

Risk Identification & Description				Qualitative Analysis								
No.	Risk Category	Description	Comments	Potential Consequence	Mitigation Strategy	Consequence	Likelihood	Cost (Residual Risk)		Delay (Residual Risk)		
						Consequence Rating	Risk Rating			Consequence Rating	Risk Rating	
		Risk that the cost to remediate contaminated land is higher than anticipated (excluding demolition contamination risks). This includes: - The risk that there is undiscovered onsite contamination after the contractor is appointed - Contamination risks associated with Decant Sites - The risk materials brought onto site are contaminated/hazardous - The risk of contamination to adjacent land	- The whole TCH site is considered contaminated land - It is anticipated that the site will be contaminated, including soil (such as from the B5 heating system), asbestos, debris and soil from previous construction of Buildings 1-3, asbestos pipes etc.) - Both decant options involve the construction of a modular building on a new site on TCH campus - STH currently undertaking a desktop research on contamination of the proposed site	May lead to: - Increased costs (e.g. unanticipated disposal costs) - Delays to the construction and remediation process - Penalties under relevant Government legislation	May be mitigated through: - Obtaining advice about site conditions from experienced parties that are familiar with areas around the site - Allowing sufficient time to undertake appropriate due diligence - Undertaking research of site conditions and surveys during the pre-tender development phase - Having a contamination risk management plan to action if required - Undertake a survey on all assets / site	Cost & Delay	Possible	Insignificant	Low Risk	Moderate	Medium Risk	
12	Site Risk											

Risk Identification & Description						Qualitative Analysis					
No.	Risk Category	Description	Comments	Potential Consequence	Mitigation Strategy	Consequence	Likelihood	Cost (Residual Risk)		Delay (Residual Risk)	
								Consequence Rating	Risk Rating	Consequence Rating	Risk Rating
13	Site Risk	Risks associated with utilities, such as: - The risk that unanticipated offsite upgrades are required to provide capacity for SPIRE (e.g. power, sewer) - The risk that unknown utilities are discovered onsite - The risk that onsite utilities and/or services require unanticipated upgrades (e.g. gas, stormwater, fibre optic, electricity, stormwater etc.) or are adversely impacted during construction (excluding impacts from demolition activities) - The risk that agreement is unable to be reached with utilities providers on the works to be undertaken	- Potential planning considerations to obtain agreement on the utilities that are needed (and approval to upgrade external utilities) following site investigations and planning - TCH has a single ring gas pipeline that will need to be considered - Building 5 is the distribution hub for TCH's fibre optic network in the eastern corridor. Planned upgrades to the fibre optic network are planned - Relocation, protection and provision of utilities will need to be considered in the design - Electrics at the Canberra Hospital have significantly improved. This is not the case for gas	May lead to: - Increased costs and delay (e.g. upgrading onsite utilities) - Operational impacts on existing TCH, particularly with respect to fibre optic network and gas pipeline	May be mitigated through: - Site investigations and planning - Consultation with utilities providers	Cost & Delay	Possible	Insignificant	Low Risk	Major	High Risk
14	Site Risk	Risk that unknown geotechnical conditions occur and have an adverse impact on the project	- Previous assessments indicate that significant amounts of hard rock are present from a sub-surface perspective - While potholing will be undertaken, there may be the potential that undiscovered items are uncovered	May lead to: - Increased costs and delay (e.g. from an excavation and construction perspective)	May be mitigated through: - Site studies and surveys (e.g. geotechnical investigation study) - Appropriate procurement and contract arrangements to transfer risk	Cost & Delay	Possible	Insignificant	Low Risk	Insignificant	Low Risk

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15	Construction Risk	Risk that the project adversely impacts on accessibility and traffic flow in the area beyond what is anticipated during construction , such as impacts to: - Emergency vehicles, patient and deliveries to TCH - Garran Primary School - National Capital Hospital - Gilmore and Palmer Streets, and Hospital Road - Car parking for patients, visitors and staff	- Potential restrictions on construction trucks due to weight possible weight limits on Palmer Street (the current proposed option route for construction access) - Any potential impacts on ambulance access and deliveries needs to be carefully considered - Congestion may be an issue during construction due to influx of workers onsite, as well as traffic associated with construction deliveries, on top of general traffic growth at TCH (i.e. potential redevelopments to the Hospital Road roundabout may be required) - Construction crew parking likely to be a major pressure point as there could be up to 400 workers at peak times	May lead to: - Increased costs and delay - Design revisions - Site access issues (e.g. ambulance bay access) - Community unrest (e.g. Palmer Street may be subject to increased shadows (from the build), design aesthetics and noise / congestion from increased ambulance and helicopter usage) - Operational impacts on TCH - Additional traffic management activities during construction	May be mitigated through: - Detailed proof of concept design process - Engagement with planning authorities - Preparation of a traffic study for the construction period including analysis that considers the impact on key roads (e.g. Hospital Road roundabout) - Communication and stakeholder engagement strategy (including staff, community, nearby residents, schools, ACTAS etc.) to clearly articulate process and potential impacts to traffic during construction - Adequate planning for contractor site offices - Designated construction zones (e.g. set down of trucks) - Arranging additional car park capacity for construction workers (e.g. at CIT Woden) - Potential consideration of the need for a service road off Palmer Street on to the site (to be confirmed)	Cost	Likely	Insignificant		Medium Risk	

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								Consequence Rating	Risk Rating	Consequence Rating	Risk Rating
16	Construction Risk	Risk that existing operations are adversely impacted during construction (excluding accessibility and traffic and demolition), including: - Patient flows and experience - Noise, vibration and dust impacts on patients, visitors and staff	- Existing operations at the rest of TCH comprises patient services (e.g. perioperative & interventional centre services; satellite medical imaging services; emergency; ICU etc.) and functional services (e.g. administrative functions) - Importance of the sequencing and management of projects also underway or scheduled for construction at TCH (e.g. CWHC, car park) - Importance of managing impacts on patient, visitor and staff activity during construction - Potential planned shutdowns to services during construction may occur - Site offices will be required for construction - National Capital Hospital, ANU library and nearby residents could experience significant noise and vibration - noting that there are no critical clinical functions around the site (filter controls will likely still be required)	May lead to: - Adverse impacts on service delivery - Suboptimal patient experience during construction - Design rework and sub optimal outcomes at a precinct level - Additional costs to mitigate construction process (such as additional costs to mitigate vibration and dust control) and delays to construction timing - Special conditions on construction (e.g. time restrictions) which cause delays	May be mitigated by: - Thorough planning and design, including interfaces with surrounding projects - Well planned and communicated services shutdowns to minimise impacts on existing operation - Communication and stakeholder engagement strategy (including staff, community, nearby residents, schools, ACTAS etc.) to clearly articulate process and potential impacts to operational services as a result of SPIRE - Ensuring adequate site office capability onsite during construction	Cost	Possible	Insignificant	Low Risk		

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No.	Risk Category	Description	Comments	Potential Consequence	Mitigation Strategy	Consequence	Likelihood
						Consequence Rating	Risk Rating
						Consequence Rating	Risk Rating
17	Construction Risk	Risk that inadequate maintenance staff input into the design results in whole of life benefits not being achieved during construction	- The delivery model and contracting approach chosen to deliver SPIRE is very important - The integration of hard maintenance with the D&C for UCPH has helped to support the optimisation of whole of life benefits for that project	May lead to: - Increased maintenance costs over the life of SPIRE - Inefficiencies in maintenance	May be mitigated through: - Appropriate contractual arrangements and delivery model selection that maintains competitive tension and risk transfer and considers whole of life requirements - Appropriate resourcing and consultation to ensure that there is adequate commercial and FM advice provided to incentivise whole of life outcomes - Independent commissioning review	Minor	Unlikely
							Medium Risk
18	Construction Risk	Risk that inadequate clinician input into the design results in whole of life benefits not being achieved during construction	- The delivery model and contracting approach to deliver SPIRE should include flexibility to allow for potential changes - Potential for conflicting clinician input (from a range of clinicians / or through clinicians changing during constructions)	May lead to: - Increased Costs to rectify during the construction period - Inefficiencies in clinical services	May be mitigated through: - Appropriate contractual arrangements and delivery model selection that maintains competitive tension and risk transfer and considers whole of life requirements - Appropriate resourcing and consultation to ensure that there is adequate clinical commercial advice provided to incentivise whole of life outcomes	Minor	Possible
							Medium Risk

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						Consequence Rating	Risk Rating	Consequence Rating	Risk Rating		
19	Construction Risk	Risk of Contractor default during construction	- Even though subcontractor default is potentially more likely than main contractor default (given it is a Tier 1 project), subcontractors have been excluded from this risk as it is noted that there would likely be no material cost or delay if a subcontractor defaulted - However, risk will fall back onto government if contractor defaults to pay subcontractors (i.e. due to secure local jobs)	May lead to: - Cost increases and delay (e.g. requirement to source and procure new contractors) - Legal issues and resolution procedures	May be mitigated through: - Implementing a robust procurement process that incorporates financial viability assessments, credit checks and commercial reviews - Maintaining robust contractual arrangements - from the Territory through to the head contractor and subcontractor level - that are risk-based from a financial and commercial perspective	Cost & Delay	Rare	Moderate	Medium Risk	Catastrophic	Medium Risk
20	Construction Risk	Risk that building commissioning for the clinical and facility commissioning tests - required for the provision of clinical and support services to commence - are delayed, cost more to complete or cannot be successfully completed	- ICT commissioning is a key issue to be managed including the successful running of all plants, equipment, ICT, enterprise systems etc. - Noting issues on past projects at the Canberra Hospital with system integration	May lead to: - Increased costs and/or requirements - Delays to operations	May be mitigated through: - Allowing sufficient lead-in time to start pre-commissioning activities - Development of a commissioning plan - Using independent commissioning agents - Inclusion of facilities specifications in the design process - Appropriate resourcing to stress test system integration functions	Cost & Delay	Unlikely	Insignificant	Low Risk	Moderate	Medium Risk

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						Consequence	Risk Rating	Consequence Rating	Risk Rating		
21	Construction Risk	Risk that operational commissioning activities undertaken post construction and/or during the handover period adversely impact on operations or cost more than is anticipated	- It is important to have people that have been involved through the project undertaking operational commissioning (that have had prior input in the design - such as clinicians and FM staff that have line of sight over multiple functional areas) - It has been identified that there may be potential resourcing risks from an FM perspective (significant capacity and strategy work required)	May lead to: - Increased costs and/or requirements (e.g. prolonged commissioning costs, more costs incurred in existing operations prior to handover) - Delayed, limited or phased operational commencement - Impacts on other hospital services are resources are required for an additional time period	May be mitigated through: - Early and ongoing engagement with staff during the transition and handover period - Development of a commissioning plan for SPIRE - Allowing sufficient time for operational commissioning - Maintaining linkages and business / personal continuity from design - construction - operations to assist with staging and smoothing handover periods	Cost & Delay	Possible	Insignificant	Low Risk	Moderate	Medium Risk
22	Stakeholder Risk	Risk that there are material changes to the scope that occur post contract award due to additional design consultation as a result of: - Government changes in requirements - Additional or changed clinician requirements	- Proof of Concept design work will be ongoing post Business Case - Flexibility needs to be maintained in the design process to 'future proof' the design - Potential for major medical equipment / processes and standardised specifications for medical equipment to change (e.g. be made redundant over the project development and delivery timeline)	May lead to: - Design revisions during the design phase (noting this may be dependent on the shortlisted delivery model - e.g. D&C contractor revisions), leading to increased costs and delays - Purchase of redundant equipment (e.g. as a result of changing specifications for major medical equipment)	May be mitigated through: - Close interaction with the Proof of Concept design work - Early and ongoing engagement with key stakeholders - Retaining a level of flexibility to process minor updates to the Business Case in accordance with the 50%, 80% and 100% proof of concept milestones - Allow flexibility in the design to 'future proof' SPIRE for advances to technology / process - Standardised specifications for medical equipment, allowing the flexibility	Cost & Delay	Possible	Minor	Medium Risk	Minor	Medium Risk

Risk Identification & Description							Qualitative Analysis				
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					to incorporate latest technologies						
23	Stakeholder Risk	Risk that key ACT Government stakeholders (ACT Health, CHS, IFCW) are unavailable and/or change during the duration of the project	- Potential for stakeholders (at all levels, including management) to change over the course of the project given the length of time from design through to commissioning and operations - Need to ensure that the end project is what was agreed upon and is 'fit for purpose'; noting that this has been a challenge with respect to the completion of other large health infrastructure projects	May lead to: - Delays in obtaining required approvals and lack of stakeholder acceptance - Delays to construction, commissioning or operations - Increased costs	May be mitigated through: - Early and ongoing engagement with stakeholders - Development of a stakeholder engagement plan - Business continuity and project management planning (to mitigate against staff availability and turnover issues) - Clear governance arrangements for all phases of the project's development	Cost & Delay	Possible	Insignificant	Low Risk	Insignificant	Low Risk

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				Consequence Rating	Risk Rating	Consequence Rating	Risk Rating
24	Stakeholder Risk	Risk that additional community consultation is required following the appointment of the contractor imposing unanticipated restrictions on the project	- Community issues may develop over the project timeframe which were not covered in the DA process (e.g. parking, traffic management, noise and vibration management, shadow, building aesthetics, congestion, construction operating hours etc.) - Potential additional issues from nearby residents / Garrahan Primary School	May lead to: - Delays to construction - Special restrictions on construction (e.g. restricted hours) - Reputational risk - Community unrest with SPIRE project	May be mitigated through: - Early and ongoing stakeholder engagement and communication planning - Development of a community consultation plan - Notification and communication on expected period of high noise, vibrations, etc. - Ensuring that the DA adequately takes carriage of potential community issues with the SPIRE project (such as work conditions)	Delay	Unlikely
				Insignificant	Low Risk	Insignificant	Low Risk
25	Compliance/Regulation Risk	Risk that unanticipated changes in Federal and/or Territory laws and regulations (e.g. AusHFGs) adversely impact on the project	- It has to be noted that changes to health guidelines can occur on a regular basis. This might have an impact on the prescribed design layouts and the final design options - Given the length of time to operational commencement, it is considered that this risk is likely for the project, this is compared to an unlikely rating for UCPH	May lead to: - Cost increases (e.g. proposed design and development is incompatible with conditions / laws / regulations resulting in significant cost increases) - Requirements for specific construction sequences or processes that may adversely impact project timeline	May be mitigated through: - Early and ongoing engagement with stakeholders within the Territory to manage potential implementation of changes in law - Early liaison with the relevant health authorities	Cost & Delay	Likely
				Insignificant	Medium Risk	Minor	Medium Risk

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				Consequence Rating	Risk Rating	Consequence Rating	Risk Rating
26	Compliance/R egulation Risk	Risk of union action and/or industrial relations risk during the construction phase	- As this is a Tier 1 project, there may be potential for more activity and risk from an industrial relations perspective - The delivery model selected may inform the likelihood of this risk occurring	May lead to: - Industrial action/dispute that lead to cost increases and project delays - Reputational risk to Government	May be mitigated through: - Ongoing consultation with unions - Appropriate workplace conditions - Selection of a contractor with a proven track record - Reviews of wages - Contracting arrangements and selection of an appropriate delivery model that provides line of sight and transparency on industrial relations risks	Delay	Unlikely
						Insignificant	Low Risk
27	Compliance/R egulation Risk	Risk of significant occupational, health and safety incident(s) arising during construction	- Given the scale and complexity of the project, there may be potential for more activity and risk from an OH&S perspective - While the potential impact of compensation may be significant, this should be partly mitigated by insurance	May lead to: - Death or injury - Additional cost (for example investigation, rectifications, support payments to families) - Delays - Reputational risk to Government	May be mitigated through: - Mandating and monitoring site safety procedures and WHS compliance - Ensuring that the organisation completing the D&C have a proven track record and ISO certification(s) - Contracting arrangements and selection of an appropriate delivery model that provides line of sight and transparency on OH&S risks - Insurance provisions	Cost & Delay	Rare
						Minor	Low Risk
						Moderate	Medium Risk

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						Consequence Rating	Risk Rating
						Consequence Rating	Risk Rating
29	Procurement Risk	Risk that the documentation required to proceed to procurement is insufficient	- The delivery model selection will have a bearing on the documentation required (e.g. extent of design detail and specifications required)	May lead to: - Delays to appointing contractor - Suboptimal procurement outcome - Requirements for multiple market approaches - Limited market interest	May be mitigated through: - Detailed project management and planning to allow sufficient lead-in time to develop procurement documentation - Appropriate resourcing of procurement phase, including the appointment of specialist advisors as needed - Appropriate delivery model selection in the context of the SPIRE project that balances market feedback, level of documentation required to proceed and the Territory's objectives and risk appetite - Review and quality control (e.g. probity and legal) of procurement documentation prior to the market approach	Delay	Unlikely
						Moderate	Medium Risk
30	External Risk	Risk that extreme weather conditions and other force majeure events have a greater impact on construction than anticipated	- On previous projects, periods with large amounts of rain / flooding have led to smaller subcontractors defaulting due to not being able to work - Extreme weather conditions may also have an effect on the supply chain (especially for specialist medical equipment where substitutes are not available)	May lead to: - Delay in program as a result of extreme weather and warnings (e.g. machinery cannot be used because of total fire ban) - Increased costs and delays due to rectifications needed to parts of the facilities due to extreme weather conditions during construction	May be mitigated through: - Contractual provisions that clearly articulate contingency arrangements for extreme weather conditions - Scheduling redundancy provisions into the program using historical weather data - Insurance provisions in the contract	Delay	Rare
						Insignificant	Low Risk

Appendix D Capital Cost Estimate

ACT HEALTH
BUILDING HEALTH SERVICE PROGRAM
SPIRE - SoA 190327 Option 1A

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Department				
NEW CONSTRUCTION AREAS				
Acute Cardiac Care Unit		1,139	4,920.00	5,603,880
Interventional Cardiac Laboratories		1,107	5,690.00	6,298,830
Perioperative & Interventional Centre		8,189	5,690.00	46,595,410
Perioperative & Interventional Centre	Shell	500	2,040.00	1,020,000
Anaesthetic Department		224	4,110.00	920,640
Surgical Inpatient Unit	64 Beds	2,507	4,620.00	11,582,340
Surgical Inpatient Unit	Shell	0	2,040.00	0
ICU - Adult/HDU/PICU		2,368	5,020.00	11,887,360
ICU - Clinical Administration		494	4,110.00	2,030,340
Emergency Department		3,707	4,770.00	17,682,390
Emergency Department - Satellite Imaging		268	5,270.00	1,412,360
Emergency Department - Clinical Administration		797	4,110.00	3,275,670
Helipad/Retrieval Services		68	3,920.00	266,560
Procedure Rooms		0	5,690.00	0
CSSD		1,074	4,550.00	4,886,700
Receiving / Dispatch / Loading Dock		492	4,180.00	2,056,560
	Sub-Total SPIRE	22,934	5,037.02	115,519,040
Main Entry & Reception		250	4,310.00	1,077,500
Retail		250	3,580.00	895,000
Education and Research		0	4,160.00	0
IT Server			6,980.00	0
	Sub-Total	500	3,945.00	1,972,500
	Sub-Total	23,434	5,013.72	117,491,540
Travel		15.0%	3,516	3,170.00
Travel	Shell		0	2,040.00
Plant		18.3%	4,922	2,550.00
Plant	Shell		0	2,040.00
Tunnel Link	60m		180	6,060.00
Elevated Bridge Link	125m		375	6,280.00
Shell Space			0	2,040.00
TOTAL NEW BUILD			32,427	4,460.30
DECANTING				
Decanting of Buildings 5 and 24			0	3,620.00
	Sub-Total		0	0.00
Travel		10.0%	0	2,330.00
Plant		10.0%	0	2,030.00
TOTAL REFURB			0	0.00
TOTAL ALL (NEW AND REFURB)			32,427	4,460.30

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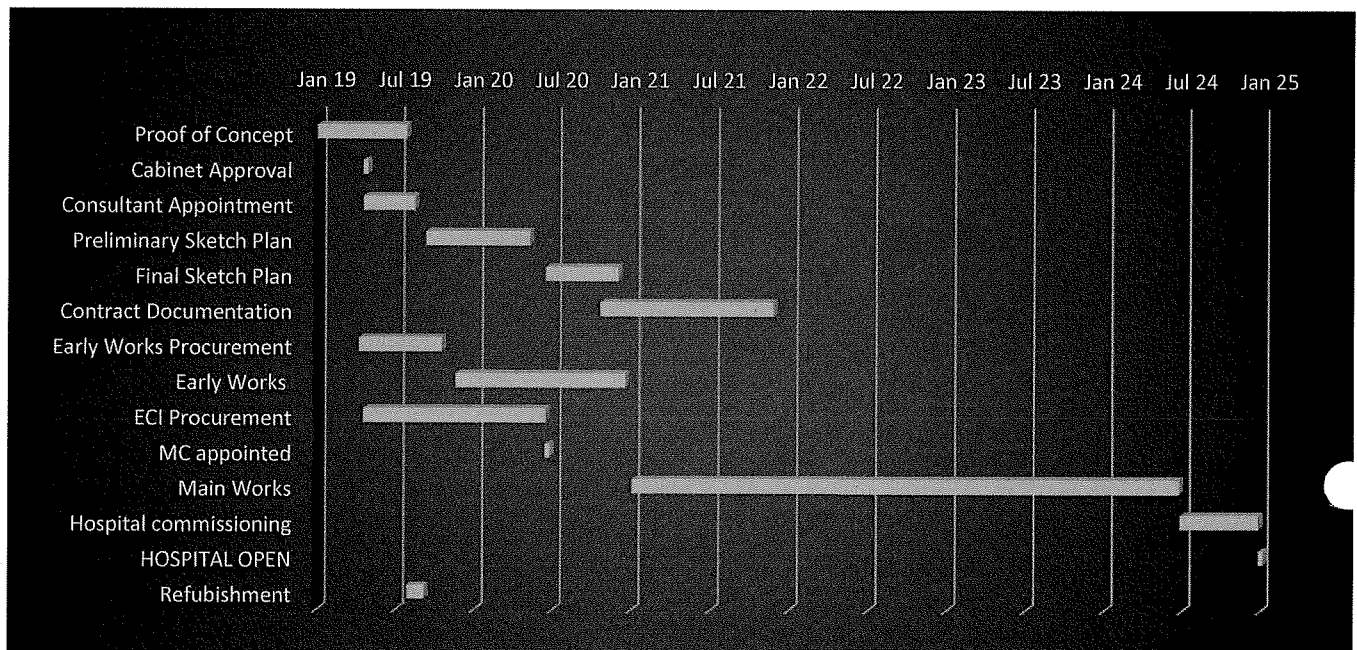
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Infrastructure							
Hydraulics						2,100,000	
Mechanical						7,686,000	
Medical Gases			included			0	
Fire						840,000	
Electrical						7,938,000	
Lifts (3xPatient, 6xPublic, 1xBOH, 2xHot, 1xHelipad)						6,300,000	24,864,000
Siteworks, Roadworks & Landscaping							
Demolition						2,688,000	
Roadworks						2,000,000	
Soft Landscaping						750,000	
Hard Landscaping						1,500,000	
Stormwater						973,000	
Temporary on-grade Car Park and Helipad						0	
Helipad Decking						3,500,000	
Entry Ramp and arrivals area						0	
Traffic Signalisation						0	
Car Park - Below Ground	0 spaces	0	2,170			0	
Car Park - Multi-deck	0 spaces	0	1,540			0	
Car Park - On grade	50 spaces	1,750	260			455,000	11,866,000
ESD						2.5%	4,535,000
SUB-TOTAL TRADE WORKS						5,732.85	185,899,000
Builder's Preliminaries						21.0%	39,039,000
Builder's Margin						5.0%	11,247,000
SUB-TOTAL						7,283.59	236,185,000
PLANNING CONTINGENCY						5.0%	11,809,000
DESIGN CONTINGENCY						5.0%	12,400,000
CONSTRUCTION CONTINGENCY						5.0%	13,020,000
CLIENT CONTINGENCY						8.0%	21,873,000
TOTAL CONSTRUCTION COST						9,106.21	295,287,000
FURNITURE FITTINGS & EQUIPMENT			Capped at VHHSBA % allowance			15.0%	44,293,000
ICT						10.0%	29,529,000
DESIGN & PROJECT MANAGEMENT						12.0%	35,434,000
ACT HEALTH MANAGEMENT FEE						1.45%	4,282,000
ARTWORKS						0.5%	1,476,000
TOTAL PROJECT COST - CURRENT DAY						12,653.07	410,301,000
ESCALATION							
To Construction Commencement							
	Jan-21	3.00%	36	0.25%	100%	9.00%	36,927,000
To Construction Completion							
	Jun-24	3.00%	42	0.25%	50%	5.25%	21,541,000
IFCW FEE						4.0%	18,751,000
TOTAL PROJECT END COST						\$15,034/m2	487,520,000

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PROGRAM	Start	Finish
Proof of Concept	Jan-19	Jul-19
<i>Cabinet Approval</i>		<i>Apr-19</i>
Consultant Appointment	Apr-19	Aug-19
Preliminary Sketch Plan	Sep-19	May-20
Final Sketch Plan	Jun-20	Dec-20
Contract Documentation	Oct-20	Nov-21
Early Works Procurement	Apr-19	Oct-19
Early Works	Nov-19	Dec-20
ECI Procurement	Apr-19	Jun-20
MC appointed		<i>Jun-20</i>
Main Works	Jan-21	Jun-24
Hospital commissioning	Jul-24	Dec-24
HOSPITAL OPEN		Jan-25
Refurbishment	Jul-19	Sep-19



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MODALITIES					
Acute Cardiac Care Unit		3.6%	1,139	15,498.68	17,653,000
Interventional Cardiac Laboratories		4.1%	1,107	17,924.12	19,842,000
Perioperative & Interventional Centre		30.1%	8,189	17,924.53	146,784,000
Perioperative & Interventional Centre	Shell	0.7%	500	6,426.00	3,213,000
Anaesthetic Department		0.6%	224	12,946.43	2,900,000
Surgical Inpatient Unit	64 Beds	7.5%	2,507	14,553.65	36,486,000
Surgical Inpatient Unit	Shell	0.0%	0	0.00	0
ICU - Adult/HDU/PICU		7.7%	2,368	15,813.77	37,447,000
ICU - Clinical Administration		1.3%	494	12,947.37	6,396,000
Emergency Department		11.4%	3,707	15,026.44	55,703,000
Emergency Department - Satellite Imaging		0.9%	268	16,600.75	4,449,000
Emergency Department - Clinical Administration		2.1%	797	12,947.30	10,319,000
Helipad/Retrieval Services		0.2%	68	12,352.94	840,000
Procedure Rooms		0.0%	0	0.00	0
CSSD		3.2%	1,074	14,333.33	15,394,000
Receiving / Dispatch / Loading Dock		1.3%	492	13,168.70	6,479,000
Main Entry & Reception		0.7%	250	13,576.00	3,394,000
Retail		0.6%	250	11,276.00	2,819,000
Sub-Total SPIRE		75.9%	23,434	15,794.06	370,118,000
Travel	15.0%	7.2%	3,516	9,986.06	35,111,000
Travel	Shell	0.0%	0	0.00	0
Plant	18.3%	8.1%	4,922	8,032.91	39,538,000
Plant	Shell	0.0%	0	0.00	0
Tunnel Link	60m	0.7%	180	19,088.89	3,436,000
Elevated Bridge Link	125m	1.5%	375	19,784.00	7,419,000
Shell Space		0.0%	0	0.00	0
TOTAL NEW BUILD		93.5%	32,427	14,050.70	455,622,000
Siteworks, Roadworks & Landscaping		6.5%			31,898,000
TOTAL PROJECT END COST		100.0%		\$15,034/m2	487,520,000

**ACT HEALTH
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Total GFA
Site Area

32,427 m2
ha

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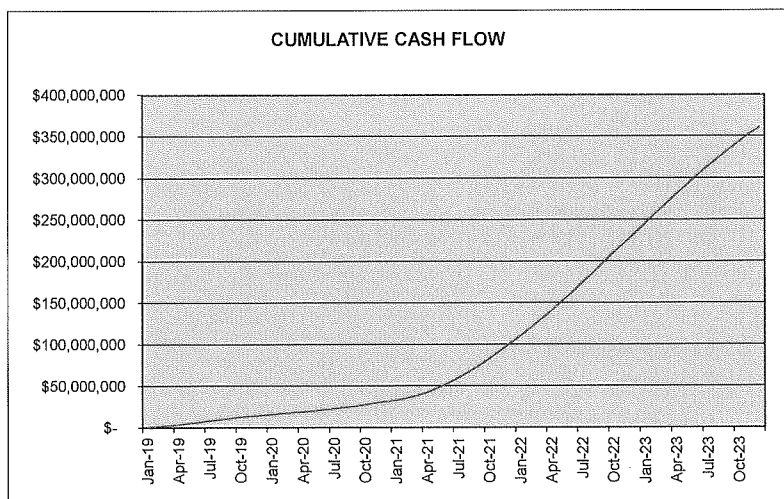
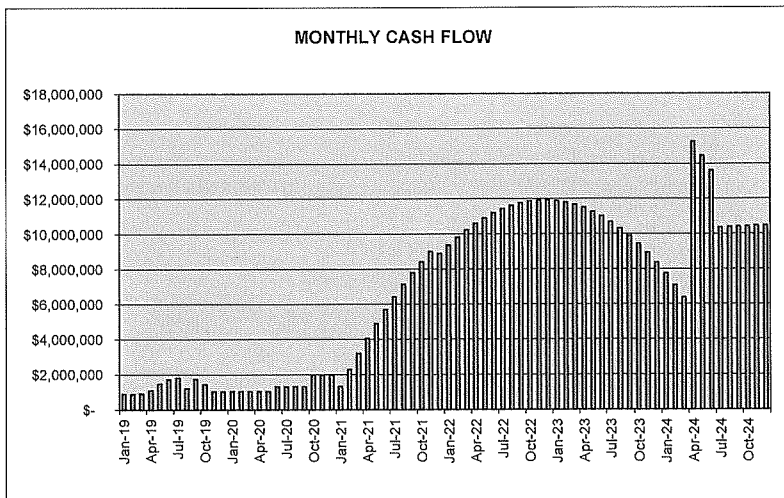
Design and Construction Costs	
Substructure	
Columns	
Upper Floors	
Stairs	
Roof	
External Walls	
Windows	
External Doors	
Internal Walls	
Internal Screens	
Internal Doors	
Wall Finishes	
Floor Finishes	
Ceiling Finishes	
Fittings	
Special Equipment	
Hydraulics	
Mechanical	
Electrical	
Security	
Fire Protection	
Lifts	
Demolition & Alterations	
Site Preparation	
Roads, Car Parking and Paving	
Outbuildings & Covered Ways	
Fences and Gates	
Landscaping	
External Services	
Furniture Fittings and Equipment	
ICT	
Preliminaries	
Sub-Total	
	<i>cost/m2</i>
Contingencies	
Fees and Artwork	
TOTAL COSTS - Current Day	
	<i>cost/m2</i>
Escalation	
State Costs	

Capital Costs (\$)			% of Capital Costs
7,026,357			1.71%
2,635,131			0.64%
13,824,464			3.37%
954,700			0.23%
5,141,939			1.25%
20,479,389			4.99%
-			0.00%
323,775			0.08%
13,130,006			3.20%
3,150,443			0.77%
3,282,042			0.80%
1,990,811			0.49%
3,690,982			0.90%
3,564,380			0.87%
6,629,015			1.62%
339,741			0.08%
10,960,470			2.67%
33,962,900			8.28%
24,327,829			5.93%
7,150,958			1.74%
5,494,941			1.34%
5,990,841			1.46%
-			
2,683,897			0.65%
2,451,252			
3,494,657			
-			
2,246,565			0.55%
971,515			
44,293,000			10.80%
29,529,000			7.20%
50,286,000			12.26%
310,007,000	0	0	75.56%
9,560			
59,102,000			14.40%
41,192,000			10.04%
410,301,000			100.00%
12,653			
58,468,000			14.25%
18,751,000			4.57%

ACT HEALTH
BUILDING HEALTH SERVICE PROGRAM
SPIRE - SoA 190327 Option 1A
Cash Flow

DONALD
CANT
WATTS
CORKE

Month	Monthly Cash Flow	Cumulative Cash Flow
Jan-19	\$ 899,698	\$ 899,698
Feb-19	\$ 901,640	\$ 1,801,338
Mar-19	\$ 903,586	\$ 2,704,924
Apr-19	\$ 1,096,924	\$ 3,801,848
May-19	\$ 1,466,696	\$ 5,268,543
Jun-19	\$ 1,705,241	\$ 6,973,785
Jul-19	\$ 1,811,707	\$ 8,785,491
Aug-19	\$ 1,205,133	\$ 9,990,624
Sep-19	\$ 1,742,403	\$ 11,733,027
Oct-19	\$ 1,447,715	\$ 13,180,742
Nov-19	\$ 1,037,256	\$ 14,217,998
Dec-19	\$ 1,039,495	\$ 15,257,493
Jan-20	\$ 1,041,738	\$ 16,299,231
Feb-20	\$ 1,043,986	\$ 17,343,217
Mar-20	\$ 1,046,239	\$ 18,389,456
Apr-20	\$ 1,048,497	\$ 19,437,952
May-20	\$ 1,050,759	\$ 20,488,712
Jun-20	\$ 1,310,480	\$ 21,799,192
Jul-20	\$ 1,313,308	\$ 23,112,500
Aug-20	\$ 1,316,143	\$ 24,428,643
Sep-20	\$ 1,318,983	\$ 25,747,626
Oct-20	\$ 1,974,056	\$ 27,721,681
Nov-20	\$ 1,978,316	\$ 29,699,997
Dec-20	\$ 1,982,585	\$ 31,682,583
Jan-21	\$ 1,334,645	\$ 33,017,228
Feb-21	\$ 2,284,130	\$ 35,301,358
Mar-21	\$ 3,193,856	\$ 38,495,214
Apr-21	\$ 4,063,552	\$ 42,558,767
May-21	\$ 4,892,946	\$ 47,451,713
Jun-21	\$ 5,681,766	\$ 53,133,479
Jul-21	\$ 6,429,736	\$ 59,563,215
Aug-21	\$ 7,136,581	\$ 66,699,796
Sep-21	\$ 7,802,025	\$ 74,501,821
Oct-21	\$ 8,425,790	\$ 82,927,611
Nov-21	\$ 9,007,598	\$ 91,935,209
Dec-21	\$ 8,874,955	\$ 100,810,164
Jan-22	\$ 9,370,553	\$ 110,180,717
Feb-22	\$ 9,823,345	\$ 120,004,063
Mar-22	\$ 10,233,048	\$ 130,237,111
Apr-22	\$ 10,599,376	\$ 140,836,486
May-22	\$ 10,922,042	\$ 151,758,528
Jun-22	\$ 11,200,759	\$ 162,959,287
Jul-22	\$ 11,435,238	\$ 174,394,525
Aug-22	\$ 11,625,189	\$ 186,019,715
Sep-22	\$ 11,770,321	\$ 197,790,035
Oct-22	\$ 11,870,340	\$ 209,660,375
Nov-22	\$ 11,924,952	\$ 221,585,327
Dec-22	\$ 11,933,863	\$ 233,519,190
Jan-23	\$ 11,896,777	\$ 245,415,967
Feb-23	\$ 11,813,394	\$ 257,229,361
Mar-23	\$ 11,683,416	\$ 268,912,776
Apr-23	\$ 11,506,543	\$ 280,419,319
May-23	\$ 11,282,473	\$ 291,701,792
Jun-23	\$ 11,010,903	\$ 302,712,695
Jul-23	\$ 10,691,528	\$ 313,404,223
Aug-23	\$ 10,324,044	\$ 323,728,267
Sep-23	\$ 9,908,143	\$ 333,636,411
Oct-23	\$ 9,443,517	\$ 343,079,928
Nov-23	\$ 8,929,857	\$ 352,009,785
Dec-23	\$ 8,366,851	\$ 360,376,636
Jan-24	\$ 7,754,188	\$ 368,130,824
Feb-24	\$ 7,091,554	\$ 375,222,378
Mar-24	\$ 6,378,633	\$ 381,601,012
Apr-24	\$ 15,256,942	\$ 396,857,954
May-24	\$ 14,463,308	\$ 411,321,261
Jun-24	\$ 13,618,479	\$ 424,939,741
Jul-24	\$ 10,373,914	\$ 435,313,654
Aug-24	\$ 10,396,301	\$ 445,709,955
Sep-24	\$ 10,418,737	\$ 456,128,692
Oct-24	\$ 10,441,221	\$ 466,569,912
Nov-24	\$ 10,463,753	\$ 477,033,666
Dec-24	\$ 10,486,334	\$ 487,520,000



Financial Year	Annual Cash Flow	Cumulative Cash Flow
2017-2018	\$ -	\$ -
2018-2019	\$ 6,973,785	\$ 6,973,785
2019-2020	\$ 14,825,407	\$ 21,799,192
2020-2021	\$ 31,334,287	\$ 53,133,479
2021-2022	\$ 109,825,808	\$ 162,959,287
2022-2023	\$ 139,753,408	\$ 302,712,695
2023-2024	\$ 122,227,046	\$ 424,939,741
2024-2025	\$ 62,580,259	\$ 487,520,000

ACT HEALTH
BUILDING HEALTH SERVICE PROGRAM
SPIRE - SoA 190327 Option 1B

**DONALD
CANT
WATTS
CORKE**

Department				
NEW CONSTRUCTION AREAS				
Acute Cardiac Care Unit		1,139	4,920.00	5,603,880
Interventional Cardiac Laboratories		1,107	5,690.00	6,298,830
Perioperative & Interventional Centre		8,189	5,690.00	46,595,410
Perioperative & Interventional Centre	Shell	500	2,040.00	1,020,000
Anaesthetic Department		224	4,110.00	920,640
Surgical Inpatient Unit	64 Beds	2,507	4,620.00	11,582,340
Surgical Inpatient Unit	Shell		2,040.00	0
ICU - Adult/HDU/PICU		2,811	5,020.00	14,111,220
ICU - Clinical Administration		494	4,110.00	2,030,340
Emergency Department		4,123	4,770.00	19,666,710
Emergency Department - Satellite Imaging		268	5,270.00	1,412,360
Emergency Department - Clinical Administration		797	4,110.00	3,275,670
Helipad/Retrieval Services		68	3,920.00	266,560
Procedure Rooms		0	5,690.00	0
CSSD		1,074	4,550.00	4,886,700
Receiving / Dispatch / Loading Dock		492	4,180.00	2,056,560
	Sub-Total SPIRE	23,793	5,032.04	119,727,220
Main Entry & Reception		250	4,310.00	1,077,500
Retail		250	3,580.00	895,000
Education and Research		0	4,160.00	0
IT Server			6,980.00	0
	Sub-Total	500	3,945.00	1,972,500
	Sub-Total	24,293	5,009.66	121,699,720
Travel	15.0%	3,644	3,170.00	11,551,480
Travel	Shell	0	2,040.00	0
Plant	18.3%	5,102	2,550.00	13,010,100
Plant	Shell	0	2,040.00	0
Tunnel Link	60m	180	6,060.00	1,090,800
Elevated Bridge Link	125m	375	6,280.00	2,355,000
Shell Space		0	2,040.00	0
TOTAL NEW BUILD		33,594	4,456.36	149,707,000
DECANTING				
Decanting of Buildings 5 and 24		0	3,620.00	0
	Sub-Total	0	0.00	0
Travel	10.0%	0	2,330.00	0
Plant	10.0%	0	2,030.00	0
TOTAL REFURB		0	0.00	0
TOTAL ALL (NEW AND REFURB)		33,594	4,456.36	149,707,000

**ACT HEALTH
BUILDING HEALTH SERVICE PROGRAM
SPIRE - SoA 190327 Option 1B**

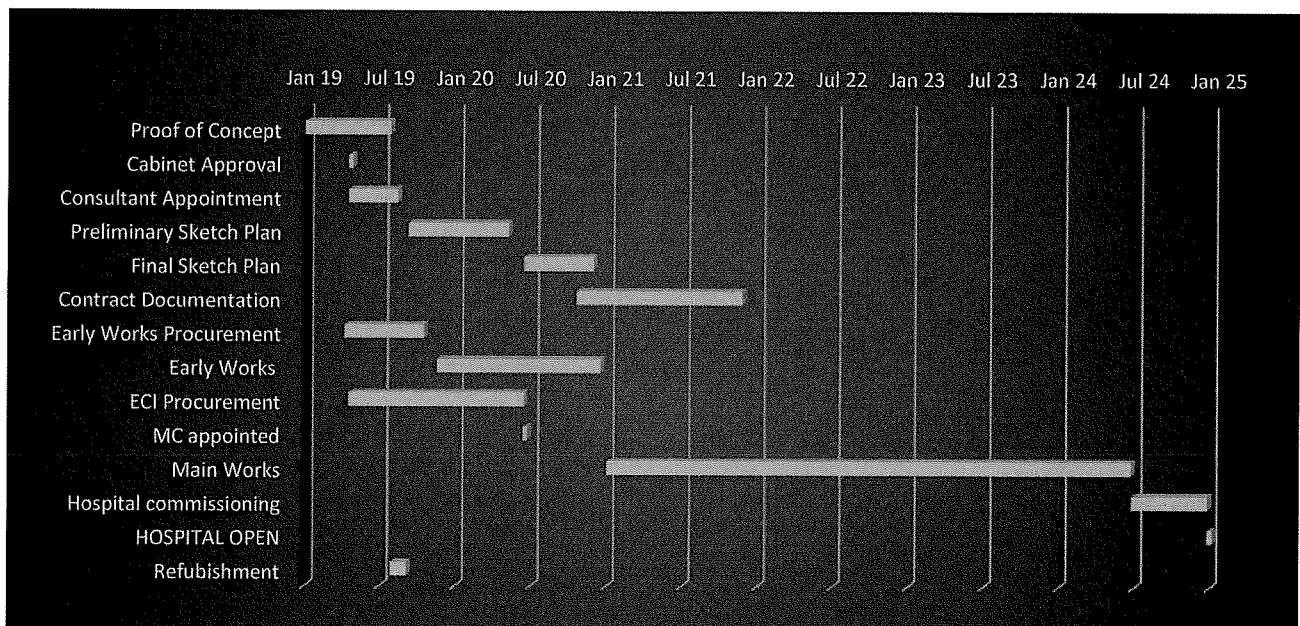
**DONALD
CANT
WATTS
CORKE**

Infrastructure							
Hydraulics						2,232,000	
Mechanical						8,167,000	
Medical Gases			included			0	
Fire						893,000	
Electrical						8,435,000	
Lifts (3xPatient, 6xPublic, 1xBOH, 2xHot, 1xHelipad)						6,300,000	26,027,000
Siteworks, Roadworks & Landscaping							
Demolition						2,500,000	
Roadworks						2,000,000	
Soft Landscaping						750,000	
Hard Landscaping						1,000,000	
Stormwater						1,008,000	
Temporary on-grade Car Park and Helipad						0	
Helipad Decking	Single					3,500,000	
Entry Ramp and arrivals area						0	
Traffic Signalisation						0	
Car Park - Below Ground	0 spaces	0		2,170		0	
Car Park - Multi-deck	0 spaces	0		1,540		0	
Car Park - On grade	50 spaces	1,750	260			455,000	11,213,000
ESD						2.5%	4,674,000
SUB-TOTAL TRADE WORKS						5,704.02	191,621,000
Builder's Preliminaries						21.0%	40,241,000
Builder's Margin						4.5%	10,434,000
SUB-TOTAL						7,212.48	242,296,000
PLANNING CONTINGENCY						5.0%	12,115,000
DESIGN CONTINGENCY						5.0%	12,721,000
CONSTRUCTION CONTINGENCY						5.0%	13,357,000
CLIENT CONTINGENCY						8.0%	22,439,000
TOTAL CONSTRUCTION COST						Total Contingency 25.02%	9,017.32 302,928,000
FURNITURE FITTINGS & EQUIPMENT						Capped at VHHSBA % allowance 15.0%	45,439,000
ICT						10.0%	30,293,000
DESIGN & PROJECT MANAGEMENT						12.0%	36,351,000
ACT HEALTH MANAGEMENT FEE						1.45%	4,392,000
ARTWORKS						0.5%	1,515,000
TOTAL PROJECT COST - CURRENT DAY						Jan-18 12,529.56	420,918,000
ESCALATION							
To Construction Commencement							
	Jan-21	3.00%	36	0.25%	100%	9.00%	37,883,000
To Construction Completion							
	Jun-24	3.00%	42	0.25%	44%	4.58%	19,270,000
IFCW FEE						4.0%	19,123,000
TOTAL PROJECT END COST						\$14,800/m2	497,194,000

**ACT HEALTH
BUILDING HEALTH SERVICE PROGRAM
SPIRE - SoA 190327 Option 1B**

**DONALD
CANT
WATTS
CORKE**

PROGRAM	Start	Finish
Proof of Concept	Jan-19	Jul-19
<i>Cabinet Approval</i>		<i>Apr-19</i>
Consultant Appointment	Apr-19	Aug-19
Preliminary Sketch Plan	Sep-19	May-20
Final Sketch Plan	Jun-20	Dec-20
Contract Documentation	Oct-20	Nov-21
Early Works Procurement	Apr-19	Oct-19
Early Works	Nov-19	Dec-20
ECI Procurement	Apr-19	Jun-20
MC appointed		<i>Jun-20</i>
Main Works	Jan-21	Jun-24
Hospital commissioning	Jul-24	Dec-24
HOSPITAL OPEN		Jan-25
Refurbishment	Jul-19	Sep-19



ACT HEALTH
BUILDING HEALTH SERVICE PROGRAM
SPIRE - SoA 190327 Option 1B

**DONALD
CANT
WATTS
CORKE**

MODALITIES						
Acute Cardiac Care Unit		3.5%	1,139	15,359.96	17,495,000	
Interventional Cardiac Laboratories		4.0%	1,107	17,763.32	19,664,000	
Perioperative & Interventional Centre		29.3%	8,189	17,763.71	145,467,000	
Perioperative & Interventional Centre	Shell	0.6%	500	6,368.00	3,184,000	
Anaesthetic Department		0.6%	224	12,830.36	2,874,000	
Surgical Inpatient Unit	64 Beds	7.3%	2,507	14,423.21	36,159,000	
Surgical Inpatient Unit	Shell	0.0%	0	0.00	0	
ICU - Adult/HDU/PICU		8.9%	2,811	15,672.00	44,054,000	
ICU - Clinical Administration		1.3%	494	12,831.98	6,339,000	
Emergency Department		12.3%	4,123	14,891.58	61,398,000	
Emergency Department - Satellite Imaging		0.9%	268	16,451.49	4,409,000	
Emergency Department - Clinical Administration		2.1%	797	12,830.61	10,226,000	
Helipad/Retrieval Services		0.2%	68	12,235.29	832,000	
Procedure Rooms		0.0%	0	0.00	0	
CSSD		3.1%	1,074	14,204.84	15,256,000	
Receiving / Dispatch / Loading Dock		1.3%	492	13,048.78	6,420,000	
Main Entry & Reception		0.7%	250	13,456.00	3,364,000	
Retail		0.6%	250	11,176.00	2,794,000	
Sub-Total SPIRE		76.4%	24,293	15,639.69	379,935,000	
Travel		15.0%	7.3%	3,644	9,896.54	36,063,000
Travel	Shell		0.0%	0	0.00	0
Plant		18.3%	8.2%	5,102	7,960.80	40,616,000
Plant	Shell		0.0%	0	0.00	0
Tunnel Link	60m		0.7%	180	18,916.67	3,405,000
Elevated Bridge Link	125m		1.5%	375	19,605.33	7,352,000
Shell Space			0.0%	0	0.00	0
TOTAL NEW BUILD		94.0%	33,594	13,912.34	467,371,000	
Siteworks, Roadworks & Landscaping		6.0%			29,822,000	
TOTAL PROJECT END COST		100.0%		\$14,800/m2	497,193,000	

**ACT HEALTH
BUILDING HEALTH SERVICE PROGRAM
SPIRE - SoA 190327 Option 1B**

Total GFA
Site Area

33,594 m2
ha

**DONALD
CANT
WATTS
CORKE**

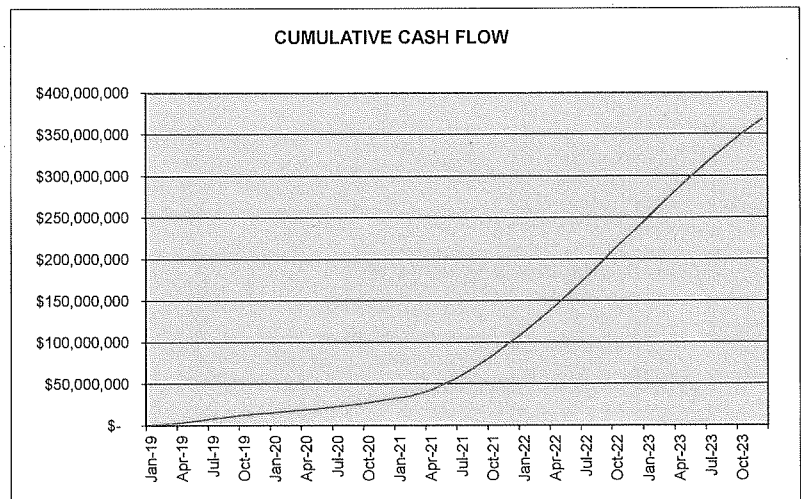
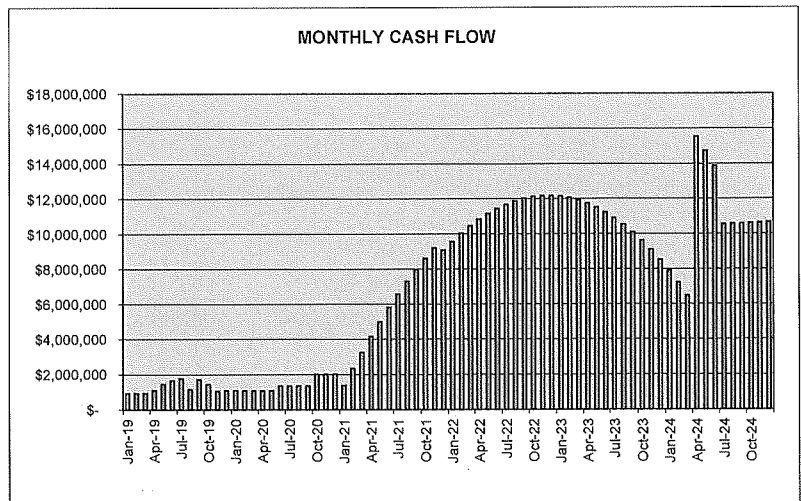
Design and Construction Costs	
Substructure	
Columns	
Upper Floors	
Stairs	
Roof	
External Walls	
Windows	
External Doors	
Internal Walls	
Internal Screens	
Internal Doors	
Wall Finishes	
Floor Finishes	
Ceiling Finishes	
Fittings	
Special Equipment	
Hydraulics	
Mechanical	
Electrical	
Security	
Fire Protection	
Lifts	
Demolition & Alterations	
Site Preparation	
Roads, Car Parking and Paving	
Outbuildings & Covered Ways	
Fences and Gates	
Landscaping	
External Services	
Furniture Fittings and Equipment	
ICT	
Preliminaries	
Sub-Total	<i>cost/m2</i>
Contingencies	
Fees and Artwork	
TOTAL COSTS - Current Day	<i>cost/m2</i>
Escalation	
State Costs	

Capital Costs (\$)			% of Capital Costs
7,277,285			1.73%
2,735,070			0.65%
14,354,959			3.41%
992,095			0.24%
5,329,819			1.27%
21,230,695			5.04%
-			0.00%
336,254			0.08%
13,525,541			3.21%
3,315,822			0.79%
3,422,021			0.81%
2,070,450			0.49%
3,835,776			0.91%
3,704,564			0.88%
6,939,520			1.65%
353,475			0.08%
11,393,505			2.71%
35,189,292			8.36%
25,316,791			6.01%
7,431,838			1.77%
5,637,163			1.34%
6,005,600			1.43%
-			
2,502,333			0.59%
2,457,291			
3,503,266			
-			
1,751,633			0.42%
1,008,941			
45,439,000			10.80%
30,293,000			7.20%
50,675,000			12.04%
318,028,000	0	0	75.56%
9,467			
60,632,000			14.40%
42,258,000			10.04%
420,918,000			100.00%
12,530			
57,153,000			13.58%
19,123,000			4.54%

ACT HEALTH
BUILDING HEALTH SERVICE PROGRAM
SPIRE - SoA 190327 Option 1B
Cash Flow

DONALD
CANT
WATTS
CORKE

Month	Monthly Cash Flow	Cumulative Cash Flow
Jan-19	\$ 920,293	\$ 920,293
Feb-19	\$ 922,190	\$ 1,842,484
Mar-19	\$ 924,092	\$ 2,766,575
Apr-19	\$ 1,102,897	\$ 3,869,472
May-19	\$ 1,444,730	\$ 5,314,203
Jun-19	\$ 1,665,230	\$ 6,979,433
Jul-19	\$ 1,763,640	\$ 8,743,072
Aug-19	\$ 1,145,177	\$ 9,888,250
Sep-19	\$ 1,711,412	\$ 11,599,661
Oct-19	\$ 1,439,243	\$ 13,038,904
Nov-19	\$ 1,060,193	\$ 14,099,097
Dec-19	\$ 1,062,378	\$ 15,161,475
Jan-20	\$ 1,064,569	\$ 16,226,044
Feb-20	\$ 1,066,763	\$ 17,292,807
Mar-20	\$ 1,068,963	\$ 18,361,770
Apr-20	\$ 1,071,166	\$ 19,432,936
May-20	\$ 1,073,375	\$ 20,506,311
Jun-20	\$ 1,338,968	\$ 21,845,279
Jul-20	\$ 1,341,729	\$ 23,187,008
Aug-20	\$ 1,344,495	\$ 24,531,503
Sep-20	\$ 1,347,267	\$ 25,878,769
Oct-20	\$ 2,017,030	\$ 27,895,799
Nov-20	\$ 2,021,188	\$ 29,916,987
Dec-20	\$ 2,025,355	\$ 31,942,343
Jan-21	\$ 1,362,832	\$ 33,305,175
Feb-21	\$ 2,334,680	\$ 35,639,854
Mar-21	\$ 3,265,642	\$ 38,905,497
Apr-21	\$ 4,155,455	\$ 43,060,952
May-21	\$ 5,003,852	\$ 48,064,804
Jun-21	\$ 5,810,565	\$ 53,875,369
Jul-21	\$ 6,575,326	\$ 60,450,695
Aug-21	\$ 7,297,865	\$ 67,748,560
Sep-21	\$ 7,977,910	\$ 75,726,470
Oct-21	\$ 8,615,191	\$ 84,341,661
Nov-21	\$ 9,209,434	\$ 93,551,096
Dec-21	\$ 9,073,868	\$ 102,624,964
Jan-22	\$ 9,579,796	\$ 112,204,759
Feb-22	\$ 10,041,857	\$ 122,246,616
Mar-22	\$ 10,459,773	\$ 132,706,389
Apr-22	\$ 10,833,265	\$ 143,539,654
May-22	\$ 11,162,054	\$ 154,701,708
Jun-22	\$ 11,445,858	\$ 166,147,566
Jul-22	\$ 11,684,395	\$ 177,831,962
Aug-22	\$ 11,877,382	\$ 189,709,344
Sep-22	\$ 12,024,533	\$ 201,733,877
Oct-22	\$ 12,125,564	\$ 213,859,441
Nov-22	\$ 12,180,186	\$ 226,039,626
Dec-22	\$ 12,188,111	\$ 238,227,738
Jan-23	\$ 12,149,051	\$ 250,376,789
Feb-23	\$ 12,062,715	\$ 262,439,504
Mar-23	\$ 11,928,811	\$ 274,368,315
Apr-23	\$ 11,747,045	\$ 286,115,360
May-23	\$ 11,517,124	\$ 297,632,484
Jun-23	\$ 11,238,752	\$ 308,871,237
Jul-23	\$ 10,911,633	\$ 319,782,870
Aug-23	\$ 10,535,469	\$ 330,318,339
Sep-23	\$ 10,109,960	\$ 340,428,299
Oct-23	\$ 9,634,807	\$ 350,063,106
Nov-23	\$ 9,109,708	\$ 359,172,814
Dec-23	\$ 8,534,359	\$ 367,707,173
Jan-24	\$ 7,908,458	\$ 375,615,631
Feb-24	\$ 7,231,698	\$ 382,847,329
Mar-24	\$ 6,503,774	\$ 389,351,104
Apr-24	\$ 15,544,582	\$ 404,895,686
May-24	\$ 14,733,650	\$ 419,629,336
Jun-24	\$ 13,870,668	\$ 433,500,004
Jul-24	\$ 10,561,083	\$ 444,061,086
Aug-24	\$ 10,582,856	\$ 454,643,942
Sep-24	\$ 10,604,674	\$ 465,248,617
Oct-24	\$ 10,626,538	\$ 475,875,155
Nov-24	\$ 10,548,446	\$ 486,523,601
Dec-24	\$ 10,670,399	\$ 497,194,000



Financial Year	Annual Cash Flow	Cumulative Cash Flow
2017-2018	\$ -	\$ -
2018-2019	\$ 6,979,433	\$ 6,979,433
2019-2020	\$ 14,865,847	\$ 21,845,279
2020-2021	\$ 32,030,090	\$ 53,875,369
2021-2022	\$ 112,272,197	\$ 166,147,566
2022-2023	\$ 142,723,670	\$ 308,871,237
2023-2024	\$ 124,628,767	\$ 433,500,004
2024-2025	\$ 63,693,996	\$ 497,194,000

ACT HEALTH
BUILDING HEALTH SERVICE PROGRAM
SPIRE - SoA 190403 Option 2B

**DONALD
CANT
WATTS
CORKE**

Department				
NEW CONSTRUCTION AREAS				
Acute Cardiac Care Unit		1,139	4,920.00	5,603,880
Interventional Cardiac Laboratories		1,614	5,690.00	9,183,660
Perioperative & Interventional Centre		9,441	5,690.00	53,719,290
Perioperative & Interventional Centre	Shell	0	2,040.00	0
Anaesthetic Department		246	4,110.00	1,011,060
Surgical Inpatient Unit	64 Beds	2,659	4,620.00	12,284,580
Surgical Inpatient Unit	Shell		2,040.00	0
ICU - Adult/HDU/PICU		3,625	5,020.00	18,197,500
ICU - Clinical Administration		510	4,110.00	2,096,100
Emergency Department		5,505	4,770.00	26,258,850
Emergency Department - Satellite Imaging		371	5,270.00	1,955,170
Emergency Department - Clinical Administration			4,110.00	0
MHSSU		534	4,770.00	2,547,180
Helipad/Retrieval Services		68	3,920.00	266,560
Procedure Rooms		0	5,690.00	0
CSSD		1,438	4,550.00	6,542,900
Receiving / Dispatch / Loading Dock		1,338	4,180.00	5,592,840
	Sub-Total SPIRE	28,488	5,098.97	145,259,570
Main Entry & Reception		250	4,310.00	1,077,500
Retail		250	3,580.00	895,000
Education and Research		0	4,160.00	0
IT Server			6,980.00	0
	Sub-Total	500	3,945.00	1,972,500
	Sub-Total	28,988	5,079.07	147,232,070
Travel	15.0%	4,349	3,170.00	13,786,330
Travel	Shell	0	2,040.00	0
Plant	18.3%	6,088	2,550.00	15,524,400
Plant	Shell	0	2,040.00	0
Tunnel Link	60m	180	6,060.00	1,090,800
Elevated Bridge Link	125m	375	6,280.00	2,355,000
Shell Space		0	2,040.00	0
TOTAL NEW BUILD		39,980	4,501.98	179,989,000
DECANTING				
Decanting of Buildings 5 and 24		0	3,620.00	0
	Sub-Total	0	0.00	0
Travel	10.0%	0	2,330.00	0
Plant	10.0%	0	2,030.00	0
TOTAL REFURB		0	0.00	0
TOTAL ALL (NEW AND REFURB)		39,980	4,501.98	179,989,000

ACT HEALTH
BUILDING HEALTH SERVICE PROGRAM
SPIRE - SoA 190403 Option 2B

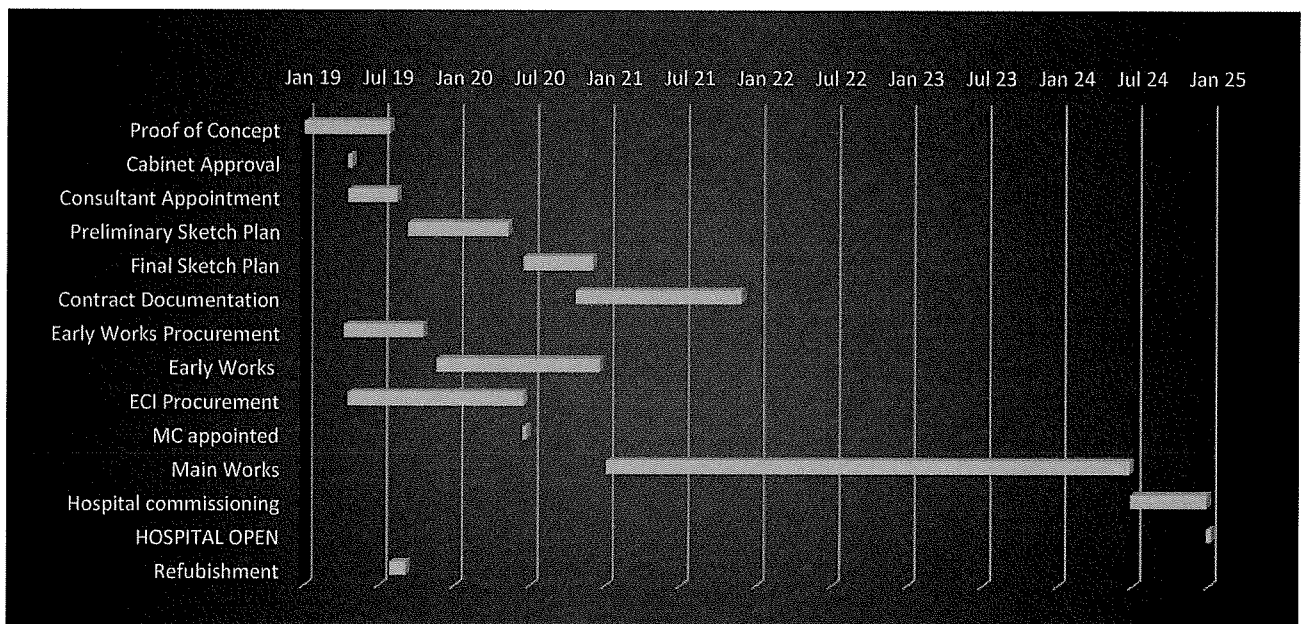
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Infrastructure							
Hydraulics						2,625,000	
Mechanical						9,608,000	
Medical Gases				included		0	
Fire						1,050,000	
Electrical						9,923,000	
Lifts (4xPatient, 6xPublic, 1xBOH, 2xHot, 1xHelipad)						7,088,000	30,294,000
Siteworks, Roadworks & Landscaping							
Demolition						2,500,000	
Roadworks						2,000,000	
Soft Landscaping						750,000	
Hard Landscaping						1,000,000	
Stormwater						1,200,000	
Temporary on-grade Car Park and Helipad						0	
Helipad Decking		Twin				5,000,000	
Entry Ramp and arrivals area						0	
Traffic Signalisation						0	
Car Park - Below Ground	0 spaces	0	2,170			0	
Car Park - Multi-deck	0 spaces	0	1,540			0	
Car Park - On grade	50 spaces	1,750	260			455,000	12,905,000
ESD						2.5%	5,580,000
SUB-TOTAL TRADE WORKS						5,722.06	228,768,000
Builder's Preliminaries						21.0%	48,042,000
Builder's Margin						4.5%	12,457,000
SUB-TOTAL						7,235.29	289,267,000
PLANNING CONTINGENCY						5.0%	14,463,000
DESIGN CONTINGENCY						5.0%	15,187,000
CONSTRUCTION CONTINGENCY						5.0%	15,946,000
CLIENT CONTINGENCY						8.0%	26,789,000
TOTAL CONSTRUCTION COST						Total Contingency 25.02%	9,045.82 361,652,000
FURNITURE FITTINGS & EQUIPMENT					Capped at VHHSBA % allowance	15.0%	54,248,000
ICT						10.0%	36,165,000
DESIGN & PROJECT MANAGEMENT						12.0%	43,398,000
ACT HEALTH MANAGEMENT FEE						1.45%	5,244,000
ARTWORKS						0.5%	1,808,000
TOTAL PROJECT COST - CURRENT DAY						Jan-18 12,569.16	502,515,000
ESCALATION							
To Construction Commencement							
	Jan-21	3.00%	36	0.25%	100%	9.00%	45,226,000
To Construction Completion							
	Jun-24	3.00%	42	0.25%	44%	4.58%	23,005,000
IFCW FEE						4.0%	22,830,000
TOTAL PROJECT END COST						\$14,847/m2	593,576,000

ACT HEALTH
BUILDING HEALTH SERVICE PROGRAM
SPIRE - SoA 190403 Option 2B

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PROGRAM	Start	Finish
Proof of Concept	Jan-19	Jul-19
<i>Cabinet Approval</i>		<i>Apr-19</i>
Consultant Appointment	Apr-19	Aug-19
Preliminary Sketch Plan	Sep-19	May-20
Final Sketch Plan	Jun-20	Dec-20
Contract Documentation	Oct-20	Nov-21
Early Works Procurement	Apr-19	Oct-19
Early Works	Nov-19	Dec-20
ECI Procurement	Apr-19	Jun-20
MC appointed		<i>Jun-20</i>
Main Works	Jan-21	Jun-24
Hospital commissioning	Jul-24	Dec-24
HOSPITAL OPEN		Jan-25
Refurbishment	Jul-19	Sep-19



ACT HEALTH
BUILDING HEALTH SERVICE PROGRAM
SPIRE - SoA 190403 Option 2B

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MODALITIES						
MODALITIES						
Acute Cardiac Care Unit		2.9%	1,139	15,227.39	17,344,000	
Interventional Cardiac Laboratories		4.8%	1,614	17,610.90	28,424,000	
Perioperative & Interventional Centre		28.0%	9,441	17,610.95	166,265,000	
Perioperative & Interventional Centre		Shell	0.0%	0	0	
Anaesthetic Department		0.5%	246	12,719.51	3,129,000	
Surgical Inpatient Unit	64 Beds	6.4%	2,659	14,299.36	38,022,000	
Surgical Inpatient Unit	Shell	0.0%	0	0.00	0	
ICU - Adult/HDU/PICU		9.5%	3,625	15,537.10	56,322,000	
ICU - Clinical Administration		1.1%	510	12,721.57	6,488,000	
Emergency Department		13.7%	5,505	14,763.49	81,273,000	
Emergency Department - Satellite Imaging		1.0%	371	16,309.97	6,051,000	
Emergency Department - Clinical Administration		0.0%	0	0.00	0	
MHSSU		1.3%	534	14,764.04	7,884,000	
Helipad/Retrieval Services		2.7%	68	239,705.88	16,300,000	
Procedure Rooms		0.0%	0	0.00	0	
CSSD		3.4%	1,438	14,082.75	20,251,000	
Receiving / Dispatch / Loading Dock		2.9%	1,338	12,937.22	17,310,000	
Main Entry & Reception		0.6%	250	13,340.00	3,335,000	
Retail		0.004667	250	11,080.00	2,770,000	
Sub-Total :		1	28,988	16,253.90	471,168,000	
Travel		15.0%	7.2%	4,349	9,811.45	42,670,000
Travel		Shell	0.0%	0	0.00	0
Plant		0	8.1%	6,088	7,892.41	48,049,000
Plant		Shell	0.0%	0	0.00	0
Tunnel Link		60m	0.6%	180	18,755.56	3,376,000
Elevated Bridge Link		125	1.2%	375	19,437.33	7,289,000
Shell Space			0.0%	0	0.00	0
TOTAL NEW BUILD		96.5%	39,980	14,320.96	572,552,000	
Siteworks, Roadworks & Landscaping		3.5%			21,025,000	

**ACT HEALTH
BUILDING HEALTH SERVICE PROGRAM
SPIRE - SoA 190403 Option 2B**

Total GFA
Site Area

39,980 m2
ha

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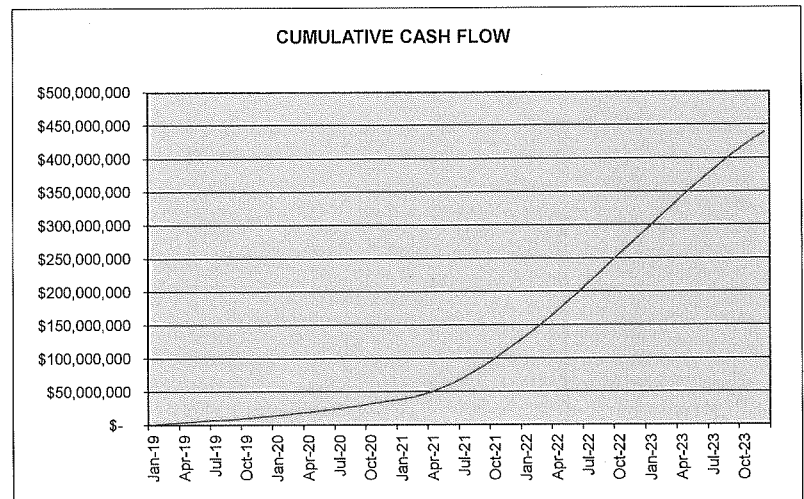
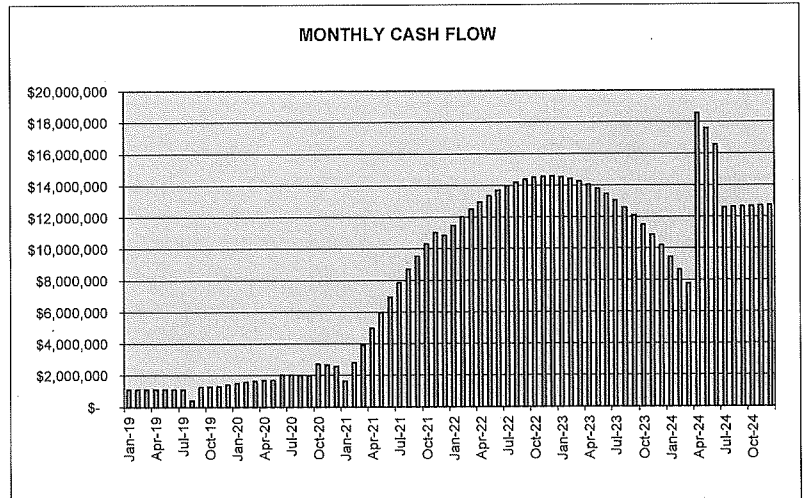
Design and Construction Costs	
Substructure	
Columns	
Upper Floors	
Stairs	
Roof	
External Walls	
Windows	
External Doors	
Internal Walls	
Internal Screens	
Internal Doors	
Wall Finishes	
Floor Finishes	
Ceiling Finishes	
Fittings	
Special Equipment	
Hydraulics	
Mechanical	
Electrical	
Security	
Fire Protection	
Lifts	
Demolition & Alterations	
Site Preparation	
Roads, Car Parking and Paving	
Outbuildings & Covered Ways	
Fences and Gates	
Landscaping	
External Services	
Furniture Fittings and Equipment	
ICT	
Preliminaries	
Sub-Total	
	<i>cost/m2</i>
Contingencies	
Fees and Artwork	
TOTAL COSTS - Current Day	
	<i>cost/m2</i>
Escalation	
State Costs	

Capital Costs (\$)			% of Capital Costs
9,063,604			1.80%
3,246,374			0.65%
17,071,266			3.40%
1,183,835			0.24%
6,288,512			1.25%
25,065,465			4.99%
-			0.00%
400,167			0.08%
16,247,936			3.23%
4,083,902			0.81%
4,165,987			0.83%
2,514,674			0.50%
4,638,700			0.92%
4,481,926			0.89%
8,578,760			1.71%
431,465			0.09%
13,579,668			2.70%
42,103,885			8.38%
30,232,991			6.02%
9,022,477			1.80%
6,693,381			1.33%
6,756,190			1.34%
-			
2,502,293			0.50%
2,457,251			
5,004,585			
-			
1,751,605			0.35%
1,201,100			
54,248,000			10.80%
36,165,000			7.20%
60,499,000			12.04%
379,680,000	0	0	75.56%
9,497			
72,385,000			14.40%
50,450,000			10.04%
502,515,000			100.00%
12,569			
68,231,000			13.58%
22,830,000			4.54%

ACT HEALTH
BUILDING HEALTH SERVICE PROGRAM
SPIRE - SoA 190403 Option 2B
Cash Flow

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Month	Monthly Cash Flow	Cumulative Cash Flow
Jan-19	\$ 1,098,646	\$ 1,098,646
Feb-19	\$ 1,100,907	\$ 2,199,553
Mar-19	\$ 1,103,171	\$ 3,302,724
Apr-19	\$ 1,105,441	\$ 4,408,165
May-19	\$ 1,107,715	\$ 5,515,879
Jun-19	\$ 1,109,993	\$ 6,625,873
Jul-19	\$ 1,112,277	\$ 7,738,149
Aug-19	\$ 405,442	\$ 8,143,591
Sep-19	\$ 1,260,409	\$ 9,404,000
Oct-19	\$ 1,263,002	\$ 10,667,003
Nov-19	\$ 1,304,608	\$ 11,971,610
Dec-19	\$ 1,408,936	\$ 13,380,546
Jan-20	\$ 1,498,125	\$ 14,878,671
Feb-20	\$ 1,572,079	\$ 16,450,751
Mar-20	\$ 1,630,704	\$ 18,081,455
Apr-20	\$ 1,673,904	\$ 19,755,359
May-20	\$ 1,701,583	\$ 21,456,942
Jun-20	\$ 2,028,042	\$ 23,484,983
Jul-20	\$ 2,025,036	\$ 25,510,019
Aug-20	\$ 2,006,220	\$ 27,516,239
Sep-20	\$ 1,971,496	\$ 29,487,735
Oct-20	\$ 2,716,935	\$ 32,204,670
Nov-20	\$ 2,651,741	\$ 34,856,411
Dec-20	\$ 2,570,348	\$ 37,426,759
Jan-21	\$ 1,626,924	\$ 39,053,683
Feb-21	\$ 2,789,449	\$ 41,843,133
Mar-21	\$ 3,903,057	\$ 45,746,190
Apr-21	\$ 4,967,431	\$ 50,713,621
May-21	\$ 5,982,254	\$ 56,695,875
Jun-21	\$ 6,947,205	\$ 63,643,080
Jul-21	\$ 7,861,965	\$ 71,505,045
Aug-21	\$ 8,726,211	\$ 80,231,256
Sep-21	\$ 9,539,620	\$ 89,770,876
Oct-21	\$ 10,301,867	\$ 100,072,743
Nov-21	\$ 11,012,627	\$ 111,085,370
Dec-21	\$ 10,852,166	\$ 121,937,537
Jan-22	\$ 11,457,282	\$ 133,394,819
Feb-22	\$ 12,009,921	\$ 145,404,741
Mar-22	\$ 12,509,752	\$ 157,914,492
Apr-22	\$ 12,956,441	\$ 170,870,933
May-22	\$ 13,349,654	\$ 184,220,587
Jun-22	\$ 13,689,056	\$ 197,909,644
Jul-22	\$ 13,974,311	\$ 211,883,954
Aug-22	\$ 14,205,078	\$ 226,089,033
Sep-22	\$ 14,381,020	\$ 240,470,053
Oct-22	\$ 14,501,794	\$ 254,971,847
Nov-22	\$ 14,567,058	\$ 269,538,906
Dec-22	\$ 14,576,469	\$ 284,115,374
Jan-23	\$ 14,529,680	\$ 298,645,054
Feb-23	\$ 14,426,345	\$ 313,071,399
Mar-23	\$ 14,266,115	\$ 327,337,514
Apr-23	\$ 14,048,642	\$ 341,386,156
May-23	\$ 13,773,573	\$ 355,159,730
Jun-23	\$ 13,440,557	\$ 368,600,286
Jul-23	\$ 13,049,239	\$ 381,649,525
Aug-23	\$ 12,599,264	\$ 394,248,789
Sep-23	\$ 12,090,274	\$ 406,339,063
Oct-23	\$ 11,521,912	\$ 417,860,975
Nov-23	\$ 10,893,818	\$ 428,754,794
Dec-23	\$ 10,205,631	\$ 438,960,425
Jan-24	\$ 9,456,987	\$ 448,417,412
Feb-24	\$ 8,647,522	\$ 457,064,934
Mar-24	\$ 7,776,871	\$ 464,841,805
Apr-24	\$ 18,564,567	\$ 483,406,372
May-24	\$ 17,594,549	\$ 501,000,922
Jun-24	\$ 16,562,289	\$ 517,563,210
Jul-24	\$ 12,603,802	\$ 530,167,012
Aug-24	\$ 12,629,729	\$ 542,796,741
Sep-24	\$ 12,655,710	\$ 555,452,451
Oct-24	\$ 12,681,744	\$ 568,134,195
Nov-24	\$ 12,707,832	\$ 580,842,027
Dec-24	\$ 12,733,973	\$ 593,576,000



Financial Year	Annual Cash Flow	Cumulative Cash Flow
2017-2018	\$ -	\$ -
2018-2019	\$ 6,625,873	\$ 6,625,873
2019-2020	\$ 16,859,111	\$ 23,484,983
2020-2021	\$ 40,158,097	\$ 63,643,080
2021-2022	\$ 134,266,563	\$ 197,909,644
2022-2023	\$ 170,690,843	\$ 368,600,286
2023-2024	\$ 148,962,924	\$ 517,563,210
2024-2025	\$ 76,012,790	\$ 593,576,000

Appendix E Whole of Life Costing

WHOLE OF LIFE COST MODEL REPORT

APRIL 2019

THE SURGICAL PROCEDURES, INTERVENTIONAL RADIOLOGY AND EMERGENCY (SPIRE) CENTRE

THE CANBERRA HOSPITAL, GARRAN

Prepared For

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Our Ref

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Submitted on

10 April 2019

