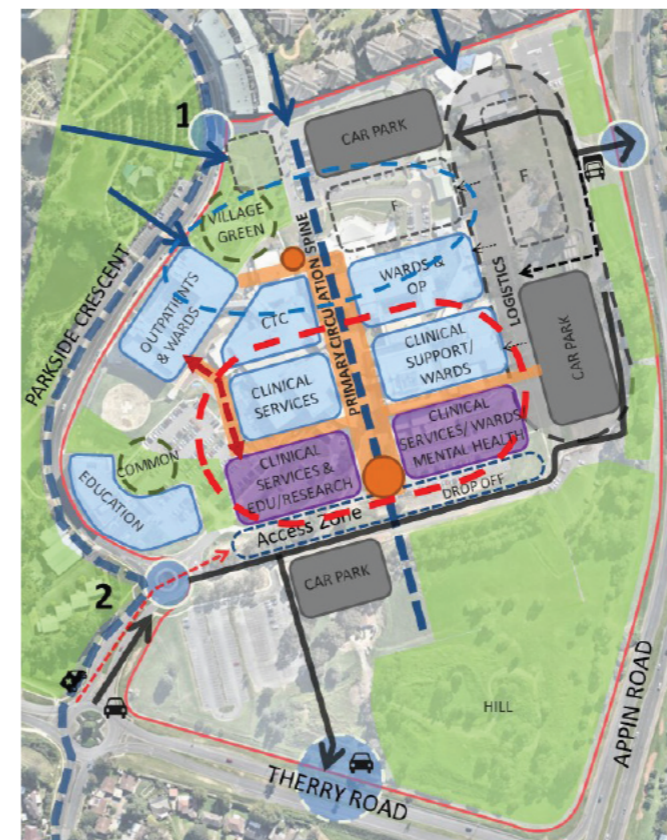


Figure 31. 2017 Zonal Masterplan 2031

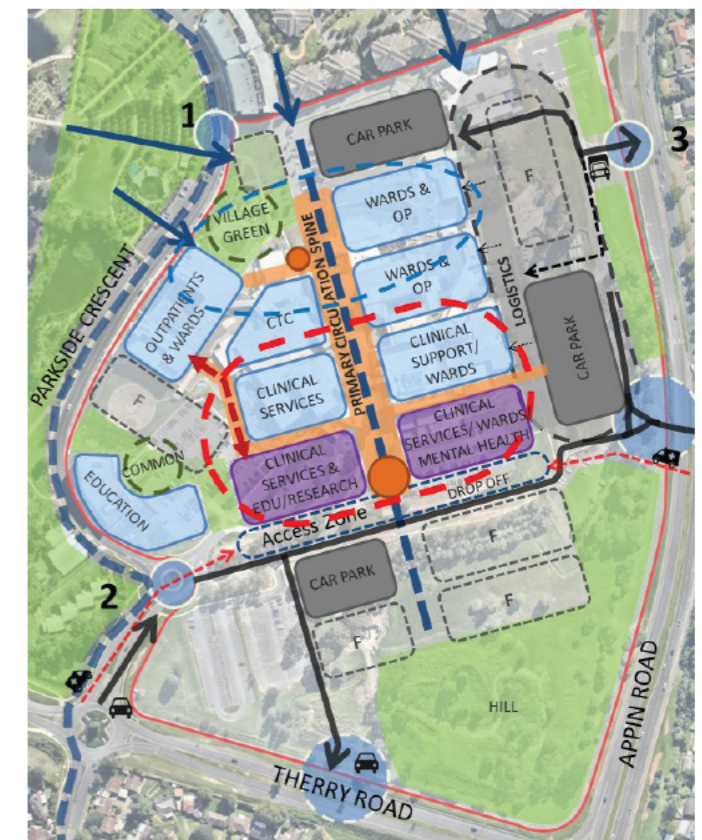


Figure 32. 2017 Zonal Masterplan 2050+

- Key:
- Main/Civic Entries
  - Hospital building
  - Other/support
  - Green Space
  - Public/Pedestrian Access
  - Departmental Access Link
  - Existing/Potential ED access/main entries
  - Acute Zone
  - Link Road
  - F Future Expansion



**8.0` Summary/ Recommendations**

**8.3 Next Steps**

This Masterplan Report has presented a number of feasible development options for a more consolidated health service on the current Campbelltown Hospital site.

This analysis has confirmed that the existing Campbelltown Hospital site is capable of accommodating redevelopment in all of the options explored.

Through more detailed research (including further refinement of the Functional Brief) and future feasibility studies, the next project phases for a staged redevelopment will unlock further potential for development and delve into further testing of clinical adjacencies, their operational efficiencies and improved clinical flows. An analysis of both capital and recurrent costs associated with each approach and potential staging to affect the clinical priorities is required to recommend a preferred redevelopment option.

The next stage will need to include a full consultant team including building engineering services, structural engineers, traffic engineers, BCA consultant, town planner and cost planner, all fully engaged to progress the design through the Feasibility/Concept and Schematic Design stages.

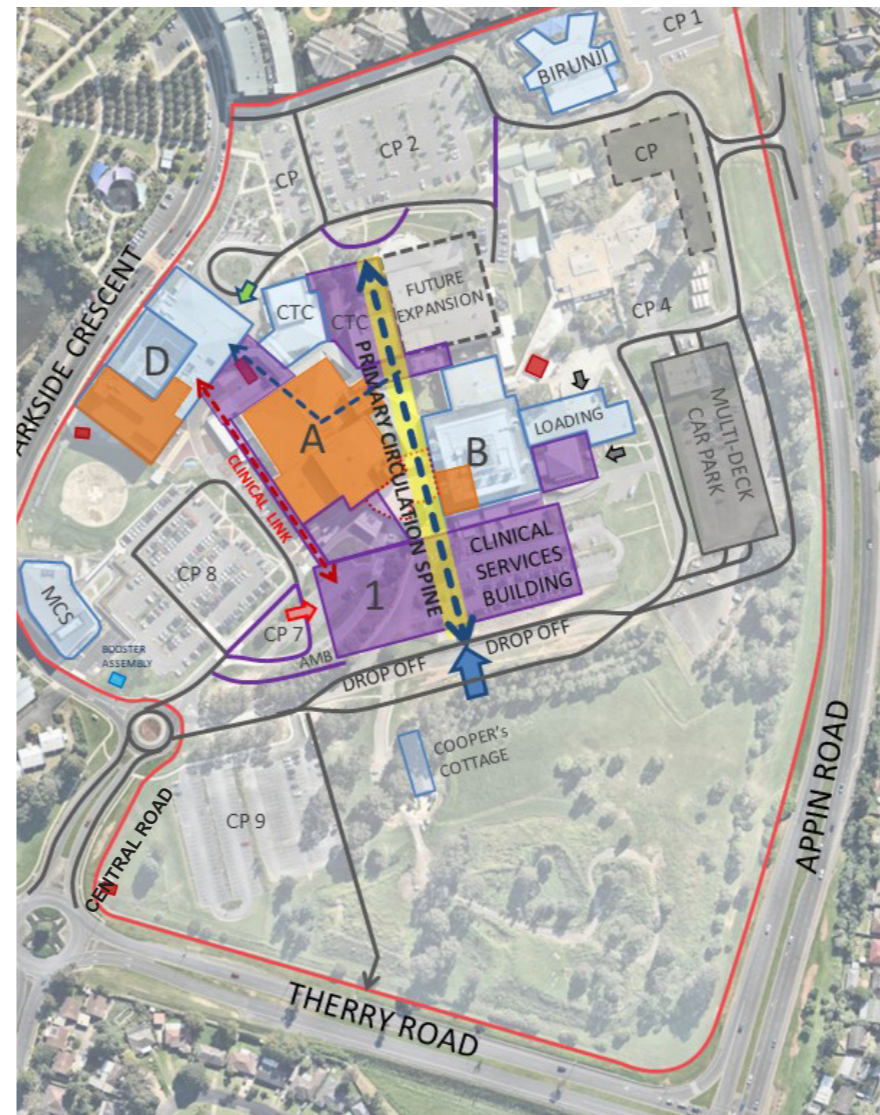


Figure 33. Future Stages

Key:

- Existing Main Entry
- Existing ED & Ambulance Entry
- Existing Block D Entry
- Existing Hospital Roads
- New Multi-storey Car Park
- New Hospital Buildings
- Demolished Buildings
- Existing Hospital Buildings
- Existing Substation
- Proposed Refurbishment

