Department of Health
CORPORATE SERVICES - ASSET MANAGEMENT SERVICES

Tasmania

STAGE TWO KING ISLAND HOSPITAL REDEVELOPMENT

SUBMISSION TO THE PARLIAMENTARY STANDING COMMITTEE ON PUBLIC WORKS

June 2019

Trim ref: D19/179874

EXECUTIVE SUMMARY

Document Purpose

The purpose of this document is to inform the Parliamentary Standing Committee on Public Works (PSCPW) of the need for the proposed project and how the design of the works will address this need.

Objectives

The stage two redevelopment of the King Island Hospital will achieve a safe, accessible, contemporary and efficient environment for patients/ clients, staff and community members.

This proposal for the Stage Two King Island Hospital redevelopment reflects an efficient and pragmatic use of existing building infrastructure to ensure a modern and functional facility for the Island, and addresses all outstanding high priority issues including:

- Upgrading the high dependency zone to provide all of the required functions with spaces compliant with current codes and standards
- A new emergency treatment area
- Palliative care and associated family room upgrade
- 4 x acute inpatient rooms including an observation room
- General upgrade of the ward amenities area
- Achieve required building code corridor width clearances as required by current building standards
- Privacy screening to aged care nurses station
- Security for wandering dementia residents
- Centrally located staff room and staff amenities
- Rationalisation and upgrading of utility areas
- Upgrade of the kitchen
- Undercover access to the laundry and morgue building required as a functional requirement for the laundry and minor upgrade to laundry to ensure minimisation or contamination risk
- Upgrading of the morgue
- Upgrading of existing mechanical, electrical, hydraulic and firefighting services.

External Works and Services

The main components which need to be provided as part of this development are:

- Hydrant system and fire ring main upgrade / replacement
- Appropriate landscaping (both hard and soft) to suit community expectations of a welcoming environment, patient and privacy considerations
- Coordination and documentation of asbestos removal where required
- Upgrade of the parking area and adequate external lighting.

Project Budget

Funding of $10.5 million has been provided to build the next stage of the King Island Hospital redevelopment. The redevelopment will also include construction of a dedicated housing for nurses working and living on King Island.

As no indication was provided on the funding amount for the staff accommodation project, Asset Management Services (AMS) has determined a $1 million budget as appropriate. This will be managed as a separate procurement contract. There is a natural distinction between the separate projects of the accommodation project and the Stage Two King Island Hospital Redevelopment. Noting PSCPW approval is only for the Stage Two King Island Hospital Redevelopment.

Current project cost planning confirms that the projects can be delivered within this budget.

Project Program

Design and tender documents are scheduled for completion in late June 2019 with the tender expected to be advertised in July 2019. Subject to the required approval process, construction would commence in September 2019. The construction program is scheduled for completion by March 2021 with final completion of defects period March 2022.

General Project Scope

The project scope encompasses an area of refurbishment nominally 1065 sqm in area, plus a total area of new build to 404 sqm.

The redevelopment of the facility will provide one less inpatient bed than currently provided, as approved by the department and based on occupancy rates. Specifically, the redevelopment will include;

- 4 x Acute inpatient rooms. The configuration of which is 4 x single rooms with ensuite reflecting contemporary design and practice, I x single room will be fitted ceiling lifting rails
- 1 x Palliative care room with ensuite and fitted with ceiling lifting rail and adjacent family room
- Upgraded nurses station with adjacent drug and clean utility rooms
- General upgrade of the ward amenities area inclusive of sterile store room, mobile equipment room, training room and dirty utility room
- 1 x Resuscitation room with ensuite
- 1 x Emergency treatment room with ensuite
- 1 x Treatment / Consultation room with ensuite
- Piped oxygen and suction to acute and emergency areas
- 3 x multipurpose consultation rooms
- 1 x X-Ray / Consultation Room
- Upgrade heating and cooling to the facility
- Privacy screening to aged care nurses station
- Security for wandering dementia residents
- Centrally located staff room and staff amenities
- Upgrade and expansion of the community day centre
- Administration areas, meeting room and staff offices and amenities
- Full upgrade of the kitchen facility
- Achieve required building code corridor width clearances as required by current building standards
- Undercover access to the laundry and morgue building required as a functional requirement for the laundry and minor upgrade to laundry to ensure minimisation or contamination risk
- Upgrading of the morgue
- Upgrading of existing mechanical, electrical, hydraulic and firefighting services
- Appropriate landscaping (both hard and soft) to suit community expectations of a welcoming environment, patient and privacy considerations
- Coordination and documentation of asbestos removal where required
- Upgrade of the parking area and adequate external lighting

The development works will be in full compliance with contemporary standards and building codes.

Design Approach

The planning approach that has been adopted is based on meeting current and predicted service requirements. Key elements are adaptable to enable the building to meet evolving needs and future changes in service and to maximise the accessibility of the facility to the community.

The Stage Two King Island Hospital Redevelopment will be based on the guidelines contained in the *Australasian Health Facility Guidelines*, and this has formed part of the architect's design brief.

The Tasmanian Government has set an energy consumption reduction target of 60% across all of its Departments by 2050. This facility has been designed to incorporate integrated low energy consumption and sustainable features to support this aim.

Table of Contents

STAGE TWO KING ISLAND HOSPITAL REDEVELOPMENT ..... **I**

DOCUMENT PURPOSE ..... **II**

OBJECTIVES ..... **II**

PROJECT BUDGET ..... **II**

PROJECT PROGRAM ..... **III**

GENERAL PROJECT SCOPE ..... **III**

DESIGN APPROACH ..... **IV**

1. DOCUMENT PURPOSE **7**

2. PROJECT DEFINITION **7**

2.1 PRIMARY OBJECTIVES 7

3.1 EXISTING FACILITY 8

3.2 THE SERVICE 8

3. CONSULTATION AND GOVERNANCE **10**

4.1 CONSULTATION 10

4.2 GOVERNANCE 11

4.3 DESIGN APPROVAL 12

5. ADDRESSING THE NEED **13**

5.1 DESIGN PHILOSOPHY 13

5.2 ARCHITECTURE AND INTERIORS 13

5.3 ENVIRONMENTALLY SUSTAINABLE DESIGN 13

5.4 BUILDING SERVICES DESIGN 14

Mechanical *14*

Medical Gases *16*

Reticulated Gases (LPG) *16*

Electrical *16*

Lighting *16*

Power *16*

Communications *16*

Security *17*

Fire/Smoke Detection Systems *17*

Site Supply *17*

Scope of Sprinkler Protection *17*

Netherby Home Dementia Wing *17*

Hospital and Day Clinic *17*

6. PROJECT SCHEDULE & BUDGET 19

6.1 PROJECT SCHEDULE 19

6.2 PROJECT COST 19

7. RECOMMENDATIONS 21

8. APPENDIX A – PROPOSED DESIGN 22

1. DOCUMENT PURPOSE

The purpose of this document is to inform the Parliamentary Standing Committee on Public Works (PSCPW) of the needs for this project and to explain the processes undertaken during the design phase to maximise the delivery of the desired outcomes.

The document includes the following:

- Confirmation that the proposed investment in infrastructure is the most appropriate means to support improved health services delivery.
- Confirmation that the project is consistent with the Department of Health (DOH) Strategic Asset Management Plan
- Evaluation of the suitability of the proposed Design
- Discussion of 'value for money issues' relating to the design and construction of this project.

2. PROJECT DEFINITION

2.1 Primary Objectives

The King Island Hospital is located at 35 Edward Street, Currie. The facility serves a population between 1600 and 2000, providing emergency care, sub-acute medical care, primary health services and residential aged care for the remote island's residents. While more serious acute issues involve transporting patients off the island to health services on the Tasmanian mainland, it is generally considered that most services are best placed close to the King Island community, where practical. The centre also coordinates the delivery of a broad range of community services, GP services, visiting service and support groups such as community nursing, child health, dental health and antenatal clinics.

The implementation and completion of the project will provide hospital and community health services with a facility that improves functionality, amenity and ensures long term sustainability with enhanced capacity for expansion of various health services offered to the local community.

The redevelopment will provide appropriate facilities to enable rural health practitioners to carry out their work at the King Island Hospital in an appropriate environment with contemporary facilities in compliance with accreditation standards. This development of functional and contemporary facilities is critical to enhancing its capacity to recruit and retain staff to deliver best practice, safe and quality care.

The staff accommodation project will provide dedicated housing for nurses working on King Island to improve the recruitment and retention of staff. There is clear evidence the current facilities do not meet the standards expected of the occupants.

NEED FOR THE PROJECT

3.1 Existing Facility

The facility has evolved over time from a district hospital to its current status. The existing building is a combination of building styles and constructions which have been altered and amended over a number of years. The most recent Stage One Redevelopment completed in 2012 focused on upgrading the aged care facility. The Stage One Redevelopment scope was reduced due to adverse tender conditions and this current project addresses the most important and outstanding issues from that project.

The current hospital building has deficiencies in space and design including minimal confidential treatment room space; minimal consulting space for new visiting services and professionals; poor workflow and security risks. The configuration of ward space does not allow for patient privacy, ensuite bathroom access, and does not reflect contemporary standards (eg cannot easily accommodate patient lifting devices and there are no ceiling lifting frames; external doors that present a security hazard for wandering patients; bathroom facilities for most patients are located in the hallway and shared by all). Additionally, there is no current heating / cooling in the administration or acute ward areas.

Key risks associated with the current hospital will be eliminated, including minimising the risk of adverse clinical and/or WHS events; reduced maintenance costs associated with the current aged sections of the building and infrastructure; an adaptable and more community connected facility that can accommodate a range of services to meet current and future community needs.

The redevelopment will provide:

- Greater security of access to health care services for the King Island community.
- Contemporary building design in line with current health facility standards for delivery of both inpatient and outpatient services.
- Increased inpatient privacy and amenities with single rooms that have dedicated ensuite bathrooms.
- Improved health and safety infrastructure for staff and patients with provision of ceiling lifting systems in 1 x inpatient rooms and the palliative care room.
- Improved building security for patients and staff safety.
- Adequate space for provision of allied health services, including increased number of consult rooms for visiting professionals.
- Upgrading the reception, administration area and staff offices.
- Upgrading of the hotel services and adjacent areas.
- Upgrading of existing infrastructure and services.

3.2 The Service

The Stage Two King Island Hospital Redevelopment will provide:

- Increased inpatient amenity to existing rooms by providing privacy and accessible compliant ensuite bathrooms.
- Improved health and safety infrastructure for staff and patients with provision of ceiling lifting systems in nominated inpatient rooms.
- Improved monitoring of patients/residents by staff
- Secure and consolidated staff areas
- Complete upgrade of building services and utility areas

3.3 New Functionality

General Configuration

The existing hospital facility is divided into areas of administration, acute patient care, emergency department, consult rooms, general service areas, morgue and community health. Except for some minor alterations to the nurse's station and external door security, the existing residential aged care wing does not form part of the scope of this project.

Administration Area

The existing reception area is very limited in size resulting in a relocated and unsecured reception counter being located in the main entry corridor. The cramped administration offices and resource room present building code non-compliances particularly with regards to circulation around doorways. This configuration currently does not provide privacy for community member conversations.

The proposed 160m2 extension to this area also provides for separate resource and scanning / printing rooms and consolidates staff and handover rooms to this area also. As well as providing staff security, this results in staff being central to the overall layout of the hospital resulting in greater efficiency. This is particularly important for shifts with minimal staff.

Acute Inpatient Ward

The Acute inpatient ward will maintain five (5) single bed rooms in generally the same location. The new configuration will reflect contemporary standards, with all rooms having compliant accessible ensuite facilities (the current ward has no accessible ensuites).

The acute inpatient rooms include a palliative care room with adjoining family area (including kitchenette and sleeping provision), Two rooms will include H-frame ceiling lifting rail systems, maximising flexibility and ease of patient transfers within the room and into ensuites. Inpatient rooms have been designed to maximise natural light, offer landscaped courtyard views and will be fitted with lighting and TV control handsets at the bedside, in addition to the standard nurse call functions.

The existing, centrally located clinical staff station will be expanded to provide direct vision into the observation room, emergency rooms, waiting area, Director of Nursing's and Nurse Unit Managers offices.

The relocation of the handover room to the administration area presents an opportunity to expand the drug store and provide a centrally located clean utility room to serve all areas.

Emergency Department

The Emergency Department will be expanded to two (2) emergency rooms plus a treatment room, with new ensuites. The treatment room can also be used for emergencies if required. Being separated, these three rooms can be used to isolate patients for issues such as infection control.
The emergency department /after-hours entry is maintained in its current location. A screen is to be installed to assist with privacy between ambulance operations and the main entry. This screen also provides visual separation for the new external emergency decontamination shower.

Service Areas

Existing services areas including cleaners' rooms, stores, kitchen laundry are to receive a major upgrade to ensure greater functionality and compliance with current standards.

The external services area is to be covered to allow for all weather deliveries and movement between service zones. Further to this additional and upgraded connections and floor levelling from this space will remove current workplace health and safety issues.

Community Health

As part of the Stage Two King Island Hospital Redevelopment, the community health wing will receive a minor upgrade.

The existing corridor space houses several large cupboards that compromise corridor clearances and visual connections. These items are to be removed and all associated building elements are to be repaired as required. The contents of these cupboards are to be appropriately relocated to an adjacent remodelled and secure room.

The existing Day Centre is a facility that is frequently used by the local community and hospital. This space is to be extended to the west to accommodate all user groups. The external entry on the eastern side is to be upgraded to provide level access and new sliding doors on this side will allow the space to be opened up to a sheltered landscaped area.

External Works

External works proposed as part of this redevelopment are mainly associated with the repair of the existing pavement areas and associated drainage systems.

The bituminous seal is aged and has had minor repairs carried out. Tests have determined that the sub base of the pavement is generally sound with the exception of a small area to the South East which will require some strengthening. This will be repaired prior to the entire paved area being resealed.

The existing drainage systems are to be cleared and, where required to protect the pavement areas from future degradation and sub soil, drains are to be installed.

3. CONSULTATION AND GOVERNANCE

4.1 Consultation

A community consultation process was undertaken in the initial stages of the project to ensure all views and concerns were heard.

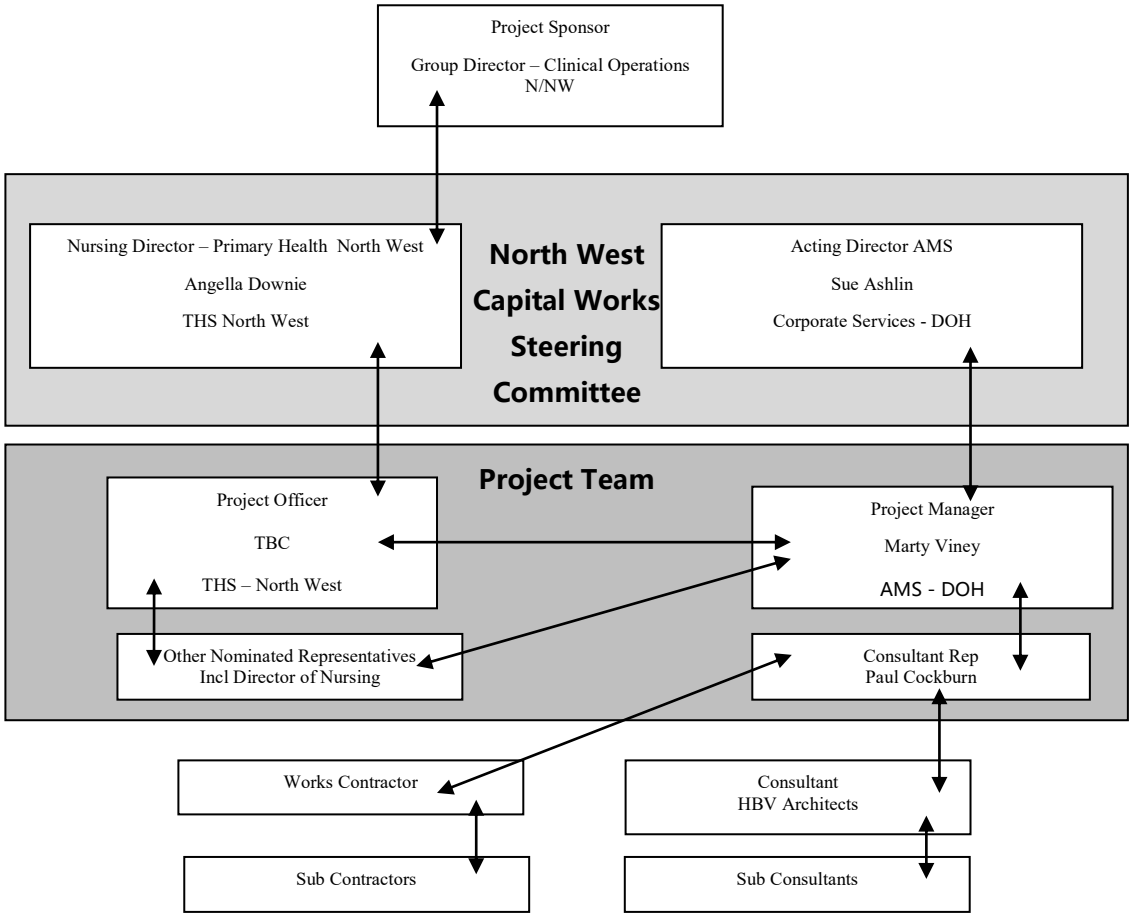
Detailed stakeholder consultation commenced immediately following appointment of the Project Architect – HBV Architects. The King Island Community Reference group has been involved in multiple meetings with the architects and positively supportive of the scope of works in the hospital redevelopment. Community were also invited to an open forum with the architects. Plans were displayed at the local post office with staff present to explain the scope of works. Plans are displayed in the hospital main corridors for public to peruse. Staff have also been invited to meet with the architects and have been involved in the detailed planning process

The process focus was foremost on developing the services with further consultation to follow around design and construction of the redevelopment with the services that would be operating in the facility.

Consultation has continued to occur with a dedicated project working group, all key services groups, other internal stakeholders and associated services.

4.2 Governance

The following diagram illustrates the North West Capital Works Steering Committee, Project Team and Consultant Team relationships.



The North West Capital Works Steering Committee have been meeting as required to enable the project to evolve in line with the project timeline, providing an adequate consultation phase and sufficient time for Contract Documentation and Project Procurement.

Other Nominated Representatives comprised responsible delegates from other services that operate in the King Island Hospital including Ochre GP practice and Allied Health services together with consultation with the King Island Council on an as needs basis. These representatives have been formed into User groups during the Design Development phase of this project, ensuring that a consultative approach maximises the desired outcomes for this project.

4.3 Design Approval

The North West Capital Works Steering Committee at its March 2019 meeting endorsed the project schematic design.

At these meetings to date all desired project outcomes have been tabled, discussed and then reviewed for compliance with the endorsed project brief and service model. This consultative approach has resulted in a design that allows all of the desired outcomes to be resolved and provides sufficient flexibility for future expansion.

Final sign-off of the documented plans is currently being undertaken with the services to ensure all their needs are met.

5. ADDRESSING THE NEED

5.1 Design Philosophy

The Stage Two King Island Hospital Redevelopment is an opportunity to complete the previous upgrade to provide contemporary health care services as well as addressing current functionality and compliance issues with the existing facility.

Extensive consultation with all major stakeholders will result in a modern and compliant health-care facility capable of efficient operation by current staff numbers whilst providing a high level of amenity to building occupants. Reworking of existing spaces to support integrated functions will result in a greatly improved facility.

The redeveloped hospital will present as a welcoming environment that incorporates a sense of security whilst simultaneously conveying a quality environment for delivery of health care professionalism and integrated technical support systems.

5.2 Architecture and Interiors

This facility will continue to provide a broad range of essential health services to King Island for all age groups and with various levels of ability. The design addresses all of the current access / DDA and workplace standards non-compliances.

Public access to the facility is maintained in its current location and will receive a major upgrade. The adjacent emergency entry will be adequately separated to ensure access to the building is unambiguous and easily negotiated.

The redevelopment of the main entry will provide waiting areas near reception and provide much needed confidentiality for visitors. The reception area is considered a key location for centralised visitor allocation and subsequent deployment to relevant functions / areas within the new facility. Public waiting areas strategically located throughout the hospital will also assist in clearly identifying the various zones.

Colour and natural materials are intended to enrich the internal environment to create a homely atmosphere and offset clinical appearance often associated with medical facilities. Material selection will be based upon durability and ease of cleaning in accordance with Environmentally Sustainable Design (ESD) principles.

5.3 Environmentally Sustainable Design

The Tasmanian Government has set an energy consumption reduction target of 60% across all of its Departments by 2050. This facility has been designed to incorporate integrated low energy consumption and sustainable features to support this aim. The environmentally sustainable development features of this building include the following:

- Inclusion of energy efficient light systems.
- All unglazed walls, ceiling and roof cavity spaces are insulated and sealed to exceed Building Code of Australia mandatory requirements to mitigate heat loss & gain fluctuations.
- Energy efficient hot water systems to be included for all portable hot water requirements. These will be additional to energy generating panels.
- Maintained use of solar panels with inverters being appropriately relocated to the plant area.
- Appropriate use of double-glazing to avoid excess heat gain and loss.

5.4 Building Services Design

Mechanical

The primary design aim of the mechanical services including the heating, ventilation and air conditioning systems (HVAC) systems is to provide a safe, efficient and comfortable environment ensuring optimum thermal comfort for all staff and patients.

This approach will allow for the following objectives to be achieved:

- To provide a safe environment for staff and patients including future maintenance.
- To produce cost-effective solutions that offer 'best value' to the client.
- To provide solutions that supports the architectural intent for the project.
- To provide an energy efficient design.
- To provide a robust design, sympathetic to the local environmental conditions.

The mechanical design will allow for future flexibility and expansion where appropriate.

All mechanical services are designed to provide cost effective, convenient, safe, serviceable and durable systems at all times during their use.

The existing mechanical systems installed in the areas of works were first installed over 40 years ago and are all past their economical service life of 20-30 years. Therefore, a full replacement is highly recommended of all major equipment with any new plant having N+1 redundancy (back up plant or equipment for the operational running of the hospital).

Recently installed split system air conditioning units less than 5 years old may be reused in other areas, particularly those currently serving the Acute wards. Note that the economical service life for these systems is 7-10 years.

Administration Area

The new administration area including nurses' station will have local heating and cooling provided by new split air conditioning systems (wall or ducted) each with fresh (outdoor) air supply via new heat exchange units or supply air fans located within the fire/smoke zone being served to limit the requirement of new fire/smoke dampers to be installed and maintained in the future.

New exhaust systems with roof mounted fans shall be installed for all amenities.

Acute inpatient Ward

The new acute inpatient ward area including the family room, palliative area and training room will also have local heating and cooling provided by new split air conditioning systems (wall, floor mounted or ducted) each with fresh (outdoor) air supply via new heat exchange units located within the fire/smoke zone being served.

New demand driven variable speed exhaust systems combined with individual room mounted headed box fans/tactics with be installed for all ensuites to reduce the overall exhaust airflow from the building when not fully occupied.

New exhaust systems with roof mounted fans shall be installed for all amenities and the dirty utilities room.

A new supply air system with HEPA filtration shall be provided for the new sterile store.

Emergency Department

The new emergency and consult rooms will have local heating and cooling provided by new split air conditioning systems (wall or ceiling cassette) each with fresh (outdoor) air supply via new heat exchange units or supply air fans located within the fire/smoke zone being served.

New exhaust systems with high and low level outlets will be installed for all rooms that utilise anaesthetic gases.

New exhaust systems with roof mounted fans shall be installed for all amenities.

Kitchen

A new walk in cool room and freezer will be provided for the kitchen.

Two (2) new commercial kitchen exhausts hoods will be installed for main cooking equipment and dishwasher including ductwork and new roof mounted fan.

The refurbished kitchen will have local heating and cooling provided by new split air conditioning systems (ceiling cassette) with fresh (outdoor) make-up air supply via new heat exchange units or supply air fans located in the existing plant room.

New exhaust systems with roof mounted fans shall be installed for the dry store.

Service Areas

New separate exhaust systems with roof mounted fans shall be installed for the laundry, plant room, morgue and viewing room.

A new cool room will be provided for the morgue to allow for the new 3 tier rack system.

Community Health

Modifications to the existing hydronic radiator systems will occur in the day centre.

Plant areas

Major upgrades to the existing aging equipment will be provided including providing N+1 redundancy for the following plant:

- Upgrade original main Air Handling Unit (AHU) in plant room that is approx. 40 years old
- Upgrade single hydronic heating boiler and pipework in boiler plant room with a dual redundant system
- Upgrade original AHU and radiators pipework from the boiler plant room to the waiting area pump cupboard that is approx. 40 years old
- Upgrade original Mechanical Services Switch Board (MSSB) in the boiler plant room that is approx. 40 years old
- Upgrade original controls in the boiler plant room that is approx. 40 years Old
- Provide new controls for future load shedding via a Building Management System (BMS)
- Demolition and removal from site redundant theatre AHU, pipework and ducting
- Demolition and removal from site redundant kitchen and general exhaust fans and ducting
- Demolition and removal from site redundant roof mounted air handling plant and frame

Medical Gases

Emergency Department and Acute Inpatient Ward

A new reticulated suction and oxygen medical gas systems including new plant and suitable enclosure or room in the under croft (with attenuation) will be provided for all patient and emergency rooms.

Reticulated Gases (LPG)

Kitchen, Service Areas and Plant areas

Upgrade all LPG connections from the existing site LPG tank to the new equipment being installed.

Electrical

The existing Tas Networks Power Supply will be maintained to the site.

Lighting

LED Lighting will be provided throughout the facility. Lighting Levels will be provided to AS NZS 1680.2.5-1997

Lighting will be controlled by localised switching in general areas with motion sensors to rooms such as cleaner and store rooms. Acute inpatient ward rooms will have lighting control from the patient bedside handsets.

New external lighting will be provided to the car park, the new undercover delivery bay and general circulation areas.

A single point exit and emergency lighting system complying with AS 2293 will be provided through the proposed works.

Power

All patient-occupied areas will be provided with USB phone charging outlets adjacent to the patient beds and body protection in accordance with AS/NZS 3003:2011. In all other areas general purpose outlets will be provided throughout to meet the needs of the users.

The facility will be provided with a new Main Switchboard, new building switchboards and a diesel generator sized to run the general lighting and power only.

New body protection power will be provided throughout the acute, consulting and treatment areas to AS3003.

Communications

Data and Communication

A new Panduit dual category 6 voice and data system will be provided utilising four pair unshielded twisted pair (UTP) cabling and RJ45 outlets in a star topology.

The existing Panduit Racks with cable management system are suitable for re-use and have sufficient capacity to cover these new works. This will be in accordance with DOH Information Management and Technology Services (IMTS) Specifications.

Nurse Call

The existing Hills IP Nurse Call and Duress system will be maintained and expanded throughout the new project to current departmental guidelines. The system interfaces to fire detection, access

control and alarm Systems in addition to the Digital Enhanced Cordless Telecommunications (DECT) System and this is to be maintained

Digital Annunciator panels will be positioned throughout the ward areas.

Digital Enhanced Cordless Telecommunications (DECT)

The current Ascom DECT phone system has only been recently replaced with new DECT handsets and antenna points throughout to provide adequate coverage and this is to be retained. The DECT interfaces to the DOH Internet Protocol telephone system, Nurse Call and Fire Detection system.

Security

The existing Honeywell security, access control and CCTV system will be maintained and expanded throughout the facility.

Fire/Smoke Detection Systems

The existing fire detection and intercom system will be maintained and expanded throughout the building complying with AS 1670.1 and a warning system complying with AS 1670 .4.

The system will have facility to provide alarm notification to the DECT system.

Fire Sprinklers

Site Supply
A new supply and meter assembly will be provided for fire services connection. This new assembly will comprise a mag flow meter and 20kPa check valve, pending confirmation of suitability by Taswater. By employing this arrangement, the existing fire tanks and fire services pump set can be removed thereby minimising ongoing servicing and maintenance of the system.

A new sprinkler booster assembly will be provided downstream of the meter to enable the fire brigade to boost the sprinkler line pressure in the event of a fire. This assembly is required by AS 2118.1 and will be installed in accordance with the standard and TasFire's operational requirements.

Scope of Sprinkler Protection
Netherby Home Dementia Wing
Sprinkler protection is required by the National Construction Code (NCC) for the nursing home portion of the facility. This section of the building will be provided with sprinklers, including the protection of concealed spaces as required by AS 2118.4.

Hospital and Day Clinic
Sprinkler protection of the hospital portion of the facility is not required by the NCC by virtue of the fire compartmentalisation of the building as proposed. It is however a Department of Health requirement that all of their hospital facilities be sprinkler protected. To meet the client's requirements for sprinkler protection of their facilities, a Light Hazard sprinkler system will be provided throughout the hospital in accordance with AS 2118.1.

Fire Hydrant Ring Main
A fire hydrant system to AS 2419 will be provided as required under the (Deemed to Satisfy) DTS provisions of the NCC.

This hydrant system will include feed hydrants around the site foot print (5 off) allowing access for the fire brigade pumping appliance. Hardstands will be required adjacent each hydrant to facilitate TasFire appliance connection and fire suppression operations.

Hydraulics

Cold Water
Tas Water are currently installing a new 150mm water main from Grassy to Currie, supplying gravity fed treated water. The Hospital will connect to this new main with a new 100mm connection to service the Domestic Cold Water (DCW) and fire system, removing the need for booster pumps and tank storage and water treatment

The domestic cold water services on this site are classified high hazard as this is a health care Facility. This will require RPZD backflow protection of the TasWater main located at the meter assembly.

Hot Water
The current hot water plant will be modified to suit the new internal demand and consolidated to reduce the future maintenance requirements.

The existing solar hot water pre heat system will remain and be incorporated into the revised hot water plant.

The existing gas fired hot water cylinders will have their elements connected to provide redundancy and an additional 315ltr electric boosted cylinder installed to increase storage capacity.

Both existing hot water recirculating pumps and their controllers will be replaced with new units.

Sewer
Sewer drainage works to additional building extensions will be as required to service the sewerage system and as per AS3500.2.

Trade Waste
Trade waste works are limited to replacement of the existing kitchen grease interceptor trap lid with a new sealed Gatic lid system.

Freezer
As required by the Tasmanian food industry regulations, a new floor waste will be installed outside the proposed freezer. This will be connected to the inlet to the existing grease trap requiring concrete cutting and reinstatement works to rectify the existing kitchen floor.

Stormwater
The existing stormwater system will be modified where required to suit new roof lines, gutters and will comply with AS3500.3.

6. PROJECT SCHEDULE & BUDGET

6.1 Project Schedule

A Summary of the project timeline is as follows;

Submission of Development Application to Council	February 2019
Completion of design development	March 2019
Completion of construction Tender Documentation	June 2019
Construction Tender (advertising, closing and assessment)	July 2019 – August 2019
Construction Start	September / October 2019
Practical Completion of Construction	December 2020
Final Completion (Completion of Defects Liability Period)	December 2021

6.2 Project Cost

The approved funding for the Stage Two King Island Hospital Redevelopment and Staff Accommodation project is $10,500,000

The cost of the separate projects is currently:

Stage Two King Island Hospital Redevelopment

DESCRIPTION	**SUM**
Consultancy cost	$ 720,000
Construction Costs	$6,500,000
Construction/Design Contingency	$1,350,000
Post Occupancy Allowance	$ 150,000
The Tasmanian Government Art Site Scheme	$ 80,000
ICT Infrastructure	$ 100,000
Furniture and Equipment	$ 300,000
Salaries Component	$ 200,000
Other	$ 100,000
PROJECT TOTAL	**$9,500,000**

King Island Staff Accommodation

Description	**Sum**
Consultancy cost	$ 110,000
Construction Costs	$ 700,000
Construction/Design Contingency	$ 60,000
Post Occupancy Allowance	$ 10,000
The Tasmanian Government Art Site Scheme	$ 20,000
Furniture and Equipment	$ 100,000
PROJECT TOTAL	**$1,000,000**

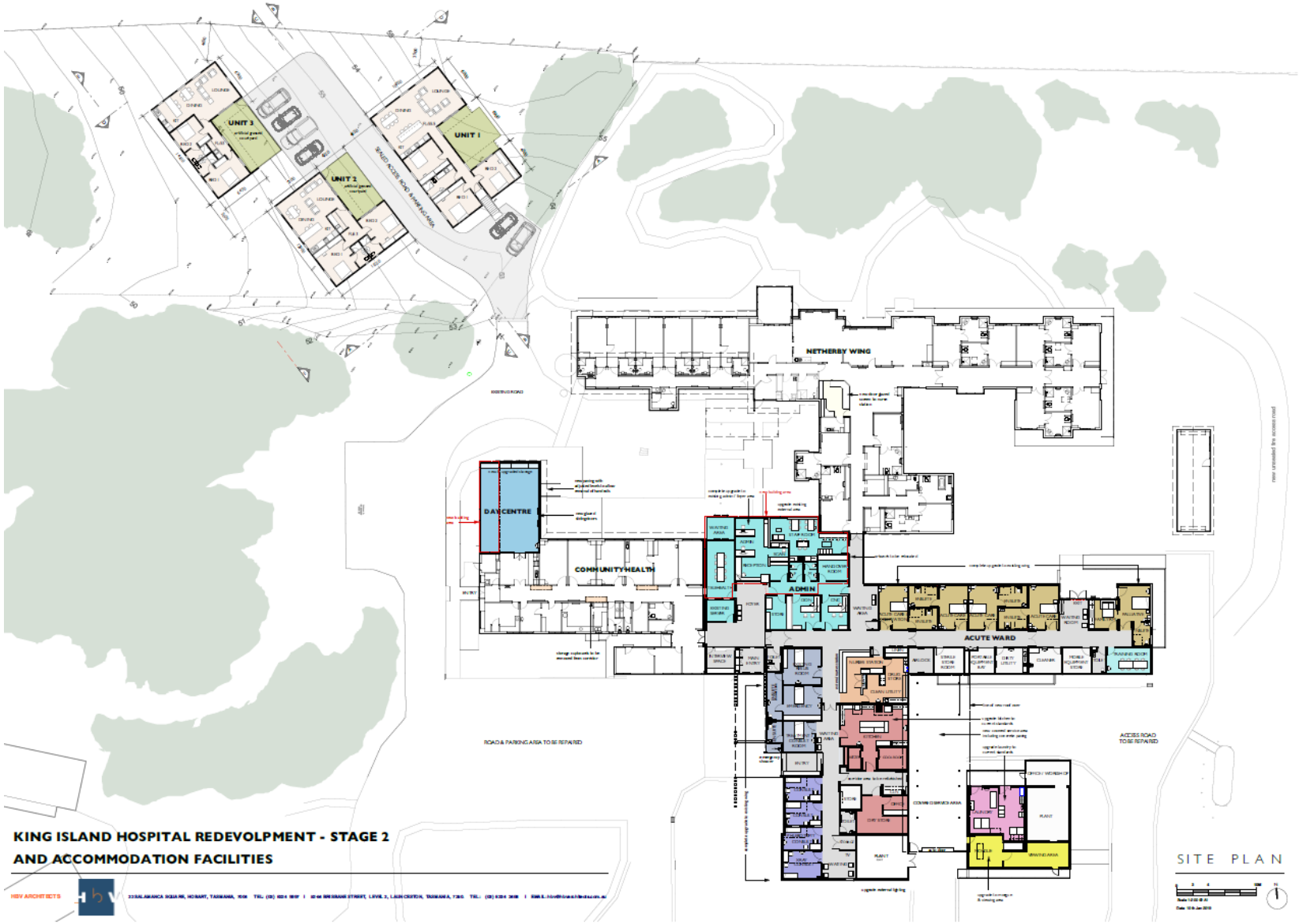
The current project costs are provided by the project Quantity Surveyor and based on reasonable allowances for the projects location and current market conditions.

7. RECOMMENDATIONS

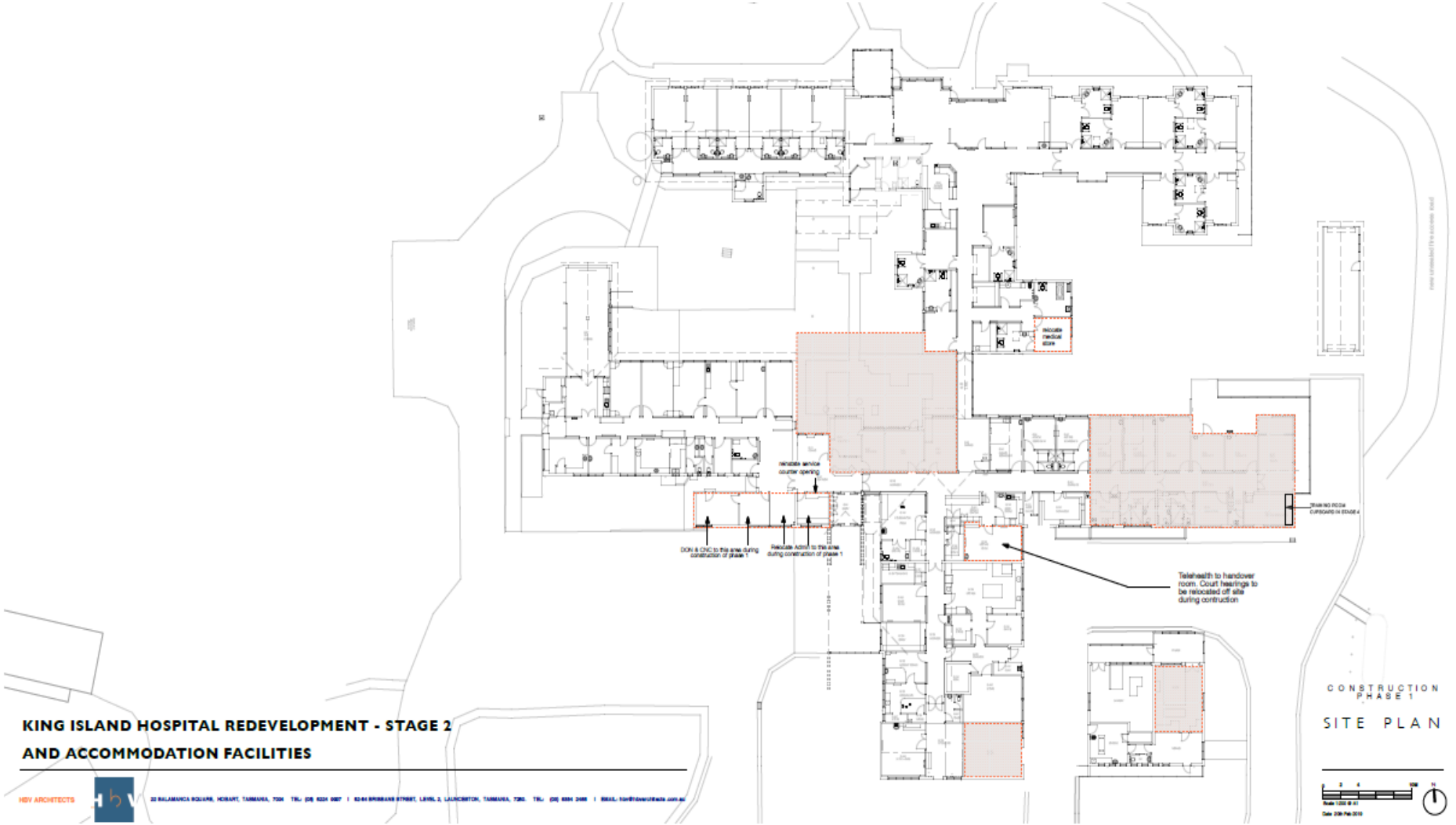
The North West Capital Works Steering Committee and Project Team have carefully assessed and explored the options and solutions available and have determined the design submitted provides the required project outputs as determined in the project functional brief. In addition, the design is consistent with the strategic long-term direction of the Tasmanian Health Service

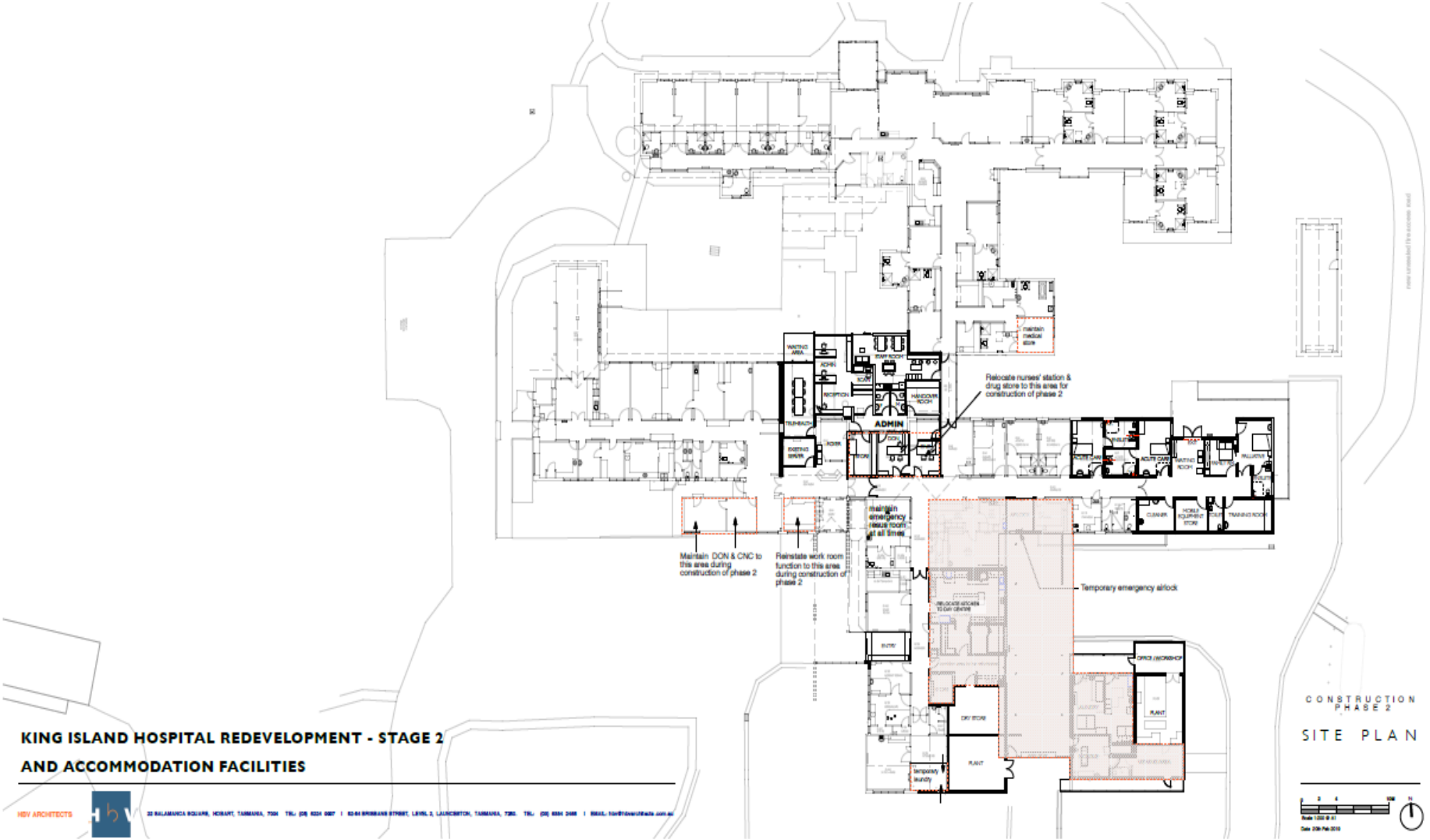
It is recommended that this submission be viewed favourably given the benefits it will provide to the King Island community. The projects, once completed, will immediately commence addressing the need to deliver appropriate health and community services.

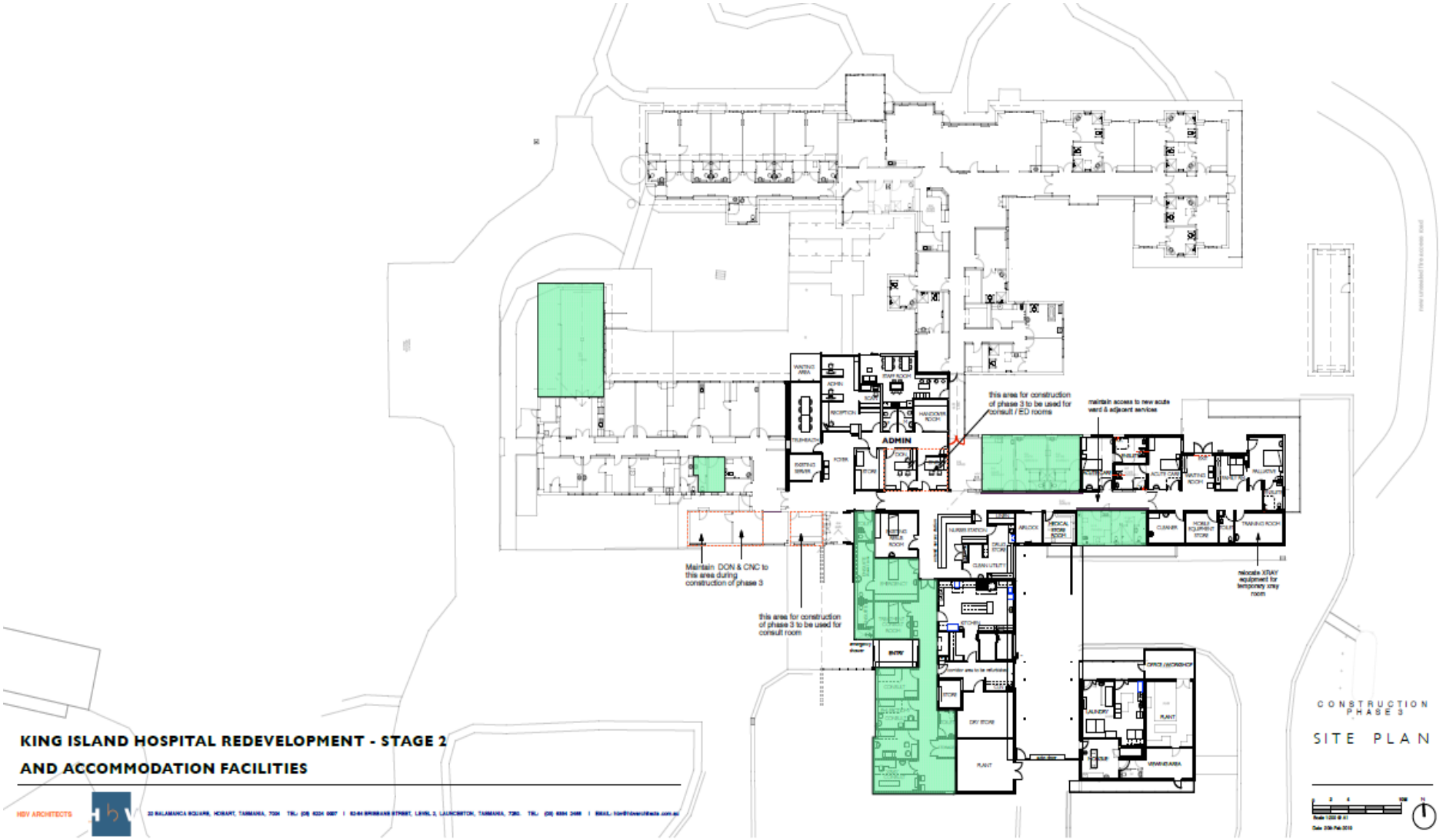
8. APPENDIX A – PROPOSED DESIGN

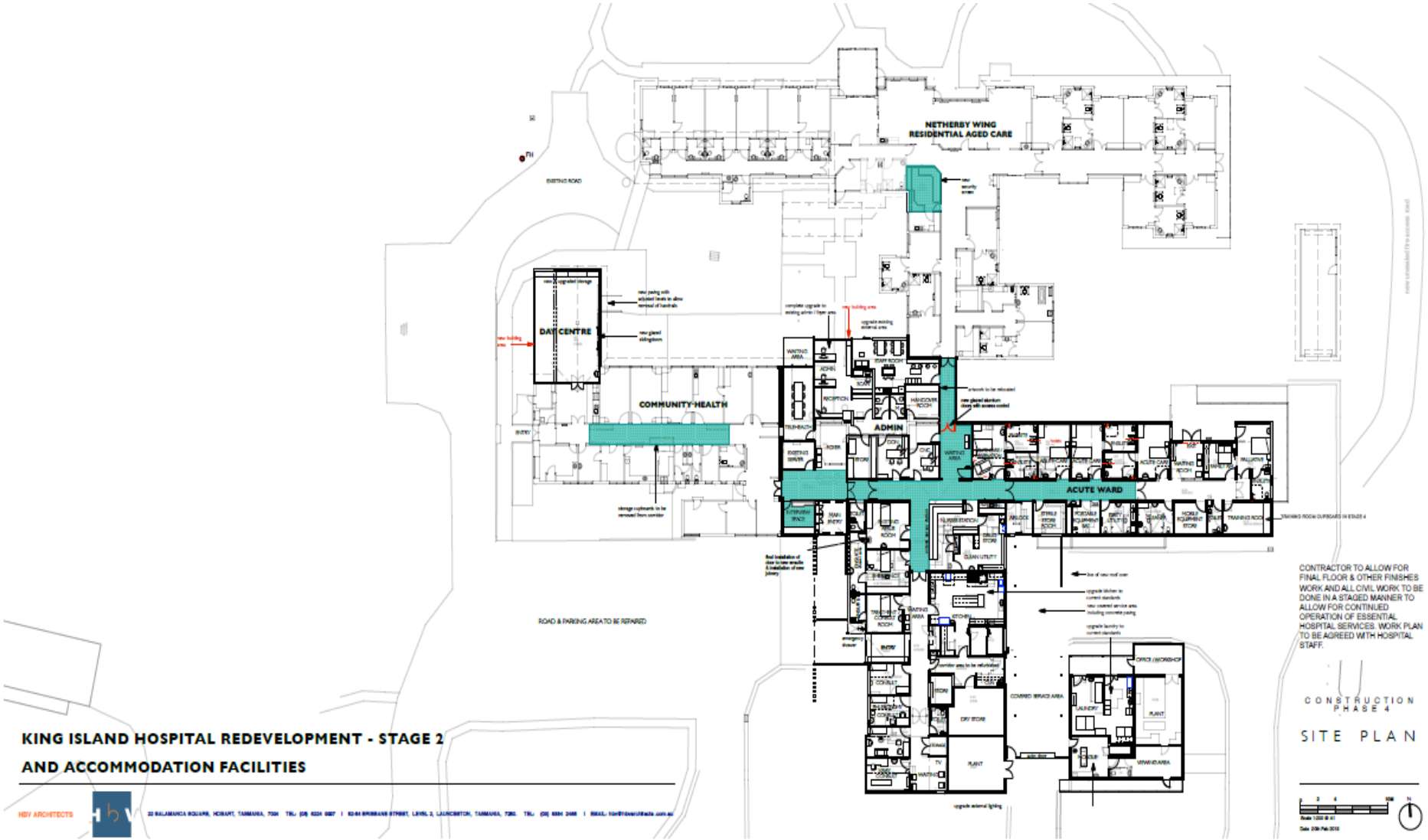

UNIT 3
UNIT 2
UNIT 1
NETHERBY WING
DAY CENTRE
COMMUNITY HEALTH
ADMIN
ACUTE WARD
ROAD & PARKING AREA TO BE REPAIRED
ACCESS ROAD TO BE REPAIRED
KING ISLAND HOSPITAL REDEVOLPMENT - STAGE 2
AND ACCOMMODATION FACILITIES
SITE PLAN

Staging Plans




ADMIN
Relocate nurses' station & drug store to this area for construction of phase 2
Maintain DON & CNC to this area during construction of phase 2
Reinstate work room function to this area during construction of phase 2
maintain emergency rescue room at all times
Temporary emergency airlock
KING ISLAND HOSPITAL REDEVELOPMENT - STAGE 2
AND ACCOMMODATION FACILITIES
CONSTRUCTION PHASE 2
SITE PLAN


ADMIN
this area for construction of phase 3 to be used for consult / ED rooms
maintain access to new acute ward & adjacent services
Maintain DON & CNC to this area during construction of phase 3
this area for construction of phase 3 to be used for consult room
relocate XRAY equipment for temporary xray room
KING ISLAND HOSPITAL REDEVELOPMENT - STAGE 2
AND ACCOMMODATION FACILITIES
CONSTRUCTION PHASE 3
SITE PLAN


NETHERBY WING
RESIDENTIAL AGED CARE
DAY CENTRE
COMMUNITY HEALTH
ADMIN
ACUTE WARD
ROAD & PARKING AREA TO BE REPAIRED
CONTRACTOR TO ALLOW FOR FINAL FLOOR & OTHER FINISHES WORK AND ALL CIVIL WORK TO BE DONE IN A STAGED MANNER TO ALLOW FOR CONTINUED OPERATION OF ESSENTIAL HOSPITAL SERVICES. WORK PLAN TO BE AGREED WITH HOSPITAL STAFF.
KING ISLAND HOSPITAL REDEVELOPMENT - STAGE 2
AND ACCOMMODATION FACILITIES
CONSTRUCTION PHASE 4
SITE PLAN