The key assumptions as in developing the lifecycle costs set out above include the following:

- Assets are to be maintained in accordance with good practice and manufacturers requirements.
- Assets are replaced in accordance with the anticipated life cycle (when they reach their economic life)
- Assets are unaffected by economic, fiscal, social, legal or technological change
- Reasonable access to carryout replacements and maintenance is provided
- Includes all preliminaries and on costs
- Excludes design and project management related costs

Workforce projections

As part of the business case, high level workforce planning and projections have been undertaken to provide insight into operational costs and inform decision making. This analysis is a crucial element in identifying the necessary staffing requirements and associated costs for the new Northside Hospital, which is a vital aspect of ensuring the long term success of the hospital.

The workforce planning considered national and international trends in the health workforce such as increasing specialisation in clinical scope of practice within medicine, nursing and allied health. The growth in the use of Enrolled nurses, opportunities for employing allied health assistants, and the potential for health technologies such as Assistive Technology and Tele Medicine/Telehealth to facilitate more efficient models of care have been taken into account.

This analysis has been informed by several sources, including ACT Health and Commonwealth regulatory and legislative requirements, guidelines from interstate health agencies including NSW Ministry of Health, Department of Health and Human Services, Victoria, and Queensland Department of Health, recommendations from professional bodies, and benchmarking against similar facilities in other states. This provided a comprehensive perspective on the workforce requirements for the new Northside Hospital and allowed for the identification of best practices and industry standards.

The workforce Full Time Equivalents (FTE) have been estimated using projected POC, benchmarks and facility square metres for each staff category set out below:

- Management and Administration
- Medical
- Nursing
- Allied Health
- Clinical Support
- Non Clinical Support

By structuring the analysis in this way, it was possible to estimate the labour costs associated with each staff category, providing a clear understanding of the financial implications of the proposed facility.

The workforce projections were estimated for the opening bed profile at 2030-31 and for the hospital capacity at 2040-41, and structured using staff sub-categories to support the estimate of labour costs. The detailed projections are set out in Appendix I – Financial Analysis and Economic Appraisal Report.

It is important to note that these projections are subject to change and may be adjusted as more information becomes available. Additionally, the actual staffing requirements may vary depending on the final design and operational model of the facility. However, by conducting a thorough workforce planning and projection analysis, the proposed facility will be in a strong position to adapt and respond to any changes in the healthcare landscape and ensure that the workforce is equipped to deliver high quality care to patients.

The detailed Workforce Planning report prepared by Capital Insight has been attached in Appendix D - Workforce Planning Report.

Operating costs

The financial analysis of the operations phase includes an analysis of the operational expenditure incurred and incremental revenue during operations over the analysis period. This section sets out the operation phase costs apart from the lifecycle costs.

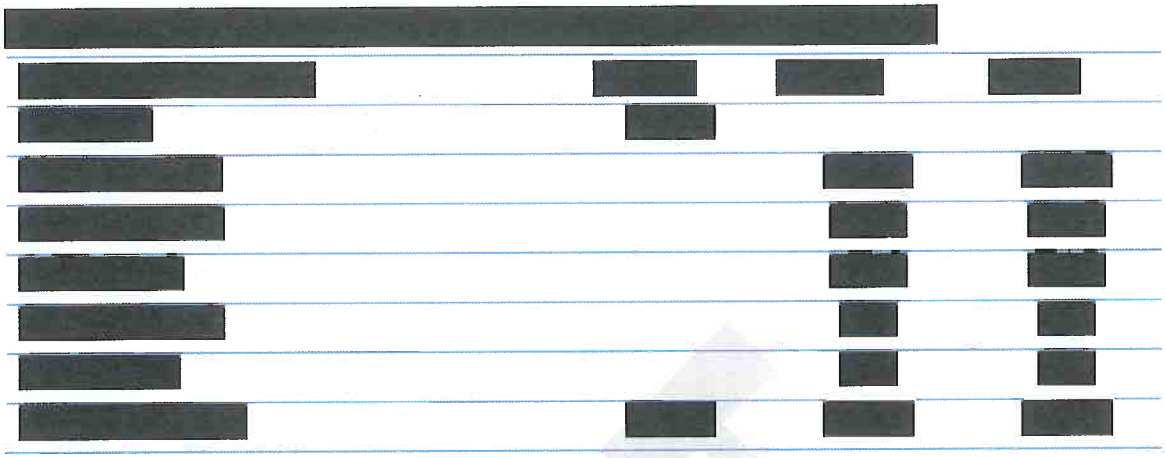
The base case operating costs have applied an approach of including costs associated with the maintaining the existing contractual arrangements with Calvary and includes the CNA Funding - the funding provided by the ACT Government, through ACTHD to Calvary, for the provision of services, operation, and management at the current hospital (CPHB)

The operating costs for Options 1A and 2 have been modelled using an approach that involved developing detailed cost estimates and projections for the five categories set out below. This approach provides a more robust estimate for the potential operating costs of the new hospital.

- Employee Costs – all costs associated with staff, including superannuation, LSL, workers compensation and employee administrative costs.
- Contracted services Costs – all costs associated with clinical contracted services in the hospital
- Clinical Supplies Costs – all costs associated with clinical and medical supplies, including medications, sterilisation equipment, wearables and PPE.
- IT Expenses – all ongoing costs associated with software licences, digital health record projects and systems maintenance, not including fixed assets that are accounted for under Lifecycle costs.
- Other Expenses – all other service delivery related administrative and minor operating expenses

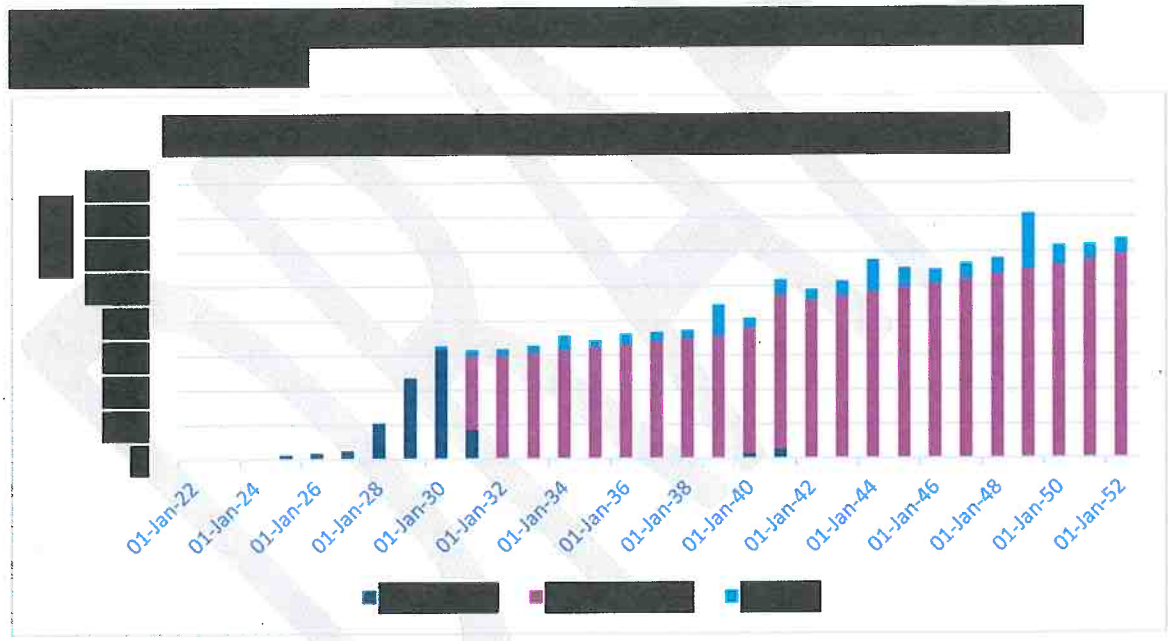
The key data sources, assumptions and methodology for the operating cost modelling are detailed in Appendix I - Financial Analysis and Economic Appraisal Report.

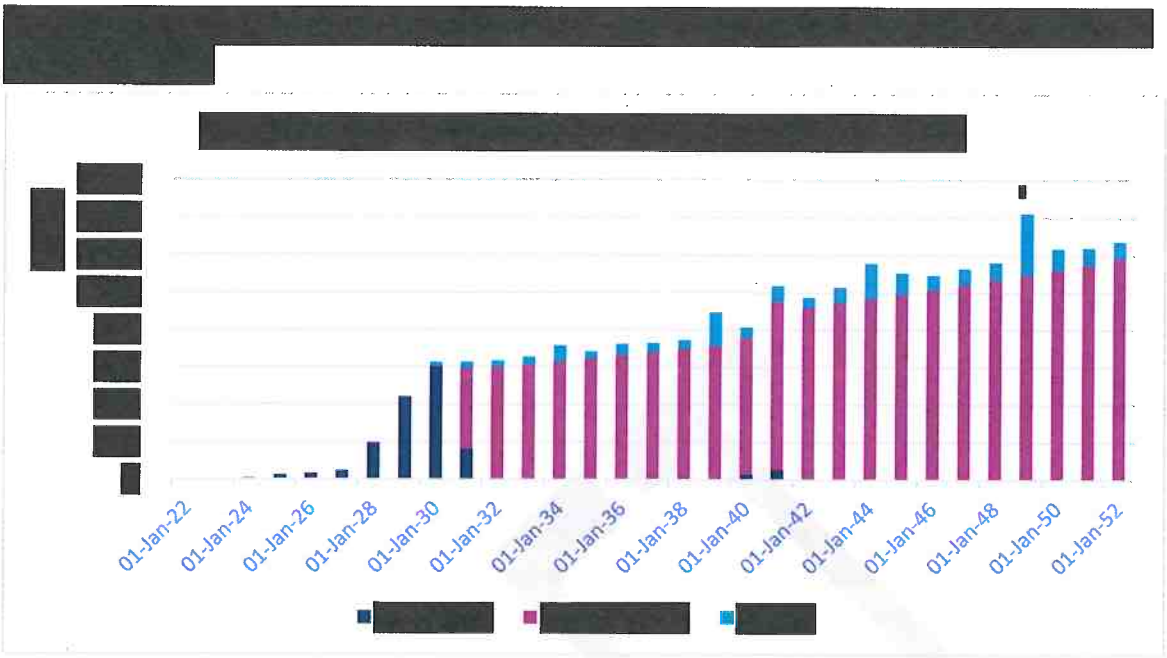
Table 38 below summarises the total operating costs for the 30 year analysis period.



Source: PwC (2023) based on inputs from Genus Advisory, Capital insight, ACTHD and MPC

Figure 26 and Figure 27 below set out the cash flows for capital costs, operating costs and lifecycle for the 30 year analysis period, in nominal terms. As noted in the graph, the second phase of capital works occur from 2039-40 to 2040-41, resulting in expanded capacity and an increase in operating costs.





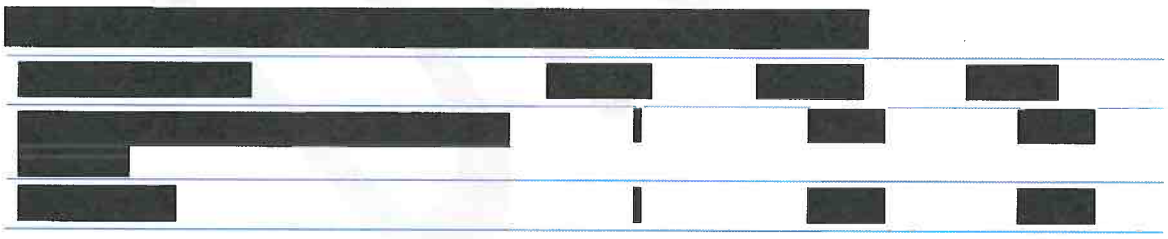
Revenues

The financial analysis of the operations phase includes an analysis of the operational expenditure incurred and incremental revenue during operations over the analysis period. This section focusses on the revenues expected during the operations phase, which includes Net Sale of Goods and Services from Contracts with Customers.

This captures all services revenue, inpatient fees and facilities fees associated with compensable patients.

The key data sources, assumptions and methodology for the Project revenue/funding sources during the operations phase are detailed in Appendix I - Financial Analysis and Economic Appraisal Report.

Table 39 below summarises the total revenues for the 30 year analysis period.



Source: PwC 2023 with input from ACTHD and MPC

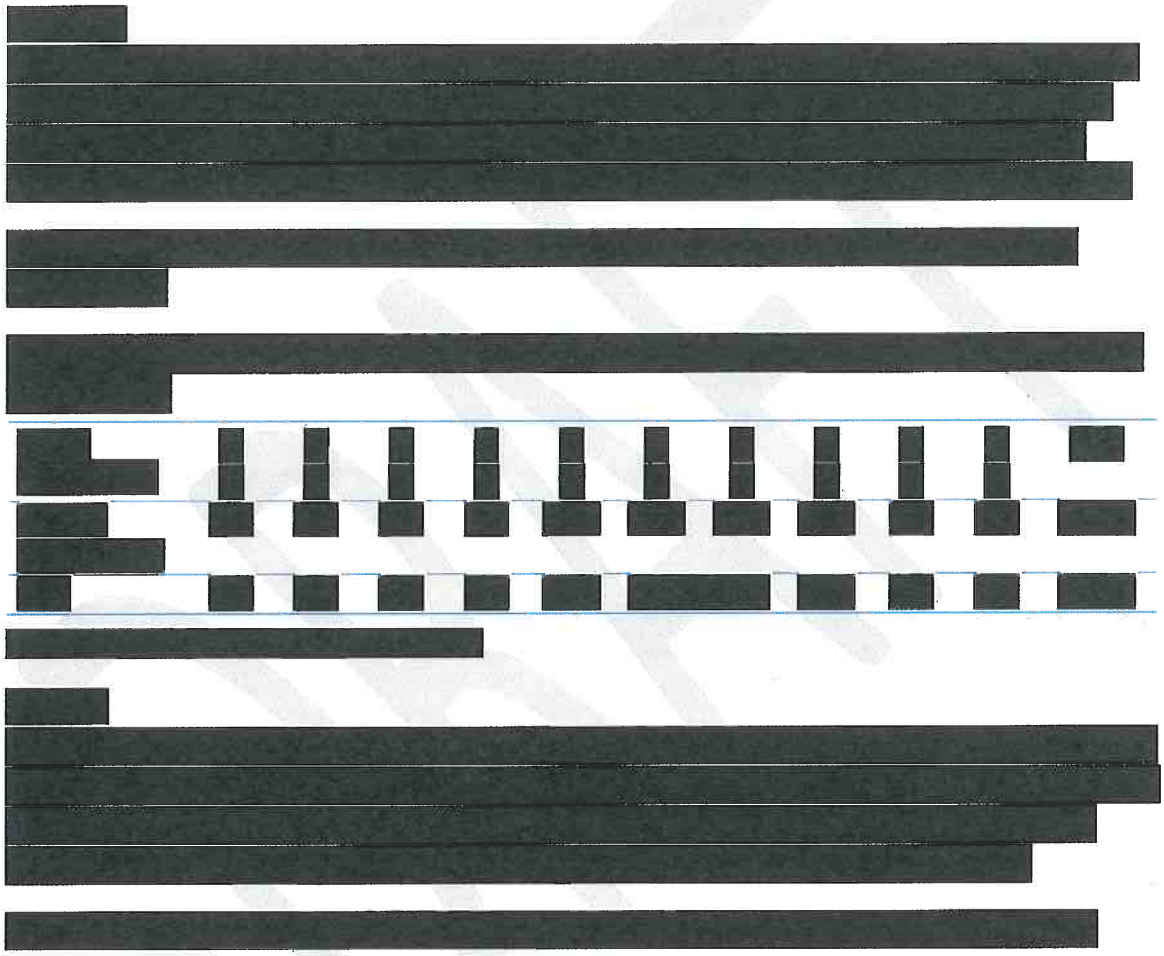
Residual value

The financial analysis does not consider any residual value for the Northside Hospital Development's building infrastructure. Consistent with the ACT Capital Framework, the financial analysis considers cash flows during the analysis period only and there are no specified cash flows associated with the value of the building in the final analysis period (2051 52). Note, the residual value is considered as part of the Economic Appraisal – refer to Section 10.4 for further information. PwC consider this

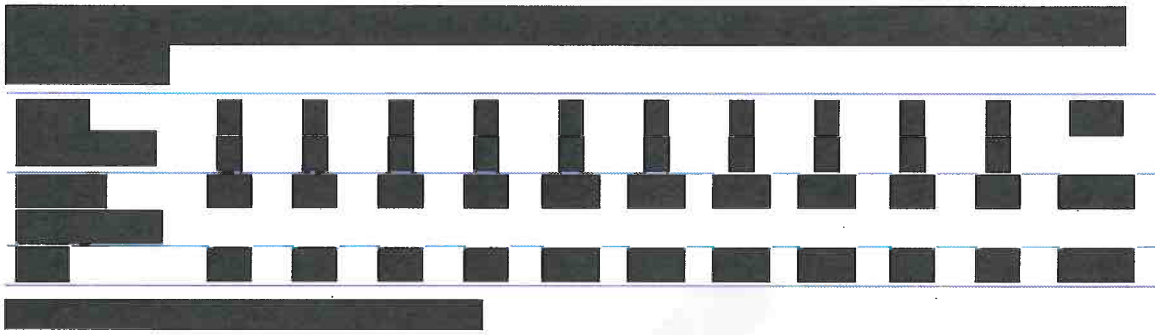
appropriate for the financial analysis as any cash flow generated from a divestment of the hospital, would be offset by a cost associated with developing a replacement hospital.

Funding

The expected funding requirement through the delivery and operations phases of the options is significant and will require funding allocation to achieve the full scope of the project without time or cost delay. The funding requirement based on traditional delivery models where all costs and risks are assumed to be retained by the Territory at this stage of the business case development, in line with the delivery model analysis undertaken to date, for each of the options are shown as follows.



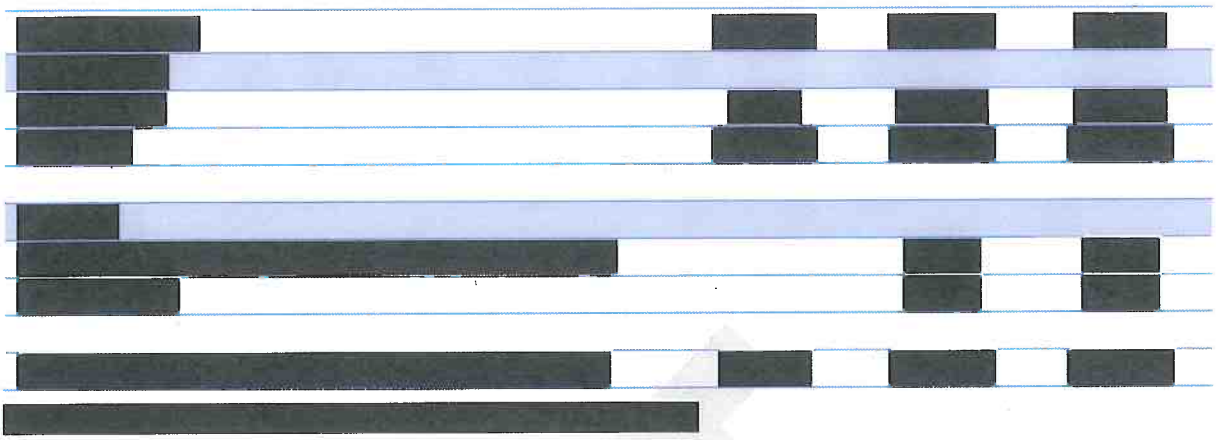
year.



Funding considerations

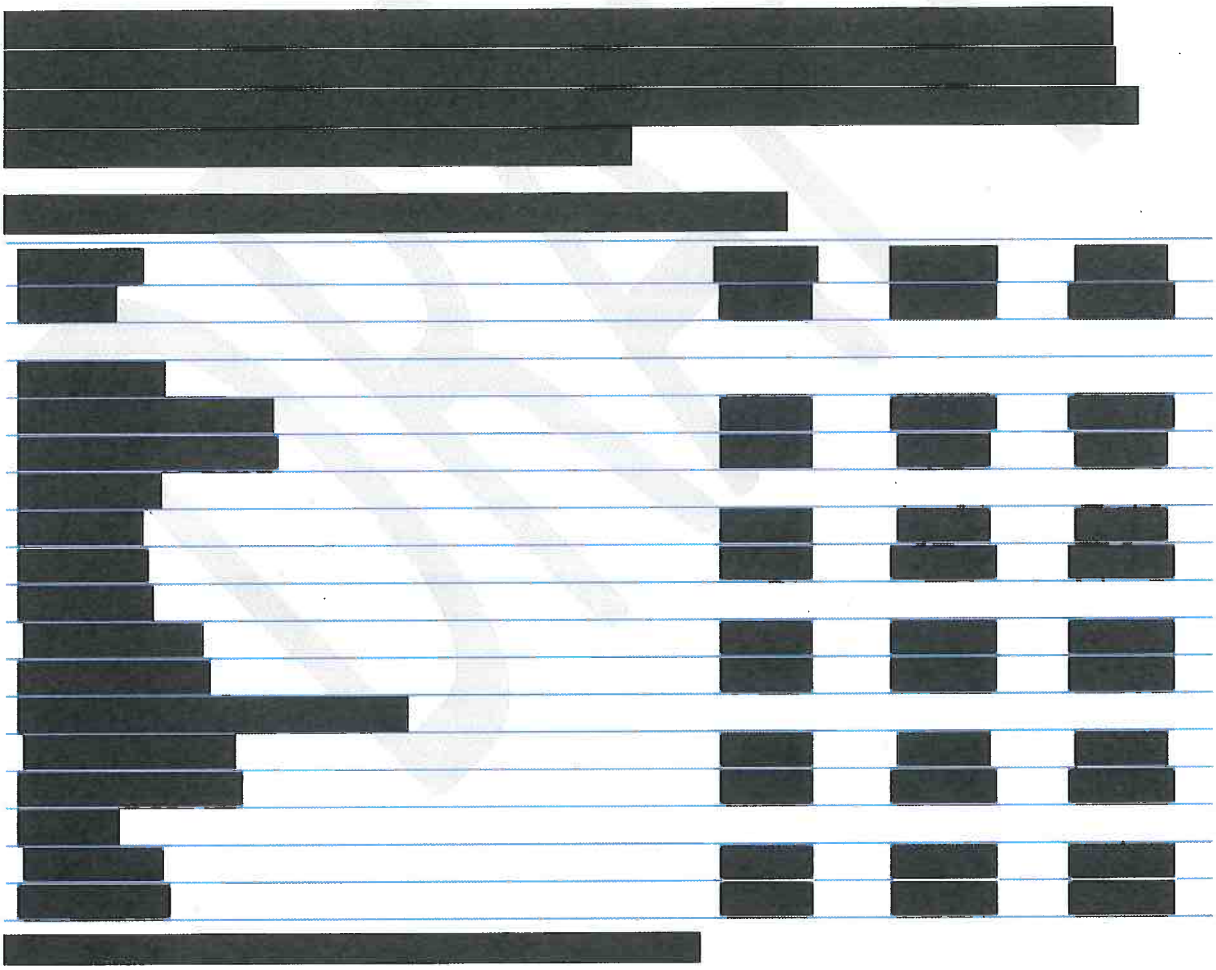
The assessment of delivery models has considered various traditional and private sector delivery models, including their respective opportunities and weaknesses in delivering value for money and to optimise affordability to government. These options will be further investigated in the next stages of business case development. Any further operational efficiencies and staging options that could reduce the funding requirement will also be considered in the next stage of the business case development, to enable project delivery of current scope and design.

9.3 Financial analysis results



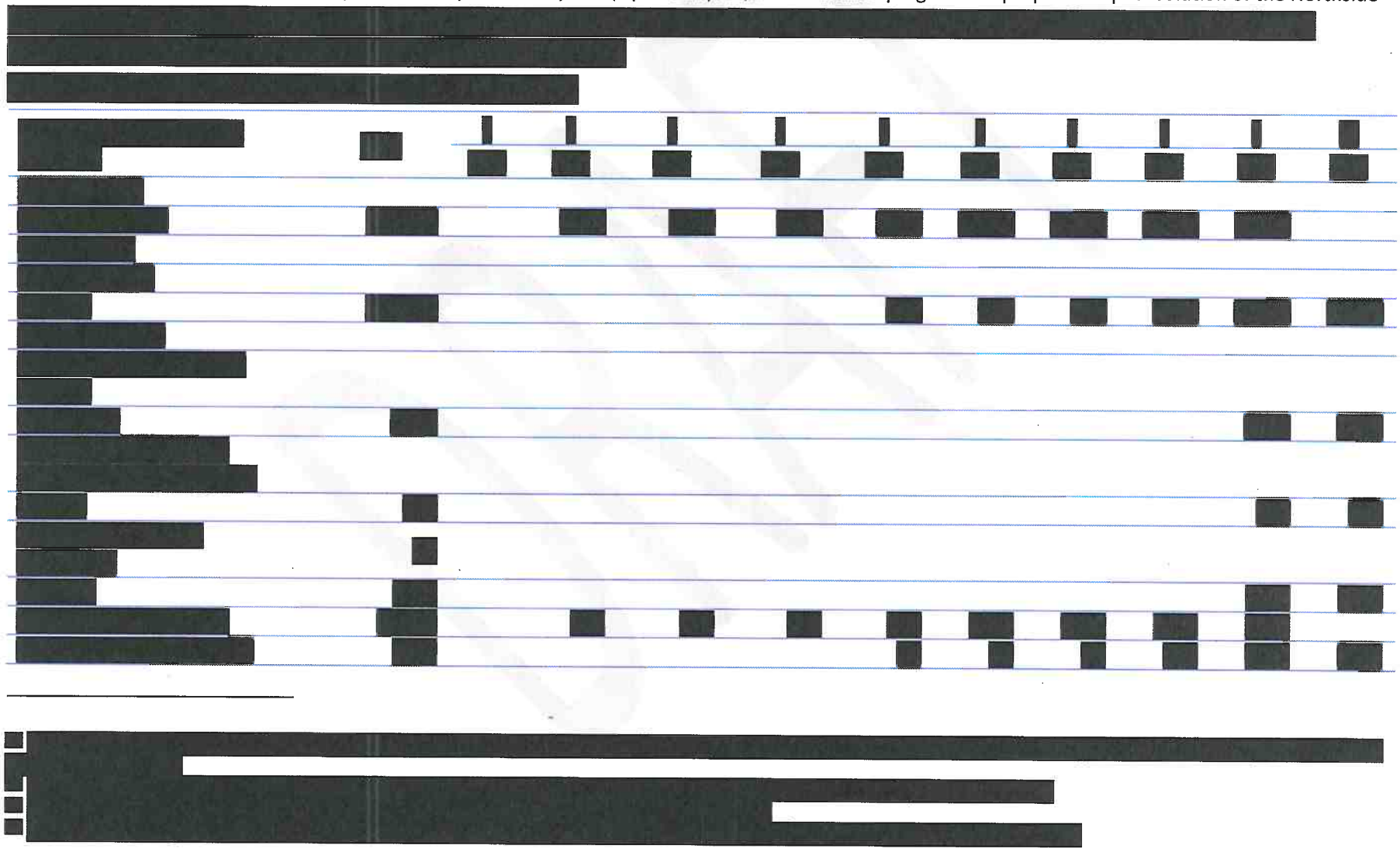
9.4 Sensitivity analysis

Sensitivity analysis has been conducted to determine the impact of varying key assumptions and inputs on the overall results. The sensitivity analysis considers potential changes in various cost and commercial offset parameters, as well as the discount rate applied, and is performed at defined upper and lower bounds to assess the impact on the financial NPV under each option.

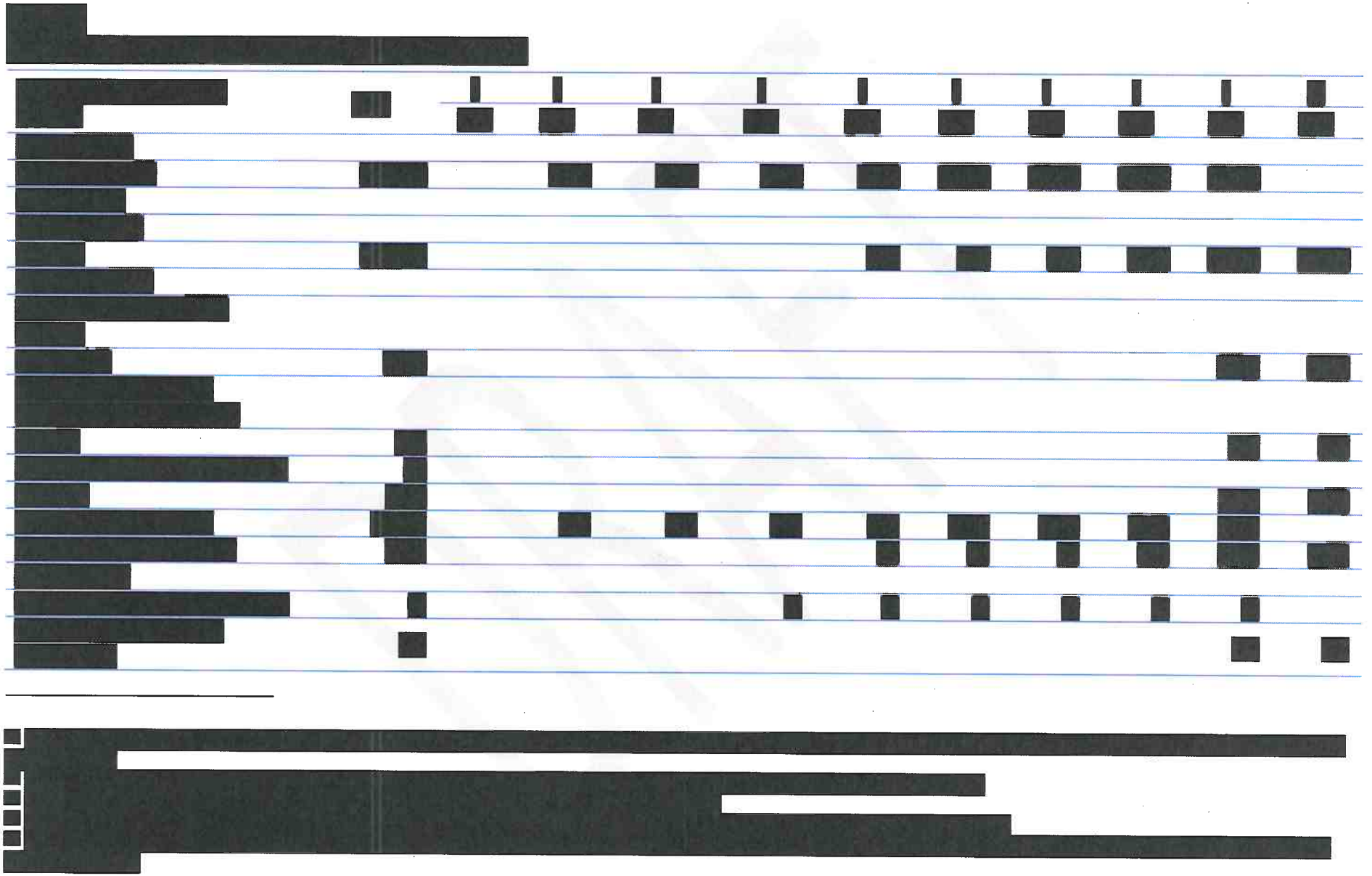


9.5 Financial impacts summary

The Business Case seeks a funding request for the preferred option (Option 1A) of $64.2 million to progress the proposed capital solution of the Northside



[111] Additional FTE required for the operations of the new Northside Hospital based on workforce projections for FY31 (2,265 – Provided by Capital Insight) incremental to current CPHB FTE (1,353 - Provided by ACTHD)



10. Economic Appraisal

This chapter provides an overview of the economic assessments conducted for the preferred options to understand the net impact, in terms of economic benefits and costs, on society as a whole.

To inform the Business Case, two economic assessment approaches have been adopted to articulate the full suite of benefits and costs associated with the Project, including:

- **Quantitative assessment:** this assessment involves the quantification of all monetisable costs and benefits through a cost-benefit analysis (CBA), in alignment with the ACT Capital Framework Detailed Technical Guidance on Economic Appraisal (ACT Government, 2022). The objective of the of quantitative assessment is to demonstrate whether the economic benefits associated the Project exceed the costs of investment.
- **Qualitative assessment:** this assessment considers the full suite of benefits associated with the Project, based on the benefits framework. The objective of the qualitative assessment is to compare the scale of benefits delivered across the options, relative to the Base Case.

The economic assessment assesses the preferred options (Option 1A and Option 2) against the Base Case to understand the net impact on society, with the economic assessments identifying and, where possible, quantifying:

- Economic costs reflecting the value of the real resources that are used as inputs under each of the options such as capital and operating expenditure associated with each option. In the instance where quantification of economic costs is not possible, a qualitative approach is used to capture economic costs such as disruption during construction, impacts on green-space, etc.
- Economic benefits reflecting the value of the real outputs under each of the options such as improved patient health outcomes from increased inpatient and ED capacity, community health benefits, avoided travel costs and residual value. Where it is not possible to quantify a particular benefit, a qualitative analysis is used to capture economic benefits such as resilience of the healthcare network to effectively manage demand, innovative and integrated models of care, etc.

Overall the result of the economic assessment indicates:

- Investment in a new Northside Hospital would deliver significant economic benefits improving patient health outcomes through increased in-patient, outpatient and ED capacity, as well as improved resilience in the health sector. With marginal differences between the options economic benefits and costs driven by the choice of location and scale of capital costs.
- The results of the CBA demonstrate that over the 30 year appraisal period, both options generate positive economic outcomes, with positive Net Present Values (NPV) and Benefit Cost Ratios (BCR) greater than one.
- Distributional analysis found that consumers (i.e. patients) receive the largest proportion of benefits in the form of improved health outcomes from the new Northside Hospital.

The results of the CBA have been subject to sensitivity tests to determine the impacts of varying key assumptions and inputs on the results. The sensitivity tests indicate that the ranking of options in terms of NPV and BCR remains unchanged across all options.

10.1 Overview of economic assessment

The Project will deliver a range of benefits to a number of key stakeholders throughout the ACT, including patients, visitors and the broader community. To inform the Business Case, two economic assessment approaches have been adopted to articulate the full suite of benefits and costs associated with the Project, including:

- **Quantitative assessment** which involves the quantification of all monetisable costs and benefits through a cost-benefit analysis (CBA). The objective of the of quantitative assessment is to demonstrate whether the economic benefits associated the Project exceed the costs of investment.
- **Qualitative assessment** which considers the full suite of benefits associated with the Project, based on the benefits framework. The objective of the qualitative assessment is to compare the scale of benefits delivered across the options, relative to the Base Case.

The economic assessment has been applied to the two preferred options: Option 1A and Option 2 compared against the Base Case to identifying and, where possible, quantifying:

- **Economic costs** reflecting the value of the real resources that are used as inputs under each of the options such as capital and operating expenditure associated with each option. In the instance where quantification of economic costs is not possible, a qualitative approach is used to capture economic costs such as disruption during construction, impacts on green-space, etc.
- **Economic benefits** reflecting the value of the real outputs under each of the options such as improved patient health outcomes from increased inpatient and ED capacity, community health benefits, avoided travel costs and residual value. Where it is not possible to quantify a particular benefit, a qualitative analysis is used to capture economic benefits such as resilience of the healthcare network to effectively manage demand, innovative and integrated models of care, etc.

The quantitative assessment was undertaken using a CBA framework that applies discounted cash flow techniques to estimate a Benefit-Cost Ratio (**BCR**) and Net Present Value (**NPV**) in alignment with ACT Treasury's Capital Framework, ACT Treasury's Economic Appraisal guidance, Infrastructure Australia's (IA) Assessment Framework Guide to Economic Appraisal, and further national guidance on health infrastructure and capital investment economic appraisals. Table 40 presents an overview of the parameters and assumptions used for the quantitative assessment.

The economic analysis has been undertaken independent of operator considerations, as these are being considered separately. However, Option 2 has the potential additional operational expenses associated with the current CNA.

Table 46: Quantitative assessment appraisal assumptions

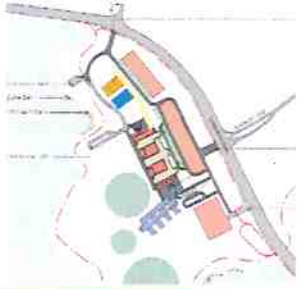
Parameter	Assumption	Source and comment
Base year	2022-23	Current year / base year for cost plans based on ACT Capital Framework Detailed Technical Guidance on Economic Appraisal, with parameters designated in prices prior to the base price year are inflated to 2022/23 dollars
Appraisal period	30 years from 2022-23 to 2051-52	Appraisal period commences from the base year based on ACT Capital Framework Detailed Technical Guidance on Economic Appraisal
Commissioning years	For both Options 1A and 2: 2030-31 and 2040-41	Based on Genus Advisory (2023) Concept Design Cost Plan – Option C2, Genus Advisory (2023) Concept Design Cost Plan – Option E1 and Arup (2022) Arup – Draft Program.xlsx
Real discount rates	Central: 7% Sensitivities: 3%, 4%, 10%	As per ACT Treasury Budget Memo 2022 32 (SP) Cost Benefit Assumptions Guide, and on ACT Capital Framework Detailed Technical Guidance on Economic Appraisal
Asset life	40 years	The average composite asset life for a hospital of 40 years has been estimated through academic capturing the asset life associated with the building itself, external infrastructure and fit out

Source: ACT Government (2022), ACT Government Capital Framework, Detailed Guidance on Economic Appraisal (viewed at www.treasury.act.gov.au/capitalframework); ACT Government CMTEDD (2022), Budget Memo 2022 32 (SP) Cost Benefit Assumptions Guide; Genus Advisory (2023), Concept Design Cost Plan – Option C1; Genus Advisory (2023) Concept Design Cost Plan – Option E1; Arup (2022), Canberra Northside Hospital Construction Programme (High Level) – Calvary Site, ECI Procurement; Holmes, J. et. al. (2009), Depreciating and stating the value of hospital buildings: what you need to know: hospital financial statements should accurately reflect the depreciated cost of their building's structure

10.2 Project options

The options assessed through the economic assessment are summarised in Table 47. Detail on the scope of the options is provided in Section 6.3.

Table 47: Summary of preferred options (assessed through the economic assessment)

Project option description	Key features	Capacity	[redacted]
Base case – Business as usual	• Continued delivery of existing services at CPHB within its current assets • Provide capacity to meet 2021 demand	**2021** Multi day beds: 249 ED POC: 80 Operating suites: 7 Ambulatory care: 17	[redacted]
Option 1A: Bruce multiple buildings in a single stage 	• Redevelopment on Bruce campus including a 94,563sqm acute services building and 15,124sqm satellite mental health facility • Construction to include additional shell unit to allow increased capacity in 2041 • Begin operation in Q4 2031, with inpatient capacity to meet 2031 demand and subsequent fit out and expansion of shell unit in Q4 2041, providing sufficient additional capacity to meet 2041 demand • Multi deck car park located to the northwest within the precinct • Additional capacity for outpatient and ambulatory care.	**2031** Multi day beds: 424 ED POC: 81 Operating suites: 15 Ambulatory care: 154	[redacted]
Option 2: Greenfield 	• Greenfield site development on 32.7 hectares located on a peninsula within Lake Ginninderra • Construction of a new 94,563sqm acute services building and 15,124sqm satellite mental health facility • Begin operation in Q4 2031, with inpatient capacity to meet 2031 demand and subsequent fit out and expansion of shell unit in Q4 2041, providing sufficient additional capacity to meet 2041 demand • Multi deck car park located to the northwest within the precinct • Additional capacity for outpatient and ambulatory care.	**2041** Multi day beds: 534 ED POC: 99 Operating suites: 17 Ambulatory care: 164	[redacted]

Source: BVN, Arup, TSA, Genus Advisory and Planit (2022), Northside Hospital Concept Design Report, December 2022

[redacted]

[3]*Capital costs exclude land acquisition costs associated with a greenfield site development*

Activity projections were provided by ACTHD for the purpose of the CBA and FA. Only inpatient and ED activity was assessed within the scope of the CBA.

Under the Base Case, CPHB is assumed to be operating at capacity, and therefore have no increase in activity beyond current levels. Both Option 1A and Option 2 deliver increased capacity to meet 2030 31 demand at commissioning and 2040 41 demand following shell fit out.

The forecasted demand for health services on the northside of the ACT, to which the preferred options align, is presented in Table 48.

Table 48: Activity projections

	Actual	Projections		
	2021	2031	2036	2041
Inpatient				
Overnight separations	20,952	26,029	29,178	32,375
Same day separations	18,118	26,427	29,731	33,107
ED				
ED presentations	75,265	105,287	121,396	136,083

Source: ACT Government Health (2023), PwC data request summary.xlsx

10.3 Project costs and benefits

The Northside Hospital project is anticipated to deliver a range of benefits to patients, staff and the community through increased capacity of health services and delivery of contemporary infrastructure. An overview of the economic benefits and costs assessed through the CBA is presented in Figure 28.

Figure 29: Summary of economic costs and benefits

Economic costs	Economic benefits
Quantitative: • Capital expenditure • Operational expenditure **Qualitative:** • Potential operational inefficiencies from separation of logistics and hospital support services • Disruption during construction phase of project, with impacts on existing patients and staff throughout the construction and delivery phase • Reduction of green-space and public land as a result of greenfield development, resulting in reduced amenity for ACT residents • Opportunity cost of a greenfield development as opposed to brownfield • Noise and air pollution during construction of the project resulting in increased noise and dust from building works for patients and staff • Disruption to local traffic flows during construction and delivery phase of the project, resulting in travel delay and increased congestion for staff and patients • Potential interference with Indigenous sites and archaeological remains	**Quantitative:** • Improved patient health outcomes from increased inpatient capacity • Improved patient health outcomes from increased ED capacity • Community health benefits • Avoided travel time and costs • Residual value **Qualitative:** • Improved resilience of the healthcare network to effectively manage demand • Additional health benefits associated with expansions in non-admitted patient services to communities outside the north side catchment • Precinct-wide efficiency benefits and cost savings associated with co-location of private and public hospital facilities • A better environment to improve health and wellbeing outcomes for staff, patients, carers and families • Improved accessibility for staff, patients, carers and families from improved wayfinding, navigation and carparking spaces • Improved staff satisfaction and efficiencies through building design enabling quality patient care • Flexible, innovative and integrated models of care that use technology to deliver timely and effective person-centered digital solutions • Improved planned maintenance program that is proactive rather than reactive, including an increase in the utilisation of digital business systems • Improved system redundancy and coordination between community partners across the ACT to provide appropriate and efficient response to future territory-wide major events • Broader economic benefits for the ACT including additional jobs and new businesses / services provided adjacent to the hospital.

Economic costs

Quantitative costs

The CBA for the Northside Hospital project considers the following economic costs:

- **Capital expenditure** associated with the delivery of the Project options including costs associated with planning, design, construction and commissioning. These costs have been sourced from the Cost Plan prepared by Genus Advisory, dated 20 January 2023, which contains a breakdown of order of magnitude cashflows of capital costs associated with the Project options.
- **Operational expenditure** associated with ongoing operations of the Project options including staffing costs, maintenance, replacement and other costs. Operational expenditure was developed by Genus Advisory and staffing costs from PwC analysis of NWAU projections provided by ACT Health Directorate.

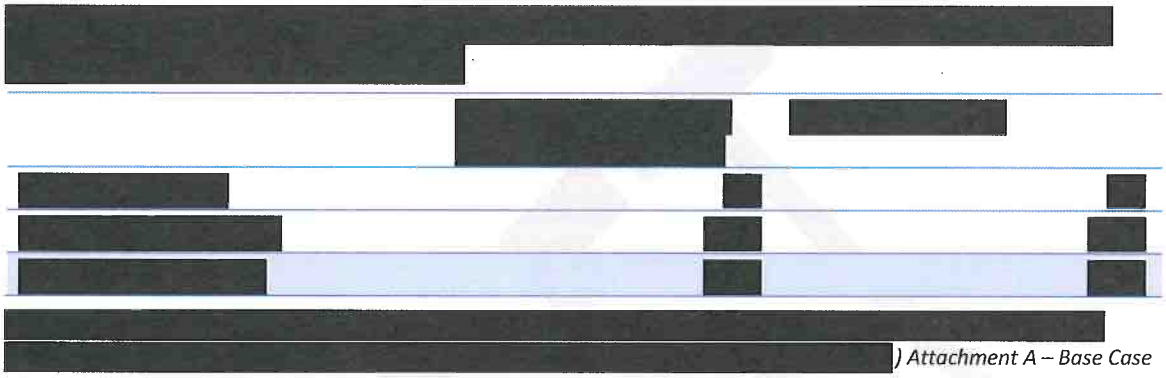
The costs included in the CBA differ from the FA in three ways:

- Economic costs are analysed in real terms (i.e. exclude escalation) presented in 2022-23 prices and they exclude economic transfers such as taxes

[redacted]

- Economic costs reflect all costs associated with the delivery and the operations of each option, irrespective of the funding source, and therefore include incremental costs incurred by the Project.

Table 49 presents the economic costs of the options, incremental to the Base Case. To incorporate the cost estimates into the CBA, the real cost estimates are profiled across the appraisal period and discounted back to current day. The results of the total quantifiable costs associated with the Project options, incremental to the Base Case over a 30-year appraisal period is presented in Table 49.



) Attachment A – Base Case Calculations_UPDATED.xlsx; ACT Health Directorate (2023) PwC data request summary.xlsx

Qualitative costs

In addition to the quantified capital and operating costs outlined above, there are several unquantified costs that would arise under the project options. These non-quantifiable costs are summarised in Table 50.

Table 50: Unquantifiable costs

Qualitative costs	Option 1A: Bruce multiple buildings in a single stage	Option 2: Greenfield
Potential operational inefficiencies from separation of logistics and hospital support services	Medium	Medium
Disruption during construction phase of project, with impacts on existing patients and staff throughout the construction and delivery phase	High	Low
Reduction of green space and public land as a result of greenfield development, resulting in reduced amenity for ACT residents	N/A	High
Opportunity cost of a greenfield development as opposed to brownfield	N/A	High
Noise and air pollution during construction of the project resulting in increased noise and dust from building works for patients and staff	High	Medium
Disruption to local traffic flows during construction and delivery phase of the project, resulting in travel delay and increased congestion for staff and patients	Medium	Medium
Potential interference with Indigenous sites and archaeological remains	Low	High

Economic benefits

Quantitative benefits

The CBA quantified five economic benefits that would arise from the Project:

- **Improved patient health outcomes from increased inpatient capacity:** which reflects the health benefits associated with increased inpatient capacity and models of care, through an additional 249 multi-day beds by 2040/41, reducing the disability burden and avert mortality.
- **Community health benefits:** which captures the positive impact on community health outcomes and improved quality of life through increased provision of integrated outpatient and community services. These include increased outpatient consultation, treatment and specialist spaces, virtual care spaces, paediatric, adolescent and neonatology services, ambulatory procedures and allied health services that will be provided through integrated outpatient services increasing from 17 spaces currently to 164 in 2040-41.
- **Improved patient health outcomes from increased ED capacity**: which reflects the health benefits associated with reduced crowding in an emergency department (ED through the provision an additional 19 ED POCs by 2040-41, improving services and lowering mortality rates.
- **Avoided travel time and costs:** which reflects reduced travel costs (both in terms of time saved and resources used) incurred by some patients and carers who would no longer be required to travel elsewhere for treatment (e.g. Canberra Hospital) due to the increased capacity at the new Northside Hospital.
- **Residual asset value:** which reflects the residual value of the new assets / buildings, as a capitalised value of future user benefits beyond the appraisal period.

Table 51 presents the economic benefits of the options, incremental to the Base Case.

Table 51: Total quantified benefits, incremental to the Base Case (real $2022 23, discounted at 7% over 30 year appraisal period, $million)

	Option 1A: Bruce multiple buildings in a single stage	Option 2: Greenfield
Improved patient health outcomes from increased inpatient capacity	2,683	2,683
Improved patient health outcomes from increased ED capacity	226	226
Community health benefits	572	572
Avoided travel time and costs	5	5
Residual asset value	100	95
Total incremental benefits	**3,585**	**3,581**

Source: PwC analysis based on Genus Advisory (2023), Northside Hospital – Canberra Whole of Life Costing; ACT Health Directorate (2023) PwC data request summary.xlsx; HI CBA Toolkit; Australian Transport Assessment and Planning (2016), Australian Transport Assessment and Planning Guidelines – PV2 Parameter Values; Sprivulis et al (2006), The association between hospital overcrowding and mortality among patients admitted via Western Australian emergency departments; Geelhoed and de Klerk (2012), Emergency department overcrowding, mortality and the 4-hour rule in Western Australia; Richardson (2006), Increase in patient mortality at 10 days associated with emergency department overcrowding; AIHW (2022), Calvary Public Hospital Bruce - Emergency Department Care Activity

Qualitative benefits

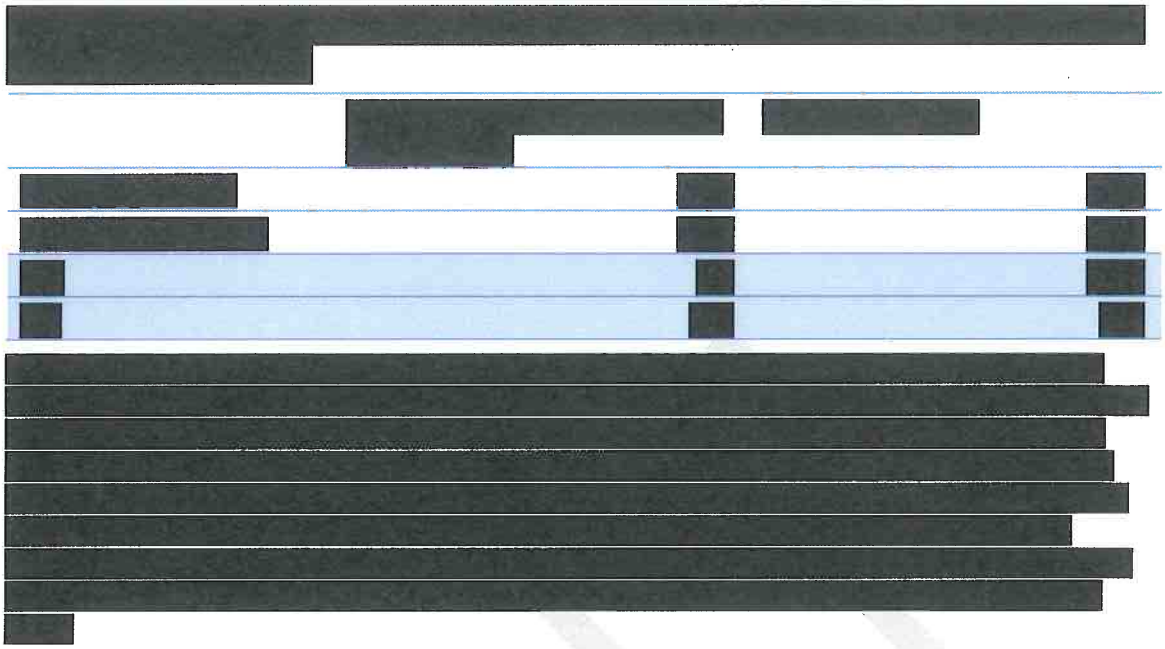
In addition to the quantified benefits, there are a range of additional benefits that have not been monetised. The qualitative benefits of the Project and the anticipated magnitude of each under the project options are summarised in Table 52.

Table 52: Qualitative benefits

Qualitative benefit	Option 1A: Bruce multiple buildings in a single stage	Option 2: Greenfield
Improved resilience of the healthcare network to effectively manage demand	High	High
Additional health benefits associated with expansions in non-admitted patient services to communities outside the northside catchment	High	High
Precinct-wide efficiency benefits and cost savings associated with co-location of private and public hospital facilities	High	N/A
A better environment to improve health and wellbeing outcomes for staff, patients, carers and families	Medium	Medium
Improved accessibility for staff, patients, carers and families from improved wayfinding, navigation and carparking spaces	High	High
Improved staff satisfaction and efficiencies through building design enabling quality patient care	High	High
Flexible, innovative and integrated models of care that use technology to deliver timely and effective person centred digital solutions	High	High
Improved planned maintenance program that is proactive rather than reactive, including an increase in the utilisation of digital business systems	Medium	Medium
Improved system redundancy and coordination between community partners across the ACT to provide appropriate and efficient response to future territory wide major events	Medium	Medium
Broader economic benefits for the ACT including additional jobs and new businesses / services provided adjacent to the hospital.	Medium	Medium

10.4 CBA results

The results of the CBA, incremental to the Base Case, are presented in Table 53, presented in terms of the NPV of the investment over the 30 year appraisal period at a 7 per cent discount rate and using a BCR for comparison of options.



The results of the quantitative and qualitative economic assessments demonstrate that all options present a range of economic benefits to patients, staff, the community and the ACT Government. On the basis of the results of the economic appraisal, both options assessed generate net economic benefits, with positive NPVs and BCRs greater than one. In economic terms, both options deliver similar benefits at a similar cost, resulting in similar economic outcomes with marginal differences in the NPV and BCR.

A distributional analysis has also been undertaken to understand the relative impacts of the Project's benefits on different groups in the community. The outcomes of the distribution analysis as summarised in Table 54 shows that consumers (i.e. patients) receive the largest proportion of benefits in the form of improved health outcomes from the new Northside Hospital.

Table 54: Distributional analysis results, incremental to the Base Case (real $2022 23, discounted at 7% over 30 year appraisal period, $million)

Incremental economic benefit	Businesses	Consumers	Workers	Government
Option 1A: Bruce multiple buildings in a single stage	-	3,438	48	100
Option 2: Greenfield	-	3,438	48	95

Source: PwC analysis based on Genus Advisory (2023), Northside Hospital – Canberra Whole of Life Costing; additional inputs for ACTHD / MPC costs and management costs provided by ACTHD and MPC; MPC (2023) Attachment A – Base Case Calculations_UPDATED.xlsx; ACT Health Directorate (2023) PwC data request summary.xlsx; HI CBA Toolkit; Australian Transport Assessment and Planning (2016), Australian Transport Assessment and Planning Guidelines – PV2 Parameter Values; Sprivulis et al (2006), The association between hospital overcrowding and mortality among patients admitted via Western Australian emergency departments; Geelhoed and de Klerk (2012), Emergency department overcrowding, mortality and the 4-hour rule in Western Australia; Richardson (2006), Increase in patient mortality at 10 days associated with emergency department overcrowding; AIHW (2022), Calvary Public Hospital Bruce - Emergency Department Care Activity

The results of the CBA have been subject to sensitivity tests to estimate the impacts of changes in some of the key assumptions that underpin the analysis. The sensitivity tests results indicate that the ranking of options in terms of NPV and BCR remains unchanged across all options.

11. Project Governance

This chapter explores the governance structure for the Northside Hospital as a non-designated or designated Major Project, the key roles and responsibilities of the key groups under the structure.

The concept design phase of the Project has been led by ACTHD and aligned with the ACT Capital Framework Project Governance Guidelines and ACTHD processes for infrastructure projects of this scale and complexity. It is proposed that the existing project governance structure for the Northside Hospital project remain in place until a decision is made around the Project being designated (or not designated) as a major project by the Chief Minister.

If the project is designated as a major project, the Project will be procured and delivered by MPC on behalf of the client directorate. Project responsibility, budget and project team will transfer to MPC and be managed under the established project governance structure applicable to designated major infrastructure projects. This structure incorporates a Project Advisory Board as its key governing body, including an Independent Chair and Independent member.

If / when the Project is designated as a major project, a detailed governance framework will be prepared for Minister endorsement, setting governance arrangements for the Project including the governance structure, governance principles, and decision making hierarchies and accountabilities.

11.1 Overview of governance structure

The Northside Hospital project is a high priority project for the ACT Government. The Project's governance structure has been established to support timely, accountable, well informed decision making, commensurate to the Project's complexity, value and relationships to other Government projects and initiatives.[117]

The concept design phase of the Project has been led by ACTHD and aligned with the ACT Capital Framework Project Governance Guidelines and ACTHD processes for infrastructure projects of this scale and complexity. It is proposed that the existing project governance structure for CPHB remain in place until a decision is made around the Project being designated (or not designated) as a major project by the Chief Minister.

If the Project is designated as a major project, the Project will be procured and delivered by MPC on behalf of the client directorate. Project responsibility, budget and project team will transfer to MPC and be managed under the established project governance structure applicable to designated major infrastructure projects.

The Project Governance arrangements for MPC (designated Major Project) are set out in Appendix K - Major project designation.

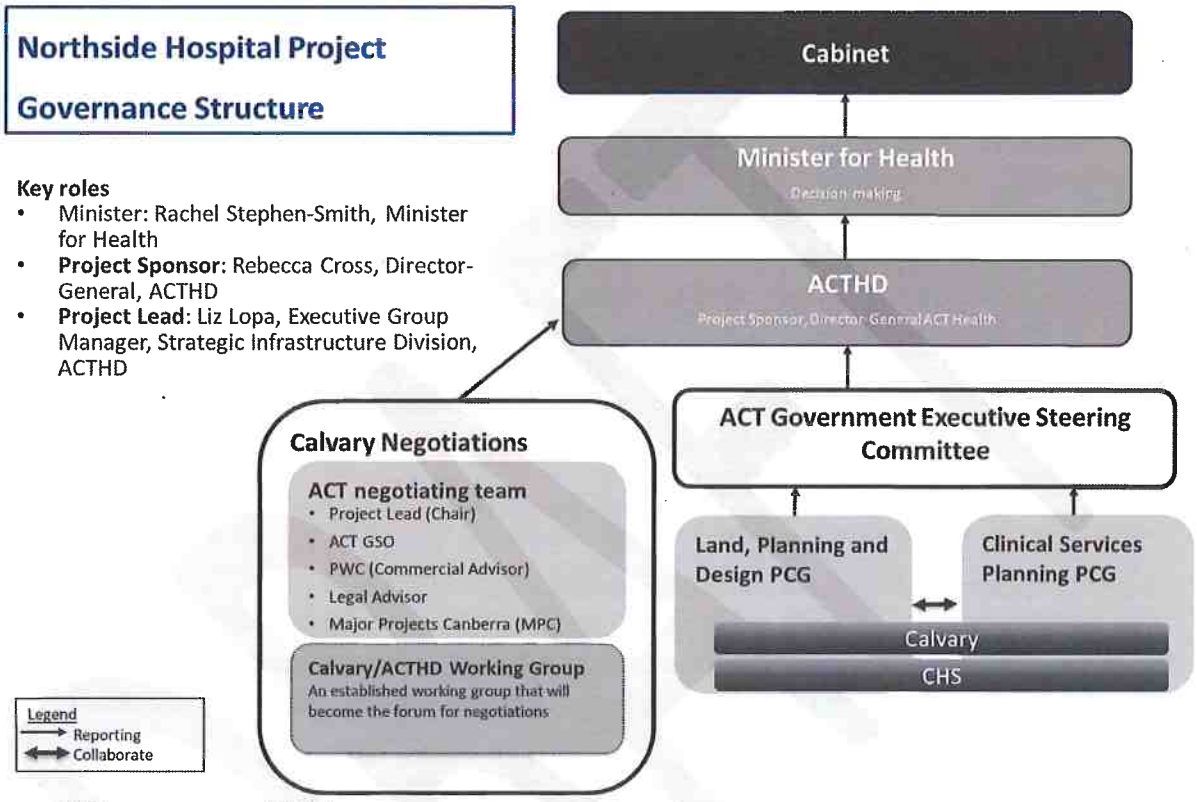
[117] ACT Government Health (2022), Northside Hospital Planning Project Governance Protocol: Strategic Infrastructure Division

11.2 Governance structure

The project governance structure has been prepared in alignment to the Capital Framework Project Governance Protocol, as presented in Figure 29. The roles and responsibilities under the governance structure are summarised below and detailed in Appendix L - Project governance.

Figure 30: Northside Hospital project governance structure

Source: ACT Government Health (2022), Northside Hospital Planning Project Governance Protocol:



Strategic Infrastructure Division

Key roles and responsibilities

The roles and responsibilities of the key groups under the governance structure are summarised in Table 55.

Table 55: Summary of key roles and responsibilities

Governing body/ stakeholder/group	Role/responsibility
Cabinet and the Expenditure Review Committee (ERC)	Cabinet and the ERC of Cabinet will set directions, make key policy and funding decisions in relation to the project on the recommendation of the Minister for Health.
Minister for Health	The Minister for Health will make decisions at the strategic and leadership level. The Minister for Health has responsibility for the overall project with delegated responsibility flowing to the Director General ACT Health through to the Project Lead and Project Team.
Project Sponsor	The Director General of ACT Health (the Project Sponsor) oversees the overall project, including key milestones, decisions or sensitive matters depending on

Governing body/ stakeholder/group	Role/responsibility
	the stage of the project. The project sponsor also operates as the first escalation point for any matters requiring escalation through the commercial negotiations.
Project Lead	The Director General of ACT Health has appointed the Executive Group Manager (**EGM**) of the Strategic Infrastructure Division (**SID**) as a Project Lead to manage the day to day project management, including leading commercial negotiations, engagement with stakeholders, and recommendations to Cabinet (through ACT Health and the Minister) through the delivery of a draft Business Case.
Executive Steering Committee (ESC)	The ESC will provide crucial leadership, oversight and advice relevant to the Northside Hospital project. Membership will be limited to decision makers. The ESC will receive recommendations for the Project Control Groups and the Project Team in relation to the Northside Project. Membership consists of ACT Health, Major Projects Canberra and CMTEDD representatives.
Project Control Groups (PCG)	These groups will make recommendations to the ESC on matters pertaining to their area of focus, being Land Planning and Design, and the Clinical Services Planning streams of work: • Land Planning and Design PCG is chaired by the Project Lead, EGM SID, ACT Health. • Clinical Services Planning Steering Committee is chaired by the EGM, Health System Planning and Evaluation, ACT Health. The core functions of these committees are to oversee and provide advice on matters relating to the Northside Hospital Planning Project, such as the masterplan and the health services planning. Membership includes key ACT Government Directorates and clinical services representatives to inform the project streams. Limited membership of these committees facilitates effective discussion and decision making abilities.
ACTHD/Calvary Northside Working Group	This working group meets monthly to discuss the Project, specifically matters relating to the options for a new Northside Hospital on the current site of CPHB. The ongoing role of this working group will be defined once government has made further decisions in relation to the project and related negotiation parameters.
ACT Negotiating Team	The team will sit within ACTHD. It will be led by the Project Lead (EGM, SID) and is made up of ACT Government Solicitors Officer and commercial and legal advisors and other expertise across ACT Government as required. Any issues that cannot be resolved by the negotiating team and in line with the parameters (negotiation protocol), will be escalated to the Project Sponsor (Director General of ACTHD), and if required the Minister for Health.

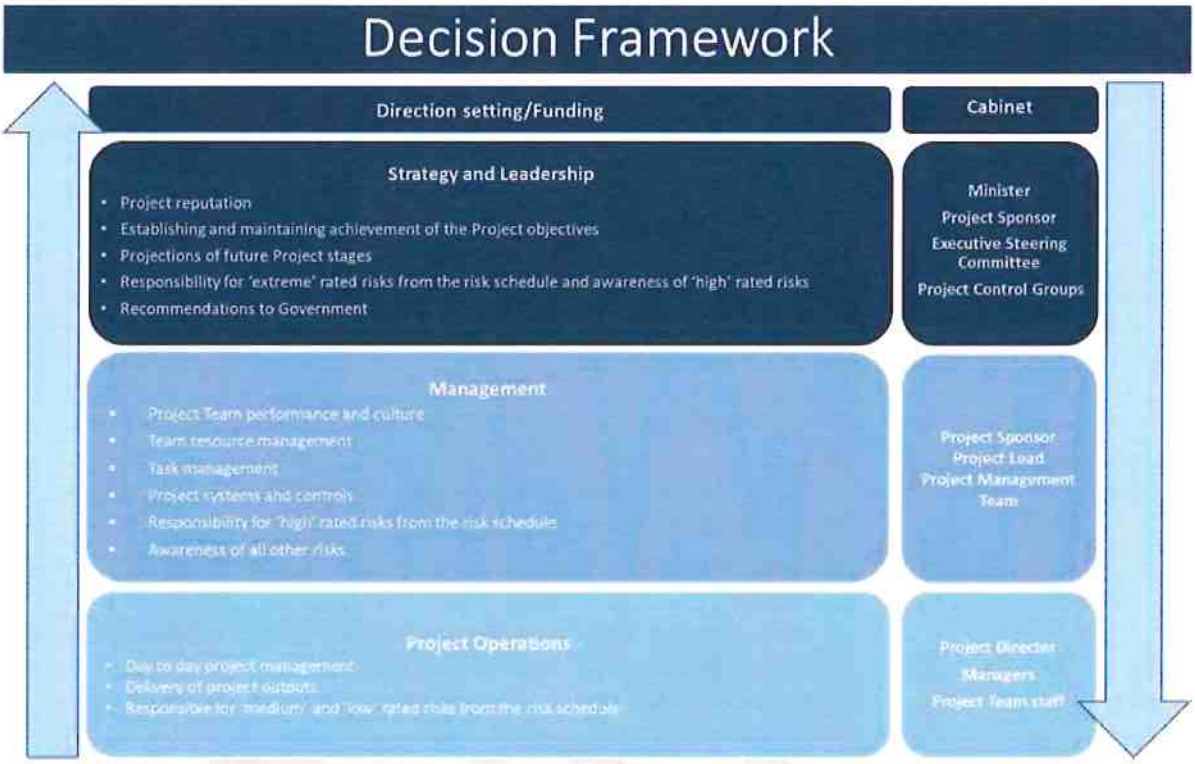
Source: ACT Government Health (2022), Northside Hospital Planning Project Governance Protocol: Strategic Infrastructure Division

Decisions and accountability

A decisions framework was created to outline the levels of decision making and which groups / individuals are involved based on its impact on the Project's objectives. It is expected that matters brought to the ESC for consideration will, if relevant and appropriate, have first been considered by the PCGs or other participants in the governance structure.

The decisions framework is presented in Figure 30.

Figure 31: Decision framework



Source: ACT Health (2022), Northside Hospital Planning Project Governance Protocol: Strategic Infrastructure Division

In addition, for any conflicts of interest that may arise, where a committee participant has an interest that conflicts, could be perceived, or has the potential to conflict with the interests of the project, ACT Health or the Territory more generally in conducting the project, committee members must:

- Disclose to the chair any actual, perceived or potential conflicts of interest which may exist as soon as they become aware of the issue; and
- Take any necessary and reasonable measures to try and resolve the conflict.
- Declarations of conflicts of interest will be considered by the Probity Advisor on a case by case basis to ensure the impartiality of committee participants can be assured without imposing undue burdens on the individuals concerned.

The Northside Hospital project Team will report monthly to the ESC in a Project Directors report. This report outlines updates on the key streams of work, along with reporting on the project milestones and Cabinet dates.

11.3 Project team

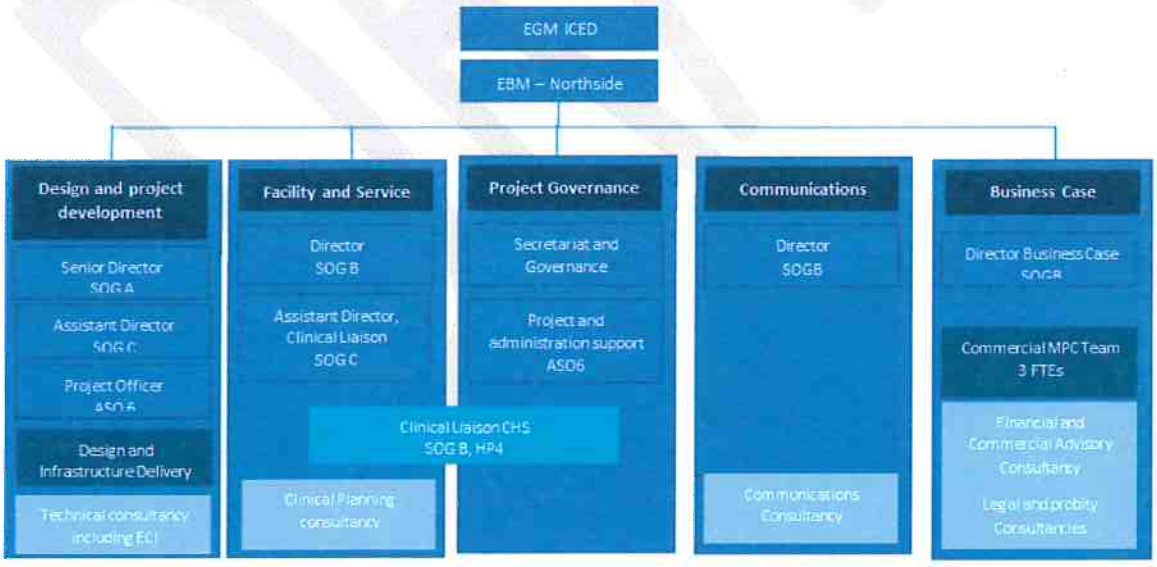
The next phase of development of the new Northside Hospital will require a dedicated Project Team to undertake day-to-day management of the Project. A Senior Executive Band 1.3 will lead, direct and manage the Project Team.

The Project Team will be responsible for progressing delivery of the Project in accordance with the Project's Business Case, decisions of Cabinet, the Project Governance Framework, and other key documents for the Project. The responsibilities of the Project Team include:

- Overseeing project budget, program and reporting requirements
- Advisor procurement and contract management
- Overseeing delivery of consultant outputs
- Undertaking a range of stakeholder consultation
- Supporting implementation of the project governance arrangements
- Establishing and overseeing working groups for the Project
- Managing the preparation of Executive Steering Committee and Board Subcommittee/Project Control Group papers and materials
- Identifying, discussing and escalating key issues and risks to the Project Director and the Board Subcommittees/Project Control Group.

The proposed Project Team structure is shown in Figure 31 below. The Project Team structure has been developed to provide appropriate internal skills and capabilities to effectively manage each workstream through the next phase of the Project.

Figure 32: Proposed Project Team



Funding is sought in this Business Case for the following Project Team resources within ACTHD, CHS and MPC:

- **ACTHD**
    - Project co-ordination and management
    - Governance and secretariat
    - Facility and Service Planning
    - Media and strategic communications
    - Business case development
- **CHS**
    - Clinical Stakeholder liaison (2 x FTE)
- **MPC**
    - Commercial support and contract management (3 x FTEs)
    - Design and infrastructure delivery (2x FTEs).

This proposal seeks funding for Project Team resources for 2023-24 and 2024-25 as outlined in Section 9.

This proposal has been prepared on the assumption that the next phase of the Project is led by ACTHD with commercial and technical support provided by MPC. If the project is designated as a major project at any point during the funding period, responsibility for infrastructure delivery and related resourcing and funding would transfer to MPC. Further information on the implications of major project designation is contained at Appendix K - Major project designation.

12. Stakeholder engagement plan

This chapter details the stakeholder engagement process undertaken for the Project, the stakeholders identified as being relevant to the Project, the outcome of stakeholder engagement to date and the communication strategy moving forward.

A communication and stakeholder engagement strategy, *Designing ACT health services for a growing population*, has been developed as a guide to engagement activity for the Project. Throughout the duration of the Project, engagement activity has and continues to inform development and decision making for the Northside Hospital, allowing the community and stakeholders to have regular input into the development of the new hospital. Consultation will occur with key stakeholders and the community, in line with key project milestones.

The most recent phase of engagement, *Designing ACT health services for a growing population*, has occurred across three phases. This engagement structure aimed to gauge public opinion on healthcare across the ACT through Phase one, then dive deeper into the Project through Phases two and three.

A broad range of stakeholders have been identified as being impacted by a new Northside Hospital. The engagement approach for each stakeholder can be defined as follows:

- **Work together:** partnerships will be established with these groups for the duration of the engagement program to guide and influence the consultation process
- **Involve:** groups and individuals who will be impacted by new Northside Hospital and will directly approached for feedback
- **Consult:** these groups and individuals will be targeted for expert advice or to learn from their experiences
- **Keep informed**: groups and individuals will be informed of consultation opportunities though broader communication channels.

In Phase One, ACTHD collaborated with CHS to understand people's experiences in accessing ACT public health services, perceptions towards the health system and what they want and need from the health services into the future. The ACTHD and CHS then separated engagement activities into two streams to achieve individual project objectives. The outcomes of Phase One have informed Phase Two of these engagement activities as well as other ACT Government health planning and infrastructure projects.

For the Northside Hospital project, Phase Two facilitated community consultation and stakeholder engagement to:

- Inform the public about planning for the new hospital
- Collect community and stakeholder feedback on what people want and need from a new hospital
- Deliver activities that facilitate effective listening of key stakeholders and the community to ensure they feel heard by the ACT Government.

The engagement centred around the early designs for the Northside Hospital, focusing on understanding the user experience. Phase Three is now seeking to close the feedback loop for the project and provide listening reports back to the community.

12.1 Stakeholder engagement process

A three phased communication and stakeholder engagement strategy, *Designing ACT health services for a growing population*, was developed as a guide to engagement activity for the Project. Throughout the duration of the Project, engagement activity has and continues to inform development and decision making for the Northside Hospital, allowing the community and stakeholders to have regular input into the development of the new hospital.

Consultation will occur with key stakeholders and the community, in line with key project milestones. Figure 32 provides a preliminary overview of the expected engagement phases for the Project.

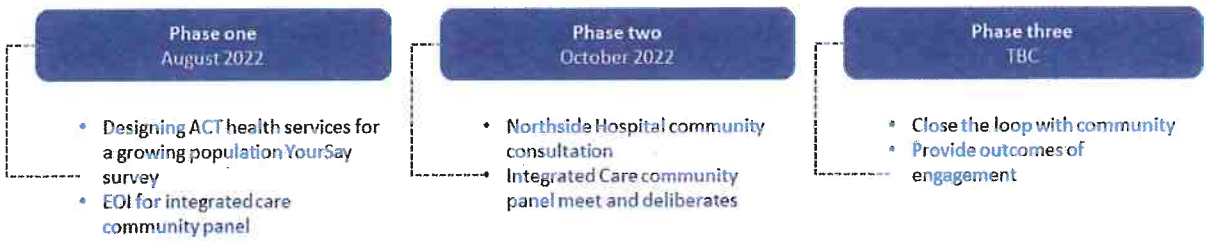
Figure 33: Stakeholder engagement phases

Source: Communications Link (2022), Phase two – Northside Hospital – consultation report, Designing ACT health services for a growing population, Version 1, December 2022

The engagement strategy builds on feedback and lessons learned from previous consultations, such as the University of Canberra Public Hospital, Canberra Hospital Master Plan, Canberra Hospital Expansion Project, and Centenary Hospital for Women and Children Expansion Project. The engagement approach has been framed around ACTHD's strategic vision for 'person centred services; safe and effective care' and the corresponding strategic goals of 'Access, Accountability and Sustainability' to inform how consultation is designed.

Designing ACT health services for a growing population engagement program has been undertaken across three phases as illustrated in Figure 33. This engagement structure was designed to gauge public opinion on healthcare across the ACT through Phase one, then dive deeper into two separate engagement streams through Phases two and three. The first stream (run by CHS) explores potential integrated care service solutions and the second stream engages with the community on the new Northside Hospital. Each stream then concludes separately, with the presentation of integrated care and Northside Hospital outcomes to close the loop with the community.

Figure 34: Current phase engagement program



Source: Communications Link (2022), Phase two – Northside Hospital – consultation report, Designing ACT health services for a growing population, Version 1, December 2022

The following sections detail the stakeholders impacted by a new Northside Hospital, the promotion and communication strategy and the outcomes of stakeholder engagement to date.

12.2 Stakeholder identification

A broad range of stakeholders have been identified as being impacted by a new Northside Hospital. Table 56 summarises the identified stakeholder groups and the engagement approach to be undertaken for each.

The engagement approach for each stakeholder can be defined as follows:

- **Work together:** partnerships will be established with these groups for the duration of the engagement program to guide and influence the consultation process
- **Involve:** groups and individuals who will be impacted by new Northside Hospital and will directly approached for feedback
- **Consult:** these groups and individuals will be targeted for expert advice or to learn from their experiences
- **Keep informed**: groups and individuals will be informed of consultation opportunities though broader communication channels.

Table 56: Stakeholders by engagement approach

Engagement approach	Stakeholders	
Work together	• ACTHD • CHS	• Northside Hospital project Team
Involve	• CHS • CPHB staff, volunteers and campus tenants • Aboriginal and Torres Strait Islander Liaison • ACTHD	• Capital Health Network • Health Care Consumers' Association • Winnunga Nimmityjah Aboriginal Health and Community Services
Consult	• Community Councils • United Ngunnawal Elders Council • ACT Aboriginal and Torres Strait Islander Elected Body	• Joint Advisory Council Chairs: – *ACT Mental Health Advisory Council* – *Aboriginal and Torres Strait Islander Elected Body* – *ACT Disability Reference Group*

Engagement approach	Stakeholders	
	• Non-government organisations (NGO) funded by ACTHD to deliver health services • Health peak bodies • Regional NSW health providers and services • Unions • Women's Centre for Health Matters • Priority population groups – *Aboriginal and Torres Strait Islander peoples* – *People with disability* – *Children and young people* – *Culturally and linguistically diverse peoples* – *LGBTIQ+ community* – *Older people* – *Families with complex needs* – *People with chronic conditions including mental illness* – *Carers*	– *Domestic Violence Prevention Council* – *LGBTIQ+ Ministerial Advisory Council* – *Minister's Creative Council* – *Ministerial Advisory Council for Veteran's and their Families* – *Ministerial Advisory Council on Ageing* – *Ministerial Advisory Council on Women* – *Multicultural Advisory Council* – *Youth Advisory Council*
Keep informed	• ACT community	• Other ACT Government Directorates

Source: Communications Link (2022), Northside hospital project, Communication and stakeholder engagement strategy, Version 1.2, December 2022

12.3 Promotion and communication strategy

Due to the broad range of stakeholders, the promotional tools used for current and future engagements are varied ranging from direct approach methods through to broader promotional activities such as social media as summarised in Table 57. Consideration has also been given to those in the community who may have limited or no digital access, including the elderly people and those who may be vulnerable or disadvantaged.

Successful consultation will, in part, be reliant on successful promotion of the opportunity to engage. This will need to ensure stakeholders and the community are well informed about consultation and engagement activities. Development of a social media schedule, messaging and products will support the distribution of messaging through ACT Government and ACTHD social media channels.

Table 57: Communication methods and channels

Channel/method	Collateral required	Timeframe
Website	• YourSay website (program overview, feedback channels, questions and answers, engagement events calendar) • ACTHD website	Available online throughout the engagement period and updated with information throughout the consultation program. Consultation program outcomes and next steps will be included at the conclusion of the consultation period.

Channel/method	Collateral required	Timeframe
Intranet content	Content inviting staff to contribute to engagement activities will be placed on CHS, and ACTHD intranets and in all staff emails (where appropriate). Information will also be supplied to CPHB for consideration.	Ongoing – in line with consultation timeframes.
Social media	Promotion of consultation activities through ACTHD and ACT Government accounts.	Ongoing – in line with consultation timeframes.
Other ACT Government channels	Leverage ACT Government channels including whole of government desktop advertising, whole of government publications notice and Access Canberra advertising screen.	Ongoing – in line with consultation timeframes.
Internal newsletter/ noticeboards/asse mblies	Where possible, promotion of consultation activities to interested health services staff, including CHS, CPHB and NSW Health, through internal newsletters, digital noticeboards, and other internal promotional channels.	Ongoing – in line with consultation timeframes.
Presentation to community councils	A presentation outlining the project status and consultation program encouraging members to get involved and to distribute within their community.	Ongoing – in line with consultation timeframes and planned meetings.
Emails to representative groups and peak bodies	Targeted content emails inviting groups to participate in engagement activities. This includes those representing priority population groups.	Ongoing – in line with consultation timeframes.
Media engagement	• Targeted content to local news outlets • Media events involving the Minister • Minister talkback/feedback opportunities on local radio.	Ongoing – in line with consultation timeframes. and as relevant.
Ministerial opportunities	• Media releases • Participation by Minister in engagement activities as available	Ongoing – in line with consultation timeframes.

Source: Communication Link (2022), Northside hospital project communication and stakeholder engagement strategy, Version 1.2

12.4 Phase One

Phase One of the engagement strategy opened in August 2022 for a duration of five weeks. Phase One focused on understanding people's experiences in accessing ACT public health services, perceptions towards the health system and what they want and need from the health services into the future. Phase One was developed collaboratively between ACT Health and Canberra Health Services. The outcomes of Phase One informed Phase Two engagement as well as other ACT Government health planning and infrastructure projects.

Phase One was facilitated using the ACT Government YourSay platform. The survey covered several key areas including services, access, virtual health, coordination of care, urgent care, quality and safety, the new hospital, and integrated care.

The YourSay survey received a total of 869 responses, including 65 hard copy surveys. There was representation across all population priority groups including Aboriginal and Torres Strait Islander peoples, people with disability, LGBTQIA+ community, people who speak a language other than English, older people (65yrs +), younger people (under 25), people with chronic or complex conditions, families with complex needs, and carers. The survey responses are summarised in Table 58.

Table 58: Phase one YourSay survey response outcomes summary

Survey area	Key response outcomes
Services	• ED, walk in centres and pathology and pharmacy are the most used services • Canberra Hospital is the most visited hospital, with Belconnen and Gungahlin being the most visited Walk In Centres and Community Health Centres
Access	• People want better access to paediatrics, mental health, Walk in Centres, hospital and pregnancy services which are currently not provided in the area • Other issues relating to access include the need for bulk billing, community transport service that support LGBTQIA+ people, people with disability and Aboriginal and Torres Strait Islander peoples. • Most people (>55%) want to receive services in whatever way and wherever is recommended to best suit their needs, followed by as close to home as possible (39%)
Virtual health	• Majority of people (71%) are in favour of having virtual care available as an option, however health services delivered virtually or over the phone is the least preferred way to receive care
Coordination of care	• Most people (87%) coordinate care themselves without difficulty (68%) • Availability of services (e.g. wait times, availability of suitable services / providers), health system navigation and communication between health providers are the biggest challenges in coordinating care
Urgent care	• Location has the most significant impact (75%) when seeking urgent care, followed by quality of care and access to a range of services • Most people have attended a Walk in Centre for non life threatening care (70%)
Quality and safety	• Good customer service, wait times, quality of service, professional standards and culturally appropriate services are the most important factors to assure people of a health service's quality and safety
New hospital (related to Phase Two – Northside Hospital consultation)	• Regarding the importance of building a new ACT Government hospital, the most common response themes were around quality and safety (38%) including workforce and wait times; clinical services and the need for a dedicated ED and a paediatric unit; user experience including amenities, parking, transport etc. • People also emphasised the importance of inclusion and accessibility and referenced the need for culturally safe care, disability access and sensory friendly spaces
Integrated care (related to Phase Two – community panel on integrated care)	• Most people are unfamiliar with the term 'integrated care'

Source: Communications Link (2023), Phase one – consultation report, Designing ACT health services for a growing population YourSay survey, January 2023

12.5 Phase two

Phase Two of the Northside Hospital engagement strategy opened for six weeks from 18 October to 29 November 2022. Phase two facilitated community consultation and stakeholder engagement to:

- Inform the public about planning for the new Northside Hospital
- Collect community and stakeholder feedback on what people want and need from a new hospital
- Deliver activities that facilitate effective listening of key stakeholders and the community to ensure they felt heard by the ACT Government.

The engagement centred around the early designs for the Northside Hospital, focusing on understanding the user experience. It did not explicitly seek feedback on potential sites or commercial issues relating to the new Northside Hospital or on clinical services.

A series of engagement activities was undertaken across the ACT to provide opportunities for the community and stakeholders to have their say on the Northside Hospital project. This included online consultation through the YourSay platform, in person pop ups held in public areas and drop ins held at health facilities. Key stakeholders were also invited to attend an online workshop or attend one on one briefings to learn more about the Project and provide feedback.

A total of 409 people and organisations participated in the consultation. It included 396 people who participated in online and in person engagement activities, 10 key stakeholder organisations[118] that provided feedback through the stakeholder workshop and an additional three stakeholders[119] that provided separate feedback through submissions. Of the 108 people who provided feedback through YourSay responses, 39 per cent were from Gungahlin, followed by Belconnen (33 per cent) and Inner North (six per cent).

Community feedback

The community feedback from online and in person engagement activities centred around 11 key themes, with 60 per cent of responses focused on three themes of clinical services, experience and quality. Table 59 summarises the community feedback by theme. The detailed community feedback is presented in Appendix M - Stakeholder Engagement Plan and Community Strategy.

Table 59: Community feedback by theme

Theme	Key response outcomes
Clinical services (22%)	• 27% of responses related to the need for paediatric services on the northside to reduce travel to Canberra Hospital or interstate, including specialist and intensive paediatric services • 16% of responses related to a larger ED with specialist emergency areas such as maternity or paediatrics • 12% of responses related to maternity services, including the need for a maternity ward, a birth centre, and an early pregnancy unit

[118] A Gender Agenda, ACT Council of Social Service, Asthma Australia, Canberra Hospital Foundation, Headspace, Health Care Consumers' Association, Campbell Community Association, Ronald McDonald House, Carers ACT, ACT Branch of Australia Medial Association

[119] Belconnen Community Council, Weston Creek Community Council, Health Care Consumers' Association

Theme	Key response outcomes
	• General comments included the need for full service offering, integration with community care, mobile care, use of continuity of care model for maternity, access to non-religious healthcare, flexible service delivery
Experience (22%)	• 32% of responses related to rooms, design or layout including the need for welcoming spaces and lounge areas, larger rooms with windows and thicker walls, wide corridors, travellator and guide rails, outside seating and homely, calm environment for rest • 21% of responses related to amenities such as patient areas, amenities for children, amenities for staff, food and retail • Other comments included the desire for green spaces, improved wayfinding (e.g. simple language and better signage, use of technology, clear layout with directions) and improved accessibility for older people
Quality (17%)	• 43% of responses related to workforce and the need for more doctors and nurses, workforce training, diversity, staff attraction, retention and management, and the need to consult with staff • Other feedback highlighted the need to address current wait times, improved customer service and improved safety
Parking and travel (9%)	• Comments on parking included the need for accessible, affordable and plentiful parking close to the hospital • Comments on travel included the need for easy access to bus stops and rail and consideration of traffic impacts
Location (7%)	• A third of the feedback was in support of the new Northside Hospital being located in Gungahlin to service the growing community, and the possibility of Mitchell as a location • Other suggested locations included the exiting Bruce campus and Tuggeranong
Accessibility and inclusion (7%)	• Feedback related to physical/wheelchair accessibility, sensory spaces, accommodating hearing impaired people, availability of translated and Australian Sign Language materials, accessible bathrooms, culturally safe services and support, privacy rooms, religious areas and support, trauma services, break out rooms, domestic violence and abuse area, spaces and support for Aboriginal and Torres Strait Islander peoples, services for people from culturally and linguistically diverse backgrounds, including outpatient support
Infrastructure and technology (7%)	• Infrastructure considerations included good quality facilities, accessible design, referencing Canberra Hospital, sufficient lifts and stairwells and retention / use of existing CPHB buildings where possible • Technology considerations included the need for modern medical equipment and modern technology for bookings, wayfinding and access and to support user friendly virtual health
Other – hospital general (4%)	• Feedback included not having CPHB under construction, the need for more ambulances, broad support for the Project, and looking at other hospitals as examples
Other – nonhospital (3%)	• Feedback related to cost, budget and funding, the need for bulk billing health services, higher workforce pay rates, more funding into healthcare, commentary on the cost of building a new hospital compared to redeveloping, and proposal for a 'Community Finance' model where the public pay for and share ownership of public assets/services
Governance and operations (2%)	• Feedback included commentary on the perceived limitations of care currently provided at CPHB run by a Catholic faith based organisation and desire for the new hospital to have no religious affiliations, the higher cost of CPHB run by a private organisation and concerns around current governance

Theme	Key response outcomes
Sustainability (1%)	• General comments on the importance of sustainability, water sensitive urban design considerations, solar power, recycling facilities, reduction in single use plastics available, electric vehicle charging ports, and a design that is resistant and responsive to climate change

Source: Communications Link (2022), Phase two – Northside Hospital – consultation report, Designing ACT health services for a growing population, Version 1, December 2022

Stakeholder feedback

At the stakeholder workshop, participants engaged in a series of activities and discussions centred around the aspirations of the new Northside Hospital, the ideal experience, opportunities and barriers, and expectations on ongoing community throughout the Project. Key feedback themes from the stakeholders included:

- Ensuring availability of adequate services to vulnerable communities
- Consideration of young people in particular during the planning of services and design of buildings, to ensure that safe and flexible spaces are created and able to accommodate the rapidly growing population on the northside
- Delivery of integrated services at the Northside Hospital such as a dedicated asthma respiratory service, family and neonatal services and gender affirming care services
- Importance of integrating the new Northside Hospital into the ACT health service and community.

The detailed stakeholder feedback is presented in Appendix M - Stakeholder Engagement Plan and Communication Strategy.

13. Advisor Engagement Plan

This chapter identifies the role of external advisors that could be engaged to assist in developing the Northside Hospital project.

Given the scale and complexity of the Project a variety of external advisors have been appointed to assist in the preparation of this Business Case. The advisors include:

- Commercial and economics
- Legal
- Technical design, engineering and a range of subconsultants
- Cost estimation.

Engagement with external advisors seeks to supplement the capabilities of the Project Team and ensure provision of the appropriate expertise required as the Project progresses to further planning and detailed infrastructure design.

An Advisor Engagement Plan has been developed to identify future advisory engagements required for the Project. These include:

- Legal and probity
- Financial and commercial advisors
- Technical design and engineering advisors
- Clinical and facility planning
- Stakeholder management and communication advisors.

Given the scale and complexity of the Project a variety of external advisors have been appointed to assist in the preparation of this Business Case. The advisors include:

- Commercial and economics
- Legal
- Technical design, engineering and a range of subconsultants
- Cost estimation.

This Advisor Engagement Plan has been developed to identify future advisory engagements required for the Project and to outline the scope of engagement. Engagement with external advisors seeks to supplement the capabilities of the Project Team and ensure provision of the appropriate expertise required as the Project progresses to further planning and detailed infrastructure design.

Table 60 summarises the advisor engagements anticipated for the next project phase. It is noted that the list is indicative, and the Advisor Engagement Plan will be reassessed as the Project progresses and the requirements for specialist external advice evolves.

Table 60: Key external advisors

Key advisory roles	Potential scope of engagement
Legal and probity	The ACT Government Solicitors Office will be the primary source of legal services for the Project. External legal advisors will be required to: • Provide commercial and legal expertise in relation to contractual negotiations and documentation (to be advised and coordinated by the ACT Government Solicitors Office) • Support further Project development including development of future business case proposals and procurement • Assist with preparation for, or participation in, any legal proceedings required as part of the implementation of the next stage of the Project • Assist with legislative requirements such as planning and environmental approvals. A Probity Advisor will also be required to provide advice, manage probity issues and support the implementation of appropriate probity procedures. Legal advisor and probity advisor costs have been included in full project costings.
Financial and commercial	Commercial Advisors will be required for the next phase of the Project, to support: • Development of the 2024 25 Enabling Works Business Case • Development and 2025 26 Main Works Business Case • Other general procurement and commercial advice required may include: • Market sounding • Delivery model options analysis • Commercial negotiation support. • Commercial advisor costs have been included in full project costings.
Technical design and engineering – including (very) ECI	Technical Advisors will be required during development of the detailed design phase, including: • Client side design consultants • (Very) ECI contractor (refer to Section 8.3) • Engineering specialists • Urban planners • Cost planners • Geotechnical and surveying specialists. • Key outputs required from the technical advisors include: • Further site investigations and technical due diligence • Schematic and detailed design for mains works and any enabling works package • Development of planning approval documentation and planning consultation • Detailed Functional Design Brief and updated schedule of accommodation • Construction delivery programme • Cost analysis and cost plan development.

Key advisory roles	Potential scope of engagement
Clinical and facility planning	Clinical and Facility Planning Advisors will be required to: • Confirm the clinical scope of the new hospital • Inform facility design using standards and benchmarks • Bring modern facility planning experience to support Project development.
Stakeholder management and communication	The Project will be supported by the Communications Team within ACTHD (or MPC, should designation as a major project occur). The Communications Team will engage a Stakeholder Management Advisor to implement the stakeholder engagement strategy for the Project. The Stakeholder Management Advisor will support community and stakeholder engagement activities through the detailed design phase and planning approvals processes. Costs for a Stakeholder Management Consultant have been included in full project costings.

Source: MPC (2023), Northside Hospital Development Project – Advisor Engagement Plan

14. Timeline

This chapter identifies the timeline for delivery of the new Northside Hospital, the assumptions made around the timeline and any risks dependencies, constraints and/or deadlines that may arise.

Construction of the new Northside Hospital is proposed to commence in Q4 2026, following planning lodgement and approval for the main works in Q2 2026. The delivery program from enabling works through to commissioning is expected to extend over a four year period. The Northside Hospital opening date is estimated to be Q4 2030.

The Project decision and review points and the respective decision makers will be determined at the next detailed design phase.

Key timeline risks for the Northside Hospital project include:

- Risk that the DA approval process is longer than anticipated
- Risk that the planning decisions lead to changes in the design, construction or commissioning requirements or service specifications
- Risk of site contamination or other unanticipated adverse ground conditions
- Risk of construction subcontractor(s) going insolvent
- Risk of extreme weather events.

Risk mitigation strategies for the above identified risks will be developed through the detailed design phase of the Project to help mitigate / manage impacts on timeline. At this stage of the Project development, an indicative contingency float has been included in the project timeline equivalent to three quarters total between 2023 and 2025. The recommended float will be determined upon identification of the preferred option for the new Northside Hospital and further refinement of the timeline in alignment with the detailed design.

14.1 Project timeline

Table 61 presents the program of works for the preferred options (Option 1A and 2). Construction of the new Northside Hospital is proposed to commence in Q4 2026, following planning lodgement and approval for the main works in Q2 2026. The delivery program from enabling works through to commissioning is expected to extend over a four year period. The Northside Hospital opening date is estimated to be Q4 2030. Detailed timelines for the preferred options are provided in Appendix N - Project timeline.

Table 61: Project timeline

Milestone	Option 1A: Bruce multiple buildings in a single stage
Phase 1 design completion	
Master plan / concept design	Q1 2023
Design stage Business Case	Q2 2023
Public notification of budget for the Project	Q3 2023

Milestone	Option 1A: Bruce multiple buildings in a single stage
Budget approval for design stage costs	Q3 2023
Preferred site and operator confirmation	Q3 2023
Land transfer	Q4 2023
Phase 2 design completion	
Government process	
Consultant procurement	Q4 2023
Enabling Works and ECI Business Case	Q3 2024
Main Works Business Case	Q2 2025
Budget approval for enabling works and ECI	Q4 2024
Budget approval for main works	Q3 2025
Planning approvals	Q1 2025
Land rezoning	n/a
Surveys and enabling works design	
Surveys (Geotech, heritage, ecological, land survey, hazmat etc.)	Q4 2024
Schematic design	Q3 2024
Detailed design	Q1 2025
Planning lodgement and approval	Q3 2025
Main works design	
Schematic design	Q4 2024
Detailed design	Q4 2025
Construction documentation	Q4 2026
Decant / accommodation strategy	Q4 2025
Planning lodgement and approval	Q2 2026
Post planning approvals / leasing agreements / building approvals	Q4 2026
Delivery	
Contractor procurement	
Appoint enabling works contractor	Q4 2025
Main works contractor ECI period	Q1 2026
Appoint main works contractor	Q4 2026
Construction	
Enabling works	Q4 2026
Childcare centre	Q3 2027
Car park	Q2 2030
Main works	Q3 2030
Separate mental health facility	Q2 2030

Milestone	Option 1A: Bruce multiple buildings in a single stage
Hospital commissioning	Q4 2030

Source: Arup (2023), Canberra Northside Hospital Construction Programme (High Level) – Calvary Site, ECI Procurement, Revision 4; Arup (2023), Canberra Northside Hospital Construction Programme (High Level) – Greenfield Site, ECI Procurement, Revision 5

14.2 Project decision points

The Project decision and review points and the respective decision makers will be determined at the next detailed design phase. Responsibility will align with the proposed governance structure as presented in Section 11.

It is expected that there will be additional construction Business Case proposals for the Enabling Works and Main Works construction of the new Northside Hospital, as identified in the program in Table 61.

14.3 Recommended float

At this stage of the Project development, an indicative contingency float has been included in the project timeline equivalent to three quarters total between 2023 and 2025. The recommended float will be determined upon identification of the preferred option for the new Northside Hospital and further refinement of the timeline in alignment with the detailed design.

The float will take into consideration the critical activities which have the largest potential to cause delays and ensure sufficient flexibility is embedded to meet the commissioning date. The critical activities are anticipated to include site surveys, preparation and obtainment of planning approvals, land rezoning for a potential greenfield development and procurement of contractors for enabling and main works.

14.4 Project timeline risks, dependencies, constraints and/or deadlines

The primary timeline risks for the Northside Hospital project, as identified through the Risk Analysis presented in Section 7, include:

- Risk that the DA approval process is longer than anticipated resulting in delay in works commencement or completion
- Risk that the planning decisions lead to changes in the design, construction or commissioning requirements or service specifications resulting in delay in work commencement or completion
- Risk of site contamination or other unanticipated adverse ground conditions especially in relation to draining, groundwater and / or geotechnical conditions resulting in delay in work commencement or completion
- Risk of construction subcontractor(s) going insolvent resulting in delay in work commencement or completion
- Risk of extreme weather events resulting in damage or delay to construction works.
- Risk mitigation strategies for the above identified risks will be developed through the detailed design phase of the Project to help mitigate / manage impacts on timeline.

Additionally, the timeline of the Northside Hospital project will be interdependent on the outcomes of other projects, workstreams and activities as noted in Section 6.5.

14.5 Project timeline assumptions

Key assumptions underpinning the project timeline, as specified by Arup, are detailed in Table 62.

Table 62: Project timeline assumptions

Category	Option 1A: Bruce multiple buildings in a single stage
Enabling works	Enabling works to clear the construction site area includes: • Moving communications rooms and IT network • Demolition of the childcare centre, O'Shannassy, Lewisham and Residences B and C • Planning for staged demolition of facilities on the north block • Establishment of temporary access to the existing loading area, substations and bulk oxygen • Utility diversions • Site remediation • Temporary car park solution
Car park works	Car park works includes: • Construction of multi deck car park
Main works	ECI procurement is assumed for main works due to the scale and risk profile of the Project. Main works includes: • Bulk earthworks completion • All other construction works for the development • Commissioning and setting to work of the building • Moving staff into the new building and it becoming fully operational
Construction period	• Multi deck car park to accommodate 800 cars • Main works encompassing circa 95,000sqm (with mental health in a separate building) • Main works for mental health facility encompassing circa 15,000sqm
Bruce campus	• Program does not include or identify any proposed works for the decommissioned Marian and Xavier buildings following construction of the new development

Source: Arup (2023), Canberra Northside Hospital Construction Programme (High Level) – Calvary Site, ECI Procurement, Revision 4; Arup (2023), Canberra Northside Hospital Construction Programme (High Level) – Greenfield Site, ECI Procurement, Revision 5

Appendices

Appendix A - Investment Logic Workshop

Appendix B - Wellbeing Impact Assessment

Appendix C - Options Assessment Report

Appendix D - Workforce Planning Report

Appendix E - Functional Design Brief

Appendix F - Risk Register

Appendix G - Delivery Model Workshop

Appendix H - Detailed cost estimates

Appendix I - Financial analysis and economic appraisal report

Appendix J - Detailed annual cashflow profile

Appendix K - Major Project Designation

Appendix L - Project governance

Appendix M - Stakeholder Engagement Plan and Communication Strategy (Tier 1 and Tier 2)

Appendix N - Advisor Engagement Plan

Appendix O - Project timeline

Northside Hospital Detailed Business Case – Appendix A

Investment Logic Workshop

ACT Health Directorate
May 2022

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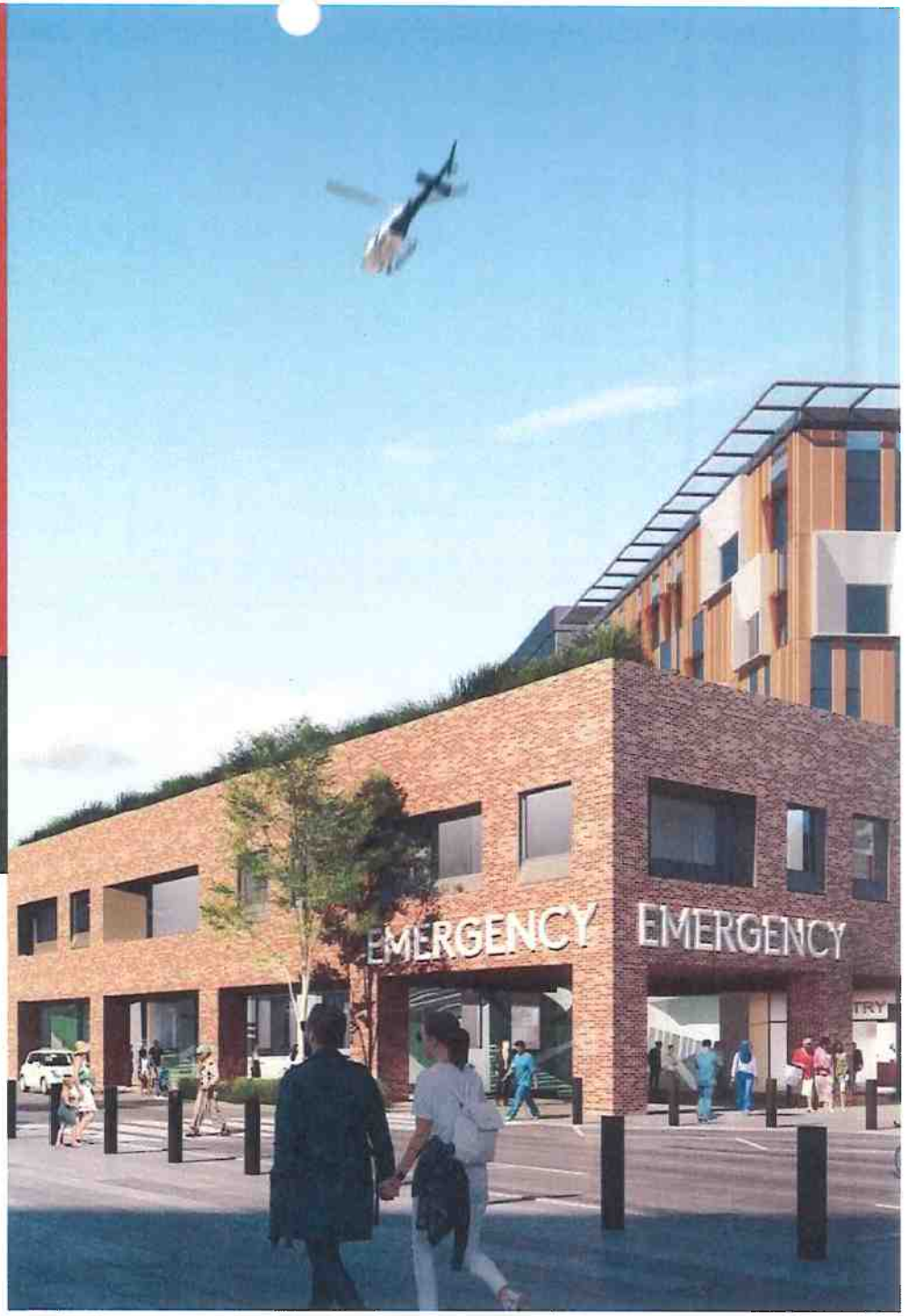


Investment Logic Workshop

Agenda

Date	11 May 2022
Venue / Location	Major Projects Canberra, Callam Offices - Owen Brown Room
Attendees	Achini Thenuwara, Adam Graham, Adrian Box, Andrew Mehrton, Ben Green, Ben Morris, Caitlin Bladin, Cameron Beresford, Chris Clery, Chris Tarbuck, Damon Hall, David James, Dorothea Camangan, Jacinta George, Jeff Hart, Ken Marshall, Kim Wheeler, Liz Lopa, Martin Little, Peter McNiven, Rebecca Sweetman, Shaun Ryan, Sheikh Lana, Trevor Banks, Vanessa Drew
Purpose	To develop a collective view of the investment need for Northside Hospital Development to support the development of a Concept Brief/Budget Proposal

Task	Time	Responsibility
1. Welcome and introductions	5 mins	All
2. Project background	5 mins	PwC
3 Overview of Investment Logic Map process	10 mins	All
4 Workshopping of Investment Logic	50 mins	All
5 Project options	10 mins	All
6 Next steps and close	5 mins	PwC

Project updates and background

Scoping study (2017-2018)

ACT Government invested $3.25 million on scoping study for expanded Northside Hospital facilities. As part of this, the following were included:

- CPHB Condition Assessment
- Strategic Asset Management Plan (SAMP)

Multi-Criteria Analysis (MCA)

In 2020, AECOM conducted a MCA and preliminary risk analysis. This identified 2 viable options for further investigation:

- Construction on the existing CPHB site
- Construction on a new Greenfield (or Brownfield) site in north Canberra

Business Case

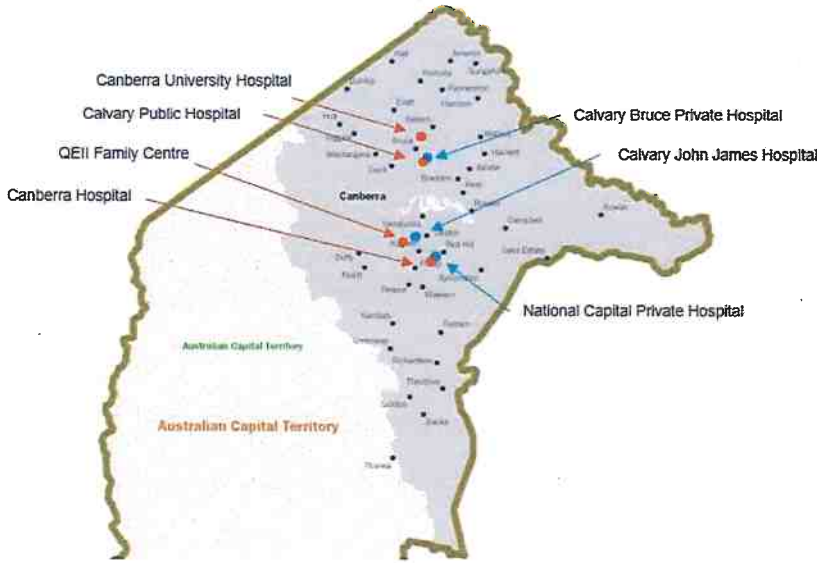
The business case will be developed to undertake site specific master plans, concept design and clinical planning for both options.

Shortlisted options

The Business Case will examine two delivery options for the new Northside Hospital, either through:

- Construction on the existing Calvary Public Hospital Site in Bruce (**CPHB Option**)
- Construction of a new Greenfield (or Brownfield) site in the North of Canberra (**Greenfield Option**)

The CPHB Option is the preferred option explored in the business case to be built on Block 1, Section 1 Bruce – currently owned by Calvary Health Care ACT Ltd.

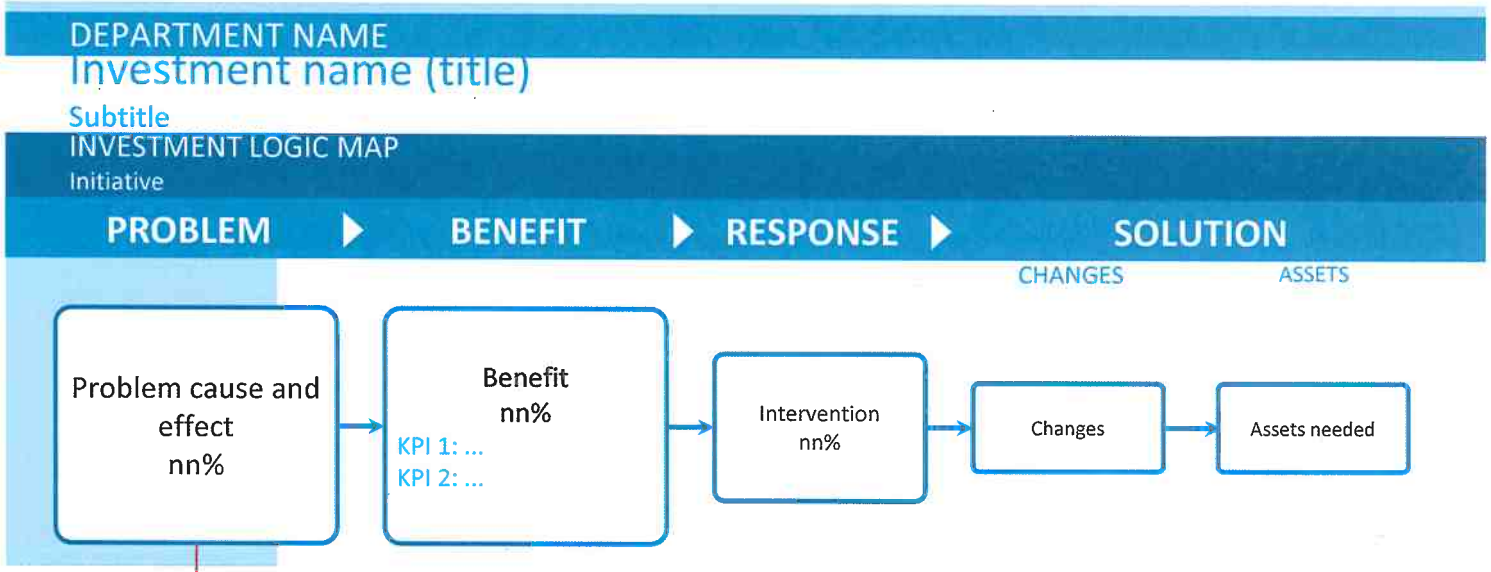


Investment Logic Map

An investment logic map is a one-page, visual snapshot of the logic underpinning a potential investment. It captures the story of an investment in a clear and concise way.

The ILM components are:

Investment Logic Map



Demand and Key Drivers	Challenges / opportunities	Impacts	Objectives / benefits	Project scope / solution
• Population Growth • Changes in models of care • Technological changes • Other trends we are responding to	• What is currently limiting our ability to meet our demand / key trends? • Why is our current infrastructure limiting us?	• What happens if we don't do anything?	• What benefits / outcomes are we targeting / seeking to achieve?	• What scope elements will help us address the challenges and meet the objectives?
1. What is the problem we are trying to address?			***2. What benefits / outcomes are we targeting?***	***3. What is the strategic response / project scope?***

What is the problem we are trying to address?

Demand and Key Drivers	Challenges / opportunities	Impacts	Objectives / benefits	Project scope / solution
• Population Growth • Changes in models of care • Technological changes • Other trends we are responding to	• What is currently limiting our ability to meet our demand / key trends? • Why is our current infrastructure limiting us?	• What happens if we don't do anything?	• What benefits / outcomes are we targeting / seeking to achieve?	• What scope elements will help us address the challenges and meet the objectives?

The problem should be analysed from two perspectives: the cause and the effects.

It must be compelling and something the government and/or community care about (i.e. if the effect or consequence is of little importance or concern, the problem/opportunity is not compelling).

Key questions to consider when developing a problem/opportunity statement include:

- What is the cause and what is the effect or consequence?
- What are the drivers for investment?
- What will happen if nothing is done?
- What trigger means a response is required now?
- What is the effect or consequence that we really care about?
- Can we do something about remedying the cause (or what is broken)?

Is there evidence of the problem (monetised or quantified where possible)?

Does this align with State and Federal strategies and plans?

What benefits/outcomes are we targeting?

Demand and Key Drivers	Challenges / opportunities	Impacts	Objectives / benefits	Project scope / solution
• Population Growth • Changes in models of care • Technological changes • Other trends we are responding to	• What is currently limiting our ability to meet our demand / key trends? • Why is our current infrastructure limiting us?	• What happens if we don't do anything?	• What benefits / outcomes are we targeting / seeking to achieve?	• What scope elements will help us address the challenges and meet the objectives?

Key questions to consider when developing a Benefit Statement include:

- What value will we get out of this investment and how will we know whether value has been delivered?
- What benefits will the organisation expect in successfully responding to the problem?
- What outcomes will we get from remedying this problem?
- What benefit will government and the community get from this investment?
- What part of the government agenda will this investment support?
- What KPIs will demonstrate value and are outcome focused?

What is the strategic responses / project scope?

Demand and Key Drivers	Challenges / opportunities	Impacts	Objectives / benefits	Project scope / solution
• Population Growth • Changes in models of care • Technological changes • Other trends we are responding to	• What is currently limiting our ability to meet our demand / key trends? • Why is our current infrastructure limiting us?	• What happens if we don't do anything?	• What benefits / outcomes are we targeting / seeking to achieve?	• What scope elements will help us address the challenges and meet the objectives?

- The strategic response includes a number of high-level interventions that describe a potential response to identified problems/opportunities.
- A valid strategic response must:
  - allow more than one possible solution
  - address at least part of the problem
  - deliver at least some of the identified KPIs
  - ideally allow for more than one possible initiative.
- The strategic response must remain sufficiently high level so as not to lock the agency into a specific project option.

Options for consideration in the Budget Proposal

- **Option A – Do Minimum**, keep safe and operating: This is the equivalent of a 'do nothing' scenario and is considered unacceptable due a failure to address both the back-log maintenance and high risk 'minor works'. It is provided as the base case for comparative purposes to the 'do something' options. This option proposes that highest priority capital works only are implemented, and 'sweating' other assets, managed through R&M budgets. CPHB continues to operate as it currently stands. This option does not accommodate growth in demand or clinical services.

- **Option B – Minor Works**: This option proposes a risk-based approach to capital replacement in the short to medium term to extend the lifespan of the facility. These works aim to maintain the existing assets in an adequate condition. This option is the minimum required to maintain operations at CPBH with manageable risks. This option does not accommodate growth in demand or clinical services.

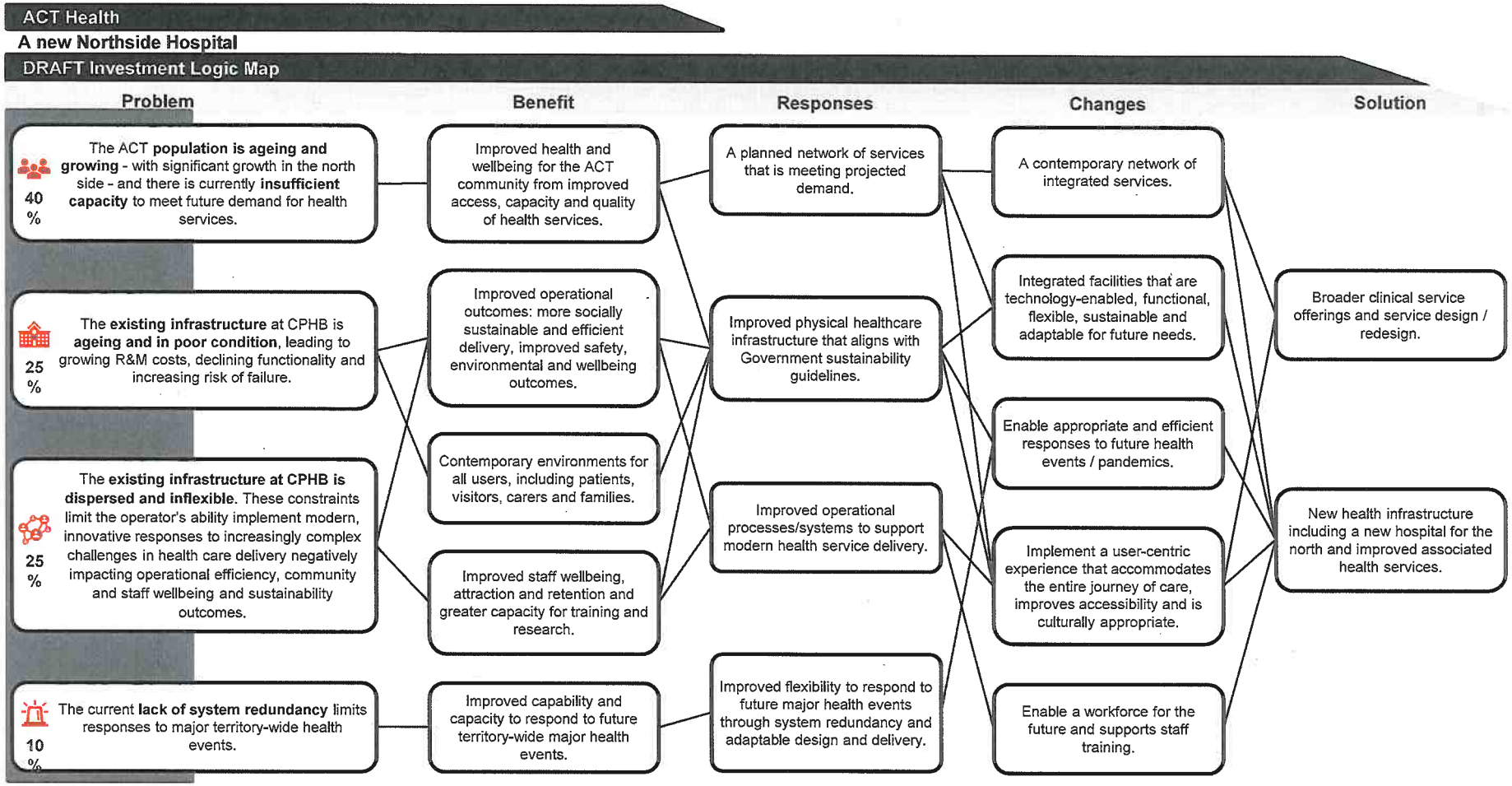
- **Option C – Calvary Public Hospital Bruce Single Stage Redevelopment**: This option includes the demolition of Residence A & B, Lewisham and the Child Care Centre at CPHB to create a site where a new hospital which accommodates the clinical and demand requirements at 2036/37 is constructed in a single stage.

- **Option D – University of Canberra Northside Hospital**: This option includes the construction of a new hospital which accommodates the clinical and demand requirements at 2036/37 in a single stage adjacent to the University of Canberra Hospital.

- **Option E – Generic Green/Brownfield Site**: This option includes the construction of a new hospital which accommodates the clinical and demand requirements at 2036/37 in a single stage adjacent on a generic greenfield/brownfield site.

Investment Logic Map

Investment Logic Map



Expanded investment logic to support Business Case narrative

DRAFT FOR COMMENT

Demand and Key Drivers

1. The population of ACT is growing and ageing, shifting to the north side

- The population of the ACT grew by 2.0% annually in the five years to December 2021, from 409,886 to 453,324 residents.[1] Post the Covid-19 pandemic, ACT's population is set to reach 500,000 by the end of this decade.[2]
- 58% of Canberrans live in the north side (Belconnen, Gungahlin and North Canberra) and account for 81% of total growth in Canberra in the five years to 2021.[3]
- The population aged 65 to 84 years is projected to increase by 125%, with its share of the total population projected to increase from 11% in 2017 to 15% in 2058.

2. The existing infrastructure at Calvary Public Hospital is ageing and in poor condition

- 12% of assets are at or beyond the end of their useful life, of which a third are critical assets.[4]
- 42% of assets have less than 25% nominal service life remaining and will likely require capital intervention (replacement) as they continue to deteriorate in the near-term future.[5]
- The buildings are generally approaching end of life (except for some newer buildings such as ICU/CCU). Administration buildings are in poor condition and are of a quality not commensurate with modern office principles.[6]

3. The existing infrastructure at Calvary Public Hospital is dispersed, inflexible

- Health services at Calvary Public Hospital are currently delivered across 2 primary and 2 secondary clinical buildings, with an additional six buildings that provide supplementary clinical and supporting services.
- The Calvary Public Hospital is unable to expand or refurb to address the capacity constraints given the poor functionality and configuration of the current infrastructure – i.e. low floor heights and small back-of-house areas.
- Current infrastructure is not future focused and does not meet contemporary health facility requirements, including insufficient space to meet AusHFGs.

4. Lack of system redundancy in health care delivery

- Major events (e.g. COVID-19) place greater pressure on the health system and requirements for future flexibility. The recent COVID-19 pandemic has highlighted key features which would be beneficial to integrate into hospital design, in order to better cope with similar scenarios in the future. These include the flexibility to designate isolation areas and improved entry and exit routes into the hospital for infectious patients.
- There is currently a lack of system redundancy across the ACT, including aeromedical transport, mass casualty incident capability and capacity (infrastructure age and design) gap

[1] ABS (2021), 3101.0 National, state and territory population, Table 4
[2] ACT Government (2022), Budget at a glance 2022-23
[3] CMTEDD (2018), ACT Population Projections by District (2015 - 2041)
[4] AECOM (2020), Northside Hospital Development Options Analysis, September 2020, pg 14.
[5] Ibid.
[6] Ibid.
[7] AECOM (2020), Northside Hospital Development Options Analysis, September 2020, pg 19.

Impacts

1. There is insufficient capacity to meet future demand and increasingly complex health needs

- Capacity constraints have been identified in areas of medical / surgical beds, adult mental health, ED, outpatient clinics.
- High demand services that come with rising population like paediatrics are not offered at the current Calvary Public Hospital.

2. The condition of the existing infrastructure at Calvary Public Hospital is leading to declining conditions and functionality, increased risk of failure and growing repairs and maintenance costs

- The age of some assets at Calvary Public Hospital has led to poor asset condition and a maintenance backlog that needs to be addressed.[7]
- The age and condition of current infrastructure may lead to increased risk of failure in the future in the absence of significant investment.
- The age of the current infrastructure does not support provision of contemporary healthcare services and digital / virtual future healthcare

3. Dispersed and inflexible infrastructure will lead to greater inefficiencies and impact on quality of care

- The current design and configuration of Calvary Public Hospital will continue to impact on workflow efficiencies and any expansion of refurbishment of existing assets would drive further inefficiencies.
- The functionality and configuration of the existing assets does not allow for the incorporation or adoption of contemporary health facility requirements or technology.
- The condition and functionality of existing assets will impact on the ability for Calvary Public Hospital to meet future health needs and deliver quality health care.

4. Lack of system redundancy limits response to territory-wide health emergencies

- The lack of system redundancy and aged design creates significant risks in the face of health

Benefits / Opportunities

Investment in a new Northside Hospital will present an opportunity to deliver a range of benefits / opportunities:

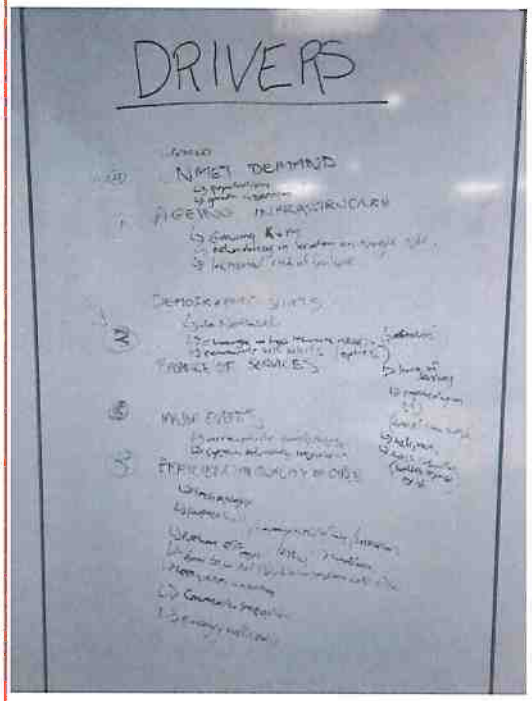
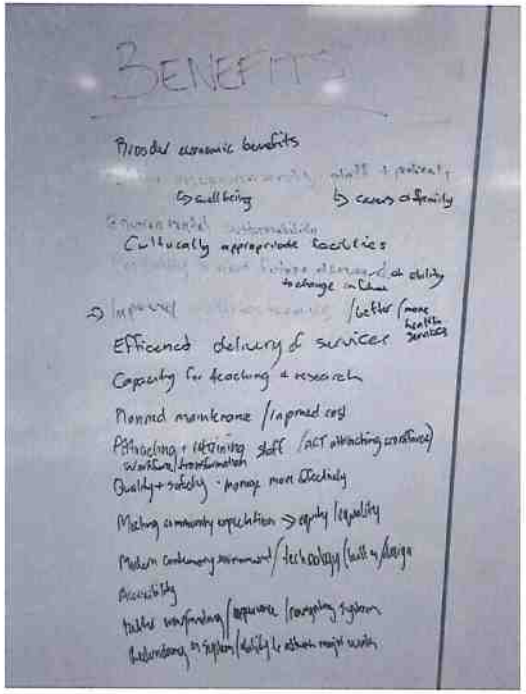
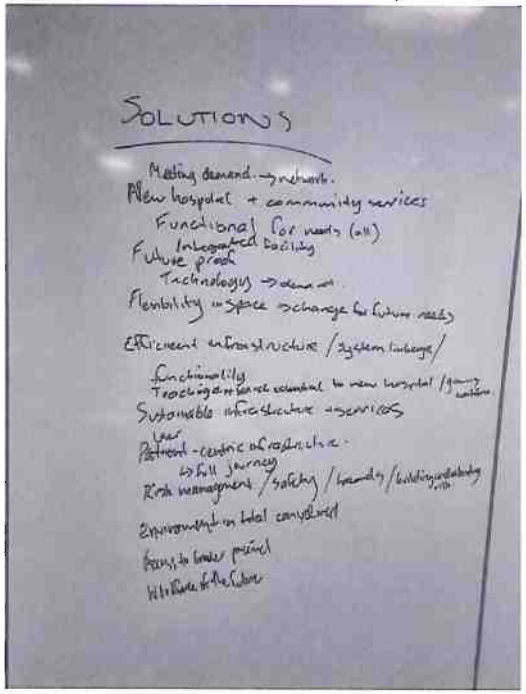
- A better environment to improve health and wellbeing outcomes for staff, patients, carers & families
  - *KPI: improved ACT Government wellbeing indicators and Patient Experience Survey, reduced PPH*
- Improved accessibility for staff, patients, carers & families from improved wayfinding, navigation and carparking spaces
  - *KPI: improved wayfinding around hospital campus, increased carparking bays, improved accessibility to public transport*
- Improved staff satisfaction and efficiencies through building design enabling quality patient care
  - *KPI: improved staff satisfaction and efficiency studies*
- Flexibility to models of care and reimagine healthcare delivery in the future with technology and a model responsive to climate change
  - *KPI: improved Directorate Climate Survey results. encourage innovative integrated models of care, deliver timely and effective person-centred digital solutions*
- Implementation of a planned maintenance program that is proactive rather than reactive
  - *KPI: budgets within agreed variance, increased digital business systems utilisation. risk maturity reaches agreed target*
- Infrastructure that enables appropriate and efficient response to future territory-wide major events through improved system redundancy
  - *KPI: improved coordination between community partners across territory*
- Greater transparency of service delivery / contractual opportunities
  - *KPI: improved coordination between operator and ACTHD*
- Broader economic benefits for the ACT
  - *KPI: additional jobs created, new businesses / services adjacent to the new Northside Hospital*

Solution

The proposed solution is investment in a new Northside hospital that:

- Provides additional capacity to meet future demand for health services that are technology-enabled, functional, flexible, sustainable and adaptable for the north side of the ACT
- Provides sufficient risk management systems to identify safety measures and hazards and implementation of a proactive planned maintenance program
- Delivers outcomes that align with the Territory-wide Health Services Plan as well as the ACT Climate Strategy
- Provides user-centric experience that accommodates the entire journey of care for both the consumers, carers and family, promotes healing, improves accessibility and is culturally appropriate
- Enables a workforce for the future and supports staff training
- Enables appropriate and efficient response to future health events / pandemics

Information captured through Visioning and Investment Logic Mapping Workshop on 12 May 2022

Drivers / Problems	Benefits / Opportunities	Solution
		

Next Steps

- Document the outcomes from today's session into a one-pager for distribution and additional comments (to be provided by Friday 26th February)
- Drafting of concept brief/budget proposal to reflect outcomes of this session

Thank you

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CABINET

WELLBEING IMPACT ASSESSMENT

Northside Hospital **ACTHD Wellbeing Impact 1**

Purpose of proposal

This proposal seeks funding to continue the planning and design development for a new hospital on the northside of Canberra and establish a funding envelope (in provision) for the construction of the hospital.

A new northside hospital would replace the existing infrastructure at Calvary Public Hospital Bruce (CPHB) that is nearing end of life, is capacity constrained and unable to support network wide system redundancy. The new northside hospital would deliver increased health service capacity for the ACT and provide infrastructure to support contemporary service delivery.

Impact description

Health is fundamental to wellbeing and an important domain within the wellbeing framework. Once operational, a new northside hospital is expected to improve a range of health outcomes by:

- providing facilities that enable contemporary models of care that contribute to safety and quality.
- providing improved user experience for staff, patients and visitors.
- increasing service capacity so that more people can access healthcare at the right time and in the right place.
- providing services closer to a growing and aging northside population, reducing demand pressures in the south side on Canberra and improving overall network resilience.

Magnitude of impact

- The hospital facilities will meet forecast clinical demand to 2041. The new hospital will be located on the north side of the ACT where population growth is significant. This will help relieve demand pressures on the south side of the ACT to improve overall network resilience.
- A new northside hospital will deliver facilities to enable implementation of contemporary models of care and support equitable access for all ACT residents. A major positive impact on patient and community outcomes is anticipated through-out the life of the new hospital.

Who is affected?

- **ACT residents -** the entire population of the ACT (456,652 in 2022)[1] will positively benefit, as greater capacity of services becomes available across the territory. Current estimations show that the ACT will need to provide an additional 275 adult acute inpatient beds and about 55 emergency treatment bays by 2036-37. This need will be met by the new hospital.

  Patients who do not directly use the new hospital would benefit from less crowded service provision at other locations. Given that the population is ageing, a larger proportion of people in older age groups will be positively impacted going forward. A new facility allows older people to be cared for in a building that meets modern design and accessibility expectations.

[1] ACT CMTED (2022), Estimated Resident Population — June Quarter 2022

WELLBEING IMPACT ASSESSMENT

- **Health care workers** will benefit as more jobs become available connected to the new hospital, and pressure is taken off those working at the current sites. New hospital facilities (including staff amenities, research and training spaces and end of trip facilities) will also improve the working environment for staff. The new northside hospital is anticipated to support a full time equivalent (FTE) workforce of 2,671.
- **Families and carers** will benefit from improved, modern and purpose-built facilities that will improve their experience of supporting patients while in hospital with updates to parking, waiting areas, retail and wayfinding. The modern facility will also enhance the recent introduction of digital health records and virtual care options – providing flexibility and accessibility to carers and patients.
- **Business and local economy –** a higher quality of health service provision should have an indirect positive effect on worker productivity across the local economy of the ACT, as a healthier population is less likely to take time off work due to ill health.

Aboriginal and Torres Strait Islander Peoples	Carers	Children and young people	Culturally and linguistically diverse people	LGBTIQ+ people	Older Canberrans	People with disability	Across gender
☒	☒	☒	☒	☒	☒	☒	☒

Wellbeing domain Health

Timeframe

Five years plus The new northside hospital is expected to be operational by 2030.

Evidence base and data

Evidence suggests that the demand for health-care services in the ACT is increasing and will overtake supply in the next five years. The population of the ACT is estimated to grow to approximately 554,000 by 2036 and 703,000 by 2058.[2] This represents an increase on the 2020 population by around 27% by 2036 and 61% by 2058. Over 50% of this population growth is expected to be concentrated in Canberra's north side.[3]

- **Chronic conditions:** There is rising incidence of acute and chronic conditions, with chronic conditions now the leading cause of illness, disability and death in Australia. [4] There is also a rise in the number of comorbidities as many are living with one or more chronic diseases. In 2017–18, almost half of all adults (48.5%) in the ACT had at least one of the following chronic diseases: arthritis, asthma, cancer, diabetes, mental illness or heart disease.[5] Of all adults, 20.3% had comorbidities or multi-morbidities.[6]
- **Mental health:** Mental health is a leading cause of disease in the ACT. In 2017-18, 20.8% of Canberrans aged 18 years and over had a mental or behavioural condition, 13.9% had an anxiety related condition and 10.3% reported depression or feelings of depression.[7]
- **People with a disability:** The proportion of ACT residents living with disability increased from 16.2% (or 62,000 people) in 2015 to 19.4% (or 80,000 people) in 2018.[8] More people in the ACT are living with profound or severe core activity limitations —18,800 people in 2015 compared to 25,800 in 2018.[9]
- **Obesity**: Obesity is a rising issue. In 2017–18 almost two-thirds of adults in the ACT were overweight or obese — around 37.6% were overweight and 26.4% were obese. Meanwhile, over one-quarter of children aged 2–17 was overweight or obese—around 22.1% of children were overweight and 7.4% were obese.[10]

20.8% of ACT adults felt it was hard to access specialist services while only 5.5% felt it was hard to access GP services.[11]

[2] ACT Government (2019), ACT Population Projection: 2018 to 2058, January 2019 (viewed at www.treasury.act.gov.au)
[3] ACT Government (2019), ACT Population Projection: 2018 to 2058, January 2019 (viewed at www.treasury.act.gov.au)
[4] ACT Government (2022), ACT Health Services Plan 2022-2030, page 20 (viewed at www.health.act.gov.au, page updated 24 October 2022)
[5] ACT Government (2022), ACT Health Services Plan 2022-2030, page 20 (viewed at www.health.act.gov.au, page updated 24 October 2022)
[6] Australian Bureau of Statistics (2018), National Health Survey: First Results, 2017-18 - Australia. Data cube: Table 2.3 Summary health characteristics - States and Territories, Proportion of persons, released 12 December 2018, (viewed at www.abs.gov.au)
[7] ACT Government (2022), ACT Health Services Plan 2022-2030, page 20 (viewed at www.health.act.gov.au, page updated 24 October 2022)
[8] Australian Bureau of Statistics (2019), Disability, Ageing and Carers, Australia: Summary of Findings,4430.0 – Disability, Ageing and Carers, Australia: Australian Capital Territory Data Cube, 24 October 2019, (viewed at www.abs.gov.au)
[9] ACT Government (2022), ACT Health Services Plan 2022-2030, page 20 (viewed at www.health.act.gov.au, page updated 24 October 2022)
[10] ACT Government (2022), ACT Health Services Plan 2022-2030, page 20 (viewed at www.health.act.gov.au, page updated 24 October 2022)
[11] Living Well in the ACT Region survey, University of Canberra (2020).

Collaboration and Engagement

Project governance framework

A governance structure for the Northside Hospital Project has been established to support timely, accountable and well-informed decision making. An Executive Steering Committee (ESC), provides leadership, oversight and advice relevant to the project. The ESC receives recommendations for the Project Control Groups and the Project Team in relation to the Project. ESC membership consists of representatives from ACT Health Directorate (ACTHD), Major Projects Canberra (MPC) and Chief Minister, Treasury and Economic Development Directorate (CMTEDD).

The ACTHD has also engaged MPC at an early stage to support infrastructure planning for the new northside hospital.

Stakeholder engagement

A communication and stakeholder engagement strategy, *Designing ACT health services for a growing population*, has been developed as a guide to engagement activity. Engagement activity will continue to inform the development decision making for the northside hospital.

A broad range of stakeholders have been identified and an engagement approach has been defined for each, as follows:

- **Work together:** ACTHD, Canberra Health Services (CHS) and Northside Hospital Project team
- **Involve:** CHS, CPHB (staff, volunteers and campus tenants), Aboriginal & Torres Strait Islander Liaison, Capital Health Network, Health Care Consumers' Association, Winnunga Nimmityjah Aboriginal Health and Community Services
- **Consult**: Community Councils, United Ngunnawal Elders Council, ACT Aboriginal and Torres Strait Islander Elected Body, non-government organisations (NGO) funded by ACTHD to deliver health services, health peak bodies, regional NSW health providers and services, unions, Women's Centre for Health Matters, Joint Advisory Council Chairs, priority population groups
- **Keep informed:** ACT community, other ACT Government Directorates.

A broad survey was issued to communities and stakeholders in August 2022. Phase two of the *Designing ACT health services for a growing population* engagement program for the Northside Hospital stream then opened for a six-week period from 18 October to 29 November 2022. This phase facilitated community consultation and stakeholder engagement to:

- Inform the public about planning for the new northside hospital
- Collect meaningful community and stakeholder feedback to ensure the ACT Government has a well-rounded understanding of what people want and need from a new hospital
- Deliver activities that facilitate effective listening of key stakeholders and the community to ensure they feel heard by the ACT Government.

A total of 409 people and organisations participated in the consultation. This represented 396 people who participated in online and in-person engagement activities. A further 10 key stakeholder organisations provided feedback through a stakeholder workshop, with three submissions to the Northside Hospital Project team received from stakeholders.

The community feedback centred around 11 key themes, with 60 per cent of responses focused on three themes of clinical services, experience and quality. The overarching theme of feedback from the stakeholders was a desire to ensure adequate services would be available to vulnerable communities. There was a strong desire for young people to be at the forefront of ACT Health's mind when making decisions pertaining to planning services and the design of the

building to ensure safe and flexible spaces are created and able to accommodate the rapidly growing population on the northside.

Consultation will continue to occur with key stakeholders and the community in line with key project milestones. It has been recommended that a social media schedule, messaging and products be developed to support distribution of messaging through ACT Government and ACTHD social media channels. For some ACT Government channels, this may require longer lead-times be prepared for in the implementation of this strategy.

Measures of Success

There are a range of potential performance measures that may be used to assess expected improvements in health outcomes.

In line with the ACT Capital Framework, preparation of the Benefits Realisation Plan has commenced and will be developed further as the project progresses. A cost benefit analysis has also been conducted on the project to help inform benefits realisation management and benefit tracking and reporting through delivery and operations.

As the project progresses further consideration will be given to suitable measures that align with benefits identified in the project's investment logic, relevant indictors within the Health domain of the wellbeing framework and objectives defined in the ACT Health Services Plan and Northside Clinical Services Plan (when finalised).

This may include leveraging existing reporting mechanisms with the current operator of CPHB or established industry measures.

Planned Evaluation

A detailed approach for the evaluation of the Northside Hospital Project will be further developed in subsequent project phases and is expected to include:

- Evaluation of the Northside Clinical Services Plan which will be undertaken as part of the overall framework and will form part of the public reporting.
- Implementation of the Benefits Realisation Management plan to track progress against identified benefits from delivery to operations.
- Evaluation of the new northside hospital against existing Calvary Network Agreement reported performance indicators and/or established mechanisms for hospital performance evaluation.

WELLBEING IMPACT ASSESSMENT

Northside Hospital ACTHD Wellbeing Impact 2

Purpose of proposal

This proposal seeks funding to continue the planning and design development for a new hospital on the northside of Canberra and establish a funding envelope (in provision) for the construction phase.

A new northside hospital would replace the existing infrastructure at Calvary Public Hospital Bruce (CPHB) that is nearing end of life, is capacity constrained and unable to support network wide system redundancy. The new northside hospital would deliver increased health service capacity for the ACT and provide modern infrastructure to support contemporary service delivery.

Impact description

Economic growth and job creation in the ACT:

- During operations the new hospital in the ACT will provide additional jobs in the ACT.
- The 'health and social assistance' sector forms a large part of the Australian economy and employs over 12.5% of workers.
- During construction, there will be additional jobs and economic stimulus in the north side of the ACT.

Magnitude of impact

- A major positive impact on economic growth and job creation in the ACT is anticipated through the Northside Hospital Project, from delivery to operations.
- During construction, there will be additional jobs and economic stimulus created.
- During operations, the new northside hospital will support a 2,671 FTE workforce
- The new northside hospital will provide a better working environment and research and training opportunities to support future ACT health workforce.

Who is affected?

- Those working in the healthcare, construction and any other associated industries (consulting, legal, infrastructure etc.) employed as a result of project.
- The ACT community will be impacted indirectly and over the longer-term, as an effect of increased economic activity in the area.

Aboriginal and Torres Strait Islander Peoples	Carers	Children and young people	Culturally and linguistically diverse people	LGBTIQ+ people	Older Canberrans	People with disability	Across gender
☒	☒	☒	☒	☒	☒	☒	☒

Wellbeing domain Economy

Timeframe

Five years plus The new northside hospital is expected to be operational by 2030.

Evidence base and data

Hospitals have been described as 'Economic Anchors' amongst communities, due to the way in which they create additional jobs and produce ripple down effects through the purchase of local

goods and services. Research in the U.S. has estimated that every $1 USD spent by a hospital supports $2.30 USD of additional business activity.

Recent economic analysis performed on a smaller sized hospital in Victoria identified that:

- The Victorian hospital would create about 375 new jobs during construction, and some 2,250 ongoing roles by 2035. However, a larger 500-bed hospital (e.g. the new northside hospital) on a greenfield site is likely to generate over 750 roles during the construction phase.
- Direct and spill-over benefits will add at least $300m to the local economy by 2035.

Australian hospitals employ 427,000 full time equivalent staff and have a total of 94,100 beds, a ratio of 4.5 staff per bed. The ongoing operation of a 500-bed hospital would be expected to employ about 2,250 people directly and generate another 1,575 roles in the proximity. Given the relevant salaries, this level of employment would add about $306m to local wages (in current dollars).

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As the project progresses further consideration will be given to suitable measures that align with benefits identified in the project's investment logic, relevant indictors within the health domain of the wellbeing framework and objectives defined in the ACT Health Services Plan and Northside Clinical Services Plan (when finalised).

Economic benefits would also be reflected in National statistical data used to track economic indicators within the wellbeing framework.

Planned Evaluation

A detailed approach for the evaluation of the Northside Hospital Project will be further developed in subsequent project phases and is expected to include:

- Evaluation of the Northside Clinical Services Plan which will be undertaken as part of the overall framework and will form part of the public reporting.
- Implementation of the Benefits Realisation Management plan to track progress against identified benefits from delivery to operations.
- Evaluation of the new northside hospital against existing Calvary Network Agreement reported performance indicators and/or established mechanisms for hospital performance evaluation.

Sensitive

A New Northside Hospital Options Assessment Report

Rev E

March 2023

Version history

Author:	ACT Health Directorate (ACTHD), Major Projects Canberra (MPC) and PricewaterhouseCoopers (PwC)
Version:	E
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Rev A	Initial working draft of Chapters 2-4	January 2023	PwC
Rev B	First draft for ACTHD and MPC Review	3 February 2023	PwC
Rev C	Final draft for ACTHD and MPC Review	22 February 2023	PwC
Rev D	Final draft report	17 March 2023	PwC
Rev E	Revised final draft report	22 March 2023	PwC

Glossary

Term	Definition
ACT	Australian Capital Territory
ACTHD	Australian Capital Territory Health Directorate
APZ	Asset Protection Zone
AusHFG	Australasian Health Facility Guidelines
CCU	Critical care unit
CHS	Canberra Health Services
CMETDD	Chief Minister, Treasury and Economic Development Directorate
CNA	Calvary Network Agreement
CPHB	Calvary Public Hospital Bruce
ED	Emergency department
HSP	Health Services Plan
ICT	Information communication technology
ICU	Intensive care unit
ILM	Investment logic map
ILW	Investment logic workshop
IPU	Inpatient unit
MCA	Multi criteria analysis
MoC	Model of care
MPC	Major Projects Canberra
POC	Points of Care
OPMHIU	Older persons mental health inpatient unit
POC	Points of care
R&M	Repairs and maintenance
SAMP	Strategic Asset Management Plan
SoA	Schedule of accommodation
Sqm	Square meters

Contents

1. Executive summary

Background to the new Northside Hospital

The Australian Capital Territory Health Directorate (**ACTHD**) is currently developing the *New Northside Hospital Business Case* (the 'Business Case') to consider the delivery of a new hospital on the northside of the Australian Capital Territory (**ACT**) (referred to as the Northside Hospital project, or the 'Project'). The Business Case proposes a Northside Hospital that will deliver the required capacity to meet demand to 2040-41 and improve the overall resilience and redundancy of the Territory wide health system. It will also bring together a range of contemporary hospital services, holistic consumer centred care and flexible models of care (**MoC**) to meet the growing and changing needs of the community now and into the future.

By mid-decade, the demand for clinical services on the fast-growing northside of the ACT is forecasted to be greater than the capacity that Calvary Public Hospital Bruce (**CPHB**) can deliver. Current capacity and infrastructure limitations at CPHB, and across the entire ACT Health Network, will result in longer wait times for patients to access core services and inefficient health service delivery.

The Business Case is seeking funding to deliver on the Parliamentary and Governing Agreement: 10th Legislative Assembly for the ACT's commitment to *"...continue the planning and design work for a new Northside Hospital, with the aim to start construction by mid--decade"* through identification and scoping of a range of suitable options for the delivery of a new Northside Hospital to respond to the above challenges and meet community needs.

In line with the key strategies and actions from the *ACT Health Services Plan* (**HSP**), the Northside Hospital will complement, strengthen and improve the accessibility of the existing ACT public health network, including recent investments such as the Canberra Hospital Expansion and the Watson Community Health Precinct.[1] The Project seeks to improve the health and wellbeing of the ACT community by increasing capacity through the development and delivery of a new Northside Hospital at either:

- The existing CPHB campus
- A nominated greenfield site in Canberra's north.

The Business Case is currently being developed to document the proposal for the Northside Hospital and to support a funding decision to progress to detailed design and establishment of a funding envelope (in provision) for the capital works to deliver the new hospital.

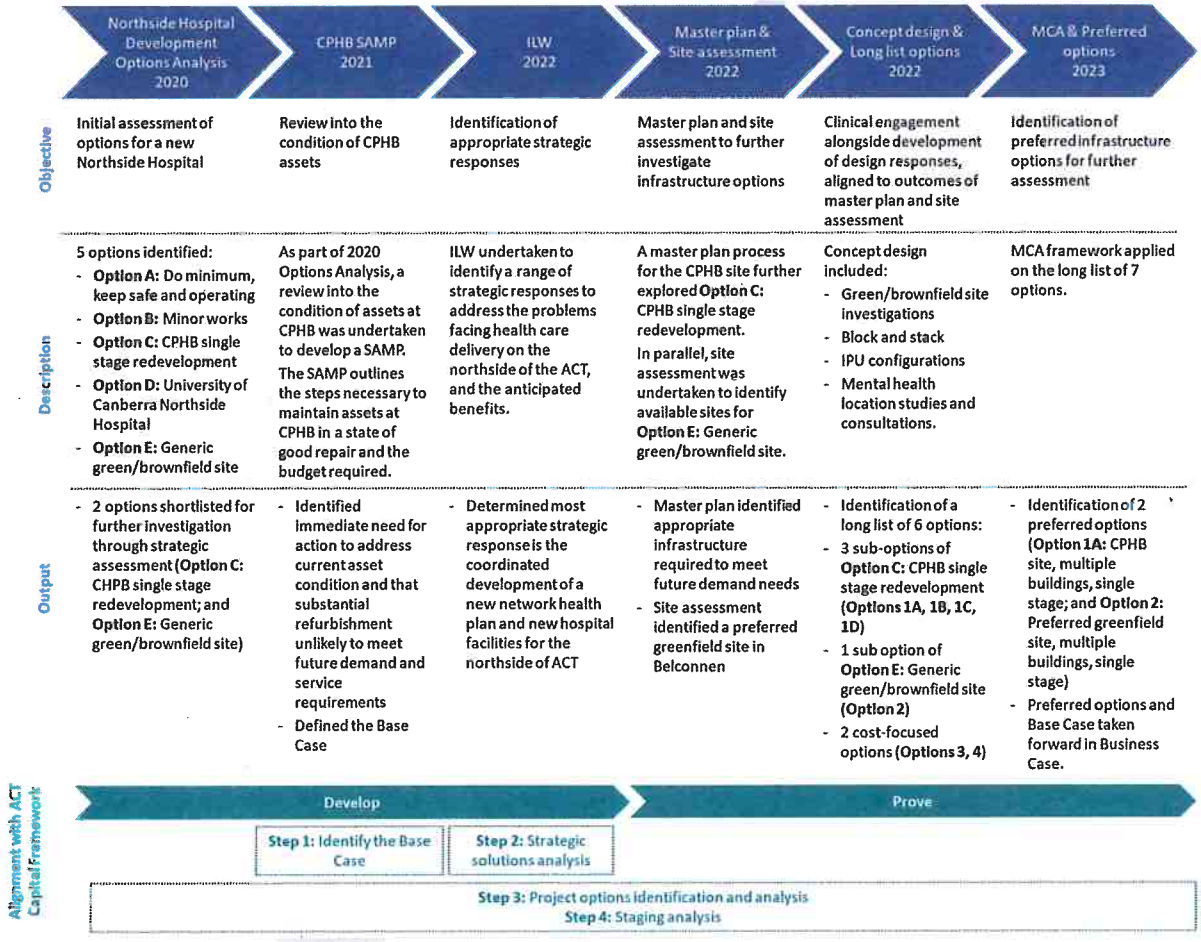
This Options Assessment Report outlines the process of identification and assessment of a range of potential options to address the existing challenges facing the delivery of healthcare on the northside of the ACT and deliver on the benefits identified through the Investment Logic Map (**ILM**) process. This Options Assessment Report is focussed on the infrastructure options that have been identified to meet these objectives.

[1] ACT Government Health (2022), ACT Health Services Plan, 2022 2030 (viewed at www.health.act.gov.au, page updated 24 October 2022)

Option identification and development

In 2020, the *Northside Hospital Development Options Analysis*, conducted by AECOM Australia Pty Ltd, identified and assessed five project options. This work confirmed that to increase capacity in the health system on the northside, a new hospital would be required. An Investment Logic Workshop (**ILW**) undertaken in early 2022 confirmed a new hospital as the appropriate strategic response to the problems identified. Throughout 2022, and in the development of the Business Case, a range of infrastructure options were identified and developed to deliver this new hospital. This process is summarised in Figure 1.

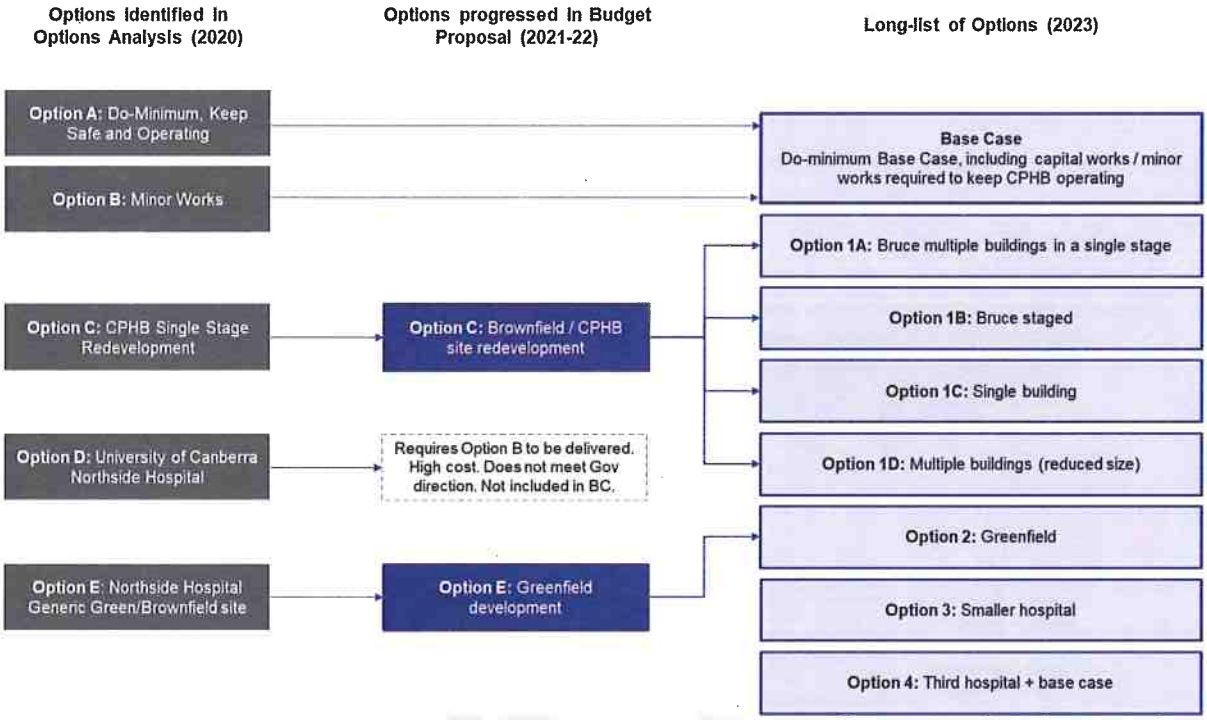
Figure 1: Options identification and assessment process



Source: AECOM Australia Pty Ltd (2020), Northside Hospital Development Options Analysis, 7 September 2020; AECOM Australia Pty Ltd (2021), CPHB Strategic Asset Management Plan, 16 April 2021; BVN (2022), Northside Hospital Master Plan Report; BVN (2022), Northside Hospital Campus Greenfield site assessment; Appendix A, Northside Hospital Development ILM workshop and ILM; BVN (2022), Northside Hospital Concept Design Report.

Based on the outcomes of the master plan and site assessment, a concept design process commenced in 2022 for a new Northside Hospital. Through this process, including engagement with clinicians, a long list of seven capital options was identified, as summarised in Figure 2. All options aligned to the strategic responses and meet the established need as identified in the ILW process.

Figure 2: A New Northside Hospital options identification process



Source: AECOM Australia Pty Ltd (2020), Northside Hospital Development Options Analysis, 7 September 2020; ACTHD and MPC (2022)

Table 1 presents a summary of the long list of seven options considered as part of the Business Case.

Table 1: Long list options summary

Name	Site	Description	CNA continuation	Capacity year	Shelled space	Total capacity at commissioning	[redacted]
Base Case	Bruce campus	A do minimum scenario where assets are maintained through a risk based approach to keep the hospital safe and operating.	Yes	2022	No	- Multiday beds: 249 - Emergency department (**ED**) points of care (**POC**): 80 - Operating suites: 7 - Ambulatory: 17	[redacted]
Option 1A: Bruce multiple buildings in a single stage	Bruce campus	Redevelopment of the existing Bruce campus to deliver a new hospital with a stand-alone mental health facility. Delivery of an 800-space carpark.	Subject to negotiation and value for money	2040-41	Yes	**2030/31** - Multiday beds: 434 - ED POC: 81 - Operating suites: 15 - Ambulatory: 154 **2040/41** - Multiday beds: 543 - ED POC: 99 - Operating suites: 17 - Ambulatory: 164	[redacted]
Option 1B: Bruce staged	Bruce campus	As per Option 1A, with a staged delivery of the stand-alone mental health facility. Delivery of an 800-space carpark.		2040-41	Yes		[redacted]
Option 1C: Single building	Bruce campus	Redevelopment of the existing Bruce campus to deliver a new hospital in a single building (including mental health). Delivery of an 800-space carpark.		2040-41	Yes		[redacted]
Option 1D: Multiple buildings (reduced size)	Bruce campus	Redevelopment of the existing Bruce campus to deliver a smaller, new hospital with a stand-alone mental health facility. Delivery of a 600-space carpark.	Subject to negotiation and value for money	<2030 for ambulatory care 2040-41 for critical services[4]	No	- Multiday beds: 452 - ED POC: 99 - Operating suites: 17 - Ambulatory: <154	[redacted]
Option 2: Greenfield	Preferred greenfield site	Development on a preferred greenfield site to deliver a new hospital with a stand-alone mental health facility. Delivery of an 800-space carpark.		2040-41	Yes	- Multiday beds: 543 - ED POC: 99 - Operating suites: 17 - Ambulatory: 164	[redacted]
Option 3: Small hospital	Site agnostic (brownfield / greenfield)	Development of a new hospital to meet 2030-31 demand. Delivery of a 600-space carpark.		2030-31	No	- Multiday beds: 434 - ED POC: 81 - Operating suites: 15 - Ambulatory: 154	[redacted]
Option 4: Third hospital + base case	Site agnostic (greenfield)	Continuation of health services at the existing CPHB and the development of an additional smaller greenfield hospital to meet demand to 2040-41. Delivery of a 600-space carpark.	Yes – for existing CPHB	2040-41	No	- Multiday beds: 294 - ED POC: 19 - Operating suites: 10 - Ambulatory: 147	[redacted]

[redacted]

Project and staging options assessment

A Multi-Criteria Analysis (**MCA**) framework was developed to support identification of the preferred infrastructure option to meet the clinical service needs on the northside of the ACT. A workshop was conducted in consultation with ACTHD and Major Projects Canberra (**MPC**) to rank and score each of the long list options.

The MCA results determine that Option 2 ranks the highest against the established criteria, followed by Option 1A. Both Options 1A and 2 deliver increased inpatient capacity to service the community to 2040-41, including a stand-alone mental health facility designed to better support patient recovery. Through the delivery of new and contemporary facilities, both options support improved quality of care, better support the training and development of the workforce and improve the sustainability and resilience of the health network.

Option 2 scores marginally higher against improved wellbeing outcomes due to flexibility for future expansion, opportunities for health partnerships with the local Aboriginal community and improved patient and carer access to the natural environment. Compared to Option 2, Option 1A involves a slightly lower level of operational efficiency and higher level of delivery risk due to the location of the mental health facility on the northern block which is constrained by asset protection zone (**APZ**) requirements.

The two shortlisted options will be further explored through economic and financial analysis within the Business Case to determine value for money to the ACT Government.

The outcomes of the MCA are presented in Table 2.

Table 2: MCA outcomes[2]

	Objectives / benefits of Project	MCA criteria	Base Case	Option 1A Bruce multiple buildings in a single stage	Option 1B Bruce staged	Option 1C Single building	Option 1D Multiple buildings (reduced size)	Option 2 Greenfield	Option 3 Smaller hospital	Option 4 Third hospital + base case
Access	Improve health and wellbeing for the ACT community	1) Meets current and future healthcare demand and reduces patient wait times	D	A	A	A	B	A	C	B
		2) Provides appropriate health services in a location of population growth	C-	A	A	B	B	A-	B	B
		3) Improves patient and carer wellbeing outcomes	D	A+	A	B	A	A+	B	C-
Accountability	Improve staff wellbeing, retention and training capacity	4) Develops the skills and flexibility of the ACT healthcare workforce	D	A	A	A	C	A	B	C
		5) Improves staff wellbeing and experience	D	A	A	A	B	A	B	C
Sustainability	Provide a contemporary healthcare environment	6) Enables contemporary MoC	D	A	A	A	C	A	B	C
		7) Supports digital capabilities for a sustainable and innovative health system	D	A	A	A	A	A	A	C
	Increase resilience of ACT health network	8) Improves system redundancy and response to major health events	D	A	A	A	A	A	B	B
	Improve operational outcomes	9) Improves operational efficiency of the hospital and ACT health network	D	A-	A-	A	B	A	B	C
Deliverability and operability	Asset performance	10) Order of magnitude capital costs and removal of asset maintenance backlog	A	C	C	C	C	C	C	B
	Delivery and operating risk	11) Level of delivery and operating risk (including operational disruption at CPHB)	B	C	D	C	C	B	C	C
		12) Level of planning and program risk (including approvals and public acceptance)	A	C	C-	B	C	D	B-	B-
		13) Certainty of land tenure	D	D	D	D	D	A	B	B
		Overall ranking	8	2	4	3	6	1	5	7

[2] The MCA undertakes a qualitative analysis of project characteristics with affordability measured through economic and financial analysis within the Business Case

Key next steps

The two shortlisted options (Option 1A and Option2) will be further explored through economic and financial analysis within the Business Case. This will be to identify the preferred capital solution and associated site to progress to the next stage of detailed design and planning works, for which funding is being sought through the Business Case.

A separate parallel process is currently underway to consider the operating model to support the proposed capital solution. The outcomes of this process will inform future decision making and planning as part of the planning phase for the Project.

The detailed design scope of works will include confirmation of operator, further site surveys, planning approvals, detailed design, ECI appointment and period and development of the enabling works and main works business cases.

2. Background to the new Northside Hospital

2.1 Background and context

The Australian Capital Territory Health Directorate (**ACTHD**) is currently developing the *New Northside Hospital Business Case* (the 'Business Case') to consider the delivery of a new hospital on the northside of the Australian Capital Territory (**ACT**) (referred to as the Northside Hospital project, or the 'Project'). The Business Case proposes a Northside Hospital that will deliver the required capacity to meet demand to 2040-41 and improve the overall resilience and redundancy of the Territory wide health system. It will also bring together a range of contemporary hospital services, holistic consumer centred care and flexible models of care (**MoC**) to meet the growing and changing needs of community now and into the future.

By mid-decade, the demand for clinical services on the fast-growing northside of the ACT is forecasted to be greater than the capacity that Calvary Public Hospital Bruce (**CPHB**) can deliver. Current capacity and infrastructure limitations at CPHB, and across the entire ACT Health Network, will result in longer wait times for patients to access core services and inefficient health service delivery.

The Northside Hospital project will deliver a new expanded hospital to serve the growing population in Canberra's northern suburbs (as well as to the broader ACT and surrounding NSW). This will enable the ACT Government to decommission the existing CPHB and its ageing infrastructure.

In line with the key strategies and actions from the *ACT Health Services Plan* (**HSP**), the Northside Hospital will complement, strengthen and improve the accessibility of the existing ACT public health network, including recent investments such as the Canberra Hospital Expansion and Watson Community Health Precinct.[3] The Project seeks to improve the health and wellbeing of the ACT community by increasing capacity through the delivery of a new Northside Hospital at either:

- The existing CPHB campus
- A nominated greenfield site in Canberra's north.

The key objectives of the Project are to provide:

- Greater capacity in the healthcare system in the north of the ACT
- Patient focused / community focused care that improves patient outcomes
- A hospital that is agile and flexible, with a whole-of-life focus
- Greater alignment of health service delivery across the ACT
- New health infrastructure that is contemporary, safe and appropriate to support the delivery of modern, high quality healthcare.[4]

The Business Case documents the proposal for the Northside Hospital to support a funding decision to progress to the next stage of the Project and to seek the establishment of a funding envelope (in

[3] ACT Government Health (2022), ACT Health Services Plan, 2022 2030 (viewed at www.health.act.gov.au, page updated 24 October 2022)
[4] ACT Government (2023), A New Northside Hospital Business Case, Draft, February 2023

provision). The Business Case seeks to obtain agreement from the ACT Government on the following:

- The preferred site for the new Northside Hospital, either on the current Bruce campus, or a greenfield development on a new site
- The preferred facility, either a single development, or multiple facilities
- The preferred staging, either single stage or multiple stage development
- The preferred capacity for the Northside Hospital.[5]

2.2 Option development process to date

In 2017-18, the ACT Government invested $3.25 million in a scoping study into the expansion of health facilities on the northside of the ACT, including a clinical feasibility and service planning assessment to consider optimal provision of outpatient and general hospital facilities in Canberra's northern suburbs.[6]

In 2020, AECOM Australia Pty Ltd conducted an initial assessment of potential options for the delivery of expanded health services on the northside into the future. This was undertaken through an Options Analysis report. The Options Analysis report identified five options, summarised below:

- **Option A: Do minimum, keep safe and operating** – This is the equivalent of a 'do nothing' scenario and is considered unacceptable due a failure to address both the backlog maintenance and high risk 'minor works'. It is provided as the base case for comparative purposes to the capital intervention options. This option proposes that only highest priority capital works are implemented, and other assets are 'sweated', managed through repairs and maintenance (**R&M**) budgets. CPHB continues to operate as it currently stands. This option does not accommodate growth in demand or clinical services.
- **Option B: Minor works** – This option proposes a risk-based approach to capital replacement through minor works in the short to medium term to extend the lifespan of the facility. These minor works aim to maintain the existing assets in an adequate condition. This option is the minimum required to maintain operations at CPBH with manageable risks. This option does not accommodate growth in demand or clinical services.
- **Option C: CPHB single stage redevelopment** – This option includes the demolition of Residences A & B, Lewisham and the childcare centre at CPHB. This enables the release and creation of a site for a new hospital, which accommodates the clinical demand requirements to 2036-37. This option is proposed to be delivered in a single stage.
- **Option D: University of Canberra Northside Hospital** – This option includes the construction of a new hospital which accommodates the clinical and demand requirements to 2036-37 in a single stage adjacent to the University of Canberra Hospital.

[5] ACT Government (2023), A New Northside Hospital Business Case, Draft, February 2023
[6] ACT Health (2022), Northside Hospital Planning Project

- **Option E: Generic green / brownfield site –** This option includes the construction of a new hospital which accommodates the clinical and demand requirements to 2036-37 in a single stage on a generic greenfield / brownfield site.[7]

A strategic assessment was conducted on the five identified options, considering a full range of social, environmental, technical, economic and financial criteria and adopted three weighting scenarios: balanced cost and user benefits scenario; cost-constrained scenario; and user benefits prioritised scenario.

Option E: Generic green/brownfield site was the highest ranked option for all weighted scenarios due to its moderate capital cost, assumed improved accessibility, space for future proofing, limited constructability issues and minimal operational disruption. Option C: CPHB singe stage redevelopment ranked second against the raw scoring, balanced cost and user benefits and user benefits prioritised scenarios. It scored lowest in the cost constrained scenario. Option D: University of Canberra Northside Hospital was identified as high cost (as it requires Option B to be delivered in parallel) and does not meet ACT Government direction. As a result, Option D: University of Canberra Northside Hospital was ranked lower and has not been further explored.[8]

In 2020, the ACT Government agreed to progress the two highest ranking options (Options E: Generic green/brownfield site and C: CPHB single stage redevelopment) through to Business Case in 2023-24.

2.3 Purpose of the Options Assessment Report

This Options Assessment Report identifies and assesses potential options to address challenges facing the delivery of healthcare on the northside of the ACT, meet the objectives of the Project and deliver on the benefits identified through the Investment Logic Workshop (**ILW**) process. It supports the Business Case and should be read in conjunction with that document.

This report has been developed in alignment with:

- ACT Government (2022), ACT Capital Framework, Options Analysis Process[9]
- ACT Government (2022), ACT Capital Framework, Detailed Technical Guidance, Economic Appraisal[10]
- ACT Government (2022), ACT Capital Framework, Detailed Technical Guidance, Multi-Criteria Analysis[11]
- Infrastructure Australia (2021), Infrastructure Australia Assessment Framework: Guide to Multi-Criteria Analysis.[12]

[7] AECOM Australia Pty Ltd (2020), Northside Hospital Development Options Analysis, 7 September 2020
[8] AECOM Australia Pty Ltd (2020), Northside Hospital Development Options Analysis, 7 September 2020
[9] ACT Government (2022), ACT Capital Framework, Options Analysis Process (viewed at www.treasury.act.gov.au/capitalframework)
[10] ACT Government (2022), ACT Capital Framework, Detailed Technical Guidance, Economic Appraisal (viewed at www.treasury.act.gov.au/capitalframework)
[11] ACT Government (2022), ACT Capital Framework, Detailed Technical Guidance, Multi-criteria Analysis (viewed at www.treasury.act.gov.au/capitalframework)
[12] Infrastructure Australia (2021), Guide to multi-criteria analysis, Technical guide of the Assessment Framework, July 2021 (viewed at www.infrastructureaustralia.gov.au)

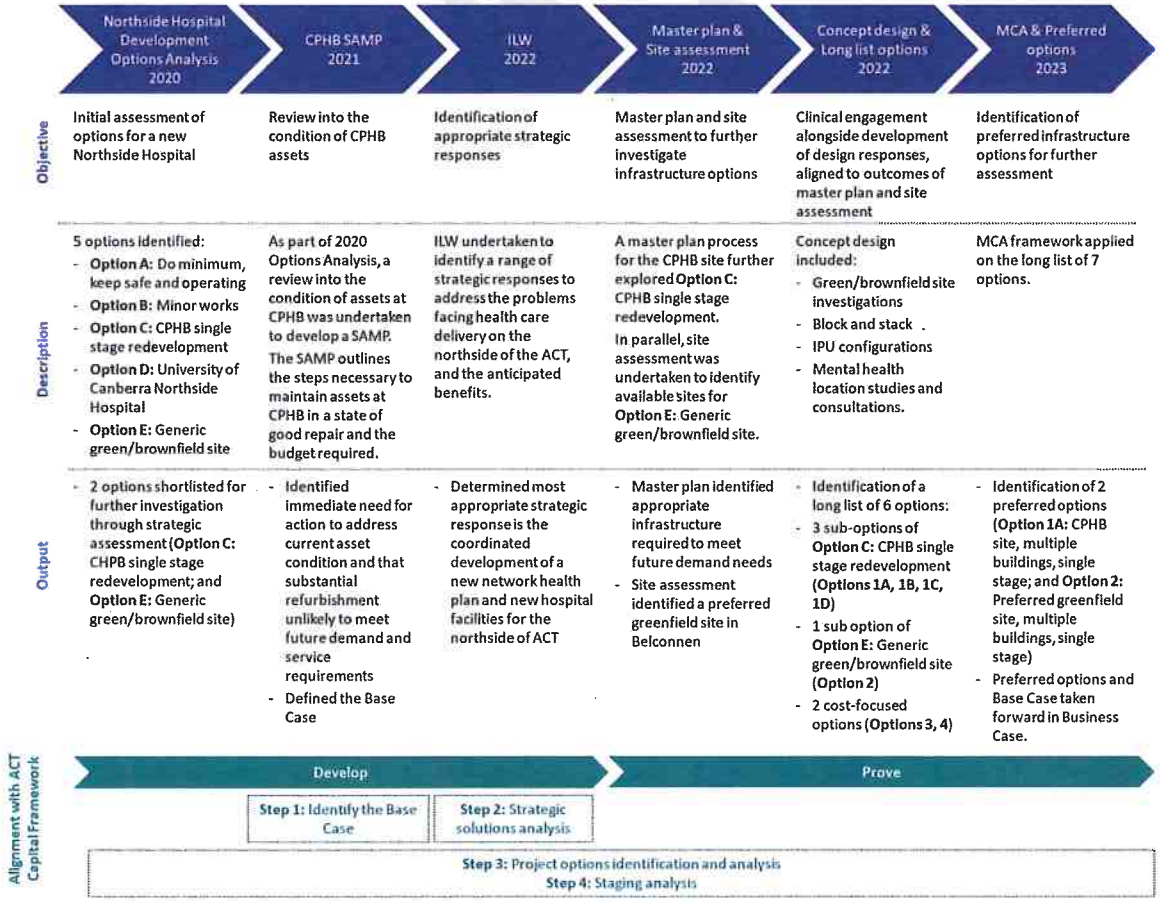
3. Option identification and development

3.1 Option analysis process

In 2020, the *Northside Hospital Development Options Analysis* conducted by AECOM Australia Pty Ltd, identified and assessed five options to support delivery of health services on the northside of the ACT. This work confirmed that to increase capacity in the health system a new hospital on the northside would be required. As shown in Figure 3, an options development process involving development of the CPHB SAMP, ILW, master planning and concept design has been undertaken since then, to identify a refined long list of seven options and inform the Business Case for the new Northside Hospital.

The options identification and assessment process for the new Northside Hospital has been conducted in alignment with the ACT Capital Framework Options Analysis Process (ACT Government, 2022).[13] In the options analysis process for the new Northside Hospital, staging analysis (Step 4) has been conducted within the options identification and analysis (Step 3) to enable informed decision-making on the preferred options (considering the significant impact staging may have on the preferred solution).

Figure 3: Options identification and assessment process



[13] ACT Government (2022), ACT Government Capital Framework (viewed at www.treasury.act.gov.au/capitalframework)

Source: PwC (2023) based on AECOM Australia Pty Ltd (2020), Northside Hospital Development Options Analysis, 7 September 2020; AECOM Australia Pty Ltd (2021), CPHB Strategic Asset Management Plan, 16 April 2021; BVN (2022), Northside Hospital Master Plan Report; BVN (2022), Northside Hospital Campus Greenfield site assessment; Appendix A, Northside Hospital Development ILM workshop and ILM; BVN (2022), Northside Hospital Concept Design Report.

3.2 Northside Hospital Development Options Analysis (2020)

The options identification and assessment process for the Project commenced in 2020 with the *Northside Hospital Development Options Analysis* conducted by AECOM Australia Pty Ltd (see section 2.2). The purpose of the Options Analysis was to consider and inform the decision-making process on the strategic options for delivering public hospital health services on the northside of the ACT into the future. AECOM's strategic assessment identified five options that best responded to the service need.

Subsequently, two project options were short listed for further investigation: Option C: CPHB single stage redevelopment on the existing Bruce Campus site and Option E: Generic green/brownfield site. These options were further explored through the Northside Hospital Budget Proposal submitted for the 2021-22 ACT Budget.

3.3 CPHB Strategic Asset Management Plan (2021)

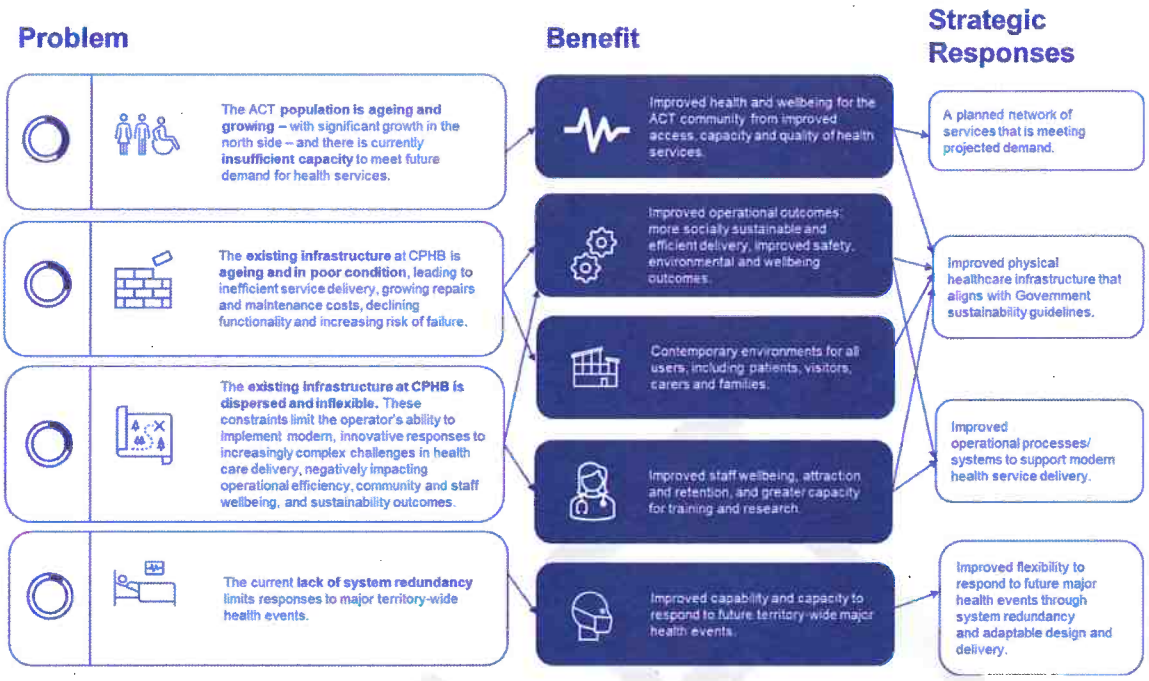
As part of the *Northside Hospital Development Options Analysis*,[14] a review into the condition of assets at CPHB was undertaken to develop a Strategic Asset Management Plan (**SAMP**)[15]. The outcomes of the SAMP formed the definition of the Base Case, as detailed in Section 4.1.

3.4 ILW (2022)

In May 2022, an ILW was conducted with participants from the Project team and key stakeholders from the ACT Government including ACTHD, Major Projects Canberra (**MPC**), the Chief Minister, Treasury and Economic Development Directorate (**CMTEDD**), Emergency Management, Development and Implementation, ACT Government Solicitors office, Canberra Health Services (**CHS**), and ACT Capital Treasury (see Appendix A of the Business Case for further details). The ILW identified a range of strategic responses to address the challenges currently facing the delivery of healthcare on the northside of the ACT, and target benefits to be achieved by addressing these challenges, as presented in Figure 4.

14 AECOM Australia Pty Ltd (2020), Northside Hospital Development Options Analysis, 7 September 2020
15 AECOM Australia Pty Ltd (2021), CPHB Strategic Asset Management Plan, 16 April 2021

Figure 4: A New Northside Hospital ILM



Source: ACTHD and MPC (2022)

The strategic responses (solutions) identified through the ILW process include both capital and non-capital solutions to address the key challenges. These have been mapped against the possible strategic responses identified in the ACT Government Capital Framework (2022) in Table 3.

Table 3: Alignment of strategic responses with the ACT Government Capital Framework

Strategic responses	Examples	Strategic responses for a new Northside Hospital
Regulatory changes	- Regulatory regimes - Market frameworks - Improved standards - Licensing - Pricing structures - Queueing and rationing	- N/A
Changes to improve asset use	- Active management systems - Intelligent systems - Smart cards or metering - Pricing and demand management	- Improved flexibility to respond to future major health events through system redundancy and adaptable design and delivery
Governance changes	- Administrative and institutional frameworks - Public service delivery processes - Approval processes - Contractual provisions	- N/A - Current contractual arrangements are being explored external to the Business Case process
Capital investment	- Expansion of existing infrastructure	- Increased health system capacity through expanded infrastructure

Strategic responses	Examples	Strategic responses for a new Northside Hospital
	- New infrastructure - Programs of projects from across a network	- Improved healthcare infrastructure that aligns with Government sustainability guidelines
Service changes	- Service delivery / quality reform - Comfort and amenity programs - Information and open data	- A planned network of services with increased capacity to meet projected demand - Improved operational processes / systems to support modern health service delivery
Land use reform	- Planning or land use controls - Strategic regional planning - Integrated decision-making	- N/A

Source: ACT Government (2022), ACT Capital Framework, Detailed Technical Guidance, Options Analysis (viewed at www.treasury.act.gov.au/capitalframework); ACTHD and MPC (2022)

The range of strategic responses highlights that there is not a single capital or non-capital solution to meet the key challenges facing the delivery of healthcare on the northside of the ACT. The preferred solution requires a mix of all strategic responses as there is the need for reform across a range of areas, including health planning, infrastructure development as well as health service operations and workforce capability. If implemented, these reforms are expected to deliver a range of outcomes, including:

- Additional capacity to meet future demand for health services that are technology-enabled, functional, flexible, sustainable and adaptable for the northside of the ACT
- Improved risk management systems to identify safety measures and hazards and implementation of a proactive planned maintenance program
- Improved alignment with the ACT HSP as well as the ACT Climate Strategy
- A user-centric experience that accommodates the entire journey of care for both the consumers, carers and family, promotes healing, improves accessibility and is culturally appropriate
- A future-ready workforce
- Improved capability to respond to future health events / pandemics.

The mapping of problems, benefits and strategic responses highlighted that the foundation of an appropriate strategic response is the co-ordinated development of a new network health plan and new hospital facilities for the northside of Canberra.

3.5 Master plan and site assessment (2022)

Commencing in early 2022, a master plan process for the Bruce campus further explored Option C: CPHB single stage redevelopment to demonstrate the indicative footprint of a proposed hospital and its relationship to the broader site. The master plan process was structured around a series of engagement sessions with key stakeholders, including ACT Health, MPC and Calvary.

In response to the shared aspiration to create a people-centred, healing environment that provides improved access to health services and enhanced health outcomes for the community, 11 Master Plan principles were developed as presented in Figure 5.

Figure 5: Master Plan principles

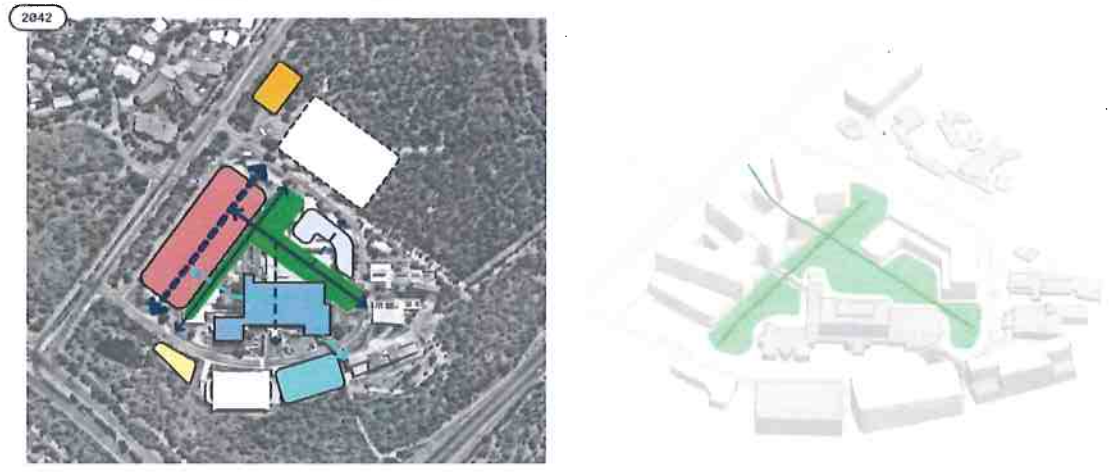
Source: PwC adapted from BVN (2022), Northside Hospital Master Plan Report

The master plan considered a flexible framework to support the testing of multiple options for the new Northside Hospital on the existing Bruce campus. The options were based on the following assumptions:

- A proposed concept design site area defined by the need to retain critical infrastructure including Xavier and Marian buildings, Keaney Building and intensive care unit (**ICU**) / critical care unit (**CCU**), without interruption until completion of the concept design building
- Inclusion of logistics hub within Concept Design
- Rationalised approach to vehicular circulation
- Interconnected pedestrian network and green spine
- Green campus.

It was determined that the demolition of the Marian Building and location of the carpark outside of the ring road most closely aligned with the master plan principles and provided the most advantageous outcome with respect to pedestrian circulation and maximisation of green space. Figure 6 presents the preferred option out of the master plan process.

Figure 6: Preferred Master Plan option



Source: BVN (2022), Northside Hospital Master Plan Report

Prior to the commencement of the master plan in 2022, a site assessment was progressed to confirm the available sites for Option E: Generic green/brownfield site. The site assessment involved the development of a long list of options across government, and subsequent assessment against criteria to determine ranking. These sites were then further refined in partnership with the Environment, Planning and Sustainable Development Directorate.

Two sites (Belconnen and Lyneham) formed the shortlist for assessment by the Technical Advisory Team. The two selected greenfield sites were assessed based on the following criteria:

- Location
- Functionality
- Urban design
- Context and connectivity
- Economic
- Governance
- Social
- Planning process.

The criteria assessment, supported by site studies and desktop due diligence, identified the Belconnen site as the preferred greenfield site for a Northside Hospital. This is explored in more detail in Section 4.3.

3.6 Concept design and long list options (2022)

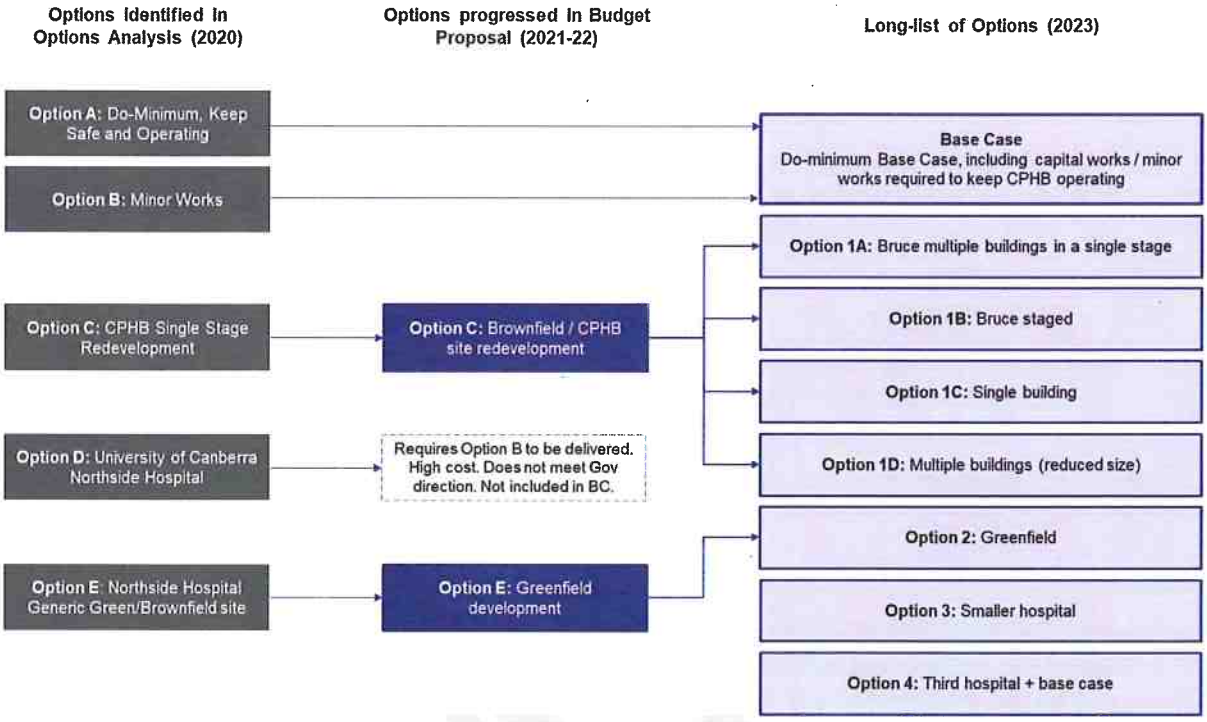
The concept design process commenced in 2022 for both Option C: CPHB single stage redevelopment and Option E: Generic green/brownfield site building on the outcomes of the master plan and site assessment process.

The concept design was developed to present a vision of how a new Northside Hospital could be shaped to meet the needs of the population. It involved in depth studies of site assessments, hospital block and stack, staging, inpatient unit (**IPU**) and podium configurations and massing. Several configurations and design options were prepared through this process. As presented in

Figure 7, a refined long list of seven options was informed by clinical planning, functional relationships and site constraints:

- Four options for redevelopment on the existing Bruce campus site associated with Option C: CPHB single stage redevelopment of the 2020 Options Analysis (Options 1A, 1B, 1C, 1D).
- One option for a greenfield site development associated with Option E: Generic green/brownfield site of the 2020 Options Analysis (Option 2).
- Two smaller scale and site agnostic options (Options 3, 4).

Figure 7: A new Northside Hospital options identification process



Source: AECOM Australia Pty Ltd (2020), Northside Hospital Development Options Analysis, 7 September 2020; ACTHD and MPC (2022)

The Business Case for the Northside Hospital is for the infrastructure project, addressing the immediate clinical need. It does not address the proposed operating model of the hospital. The long list of seven options considered as part of the Business Case are summarised in Table 4 below, and further detailed in the following sections.

Table 4: Long list options summary

Name	Site	Description	CNA continuation	Capacity year	Shelled space	Total capacity at commissioning	[redacted]
Base Case	Bruce campus	A do minimum scenario where assets are maintained through a risk based approach to keep the hospital safe and operating.	Yes	2022	No	- Multiday beds: 249 - Emergency department (**ED**) points of care (**POC**): 80 - Operating suites: 7 - Ambulatory: 17	[redacted]
Option 1A: Bruce multiple buildings in a single stage	Bruce campus	Redevelopment of the existing Bruce campus to deliver a new hospital with a stand-alone mental health facility. Delivery of an 800-space carpark.	Subject to negotiation and value for money	2040-41	Yes	**2030/31** - Multiday beds: 434 - ED POC: 81 - Operating suites: 15 - Ambulatory: 154 **2040/41** - Multiday beds: 543 - ED POC: 99 - Operating suites: 17 - Ambulatory: 164	[redacted]
Option 1B: Bruce staged	Bruce campus	As per Option 1A, with a staged delivery of the stand-alone mental health facility. Delivery of an 800-space carpark.	Subject to negotiation and value for money	2040-41	Yes	**2030/31** - Multiday beds: 434 - ED POC: 81 - Operating suites: 15 - Ambulatory: 154 **2040/41** - Multiday beds: 543 - ED POC: 99 - Operating suites: 17 - Ambulatory: 164	[redacted]
Option 1C: Single building	Bruce campus	Redevelopment of the existing Bruce campus to deliver a new hospital in a single building (including mental health). Delivery of an 800-space carpark.	Subject to negotiation and value for money	2040-41	Yes	**2030/31** - Multiday beds: 434 - ED POC: 81 - Operating suites: 15 - Ambulatory: 154 **2040/41** - Multiday beds: 543 - ED POC: 99 - Operating suites: 17 - Ambulatory: 164	[redacted]
Option 1D: Multiple buildings (reduced size)	Bruce campus	Redevelopment of the existing Bruce campus to deliver a smaller, new hospital with a stand-alone mental health facility. Delivery of a 600-space carpark.	Subject to negotiation and value for money	<2030 for ambulatory care 2040-41 for critical services[4]	No	- Multiday beds: 452 - ED POC: 99 - Operating suites: 17 - Ambulatory: <154	[redacted]
Option 2: Greenfield	Preferred greenfield site	Development on a preferred greenfield site to deliver a new hospital with a stand-alone mental health facility. Delivery of an 800-space carpark.	Subject to negotiation and value for money	2040-41	Yes	- Multiday beds: 543 - ED POC: 99 - Operating suites: 17 - Ambulatory: 164	[redacted]
Option 3: Small hospital	Site agnostic (brownfield / greenfield)	Development of a new hospital to meet 2030-31 demand. Delivery of a 600-space carpark.	Subject to negotiation and value for money	2030-31	No	- Multiday beds: 434 - ED POC: 81 - Operating suites: 15 - Ambulatory: 154	[redacted]
Option 4: Third hospital + base case	Site agnostic (greenfield)	Continuation of health services at the existing CPHB and the development of an additional smaller greenfield hospital to meet demand to 2040-41. Delivery of a 600-space carpark.	Yes – for existing CPHB	2040-41	No	- Multiday beds: 294 - ED POC: 19 - Operating suites: 10 - Ambulatory: 147	[redacted]

[redacted]

3.7 Multi criteria analysis and preferred options

A multi criteria analysis (**MCA**) was used to rank, shortlist and identify the preferred capital options for further analysis in the Business Case. The MCA framework was developed to answer the following key questions:

- Which option will most effectively and efficiently meet the immediate health need for the community?
- How do we prioritise the preferred capital solution to deliver the new Northside Hospital, as per the strategic solution identified through the ILW and concept design process?
- What assessment criteria are required to enable the shortlisting of options and preferred ranking for investment for future health service capacity?

The MCA process and outcomes are detailed in Section 5. An economic appraisal and financial analysis of the preferred options have been conducted as part of the Business Case process (see Chapters 9 and 10 of the Business Case), to determine the economic and financial impact of the preferred options.

4. Project and staging options

4.1 'Do-minimum' Base Case

The *Northside Hospital Development Options Analysis* (2020)[16] conducted by AECOM Australia Pty Ltd included a review into the condition of assets at CPHB to develop a SAMP[17]. The outcomes of the CPHB SAMP (2021) were as follows:

- The SAMP determined that CPHB will not be able to meet demand to 2036-27 in its current state
- The SAMP determined that substantial refurbishment of the main CPHB buildings is unlikely to result in a modern Level 4 / Level 5 hospital and will not meet contemporary standards of clinical service delivery
- The SAMP identified the immediate need for action to address the current condition and increasing risk relating to the asset condition at CPHB whereby many assets are at or approaching end of life.[18]

In absence of investment in a new hospital, the CPHB SAMP (2021) identified a range of actions and investments (minor works) required to minimise the risk of service failure and keep CPHB safe and operating for an additional 20 years (commencing 2021). Two options were identified:

- **Option A – Low capital option:** Do minimum, keep safe and operating. This option proposes that the highest priority capital works are implemented, with all other assets managed through routine maintenance budgets. This option assumes CPHB continues to operate as it currently stands.
- **Option B – Risk-based approach:** Maintain assets. This option proposes a risk-based approach to capital replacement in the short to medium term to extend the lifespan of the facility. These works will not increase the capacity of the CPHB but will aim to maintain the existing assets in an adequate condition.[19]

Option B was the preferred option by AECOM as it enables the assets to be maintained in the preferred state of good repair (an 'adequate' condition). Option A, while less capital intensive, results in significant degradation of asset condition and does not effectively manage risks to service failure.

The CPHB SAMP (2021) identified $66.3 million ($2021) worth of works required to meet Option A and $140.8 million ($2021) (i.e. an additional $74.5 million worth of works) required to meet Option B.[20,21] As a result of the asset condition assessment conducted for the development of the CPHB SAMP (2021), some of the highest priority capital works (in addition to a range of other investments identified since 2021) have been funded, commenced and / or completed at CPHB. It is estimated

16 AECOM Australia Pty Ltd (2020), Northside Hospital Development Options Analysis, 7 September 2020
17 AECOM Australia Pty Ltd (2021), CPHB Strategic Asset Management Plan, 16 April 2021
18 AECOM Australia Pty Ltd (2021), CPHB Strategic Asset Management Plan, 16 April 2021
19 AECOM Australia Pty Ltd (2021), CPHB Strategic Asset Management Plan, 16 April 2021
20 AECOM Australia Pty Ltd (2021), CPHB Strategic Asset Management Plan, 16 April 2021
21 The CPHB SAMP costs explicitly exclude the capital cost to remediate fire barriers and fire walls in the Marian and Xavier buildings, and noted that 'remediation of these barriers will be a major project, requiring complex planning and construction works'

that to date, the ACT Government has provided approximately $23 million ($2021) in funding, specifically for capital works identified within the CPHB SAMP (2021)[22], including:

- Fire safety upgrades funded through the 2018-19 Critical assets upgrades project.
- Fire safety, electrical and nurse call system upgrades funded through the 2020 Calvary Critical Infrastructure – Phase 1 capital funding.
- Heating hot water, electrical and nurse call system upgrades funded through the 2021-22 Calvary Critical Infrastructure – Phase 2 capital funding.[23]

In alignment with ACT Capital Framework Economic Appraisal Guidelines[24], the Base Case includes:

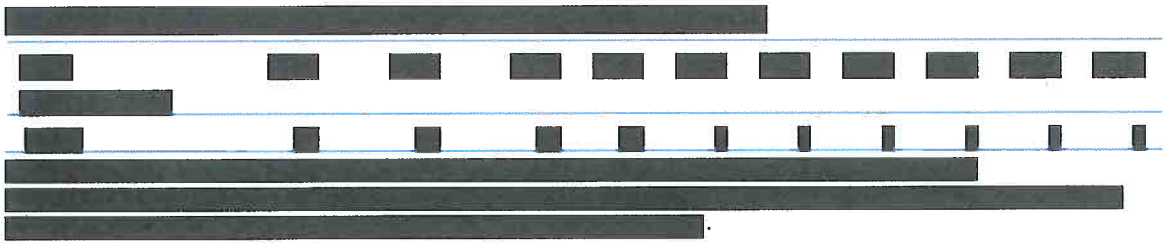
- The known (i.e. already committed and funded) changes to infrastructure at CPHB and health services delivered across the ACT
- Operating and maintenance costs required to ensure that existing assets continue to provide a minimum level of service into the future.

This means that the Base Case has been defined as the following:

- Adoption of Option B – Risk-based approach: Maintain assets, as identified by the CPHB SAMP (2021), assuming that the capital works currently committed and funded will be delivered at CPHB under both the Base Case and project options. [redacted]
- Inclusion of [redacted] worth of capital works to remediate fire barriers and fire walls in the Marian and Xavier buildings which were excluded from the CPHB SAMP (2021) but required for the continuation of safe service delivery.
- Continuation of the existing Calvary Network Agreement (**CNA**), including routine R&M base funding in accordance with the Performance Plan and service requirements identified within the CNA.
- Continuation of Better Infrastructure Fund payments to cover minor capital expenditure at CPHB, over and above what is already funded through the CNA.
- Health service delivery and capacity across the ACT includes expansion of the Canberra Hospital, the continued operation of nurse-led Walk In Centres across Canberra, investment in the Watson Community Health Precinct and the continued rollout of the Digital Health Record Project (see Section 4.3 of the Business Case for alignment with these investments).
- No additional capacity within the ACT health system has been assumed.

The Base Case costs are presented in Table 5 below.

[22] Major Projects Canberra (2023), 20230112 Northside Hospital Development - Base Case Note
[23] Major Projects Canberra (2023), 20230112 Northside Hospital Development - Base Case Note
[24] *ACT Government (2022), ACT Capital Framework, Detailed Technical Guidance, Economic Appraisal (viewed at www.treasury.act.gov.au/capitalframework)*



The Base Case assumes the continued delivery of existing services at CPHB within its current assets in a safe and operational environment but does not address the existing challenges facing the delivery of healthcare on the northside of the ACT (see Section 3.2 of the Business Case) or meet the objectives of the Project (see Section 2.2 of the Business Case).

4.2 Option 1: Bruce campus

Four options have been developed to deliver the new Northside Hospital on the existing Bruce campus. The options are detailed below.

Option 1A: Bruce multiple buildings in a single stage

Option 1A[25] proposes the redevelopment of the existing CPHB site to provide capacity to meet 2040-41 demand for inpatient health services on the northside of the ACT. The redevelopment is proposed to be including a new 94,563 square metres (**sqm**) (including contingency) 11-level acute services building including a childcare centre, and a new four-level 15,124sqm (including contingency) satellite mental health facility on the northern block, as presented in Figure 8.

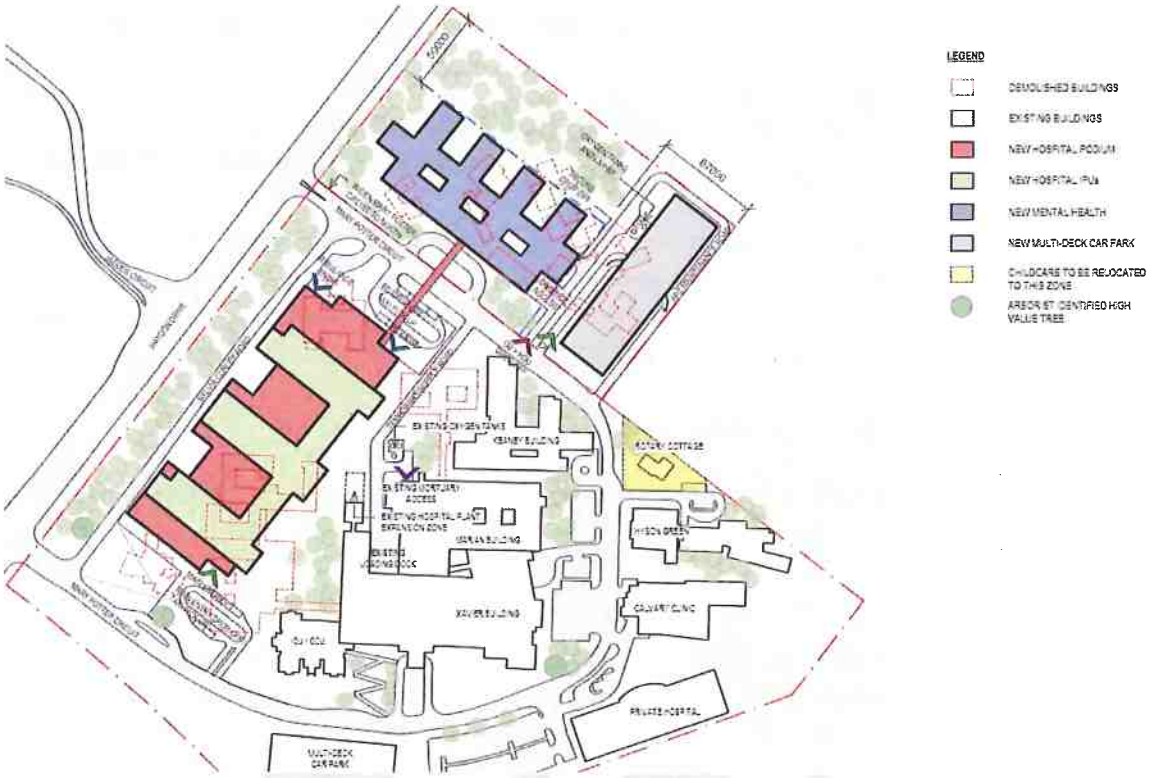
This option assumes the decommissioning of the existing CPHB and provides the capacity required to support healthcare provision in absence of the existing CPHB.

The aim of this option is to deliver mental health services in a stand-alone facility on the northern block aligned to feedback from clinicians. This provides mental health in a more 'human-scale' development with safe and secure outdoor space aligned with the Australasian Health Facility Guidelines (**AusHFG**), which better supports the recovery of mental health patients. It also allows more efficient and flexible configuration of the IPU and reduces the height of the main acute building.

Given the planning horizon for the building there will be shelled space on commissioning, allowing the Territory and health system to grow into the hospital over time. For the purposes of costing for the Business Case, a single-stage fit out has been identified for opening day in 2041. In reality, shelled space would be brought on more incrementally as required.

[25] Option 1A is referred to as Workstream 2a in the Northside Hospital Concept Design Report

Figure 8: Site plan Option 1A: Bruce multiple buildings in a single stage



Source: BVN, Arup, TSA, Genus Advisory and Planit (2022), Northside Hospital Concept Design Report, December 2022

The redevelopment proposes to deliver 543 multi-day beds, 99 ED POC, 17 operating suites, 164 ambulatory spaces and supporting medical imaging across 109,687sqm, including 1,705sqm for the Childcare Centre. The detailed schedule of accommodation (**SoA**) is presented in Appendix A.[26]

Option 1A proposes to commission POCs to meet 2030-31 demand (434 multiday beds, 81 ED POCs, 15 operating suites and 154 ambulatory spaces) and shelling the remaining POCs until required. The capital costs currently assume fit out of shelled spaces in 2039-40 for commissioning in 2040-41. In further stages of planning the timing of fit out and commissioning of shelled spaces will be further explored.

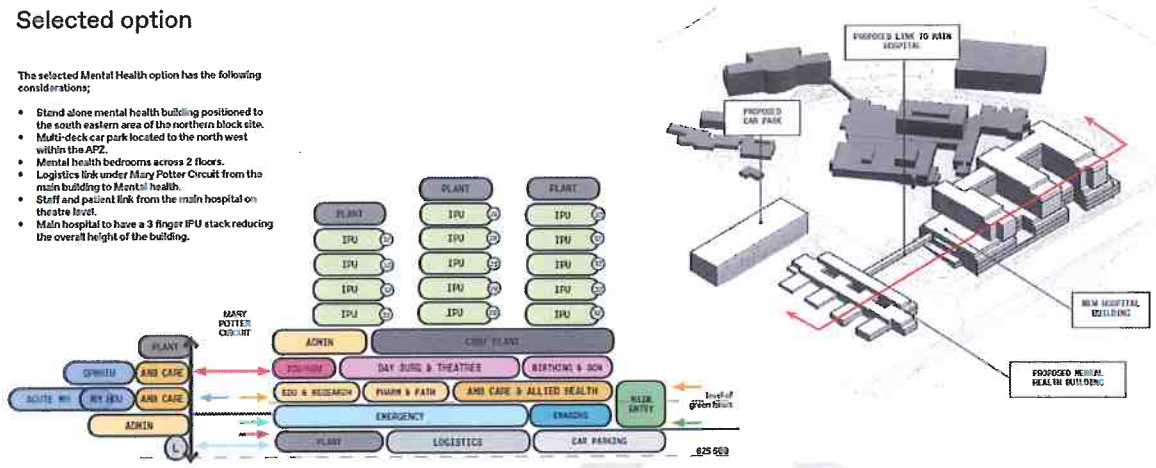
The preferred block and stack for Option 1A, as presented in Figure 9, includes:

- A five-storey podium accommodating the ED, imaging, ambulatory care and allied health, pharmacy and pathology, education and research, birthing, operating theatres, ICU / high dependency unit and admin
- Three five to six-storey IPU towers with plant rise above the podium
- A stand-alone mental health building positioned on the northern block site.[27]

[26] The Northside Hospital clinical service planning is ongoing. The Concept Design has been based on an earlier version of the SoA than what was used for the basis of the cost plans. There are changes to the bed numbers and service inclusions/exclusions. At the next stage of the Business Case process, an updated SoA based on the final Northside Clinical Services Plan will be prepared as the basis for the detailed design.

[27] Due to the changes to the SoA, these descriptions are indicative and to be confirmed at later project stages.

Figure 9: Block and stack of Option 1A: Bruce multiple buildings in a single stage



Source: BVN, Arup, TSA, Genus Advisory and Planit (2022), Northside Hospital Concept Design Report, December 2022

[redacted]

The program for Option 1A is presented in Table 7. The program outlines the key milestones and activities for the delivery of the new Northside Hospital.

Table 7: High level program Option 1A

Key milestone	Date (end)
Phase 1 High Level Design Completion	Q4 2023
Phase 2 Design	
Government process	Q3 2025
Surveys and enabling works	Q3 2025
Main works design	Q4 2026
Delivery	
Construction and contractor procurement	Q4 2026
Enabling works	Q4 2026
Main works	Q3 2030
Hospital opens	Q4 2030
Shell unit fit out	Q3 2040

Source: Arup (2022), Canberra Northside Hospital Construction Programme (High Level) – Calvary Site, ECI Procurement

Key considerations for Option 1A are listed in Table 8.

Table 8: Considerations for Option 1A

Strengths	Weaknesses
- Capacity meets demand to 2040-41 with 109,687sqm of new build - Delivery of a separate mental health facility is aligned with recommendations from health professionals to provide the best environment for patient recovery - Freeing up of the acute services building (due to delivery of a separate mental health facility) enables exploration of an optimal IPU configuration - A designated mental health entry and drop off can be established from Mary Potter Circuit - Majority of mental health patient beds and communal spaces are located on the ground floor with older persons unit on second floor (with outdoor courtyard access) - Main hospital has a 3 finger IPU stack reducing the overall height of the building.	- Use of northern block for mental health services will require relocation of existing services / construction of replacement facilities - Separation of logistics and hospital support services (to be located in the main hospital building) from the mental health facility may impact of operational efficiency - Design of mental health facility is heavily constrained by Asset Protection Zone (**APZ**) requirements on the north block - The Bruce campus has complex topography due to the narrow frontage to the north and the south on Marry Potter Circuit which causes significant slopes and will affect the proposed podium - There may be impacts and disruptions on existing patients and staff during construction and delivery on the Bruce campus.

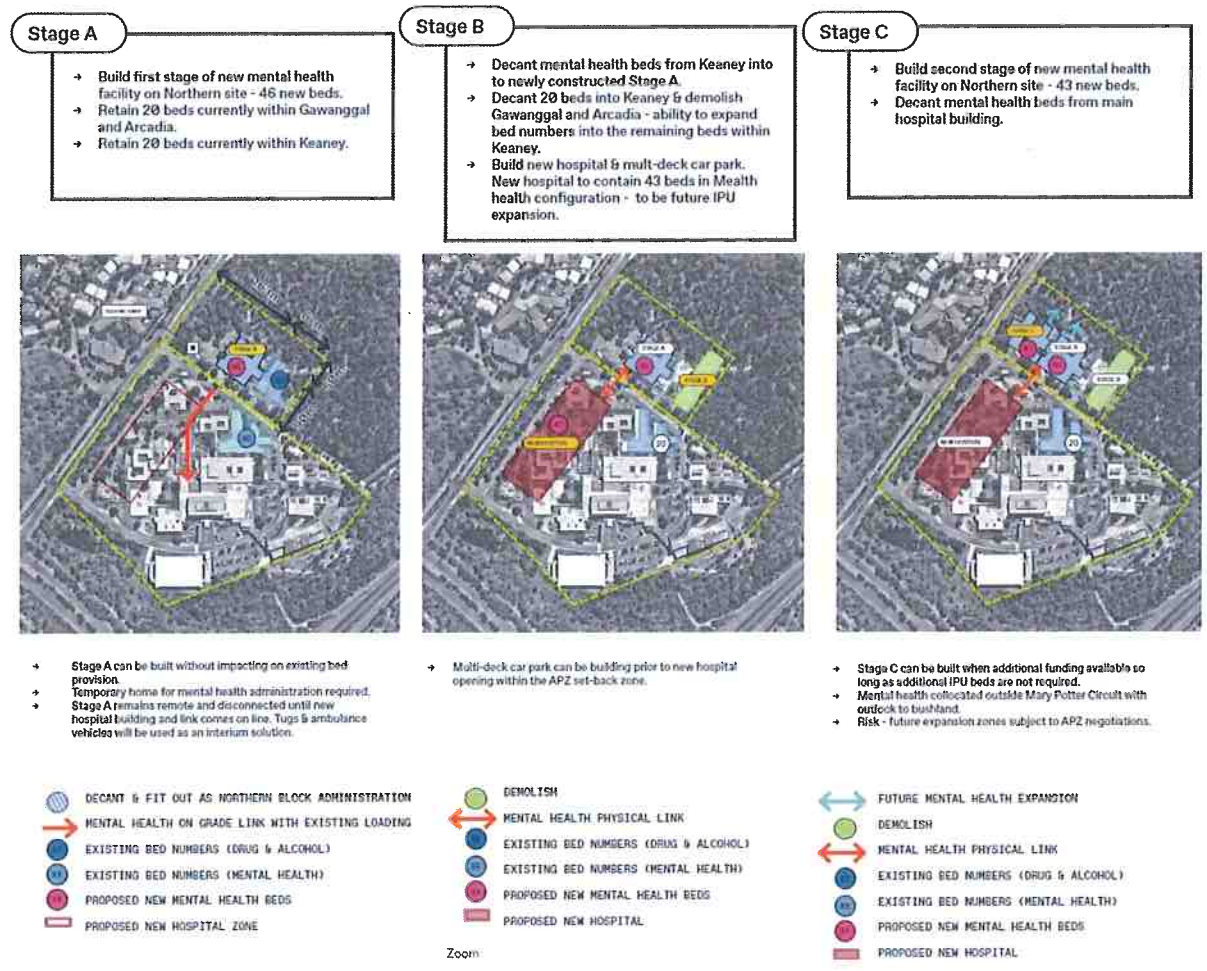
Option 1B: Bruce staged

Option 1B[30] proposes to deliver Option 1A in a staged approach. Option 1B was explored following direction from ACTHD to investigate how the satellite mental health facility on the northern block could be delivered in stages.

The proposed staging approach for the mental health facility under Option 1B includes three stages as detailed in Figure 10. Key principles informing the approach to phasing includes:

- Minimising interruption to the existing mental health facilities
- Staged approach which allows for funds to be realised as they become available
- Providing IPU expansion without having to build cold shell space within the main hospital building
- Provides for the expansion of mental health services on the northside of the campus.

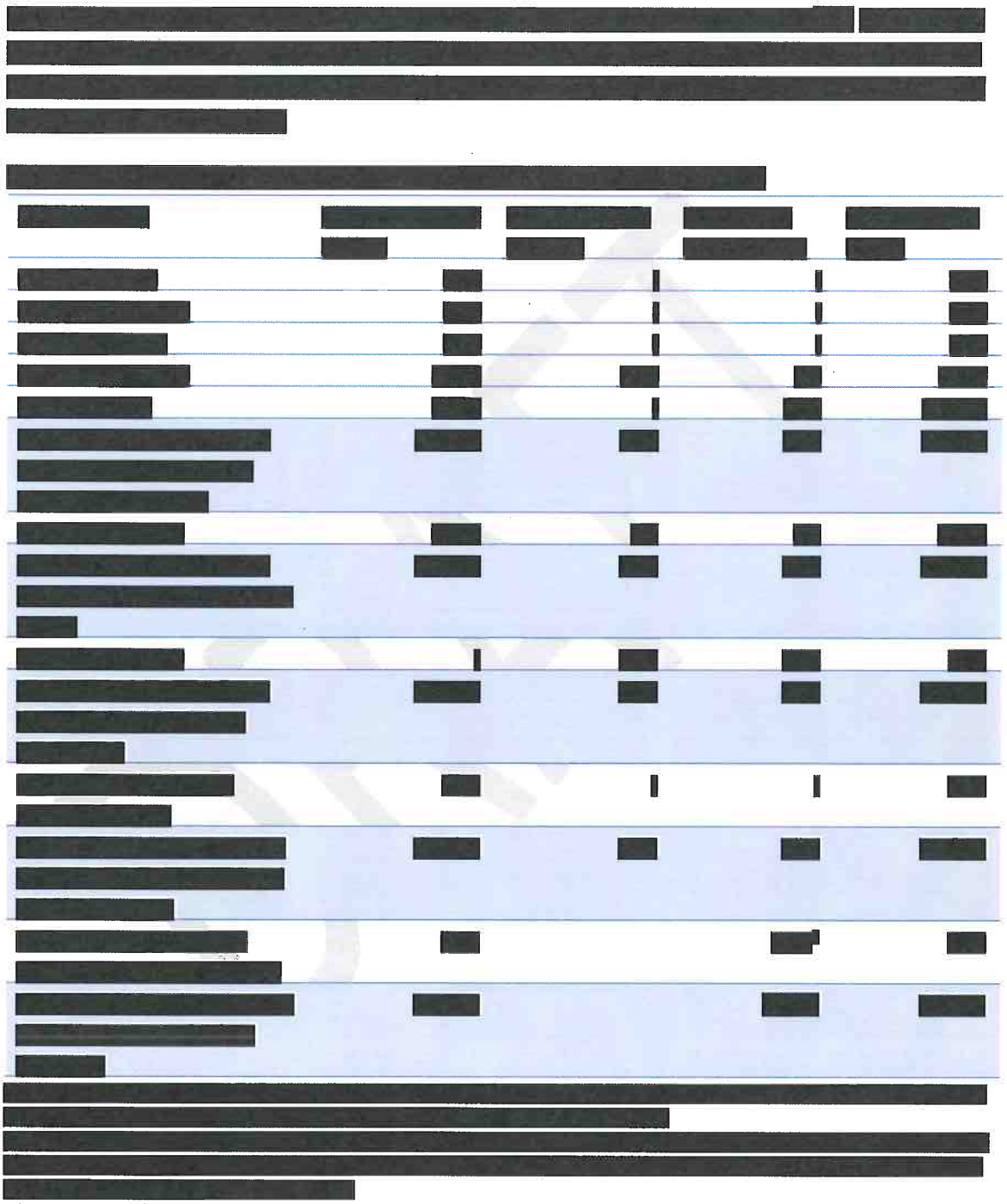
Figure 10: Proposed staging approach for 1B – CPHB site, multiple options, staged



Source: BVN, Arup, TSA, Genus Advisory and Planit (2022), Northside Hospital Concept Design Report, December 2022

[30] Option 1B is referred to as Workstream 2b in the Northside Hospital Concept Design Report

The capacity, SoA and preferred block and stack for Option 1B is identical to Option 1A, as presented in Figure 9.



The program for Option 1B is presented in Table 10. The program outlines the key milestones and activities for the delivery of the new Northside Hospital.

[31] The applied methodology developed by Genus Advisory in consultation with MPC and ACHTHD has applied escalation on to Gross Construction Costs only. Escalation has not been applied to Other Project Costs, FFE, MME, ICT or Contingency.
[32] Capital costs for Project options provided by Genus (including deterministic contingency) with additional inputs for ACTHD / MPC costs and management costs provided by ACTHD and MPC.

Table 10: High level program Option 1B

Key milestone	Date (end)
Phase 1 High Level Design Completion	Q4 2023
Phase 2 Design	
Government process	Q3 2025
Surveys and enabling works	Q3 2025
Main works design	Q4 2026
Delivery	
Construction and contractor procurement	Q4 2026
Enabling works	Q4 2026
Main works	Q3 2030
Hospital opens	Q4 2030
Shell unit fit out	Q3 2040

Source: Arup (2022), Canberra Northside Hospital Construction Programme (High Level) – Calvary Site, ECI Procurement

Key considerations for Option 1B are listed in Table 11.

Table 11: Considerations for Option 1B

Strengths	Weaknesses
- Capacity meets demand to 2040-41 with 109,687sqm of new build - Relocation of mental health services from the main hospital to the northern block addresses recommendations from health professionals that a 'stacked' approach to mental health is not preferable - A designated mental health entry and drop off can be established from Mary Potter Circuit - Freeing up of the acute services building (due to delivery of a separate mental health facility) enables exploration of an optimal IPU - Majority of mental health patient beds and communal spaces are located on the ground floor with older persons unit on second floor (with outdoor courtyard access) - No interruption to the existing mental health facilities - Main hospital has a three finger IPU stack reducing the overall height of the building - Staged approach to allow for funds to be realised as they become available and to provide flexibility to amend the budget based on project's delivery and performance - Expansion of the IPU without needing to build cold shell space.	- Use of northern block for mental health services will require relocation of existing services / construction of replacement facilities - Separation of logistics and hospital support services (to be located in the main hospital building) from the mental health facility may impact of operational efficiency - Separation of mental health services across three buildings during staging may impact operational efficiency and an appropriate 'healing environment' - Design of mental health facility is heavily constrained by APZ requirements on the northern block - The Bruce campus has complex topography due to the narrow frontage to the north and the south on Marry Potter Circuit which causes significant slopes and will affect the proposed podium - There may be impacts and disruptions on existing patients and staff during construction and delivery on the Bruce campus.

Option 1C: Single building

Option 1C[33] proposes to deliver a new Northside Hospital on the Bruce campus with capacity to meet 2040-41 demand for inpatient health services on the northside of the ACT.

The redevelopment is proposed to include a new 13-level 109,426 sqm (including contingency) acute services building including a childcare centre, as presented in Figure 11.

The aim of this option is to deliver the redevelopment within a single building (including mental health services) on the western portion of the current CPHB site.

Given the planning horizon for the building there will be shelled space on commissioning, allowing the Territory and health system to grow into the hospital over time. For the purposes of costing for the Business Case, a single-stage fit out has been identified for opening day in 2041. In reality, shelled space would be brought on more incrementally as required.

Figure 11: Site plan Option 1C: Single building

Source: BVN, Arup, TSA, Genus Advisory and Planit (2022), Northside Hospital Concept Design Report, December 2022

The redevelopment proposes to deliver 543 multi-day beds, 99 ED POC, 17 operating suites, 164 ambulatory spaces and supporting medical imaging across 109,426sqm, including 1,705sqm for the Childcare Centre. The detailed SoA is presented in Appendix A.[34]

[33] Option 1C is referred to as Workstream 1 in the Northside Hospital Concept Design Report

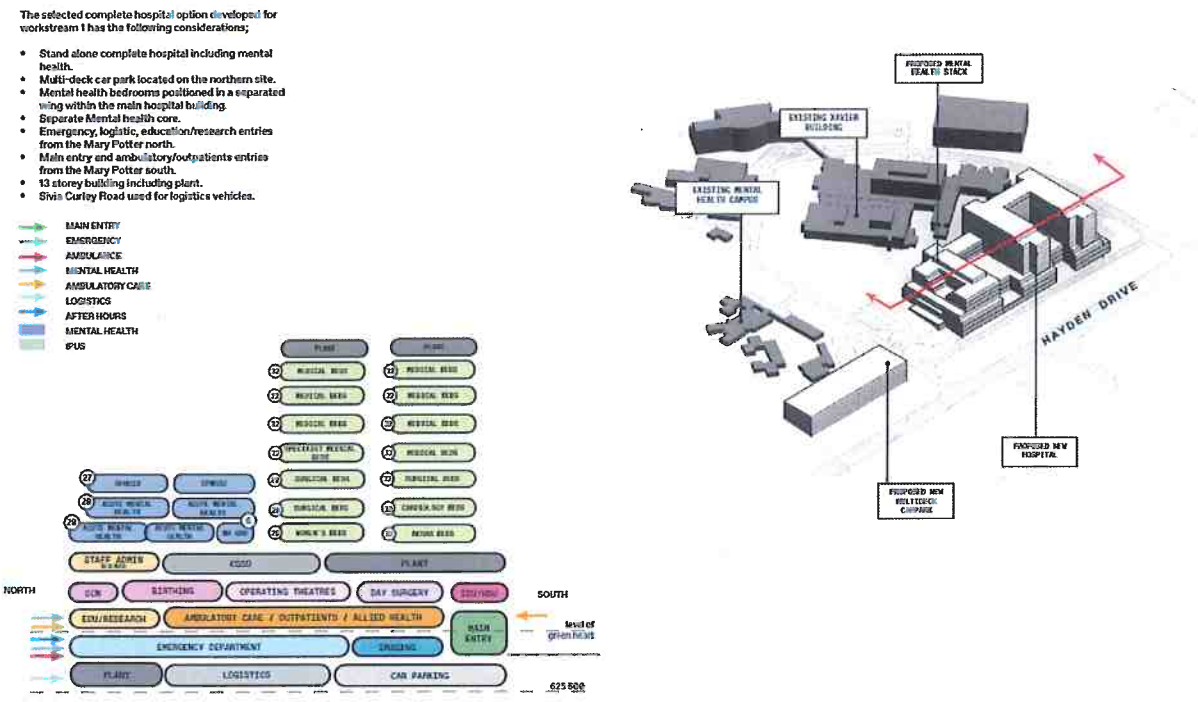
[34] The Northside Hospital clinical service planning is ongoing. The Concept Design has been based on an earlier version of the SoA than what was used for the basis of the cost plans. There are changes to the bed numbers and service inclusions/exclusions. At the next stage of the Business Case process, an updated SoA based on the final Northside Clinical Services Plan will be prepared as the basis for the detailed design

Option 1C proposes to commission sufficient POCs to meet 2030-31 demand (434 multiday beds, 81 ED POCs, 15 operating suites and 154 ambulatory spaces) and shelling the remaining POCs until required. The capital costs currently assume fit out of shelled spaces in 2039-40 for commissioning in 2040-41. In further stages of planning, the timing of fit out and commissioning of shelled spaces will be further explored.

The preferred block and stack for Option 1C, as presented in Figure 12**Error! Reference source not found.**, includes:

- A five-storey podium accommodating the ED, imaging, ambulatory care and allied health, pharmacy and pathology, education and research, birthing, operating theatres, intensive care unit / high dependency unit and admin
- Two eight-storey IPU towers with plant rise above the podium
- A three-storey mental health tower.[35]

Figure 12: Block and stack of Option 1C - Single building

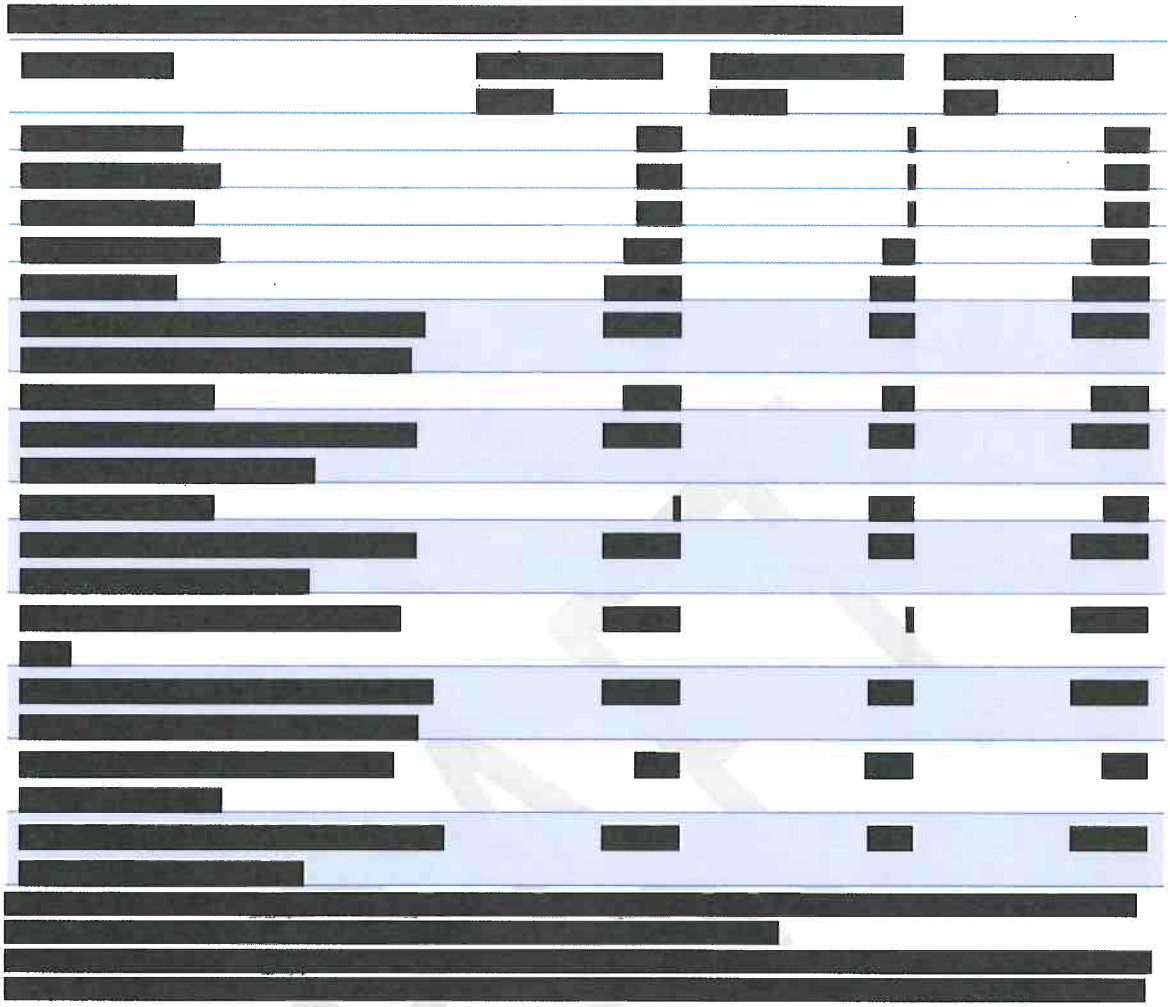


Source: BVN, Arup, TSA, Genus Advisory and Planit (2022), Northside Hospital Concept Design Report, December 2022

[redacted]

[35] Due to the changes to the SoA, these descriptions are indicative and to be confirmed at alter project stages.

[redacted]



The program for Option 1C is presented in Table 13**Error! Reference source not found.**. The program outlines the key milestones and activities for the delivery of the new Northside Hospital.

Table 13: High level program Option 1C

Key milestone	Date (end)
Phase 1 High Level Design Completion	Q4 2023
Phase 2 Design	
Government process	Q3 2025
Surveys and enabling works	Q3 2025
Main works design	Q4 2026
Delivery	
Construction and contractor procurement	Q4 2026
Enabling works	Q4 2026
Main works	Q3 2030
Hospital opens	Q4 2030
Shell unit fit out	Q3 2040

Source: Arup (2022), Canberra Northside Hospital Construction Programme (High Level) – Calvary Site, ECI Procurement

Key considerations for Option 1C are listed in Table 14.

Table 14: Considerations for Option 1C

Strengths	Weaknesses
- Capacity meets demand to 2040-41 with 109,426 sqm of new build - Separation of ED entry to public and private hospital entries allows better flow of ambulances and walk-ins into and out of the ED - Delivery of a carpark on the northern campus is not reliant on the relaxation of APZ requirements - Placement of main and ambulatory/outpatient entries in the Mary Potter South and emergency, logistics, education, research and the carpark in the Mary Potter North reduces the busyness of the entry points to the hospital.	- Delivery of separate mental health wing within the acute services building is not preferable from a clinical perspective as it does not provide an optimal environment to support patient recovery - The Bruce campus has complex topography due to the narrow frontage to the north and the south on Marry Potter Circuit which causes significant slopes and will affect the proposed podium - There may be impacts on the local flora and fauna from the construction of the carpark - There may be impacts and disruptions on existing patients and staff during construction and delivery on the Bruce campus.

Option 1D: Multiple buildings (reduced size)

Option 1D proposes the redevelopment of the existing CPHB site to provide critical services capacity to meet 2040-41 demand, and ambulatory care capacity to meet a level of demand prior to 2030-31. Critical services include those that would be difficult to expand in the future, and those with close functional relationship to other critical services. For example, the ED, intensive care, birthing rooms and adult day only surgery beds have been considered critical and unsuited to future expansion. Option 1D therefore proposes a reduced size hospital with the primary objective of reducing capital costs.

The redevelopment is proposed to be including a new 78,377sqm (including contingency) 11-level acute services building including a childcare centre, and a new four-level 12,426sqm (including contingency) satellite mental health facility on the northern block.

This option assumes the decommissioning of the existing CPHB and provides the capacity required to support healthcare provision in absence of the existing CPHB.

Similar to Option 1A, the aim of this option is to deliver mental health services in a stand-alone facility on the northern block aligned to feedback from clinicians. This also allows more efficient and flexible configuration of the IPU and reduces the height of the main acute building.

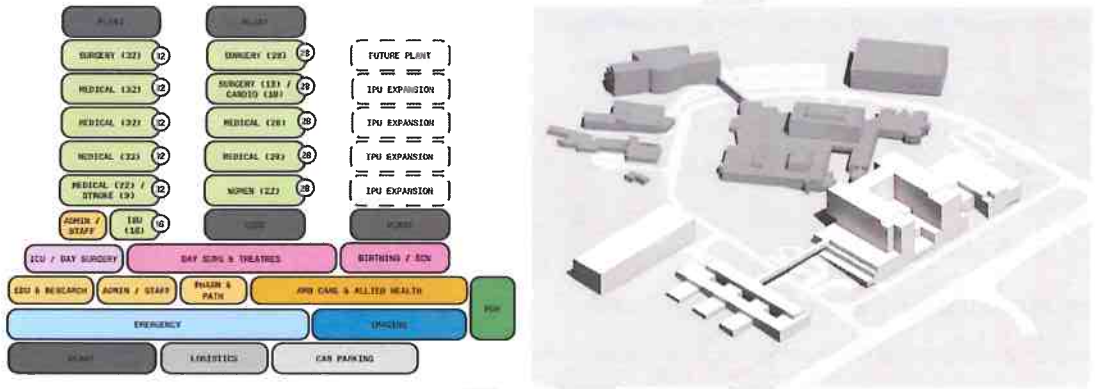
Option 1D would deliver 452 multi-day beds, 99 ED POC, 17 operating suites, <154 ambulatory spaces and supporting medical imaging across 11 levels and 90,803sqm, including 1,705sqm for the childcare centre. The detailed SoA is presented in Appendix A.[38]

The preferred block and stack for Option 1D, as presented in Figure 13, includes:

[38] The Northside Hospital clinical service planning is ongoing. The Concept Design has been based on an earlier version of the SoA than what was used for the basis of the cost plans. There are changes to the bed numbers and service inclusions/exclusions. At the next stage of the Business Case process, an updated SoA based on the final Northside Clinical Services Plan will be prepared as the basis for the detailed design.

- A four-storey podium accommodating the ED, imaging, ambulatory care and allied health, pharmacy and pathology, education and research, birthing, operating theatres, ICU / high dependency unit and admin
- Two seven-storey IPU towers with plant rise above the podium
- A stand-alone mental health building positioned on the northern block site (not included in diagram).[39]

Figure 13: Block and stack of Option 1D: Multiple buildings (reduced size) – not including mental health building



Source: BVN, Arup, TSA, Genus Advisory and Planit (2023), Northside Hospital Concept Design Report, March 2023

Option 1D takes the podium configuration of Option 1A and rationalises it to reduce the size. For example, the removal of some carparking on the basement level (Level -01) reduces the footprint of the building and the excavation required to construct it. Additionally, the reduced area of admin, ambulatory care, and education and research enables these functions to be provided across one level (Level 1) and for the area of Level 3 to be reduced.

[redacted]

[39] Due to the changes to the SoA, these descriptions are indicative and to be confirmed at later project stages.

[redacted]

The program for Option 1D is presented in Table 16. The program outlines the key milestones and activities for the delivery of the new Northside Hospital.

Table 16: High level program Option 1D

Key milestone	Date (end)
Phase 1 High Level Design Completion	Q4 2023
Phase 2 Design	
Government process	Q3 2025
Surveys and enabling works	Q3 2025
Main works design	Q4 2026
Delivery	
Construction and contractor procurement	Q4 2026
Enabling works	Q4 2026
Main works	Q3 2030
Hospital opens	Q4 2030
Shell unit fit out	Q3 2040

Source: Arup (2022), Canberra Northside Hospital Construction Programme (High Level) – Calvary Site, ECI Procurement

Key considerations for Option 1D are listed in Table 17.

Table 17: Considerations for Option 1D

Strengths	Weaknesses
- Delivery of a separate mental health facility is aligned with recommendations from health professionals to provide the best environment for patient recovery - The 2-finger IPU stack configuration facilitates future vertical expansion through the construction of a third IPU tower with up to 4 additional wards - Majority of mental health patient beds and communal spaces are located on the ground floor with older persons unit on second floor (with outdoor courtyard access).	- Capacity does not meet 2040-41 demand across all services, and does not provide a sustainable solution to the key challenge of constrained capacity of healthcare services on the northside of the ACT - The ACT Health network is likely to require additional infrastructure investment in the long-term to service forecast demand post-2031, particularly ambulatory care - Design of mental health facility is heavily constrained by APZ requirements on the northern block - Use of northern block for mental health services will require relocation of existing services / construction of replacement facilities - There may be impacts and disruptions on existing patients and staff during construction and delivery on the Bruce campus.

4.3 Option 2: Greenfield

Option 2[42] proposes the development of a new Northside Hospital on a greenfield site, in a single stage construction to meet 2040-41 demand for inpatient health services on the northside of the ACT.

This option assumes the decommissioning of the existing CPHB and provides the capacity required to support healthcare provision in the northside of the ACT in absence of the existing CPHB.

The preferred greenfield site is 32.7 hectares located on a peninsula within Lake Ginninderra, Belconnen. It is bordered on three sides by parklands lining the lake and Diddams Close to the north-east. The site is surrounded by parklands, the lake and residential properties. The site is approximately 3 kilometres from the CPHB site.

The site is currently used for public recreational activities, including:

- Cycling and walking tracks
- Dog parks
- Access to waterfront activities via Dulwa, Nengi Bamir and Bimbi Beaches
- Playgrounds
- Public facilities
- Boat ramp.

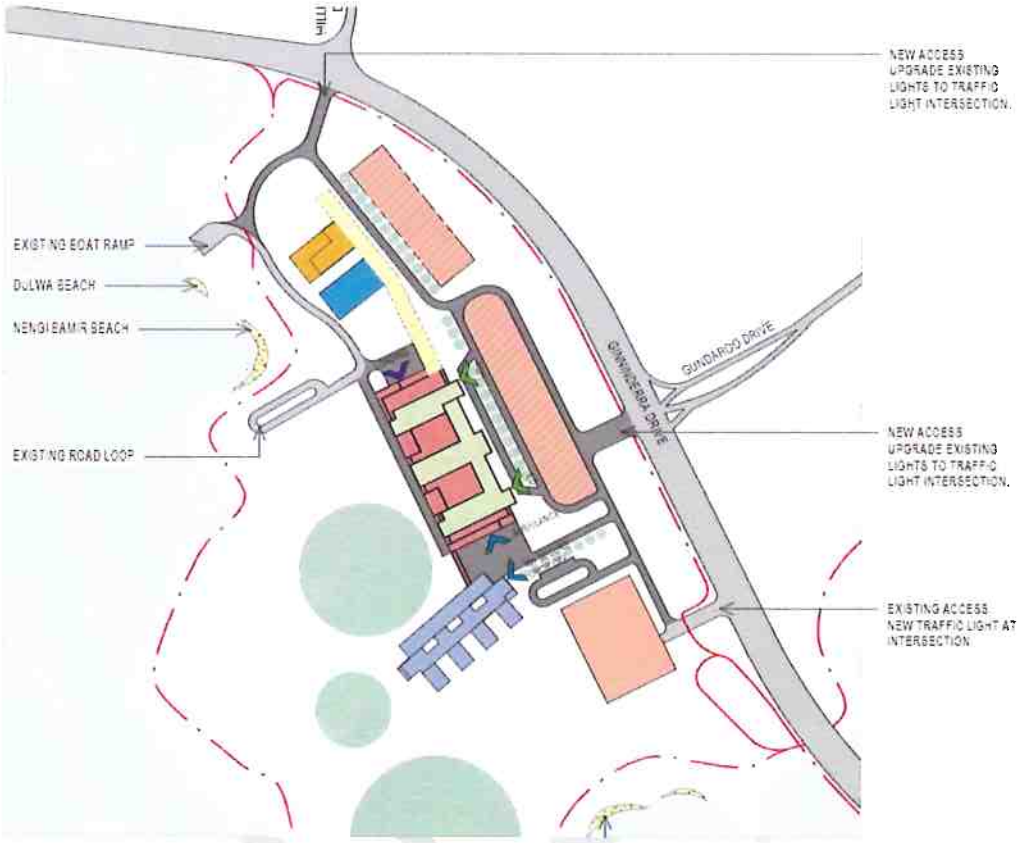
[42] Option 2 is referred to as Workstream 3 in the Northside Hospital Concept Design Report

Figure 14: Preferred greenfield site on Lake Ginninderra

Source: BVN, Arup, TSA, Genus Advisory and Planit (2022), Northside Hospital Concept Design Report, December 2022

The proposed design developed for Option 1A has been applied to Option 2 with some modifications in response to the different site opportunities and constraints. The design includes a new 11-level 94,563sqm (including contingency) acute services building including a childcare centre and a new three-level 15,124sqm (including contingency) satellite mental health facility, as presented in Figure 15.

Figure 15: Site plan Option 2 – Preferred greenfield site, multiple buildings, single stage



Source: BVN, Arup, TSA, Genus Advisory and Planit (2022), Northside Hospital Concept Design Report, December 2022

The development proposes to deliver 543 multi-day beds, 99 ED POC, 17 operating suites, 164 ambulatory spaces and supporting medical imaging across 109,687sqm, including 1,705sqm for the childcare centre. The detailed SoA is presented in Appendix A.[43]

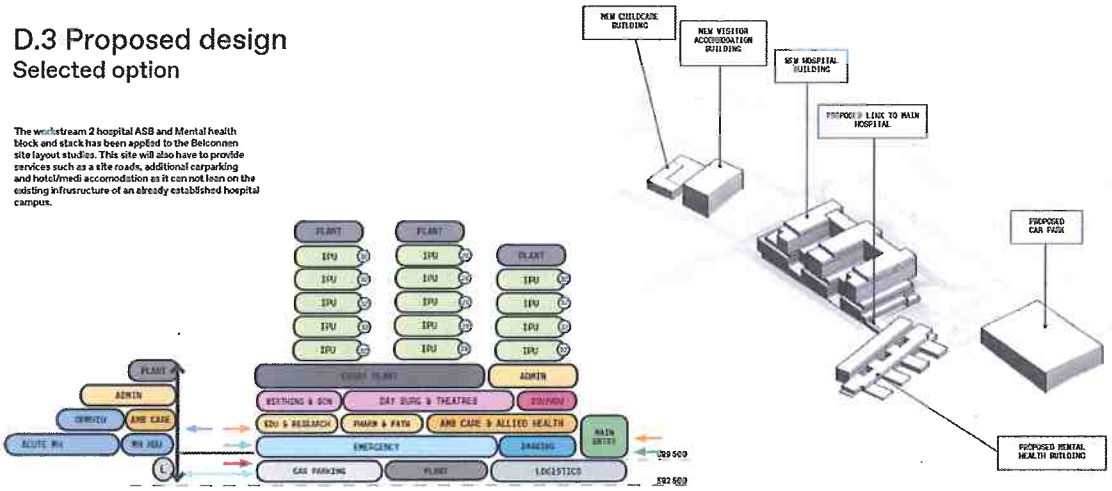
Option 2 proposes to commission POCs to meet 2030-31 demand (434 multiday beds, 81 ED POCs, 15 operating suites and 154 ambulatory spaces) and shelling the remaining POCs until required. The capital costs currently assume fit out of shelled spaces in 2039-40 for commissioning in 2040-41. In further stages of planning the timing of fit out and commissioning of shelled spaces will be further explored.

The preferred block and stack for Option 2, as presented in Figure 16 includes:

- A five-storey podium accommodating the ED, imaging, ambulatory care and allied health, pharmacy and pathology, education and research, birthing, operating theatres, intensive care unit / high dependency unit and admin
- Three five to six-storey IPU towers with plant rise above the podium
- A stand-alone mental health facility.[44]

[43] The Concept Design was based on an earlier version of the SoA than what was used for the basis of the cost plans. There are some changes to the bed numbers and service inclusions/exclusions. At the next stage of the Business Case process, an updated SoA based on the final Northside Clinical Services Plan will be prepared as the basis for the detailed design.
[44] Due to the changes to the SoA, these descriptions are indicative and to be confirmed at alter project stages.

Figure 16: Block and stack of Option 2 – Preferred greenfield site, multiple buildings, single stage



Source: BVN, Arup, TSA, Genus Advisory and Planit (2022), Northside Hospital Concept Design Report, December 2022

[redacted]

[redacted]

The program for Option 2 is presented in Table 19. The program outlines the key milestones and activities for the delivery of the new Northside Hospital.

Table 19: High level program Option 2

Key milestone	Date (end)
Phase 1 High Level Design Completion	Q4 2023
Phase 2 Design	
Government process	Q3 2025
Surveys and enabling works	Q3 2025 / Q2 2026
Main works design	Q4 2026
Delivery	
Construction and contractor procurement	Q4 2026
Enabling works	Q4 2026
Main works	Q3 2030
Hospital opens	Q4 2030
Shell unit fit out	Q3 2040

Source: Arup (2023), Canberra Northside Hospital Construction Programme (High Level) – Greenfield Site, ECI Procurement, Revision 5

Key considerations for Option 2 are listed in Table 20.

Table 20: Considerations for Option 2

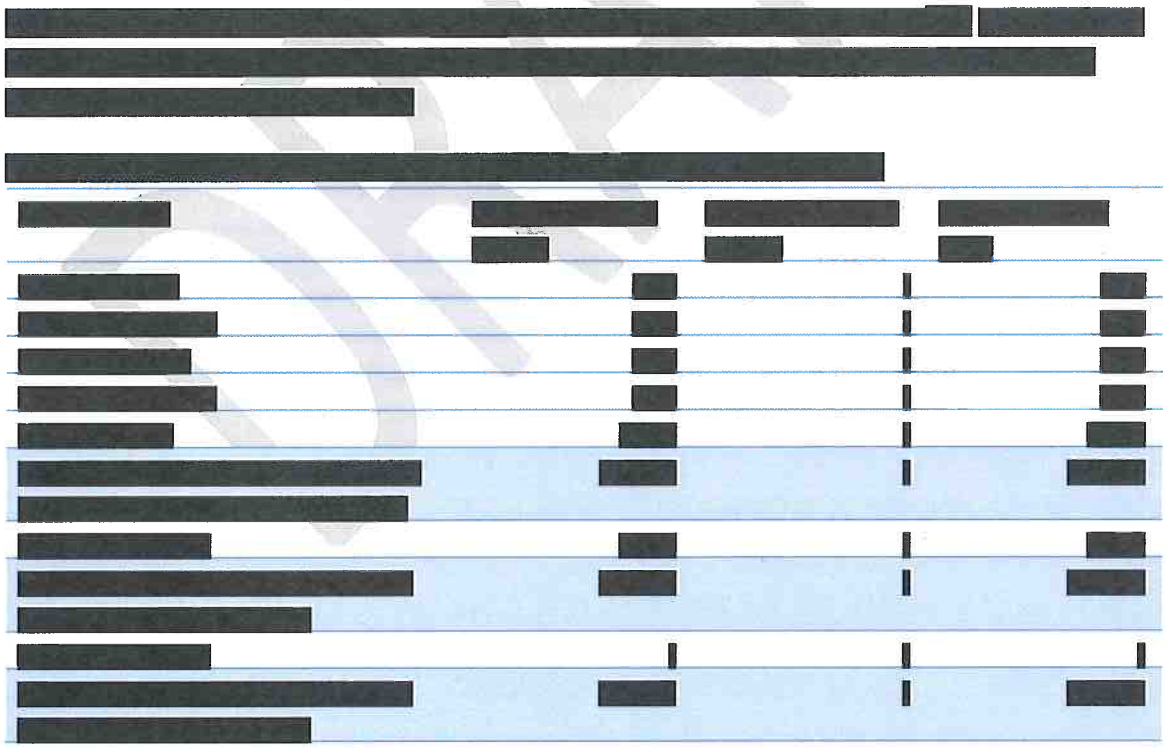
Strengths	Weaknesses
- Capacity meets demand to 2040-41 with 109,687sqm of new build - Placement of each building with an outlook over the lake and parklands provides amenity benefits for patients and carers - Adaptable boundary options provide site flexibility for future expansion - Active Aboriginal communities residing within the Ginninderra catchment provides an opportunity to work with the local community - Development of the site will contribute to improving access and upgrading the quality of the activities at the lakefront for the broader community - Site access points easily connect with existing intersections from Ginninderra Drive - Recovery of mental health patients better supported by providing a more 'human-scale' development - Close proximity to Belconnen Town Centre, the bus network and the University of Canberra.	- There is a significant opportunity cost of the proposed site which may have alternative uses such as parkland, mixed use or residential redevelopment - Leasing arrangements on the site needs to be negotiated with the transport authority - There is a need to rezone the site (note a change of use is suggested in the draft District Plan for Belconnen) - There may be impacts on local flora which requires an approval process to interfere with - There is a risk of community objection to loss of public parklands, amenity and interference with Indigenous archaeological remains.

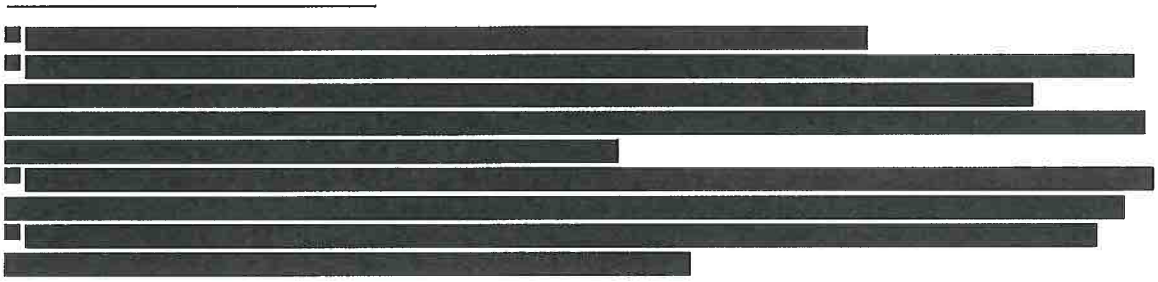
4.4 Option 3: Small hospital

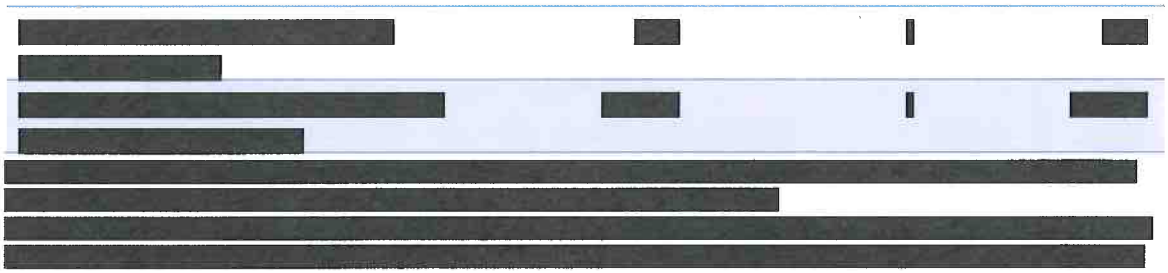
Option 3[47] proposes the development of a new Northside Hospital to be built to meet 2030-31 demand for inpatient health services on the northside of the ACT reflecting expected opening day bed profile (i.e. does not allow for additional future demand). This option is site agnostic and is expected to be delivered on either the existing Bruce campus, preferred greenfield site or an alternative greenfield site. This option assumes the decommissioning of the existing CPHB and provides the capacity required to support healthcare provision on the northside of the ACT in absence of the existing CPHB.

Option 3 would deliver 434 multi-day beds, 81 ED POC, 15 operating suites, 154 ambulatory spaces and supporting medical imaging across 11 levels and 93,689sqm, including 1,705sqm for the childcare centre. This is based on a single building design, with no separation of mental health services. The detailed SoA is presented in Appendix A.[48]

A preliminary cost estimate for Option 3 has been undertaken to inform options analysis. If Option 3 is identified as a preferred option, further master planning, due diligence and concept design would be required to inform detailed costing.







Key considerations for Option 3 are listed in Table 22.

Table 22: Considerations for Option 3

Strengths	Weaknesses
- Moderately lower capital investment relative to Options 1A, 1B, 1C, 1D and 2 - A smaller building will have lower operating and maintenance costs.	- Capacity only meets demand to 2030-31 and does not provide a sustainable solution to the key challenge of constrained capacity of healthcare services on the northside of the ACT - The ACT Health network is likely to require additional infrastructure investment in the long-term to service forecast demand post-2031 - There are complex clinical planning implications for the expansion of theatre and ED capacity - There is further services planning work required to determine how a smaller hospital would work operationally for the northside and the broader network - Increase in embedded carbon.

4.5 Option 4: Third hospital + base case

Option 4[51] assumes the continuation of health services at the existing CPHB and the costs associated with maintaining the delivery of healthcare services in existing assets on the site (see Base Case definition in Section 4.1) as well as the development of an additional hospital to meet the capacity gap to 2040-41. This option is not supported by ACTHD, CHS or the ACT Ambulance Service as it would have significant implications for system efficiency, workforce, service quality and safety.

Option 4 would deliver 294 multi-day beds, 19 ED POC, 10 operating suites, 147 ambulatory spaces and supporting medical imaging across eight levels and 63,125sqm, including 1,705sqm for the childcare centre. The detailed SoA is presented in Appendix A.

This option reflects a scenario in which the existing CPHB continues to operate under its existing arrangements, however, additional capacity is provided to meet the future healthcare needs for the northside of the ACT. No concept design has been developed for this option and no site has been identified. This option is provided for comparison purposes only to demonstrate requirements where commercial arrangements within the CNA continue into the future.

[51] Option 3 is referred to as Workstream 4b in the Northside Hospital Concept Design Report