

# Building a Modern Health Facility for Tasmanians

Welcome to the RHH Redevelopment project!

The RHH Redevelopment is delivering a state-of-theart health facility for generations of Tasmanians to come.

RHH Redevelopment News provides information and updates on the project.

You can also find information about the project by visiting the website:

www.rhhredevelopment.tas.gov.au

Or email the project at:

redevelopment.rhh@dhhs.tas.gov.au

### In this issue...

In the February 2018 edition you'll find:

<u>Looking Ahead</u> – progress scheduled on the construction site during 2018.

<u>Construction Close-Up</u> – take a look on site.

The Science and Art of Getting to Your Destination — an update on the RHH's new wayfinding strategy.

The Sound of Silence – designing a hospital to keep the noise down.

The Sky's the Limit with New Hypobaric Capability – supporting industry innovation in Tasmania.



# Looking Ahead - Construction During 2018

Take a look at the K-Block construction site from Campbell Street.

Floors of scaffolding cover the site. Level 4 is now substantially completed along with framing up for the first concrete slab pour on level 5 shortly.

Elements of the building's street frontage are being installed. Large columns that form part of the building's design will be in place in coming weeks.

TasNetworks will also be doing work on the high voltage power supply to the hospital.

Some temporary closures of Campbell Street between Liverpool and Collins Street can be expected.

During the year, work will continue laying form work and pouring concrete slabs on each floor.

By the end of the year, the structure for all ten floor slabs and precast façade panels are due for completion, the installation of internal walls substantially progressed and the commencement of the internal fit-out of the ground floor is a scheduled milestone.

Key dates for 2018 are provided in Table 1 and are based on the Managing Contractor's construction program.

Practical completion of K-Block remains on track for mid-2019.

Table I Managing Contractor's 2018 Key Dates

Milestone Descriptions	Key Dates
3rd floor slab final concrete pour	27 January 2018
5th floor slab final concrete pour	3 April 2018
7th floor slab final concrete pour	29 May 2018
9th floor slab final concrete pour	13 July 2018
Ground floor internal wall installation complete	15 September 2018
3rd floor internal wall installation complete	8 August 2018
5th floor internal wall installation complete	19 October 2018
7th floor internal wall installation complete	13 November 2018
9th floor internal wall installation complete	10 December 2018

# Construction Close-Up

Images taken from site during February 2018.



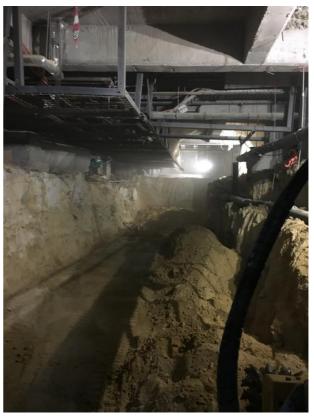
View from Campbell Street.



Close up on the scaffolding which provides the support for concrete pours.



Form work being laid for a slab pour on level 4.



 $\label{thm:conditional} \mbox{Underground tunnel works building the new ring-main services system.}$ 

# The Science and Art of Getting to Your Destination

Finding you way through public spaces like shopping centres, universities or hospitals is not always straight forward.

Wayfinding is more than signs and symbols.

It's a strategy.

Tasmanian designers, Futago, were commissioned to develop a wayfinding strategy to help locate the new clinical and office areas refurbished as part of the RHH Redevelopment project.



Mockup of site directory board for key hospital entrances.

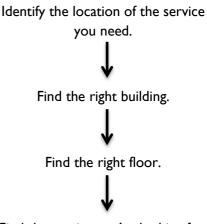




Signage colour palette.

Have you been given directions where you needed to remember multiple instructions such as, 'take the second exit to your left, go past the shops, turn right and then it's the second street on the left?'

The wayfinding strategy breaks down the information you need to get to your destination into manageable pieces.



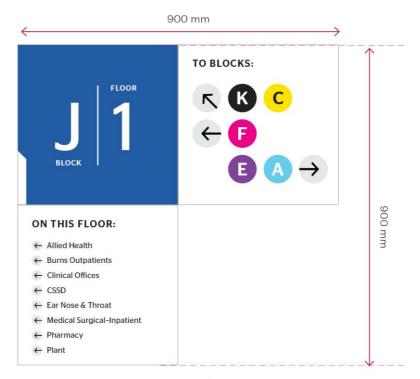
Find the service you're looking for.

Entrance directional signs will help you locate the building and floor you need using a simple three-dimensional map. These will be located in key public entrances to the hospital.

It will use a colour system that is identifiable, memorable and which works on black or white backgrounds. These colours will be used on the entrance directories and throughout the hospital in the next level of signage.

Node and directional signage is the next level of signage that provides the detail.

It will be a modular system that can be easily replaced when updates or maintenance is needed.



An example of a key node sign configuration (provided to demonstrate signage configuration and does not represent actual content).



There are three parts to the wayfinding strategy.

The first tells you the building and floor you are on.

The second tells you what services you'll find on the floor.

The third tells you which direction to go to find your destination.

#### What's Included

Signage to display visitor's current location on a stylised map and hospital directory in key public entrance locations.

Signage to display floor level in key circulation areas which are easily seen and highly visible.

#### What's Not Included

Lift directories, and location signs like ward entrances and room numbers which were previously completed.

The RHH's wayfinding strategy will be released for quotation in the market shortly.

A previous article on the wayfinding work appeared in the RHH Redevelopment News June 2017.

### The Sound of Silence

Controlling unwanted noise is a major consideration in the design of hospitals.

K-Block's design balances the selection of building materials that reduce unwanted noise with their practical use in a health facility. For example, operating theatres are built of materials that are noisy like lots of stainless steel surfaces (or also known as acoustically reflective surfaces) but this is necessary for hygiene requirements.

Some areas have higher noise management needs such as between plant rooms and quiet areas and psychiatric treatment areas and wards. They need more strategies to keep the noise down.

This design criteria has been used to decide on the building construction and noise control treatments for:

- K-Block's façade, to minimise noise from nearby sources like Campbell Street traffic and helipad where impacts will be greatest on the higher levels of the building
- the acoustic design of mechanical, electrical, medical and hydraulic services
- internal surface finishes to control reverberations from noise
- construction of internal partitions, doors and ceilings to achieve the noise level criteria for the area and
- environmental noise emission from the building to nearby locations.

Rw 35
Rw 45
Rw 55
Rw 55
Rw 60
Impact Noise

The ground floor acoustic mark up by the project's design engineers to achieve the appropriate assessed acoustic value.

The K-Block facade has been designed to control noise intrusion from external noise sources such as: helicopter noise, externally located plant and mechanical services equipment associated with the hospital and road traffic noise.

A number of strategies are also in place to reduce the impact of hospital noise on nearby neighbours too, focusing on the building services systems.

Examples include positioning fans, air conditioning and ductwork to less sensitive areas or above insulated ceilings.

The RHH Redevelopment's engineers, AECOM, have investigated how best to keep the noise down. They developed criteria for sound insulation between spaces, acoustic reverberation, internal noise levels and environmental noise emissions based on legislative requirements and contemporary building standards.

For more information on the RHH
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## The Sky's the Limit with New Hypobaric Capability



External fisheye image of hypo/hyperbaric chamber under construction taken in February 2018. The completed chamber will have three entrances in total. Photograph courtesy of Corry Van de Broek.

K-Block's state-of-the-art hyperbaric chamber will now have hypobaric capability thanks to Tasmanian industry partners.

The new, high-tech, dual capacity will support innovation in Tasmanian industry with potential application to aquaculture/commercial and recreational diving; high altitude, space and extreme medicine research and testing; and airline and defence training, and will support innovation in Tasmania.

The Department of Health and Human Services with Tasmanian Salmonid Growers Association, the Tasmanian Abalone Council, the Diver Alert Network Asia Pacific, the UTAS School of Medicine and the Tasmanian Polar Network have jointly funded this additional capability.

Hypobaric chambers are used for aerospace, or altitude research and training to simulate the effects of high altitude on the body, especially hypoxia (low oxygen) and hypobaria (low ambient air pressure).

The dual chamber will create a world-class research facility unique in the southern hemisphere and one of just a few globally; the first with combined capability in the country.

The new hypo/hyperbaric facility will be installed on level 3 of the new K-Block and will be able to treat up to 10 patients simultaneously.

The \$12 million, multi-place hyperbaric chamber has been funded by the RHH Redevelopment project.



Internal image of pressurised gas pipes and window taken in February 2018. Photograph courtesy of Corry Van de Broek.

An article on the hyperbaric chamber appeared in the RHH Redevelopment News April 2017.