Department of Health

Tasmania

Royal Hobart Hospital (RHH) Paediatric Outpatient Clinics Relocation

SUBMISSION TO THE PARLIAMENTARY STANDING COMMITTEE ON PUBLIC WORKS

August 2021

EXECUTIVE SUMMARY

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

On the 19 March 2019, the then Premier announced the commitment to fund and commence Stage 2 of the Royal Hobart Hospital (RHH) Stage 2 Redevelopment, which included an expansion of the Emergency Department (ED) to meet growing patient demand.

Included in the RHH Masterplan 2020 - 2050 City Campus redevelopment, is an interim solution to expand the ED in its current location, until a new ED is constructed as part of M-Block. The ED project has commenced, with an Architect engaged and stakeholder engagement commenced.

The expansion of the ED in its current location, was also subject to the identification of suitable space for displaced services, which included Paediatric Outpatient Clinics (POC) located on Lower Ground H-Block.

A separate feasibility report was completed to investigate potential sites for the relocation of the POC. The report considered two options where existing tenants were nominated to be vacated to new locations and concluded that Level 3 D-Block, Royal Hobart Hospital Liverpool St site was the preferred location. This site is currently vacated and previously housed Maternity and Neonatal Intensive Care, with both areas now located in K-Block.

The Paediatric Outpatient Clinics are currently operating at capacity, with insufficient floor space for expansion, and an outdated clinic space for the patient cohort. The proposed D-Block POC plans will provide a contemporary space for children, additional consult rooms for outpatient appointments and expanded ambulatory care with privacy for patients in the ambulatory treatment spaces.

The Australian Health Facilities Guidelines (AusFHG) have been used as a basis for the design, along with the project brief and stakeholder input. Infection control requirements have been included within the planning processes and reflected within the plans.

The proposed plans include:

- 7 Additional Consult Rooms
- 2 Additional Treatment Rooms
- 8 Dedicated Treatment Bays for Paediatric Ambulatory Care Unit patients
- 6 Dedicated Treatment Bays for Paediatric Haematology / Oncology patients
- Hoist Capability for non-ambulatory patients
- Additional spaces for patients and families including a waiting area, play area, and dedicated quiet waiting area to provide a low stimulus environment
- Additional storage and clinical support areas
- Dedicated isolation capability to accommodate patients requiring infection control measures in the outpatient setting
- A treatment room with a burns bath, improving facilities for outpatient burns patients
- Access to natural light, not available in the current outpatient space

The current Antarctic theme that has been adopted in the K-Block inpatient Children's and Adolescents ward will be continued in the POC, which will allow a continuation and familiarity for patients and families when they enter the new facility.

The treatment bays have been located around the perimeter of the building so that each room has direct access to natural light and affords the patient the ability to discern time of day through transition of daylight in the room. All patient treatment bays will be provided with access to a TV and facilities for a family member to remain with the patient during treatment.

Staff support areas such as clean and dirty utility rooms have been located in close proximity to ambulatory care areas and can be accessed by all areas in the new POC.

The reception is located at the main entry in order to provide ease of orientation for patients and family members of patients entering the facility; with waiting areas located opposite reception and nursing offices so that visibility of patients and families is optimal at all times.

This project is strategically important to the RHH to allow for the expansion of the RHH Emergency Department, while providing expanded and improved facilities for POC.

CONTENTS

1. DOCUMENT PURPOSE

The purpose of this document is to inform the Parliamentary Standing Committee on Public Works (PSCPW) of the need 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 and Human Services (DHHS) 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.

Approval by the Parliamentary Standing Committee - Public Works (PSCPW) is required prior to selection of a contractor and is now a critical path issue for the project to enable construction.

2. PROJECT DEFINITION

Background

Currently Tasmanian Paediatric Services provide treatment to infants, children and adolescents generally up to the age of 18 years. The Southern Region has 2 new inpatient wards as part of K-Block that opened in May 2020. The 2 wards cater for children and adolescents; K6 East – Children's which caters for patients aged 0 to 12 years of age, and K6West – Adolescents which caters patients aged 13 to 18 years of age.

The Models of Care for Paediatric and Adolescent Services broadly defines the way health services are delivered. In relation to Paediatric Service, it outlines best practice care and services for the children, adolescents, and their family, as they progress through the patient journey. It aims to ensure that children and adolescents receive the right care, at the right time, by the right team and in the right place.

Paediatric Services consists of a continuum of care from the patient journey into the hospital setting until discharge back into the community. The model describes:

- types of activities to be delivered to children and adolescents by the multidisciplinary team
- types of services to be provided by the Royal Hobart Hospital
- the appropriate stage for an activity or service to be delivered
- the location or context that the activity or service will be provided in
- the health care team and community partners that will provide the service
- the policy framework for the model of care.

The Paediatric Outpatient Clinics are currently operating at capacity, with insufficient floor space for expansion, and an outdated clinic space for the patient cohort. The relocation of services to Level 3 D-Block will enable expansion of services with additional clinic rooms to service the Tasmanian community.

Primary Objective

On the 19 March 2019 the then Premier announced the commitment to fund and commence Stage 2 of the Royal Hobart Hospital (RHH) Stage 2 Redevelopment, which included an expansion of the Emergency Department to meet growing patient demand.

As part of the RHH Masterplan 2020 - 2050 City Campus redevelopment has identified an interim solution to expand the ED in its current location until a new ED is constructed in M-Block. The expansion of the Emergency Department in its current location, was subject to the identification of suitable space for displaced services, which included POC on Lower Ground H-Block.

It is anticipated that the POC will provide Tasmanians with an expanded service capacity that conforms to current AusHFG standards, and improves Paediatric and Adolescent Services for patients and families now and into the future. This will be achieved by:

- All new spaces meeting current Australian Health Care Facilities Guidelines for sizing and access to natural light.
- Improved physical environment, incorporating multidisciplinary office spaces, patient waiting area and playroom, dedicated ambulatory care spaces for patients and families who are admitted as day patients, improved infection control spaces to be able to manage the cohort of paediatric and adolescent patients using this service.
- Improved physical environment that is both child and adolescent friendly to cater for the needs of these very different cohorts of patients.
- All service areas (clean utility room, dirty utility room) will be easily accessible from all areas.
- Medical gases and power requirements will be located in treatment rooms and treatment bays.
- Infrastructure to support IT requirements will be available in all appropriate areas of the new POC.
- Continuity of care through improved physical environment will improve the patient experience, with replication of K-Block colour pallet and themes for continuity.
- Staff Facilities including staff room, change rooms, and showers, will ensure that staff are able to carry out their work without the need to leave the ward space.

Location

The new Paediatrics Outpatient clinics will be located on Level 3 D-Block directly accessible from the Liverpool Street main entry lifts. This location is in close proximity to K-Block where inpatient Children's and Adolescent's wards are located, and also central to major pathways and lifts to access other RHH services.

General Scope

The project incorporates the construction of the new POC within the existing RHH footprint to allow the continued functioning of Tertiary Paediatric and Adolescent Services to the population of Southern Tasmania, and Statewide services for all Tasmanians.

Program

This project will have a target date for completion of July 2023.

This completion date is subject to finalisation of the POC tender process.

A detailed construction program will be provided by the builder once the works have been tendered.

3. DESIGN APPROACH

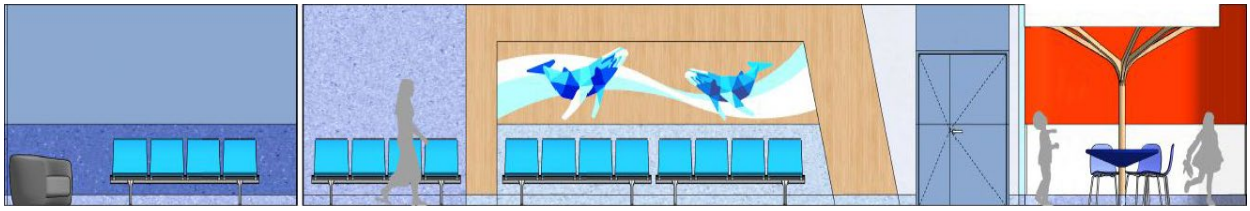
The planning approach that has been adopted is based on meeting current and predicted service requirements.

The new POC will be based on the guidelines contained in the Australasian Health Facility Guidelines, and this has formed part of the architect's design brief.

4. NEED FOR THE PROJECT

The needs of infants, children and adolescents is an important consideration of any Health Service. A robust health service, that allows for the continuum of care from the patient journey into the hospital setting until discharged back into the community, will be greatly improved with the building of the new POC at the RHH. It will allow for greater access to this very important cohort of patients and improved services within the ambulatory care services for children and adolescents.

The relocation of POC will allow the ED to expand its current location on Lower Ground J-Block into the Lower Ground H-Block space vacated by POC.



5. CONSULTATION AND GOVERNANCE CONSULTATION

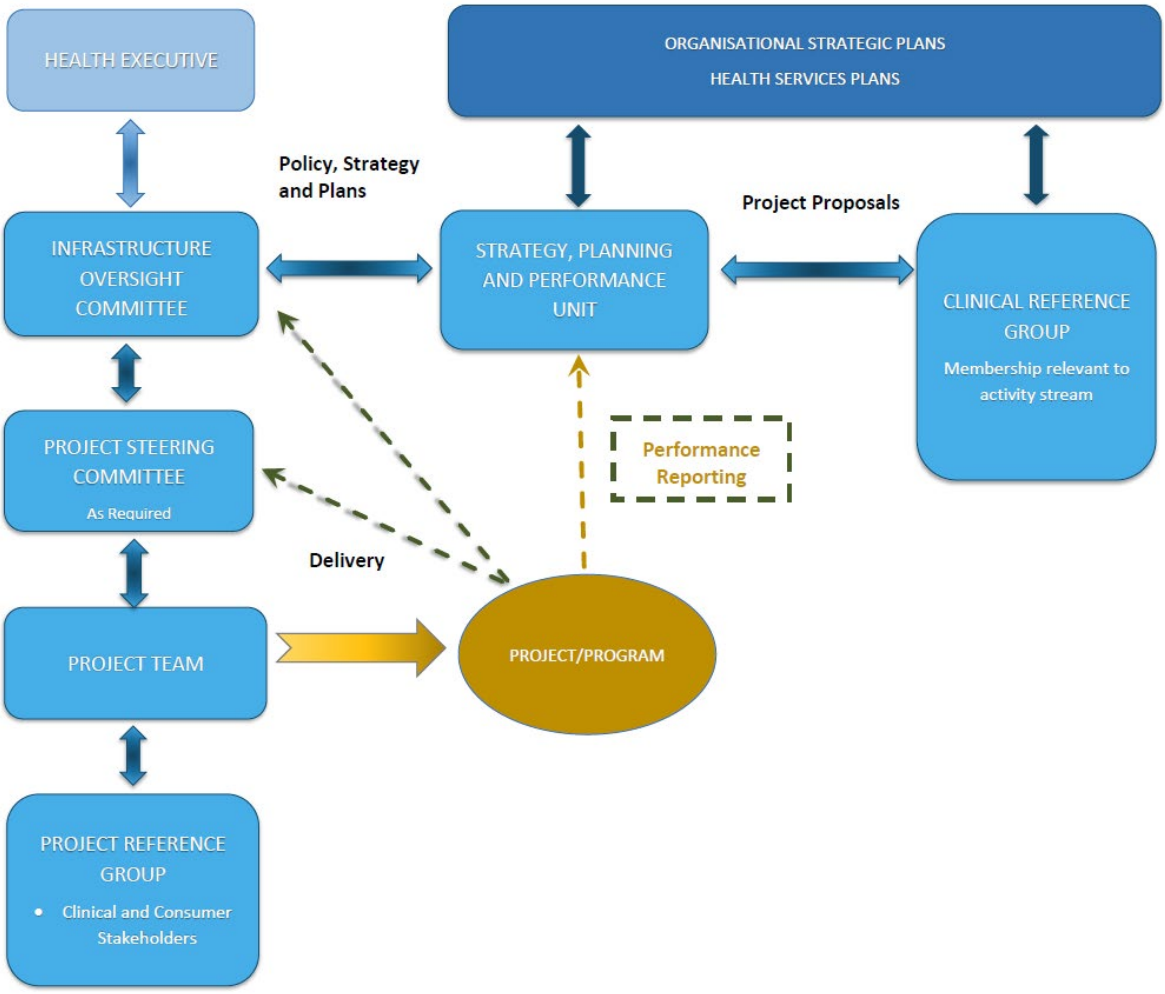
Consultation

As part of the design phase, input has been sought from both clinical, non-clinical staff, infection control, internal service providers into the design. As plans have been developed, they have also been displayed within the Paediatric areas to provide an opportunity for comment.

The proposed development was advertised in the Mercury newspaper on Saturday 21 August 2021, informing the public of the project and calling for submissions to the Parliamentary Standing Committee hearing.

Governance

The following diagram illustrates the Infrastructure Oversight Committee (IOC) Project Team and Project Reference Group relationships.



The IOC has approved the RHH Redevelopment Phase Stage 2 – Scope Definition Agreement.

Design Approval Process

The design process included:

- Initial stakeholder meetings to gain further understanding on clinical, infection control, health service planning and facilities and engineering requirements.
- Ongoing meetings were completed where concept designs were presented to the project reference group, and the agreed concept design developed further to schematic design.
- IOC at its April 2021 meeting endorsed the RHH Redevelopment Phase 2 Scope Definition, which included the relocation of the POC to Level 3 D-Block.
- Further meetings were undertaken with specific groups to complete room layout sheets and design choices, with the final documentation signed off by the working group, Susan Gannon, Chief Executive Hospitals South, and reported through to the IOC.
- During the project lifecycle, monthly Project Status Reports on the Paediatric Outpatient Project were provided for the IOC meetings.

As noted elsewhere, the design of each functional space is based on AustHFG.

6. ADDRESSING THE NEED

The Site

The proposed building of the new POC at the RHH will be undertaken on Level 3 in D-Block, which is located in the central part of the Hospital Campus. The location is in close proximity to inpatient Children's and Adolescents wards, central lifts and service pathways.

Level 3 D-Block has now been vacated by both the Maternity and Neonatal Intensive Care Units, and the Cardiology Department on Level 2 D-Block will also be relocated prior to the proposed Level 3 works. Access to the site is limited and needs to be carefully considered and programmed to ensure minimal disruption to the hospital.

Design Philosophy

The proposed POC relocation development will provide contemporary specialist paediatric and allied health care to outpatients from birth to 17 years.

The design philosophy for the new clinics is to best design practice to enable optimum clinical services including:

- Patient and Staff Focussed;
- Innovative planning that provides efficient and effective workflow;
- High quality work and patient environment;
- Responsive to the new models of care for nursing management
- In accordance with the Australasian Health Facility Guidelines (AHFG);
- To optimise energy efficiency and maximise environmental benefits of natural light, views and indoor air quality;
- Incorporates best practice Environmentally Sustainable Fit out Design.

Architecture & Interiors

A full non-structural interior demolition and new fit out of the space was deemed necessary to provide optimal clinical services and to reduce the ongoing costs associated with maintaining an ageing internal fit out.

The innovative planning layout meets current and predicted service requirements, enables best practice and efficient workflows, and provides clear navigation and observational sight lines with appropriate acoustic separations and security measures.

The design philosophy is both patient and staff focussed, emphasising a high quality work and clinical environment that is responsive to contemporary models of care and in accordance with the AusHFG.

Departmental total net area (excluding circulation - 441.5 m2) is 1261.5 m2 and incorporates:

- Treatment Halls
- Consultation Rooms
- Procedure Rooms
- Gymnasium
- Family, Parenting & Feeding Rooms
- Waiting area, including Play & Quiet Areas
- Reception and Staff Station
- Offices
- Meeting Rooms
- Staff Room & Amenities
- Patient and Public Toilets
- Utility Rooms
- Storage Areas
- Switchboard / Communications Rooms & other ancillary spaces

Public access is via the existing shared C Block lifts and stairs. Existing north, south and west staff access points will allow flexibility and reduce travel distances. Neither form part of the building works.

Treatment Halls, Gymnasium, Staff Room, Offices, main Meeting Room and the Quiet Area have been located along the building periphery to enable an exterior outlook and good natural light penetration, which has the recognised ability to reduce the anxiety level of occupants.

Materials, finishes, fittings and fixtures have been selected for their durability, aesthetic and infection control characteristics so they can be easily cleaned and maintained whilst also minimizing the institutional character of the facility. Acoustically insulated lightweight partitions will ensure the future flexibility of the space.

All design elements consider the Disability and Discrimination Act and incorporate universal access including ambulant requirements.

The architects have typically utilised the existing K block Paediatric Antarctic / Aurora Australis design themes and wayfinding signage as a conceptual template and positive patient distraction as briefed. Images will be printed onto compact laminate, incorporated into PVC free durable rigid wall panels where accessible or wall / ceiling mounted printed decals otherwise. Hexagonal forms generated from the shape of a snowflake crystal are also used throughout as a unifying element to create a non-threatening, welcoming, recognisable and calming environment for children to promote healing and reduce anxiety.

Spaces will be bright, cheery and playful, engaging children’s imagination and creating delight with colourful forms and patterns, whilst also considering the needs of older children and adolescents.

Calming blues, greens and warm greys will generally be specified along with some Aurora Australis (ship) orange and wood laminate accents for warmth. A warm white has been chosen for walls.

Continuation of floor vinyl colours between rooms and up walls, hexagonal LED lighting and ceiling decals in the Treatment Hall passages, as well as a feature wall colour to Consult Rooms, General Office, Meeting Rooms and Parent / Feeding Room will add interest and a sense of playfulness. LED strip lighting in corridors morphs into a more dynamic form in the main waiting area which follows the alignment of floor vinyl edges below.

The main waiting area features modular back to back seating for flexibility and quiet play next to parents, with a separate Play Area still visually connected for supervision. This play space incorporates rounded corners, lowered ceiling, central play table and a tree form to soften the room, add a sense of fun, wonder and contrast to the main cooler colours and themes. A magnetic wall and interactive touch screen monitors will encourage creative and entertaining play. An alcove between existing columns has been designed as an informal adolescent area. The Quiet Room will have darker muted tones and dimmable lighting.

Reception and Treatment Hall, Consult Room, Procedure Room doors are highlighted to define entries and alleviate confusion and stress. The route to each Treatment Hall from Reception will be highlighted with motifs matching in colour and form to each respective Treatment Hall.

Environmentally Sustainable Design

Environmentally sustainable design features include:

- Floor layout designed for passive energy efficiency by maximising day light penetration into as many main clinical and staff areas as possible
- Existing and new interstitial external window blinds to provide controllable sun shading and prevent heat loss
- Energy efficient lighting selection (type and wattage) including installation of motion sensors to reduce power consumption in unoccupied rooms
- Materials selected for low off-gassing characteristics (low VOC), low embodied energy and suitability for recycling
- Wall and ceiling insulation where possible to mitigate heat loss and gain fluctuations
- Upgrading to efficient, fully integrated and monitored building services to current best practices

Building Services

Heating, Ventilation and Air Conditioning (HVAC)

The mechanical engineering systems are designed to provide a safe, comfortable and energy efficient environment in order to achieve the following objectives:

- Produce a cost effective solution that offers best value to the client
- Provide a safe and comfortable environment
- Deliver solutions that support the clinical and architectural intent of the project
- Provide an energy efficient design
- Allow for future flexibility where appropriate

Zoning will be provided to special use areas such as meeting and staff rooms in addition to the standard perimeter and interior zones. Mechanical ducting will incorporate maximum 500m2 smoke compartments with smoke dampers and shut down facilities.

The existing mechanical system will be assessed for suitability of reuse or modification to minimise construction cost.

Medical Gases

Medical gas systems shall be designed to be safe, reliable, and maintainable in accordance with the recommendations of AS 2896 and includes:

- Compressed air for medical use
- Vacuum for medical patient use
- Waste anaesthesia gas disposal
- Gases for patient, laboratory, and equipment use

Lighting

Lighting levels in treatment, consulting and other spaces will be in accordance with the recommendations of AS 1680.1 and AS 1680.2.5. Luminaires will be provided with lay-in diffusers to meet infection control requirements.

Incorporation of IT, integrated building services and lighting will provide adaptability in accordance with Department of Health requirements.

Local light switching using wall mounted single and multi-gang switch plates will be provided in treatment rooms and offices where specific on/off switching is required. Recessed motion sensors are proposed in spaces such as toilets, cleaners and utility rooms to ensure luminaires are not operating when there is no occupancy.

Lighting control system will be integrated with both the Nurse Call and Duress System.

Exit and emergency lighting complying with AS 2293 will be provided throughout with test switches located in each distribution switchboard.

Power

A new check meter is to be included in the Main Power Board.

All power and lighting sub-circuits will be provided with earth leakage protection and/or Medical/Cardiac protection as required to AS/NZS3000:2007 and AS/NZS 3003:2011. Medical Outlets with a suitable level of protection will be installed throughout all treatment areas and general purpose power outlets (GPOs) installed otherwise.

Security

Provision of:

- smart card access control system that can also act as a duress alarm system with connection back to RHH security
- CCTV system connected to RHH corporate IP
- duress system with pendants, and
- nurse call system.

Communications

The communications design incorporates a 4 poster Panduit rack with 8 inch vertical cable management.

Cat 6A cabling included throughout. All structural cablings grouping to be limited to 24 per bunch to allow for heat dissipation and future Power over Ethernet (PoE) connection.

VOIP system to PC SAU included to TMD Standard.

New cabling from double outlets for ceiling mounted Wi-Fi access points.

Hot Water & Cold Water Service

The fit out will connect into the existing cold, tempered and hot water reticulation systems. All new hydraulic services are to be designed and installed in accordance with AS3500. Tempering valves will be provided to sanitary fixtures to prevent hot water scalds and temperatures will be limited to 42 degrees.

Sanitary Sewer

The fit out will connect into the existing sewer reticulation systems. All new sanitary sewer services are to be designed and installed in accordance with AS3500.

All new sanitary pipe to be an acoustic type.

Fire Services

- Sprinklers

  A new sprinkler system complying with AS 2118.1 will be installed throughout.

- Fire Hose Reels & Hydrants

  Two new fire hose reels located adjacent to the south and west exit points are required to comply with current standards. An existing fire hose reel located within the existing public entry corridor will also be utilised. Three existing fire hydrants located within existing stairwells remain compliant.

- Fire Detection

  A new fire detection system complying with AS1670.17 will be installed throughout.

- Warning and Intercom System

  A new warning and intercom system complying with AS1670.4 will be installed and activated by the sprinkler and detection system and have manual call points throughout the building. Warden intercom points will be provided.

7. PROJECT SCHEDULE & BUDGET

Project Schedule

A Summary of the Project Timeline is as follows:

Description

Completion of design development	August 2021
Development Application	Not Applicable
Completion of Construction Tender Documentation	September 2021
Construction Tender (closing and assessment)	April 2022
Construction Start (subject to approval)	July 2022
Practical Completion of Construction	May 2023

Project Cost

Approved funding for the RHH Redevelopment Stage 2 program of works is $91M. The cost of the Paediatric Outpatient Clinics development is currently broken down as follows:

Description

Construction Costs	$ 7,743,590
20% allowance of current market conditions over the tender estimate	$ 1,800,000
Construction/Design Contingency	$ 405,979
Contract Contingency	$ 430,000
Professional Fees and associated costs	$ 749,630
Post Occupancy Allowance	$ 100,000
Tas Arts Scheme	$ 80,000
Information and Communication Technology Infrastructure	$ 777,000
Furniture and Equipment	$ 1,500,000
Client Costs	$ 235,000
PROJECT TOTAL	**$13,821,199**

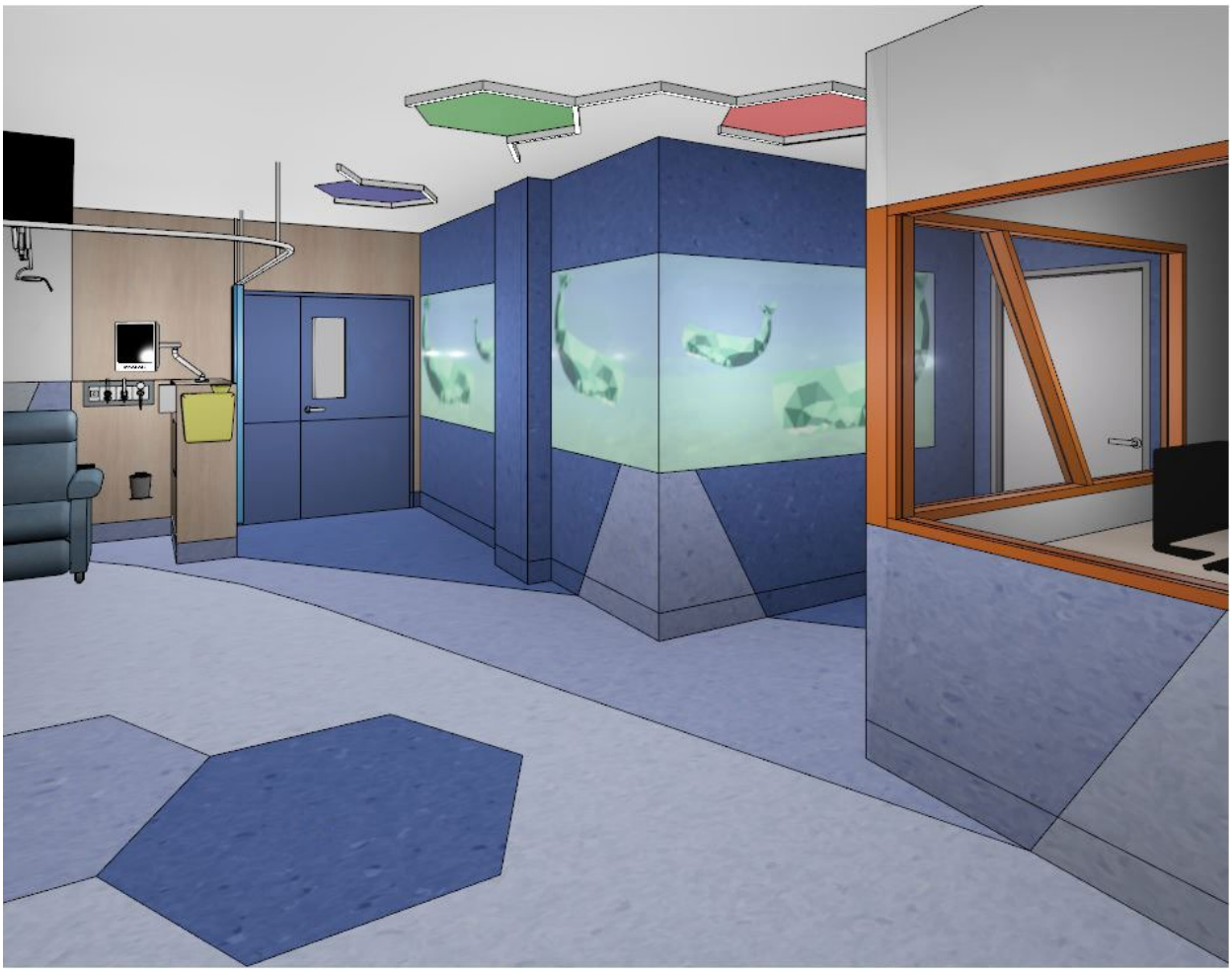
The estimated construction costs have been provided by the project's Quantity Surveyor and internal services resources and are based on reasonable allowances for the project's location, current market conditions, and tender documentation to be issued to market.

8. RECOMMENDATIONS

The IOC and Project Team have carefully assessed and explored the options and solutions available and have determined the designs 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.

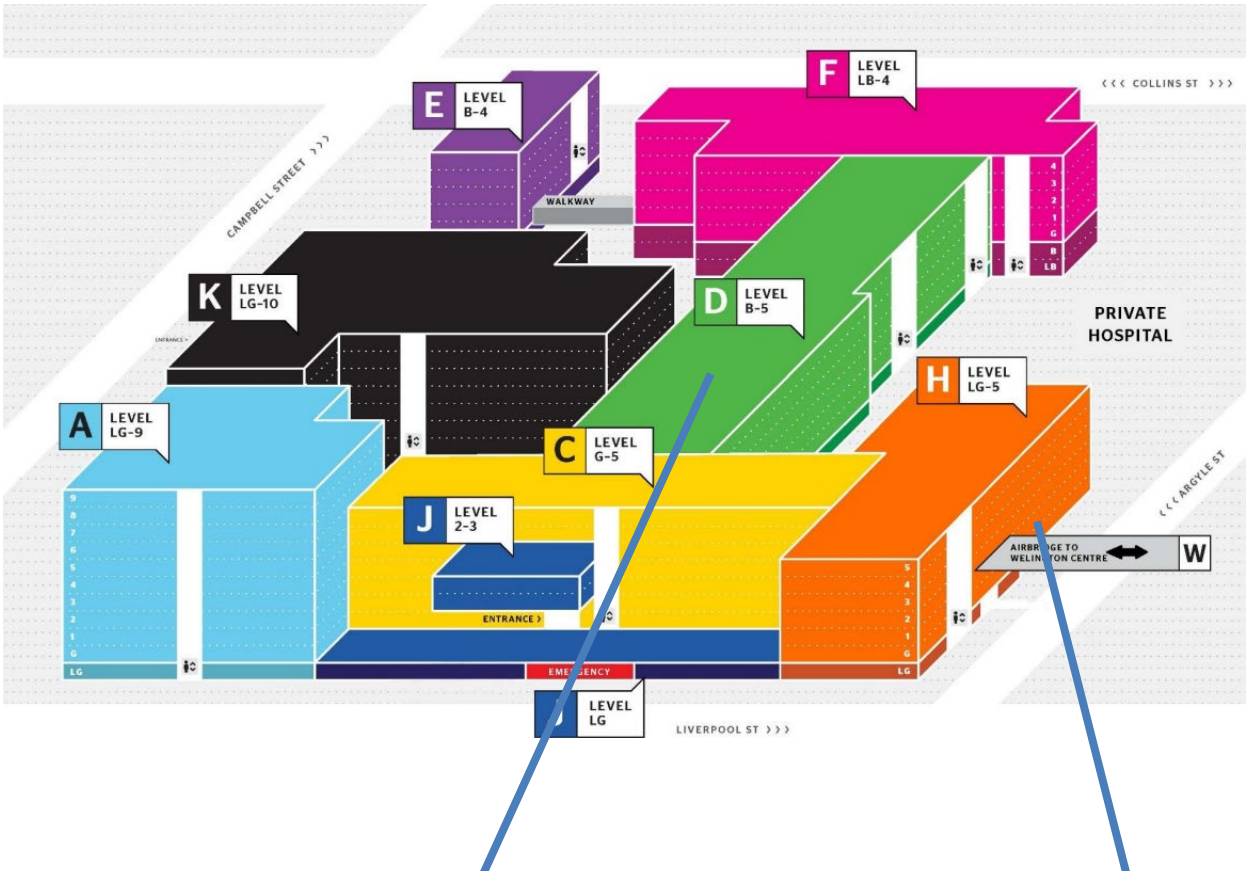
It is recommended that this submission be viewed favourably given the benefits it will provide to Tasmanian community with the provision of a new POC for the Tasmanian Community

The project, once completed, will immediately commence addressing the need to deliver appropriate health services.



APPENDIX A – PROPOSED DESIGN

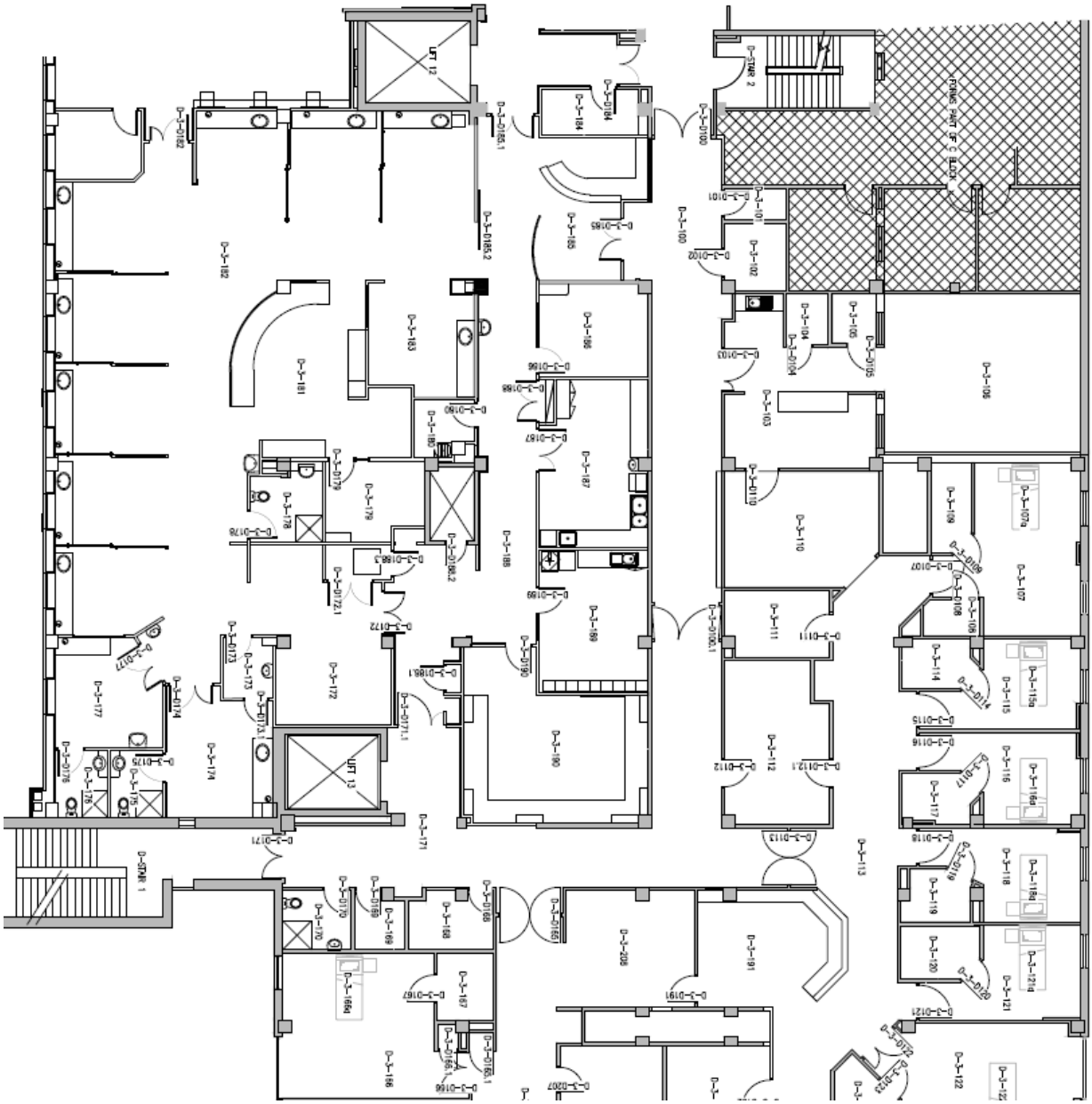
ROYAL HOBART HOSPITAL SITE DIRECTORY



Proposed Paediatrics site – Level 3 D-Block

Existing Paediatrics Clinics – Lower Ground H-Block

PROPOSED CONSTRUCTION SITE – D-BLOCK LEVEL 3 – SECTION A



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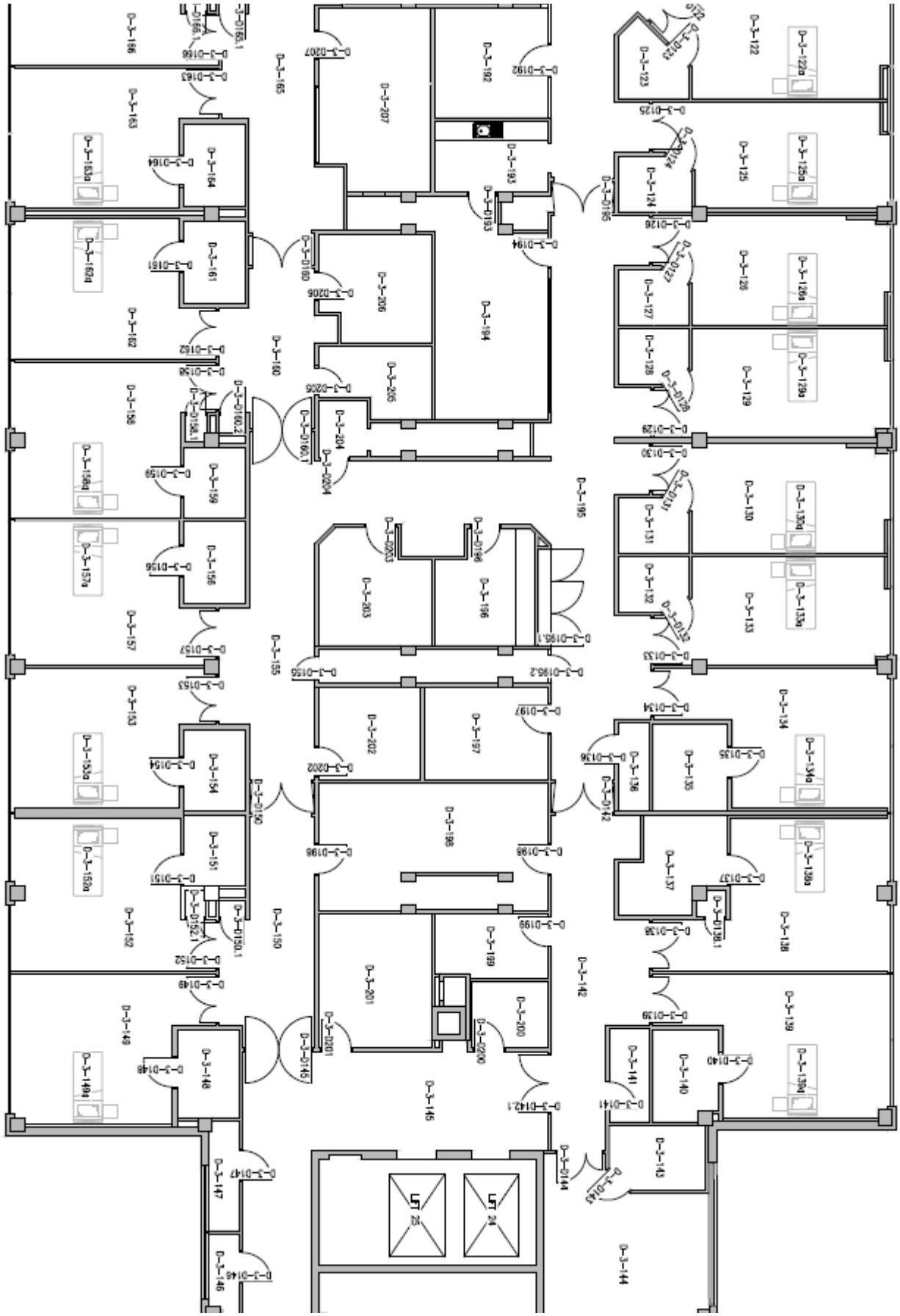
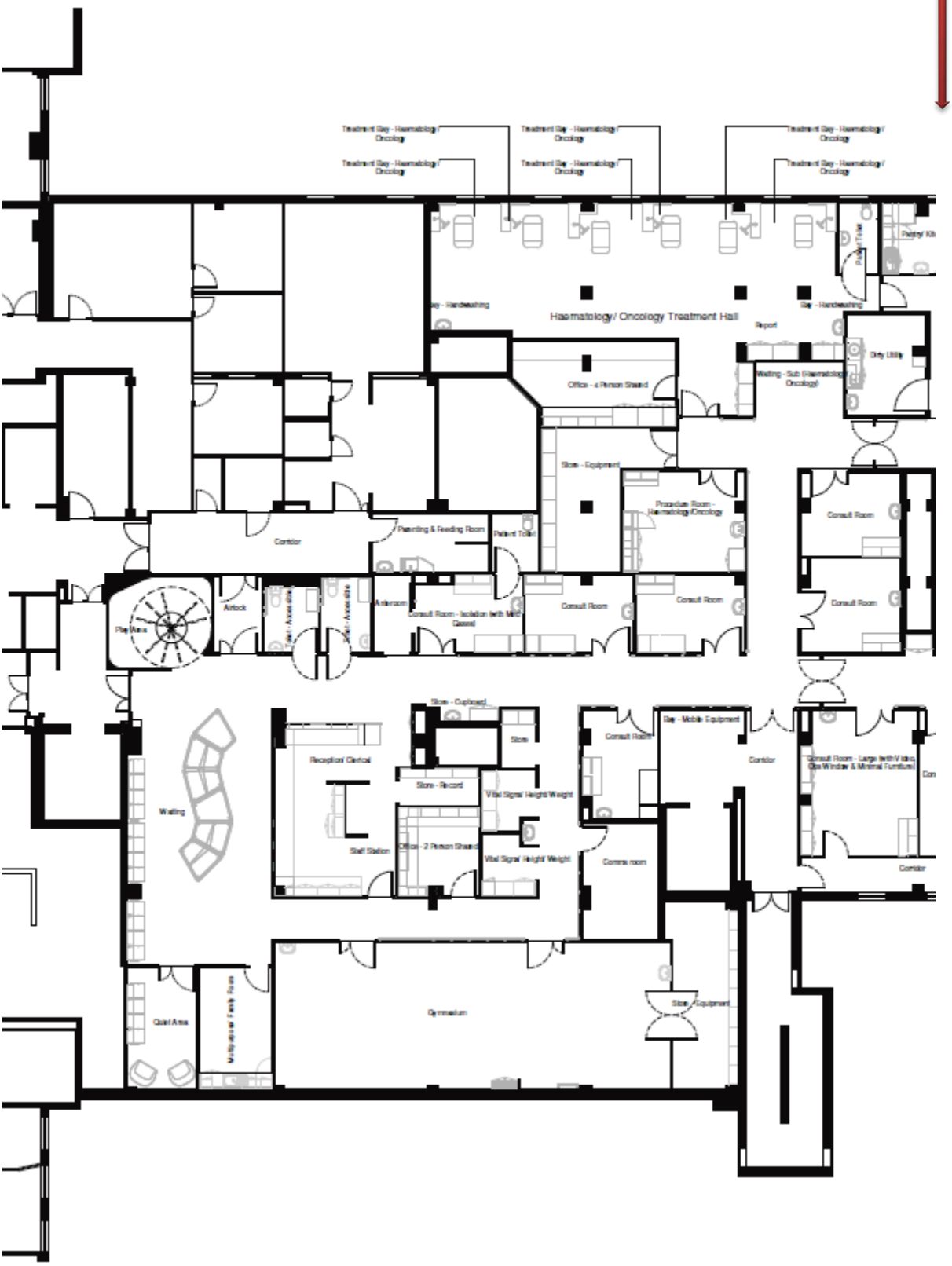
PROPOSED CONSTRUCTION SITE – D-BLOCK LEVEL 3 – SECTION B



PROPOSED NEW PAEDIATRICS OUTPATIENT CLINICS FLOOR DESIGN

FLOOR VIEW A – JOINS WITH FLOOR VIEW B HERE



FLOOR VIEW B – JOINS WITH FLOOR VIEW A HERE