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PARLIAMENT OF TASMANIA

PARLIAMENTARY STANDING COMMITTEE ON PUBLIC WORKS

Repatriation Centre Redevelopment Program

Brought up by Mrs Rylah and ordered by the House of Assembly to be printed.

MEMBERS OF THE COMMITTEE

Legislative Council	House of Assembly
Mr *Farrell*	Mrs *Rylah* (Chair)
Mr *Valentine*	Mr *Llewellyn*
	Mr *Shelton*

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1 INTRODUCTION

The Committee has the honour to report to the House of Assembly in accordance with the provisions of the *Public Works Committee Act 1914* on the -

Repatriation Centre Redevelopment Program

2 BACKGROUND

2.1 This reference recommended the Committee approve the redevelopment the Repatriation Centre to provide a 22 bed sub-acute ward and an upgrade of the HVAC plant and site infrastructure, including the medical gas supply and emergency generator.

2.2 The Repatriation Centre Redevelopment Program is composed of two inter-related projects. Project 1 involves refitting Level 1 of the Peacock Building (currently used for office space) to provide a new 22 bed sub-acute ward. The new ward will house patients requiring ongoing multidisciplinary, holistic inpatient chronic diseases management and care planning, but do not need or no longer need to be in an acute hospital bed. The emphasis will be on the transitional care of people who are frail and aged, or younger people with serious deteriorating chronic disease burden.

2.3 This ward is required to meet current demands on bed space at the Royal Hobart Hospital (RHH) in the short term, by freeing up beds for acute patients at the RHH that are currently occupied by sub-acute patients, and will be part of the Tasmanian Health Service's longer-term bed strategy, by consolidating a sub-acute hospital off the RHH site.

2.4 Project 2 involves an upgrade of the existing heating, ventilation and airconditioning (HVAC) plant, medical gas supply and emergency generator.

2.5 Currently, the building is only heated, with the heating system at end-of-life. The new system will provide heating and cooling and will service the entire building, not just the new 22-bed sub-acute ward.

2.6 There are also potential capacity issues with both the medical gas supply and the building's emergency generator. These will be upgraded to maintain services to the existing sub-acute services already on the site, in addition to having the capacity to support the increased servicing load resulting from the new 22 bed sub-acute ward, and further consolidation of sub-acute services on the site.

3 PROJECT COSTS

3.1 Pursuant to the Message from Her Excellency the Governor-in-Council, the estimated cost of the work is $7 million.

The cost of the development is currently broken down as follows:

Description	**Project 1**	**Project 2**
Construction Costs	$3,375,000	$1,520,000
Construction/Design Contingency	$250,000	$240,000
Post Occupancy Allowance	$25,000	
Professional Fees and associated costs	$250,000	$105,000
The Tasmanian Government Art Site Scheme	$80,000	
ICT Infrastructure	$160,000	$80,000
Furniture and Equipment	$755,000	
Project Management Costs	$130,000	$30,000
PROJECT TOTAL	**$5,025,000**	**$1,975,000**

The $7 million approved funding for the project is based on an assessment by the Quantity Surveyor for the project and is derived from reasonable allowances for the project's location and current market conditions.

4 EVIDENCE

4.1 The Committee commenced its inquiry on Friday, 25 August last with an inspection the site of the proposed works. The Committee then returned to Committee Room 2, Parliament House, whereupon the following witnesses appeared, made the Statutory Declaration and were examined by the Committee in public:-

- Mark Ballard, Project Manager Capital Works, Asset Management Services, Department of Health and Human Services;
- Greg Cooper, Director, Asset Management Services, Department of Health and Human Services;
- Bruce Edwards, Group Manager, Complex Chronic and Community Service Tasmania Health Service – Southern Region;
- Prof. Michael Ashby, Clinical Director, Tasmania Health Service – Southern Region;
- Maija Kumpulainen, Clinical Nurse Consultant/In-reach Rehabilitation, Tasmania Health Service – Southern Region; and
- Peter Gaggin, Architect / Director, PhilpLighton Architects.

Project Overview

4.2 Mr Ballard provided an overview of the proposed works:

> *We would like to present to the committee a project to provide an additional 22 bed capacity at the Repatriation Centre in the Peacock Building. The premises are at level one and currently consist of space that has been used for many years as office space. We have engaged Philip Lighton through Peter Gaggin to assist in the development of the redesign of the new ward.*
>
> *In addition to the new ward, we are proposing to upgrade certain services and infrastructure at the site to complement the new ward. The air-conditioning system is the main focus because the air-conditioning system is 40 years old and is very energy inefficient. We can see an upgrading of this facility will enhance this floor at level one and also conditions that are relevant on other floors where they only have heating on some of the floors and have no cooling during hot summers. It is going to increase and improve the environment for all the users of the facility.*
>
> *There are some other infrastructure improvements we are considering and reviewing at this time which includes upgrading the generator set, the access control system, and security. We present the plans which have undergone a detailed review and analysis by the Tasmanian Health Service to meet the requirement of their sub-acute board.*

Need for the Proposed Works

4.3 In its submission, the Department of Health and Human Services (DHHS) outlined its strategy for consolidating sub-acute services away from the Royal Hobart Hospital at the Repatriation Centre, noting that this was the driver behind the current project. The DHHS stated:

> *The project proposal supports existing and new services by providing a number of sub-acute beds off the RHH site, relieving bed block pressures as*

well as better consolidating staff and ensuring the facility continues to be able to provide health care in the longer term by addressing infrastructure issues.[1]

The addition of a new 22 bed ward will:

- *Provide a critical mass of over 60 sub-acute beds on one site. This critical mass is required to justify additional services such as, out of hours on call cover for medical first response by resident medical officers, registrar and appropriate specialist advice, and nursing flexibility. Full allied health staffing will be required to ensure that the ward meets its objectives, and this need is a high priority. This will allow the Repatriation Centre to become the sub-acute centre for Southern Tasmania for the next 10-20 years and provide more efficiency than a split site, or RHH sub-acute solution.*[2]

The THS is currently undertaking a major service planning exercise to confirm service requirements over the next 20 years, maximising the use of existing facilities.

Contemporary practice in many jurisdictions is the provision of dedicated sub-acute facilities separated from acute tertiary level facilities, due to the different models of care required. This project will facilitate such a solution for Southern Tasmania, and while the service planning exercise is not yet completed, THS has recognised that consolidating the Repatriation Centre as a sub-acute centre off-site from RHH will be a key component of the long term bed strategy.[3]

4.4 The Committee sought further information from the witnesses on what other options were considered to reduce pressure on demand for acute care beds at the RHH. Mr Cooper noted that given the timing requirements around the demand for acute care beds there were very limited options, and the proposed works appeared a natural fit given the services already offered at the Repatriation Centre:

> ***Mr FARRELL*** *- ……I am curious to know what other options were looked at before it was decided to go ahead with this refurbishment which seems a perfectly sensible way to go. Were there other options available to the department?*
>
> ***Mr COOPER -*** *I would say that options were pretty limited, given the timing expectations and available floor area and also the alignment with existing services.*
>
> *Having two floors of sub-acute already in place, it would leave clinically a fairly natural alignment for then a third floor to be co-located in that way. That is probably the highest criteria that the team are trying to work with. Then it is on the site of the Repat, what is the most appropriate area? Whilst it is currently configured as an office-type space, you already have a lot of the infrastructure there that we can then do beds with.*

Consolidation of Sub-Acute Services

4.5 The Committee noted the Tasmanian Health Service–Southern Region's strategy to consolidate sub-acute services at the Repatriation Centre, in effect creating a sub-

[1] DHHS Submission, page 6
[2] Ibid, page 6
[3] Ibid, page 7

acute hospital on the site. The Committee sought further information on the types of patients that would be cared for in this facility:

> ***Mr LLEWELLYN*** *- Professor, maybe you would like to tell us what sort of sub-acute patients will occupy that.*
>
> ***Professor ASHBY - ……*** *The types of patients, in direct answer to your question, that will be suitable for this unit are:*
>
> - *frail aged people who are unsuitable or not ready for discharge yet;*
> - *chronic diseases patients of all ages potentially, apart from children - what we call palliative care slow stream or slow hospice. At any one time there are a number of patients in the Royal, last week on one particular day my team advised it was six, who could not go home. Whittle Ward at that point was full, and their care needs were sub-acute but possibly not needing the full acute palliative care model in the Whittle Ward. That population of patients would be accommodated in the new unit.*
> - *patients who are either awaiting or have failed rehabilitational targets - and there may be some capacity to deliver limited in-reach rehabilitation for people on the new unit, that is still under consideration.*
> - *bariatric patients, those who have weight problems, obesity, that makes their care require special equipment and back up; and*
> - *patients whose social or location of care issues prevent timely discharge or transfer.*
>
> *In addition, it is important for any such unit in 2017 to be able to accommodate confusion and wandering behaviours. We are not suggesting that this will be a substitute for the higher intensity dementia management units and facilities that are run elsewhere in the health system, but we would be very foolish to not be able to have the level of security and environment that can accommodate those people because of the epidemiology with dementia now headed to be the number one contributing cause of death in Australia within the next few years, and the high prevalence in incident figures of that. That is the patient profile.*

4.6 The Committee also sought further information on the benefits and efficiencies that would be realised by consolidating sub-acute services for Southern Tasmania at one facility. The witnesses noted a number of benefits and efficiencies, including freeing up beds occupied by sub-acute patients at the RHH to meet demand for acute patient beds, and the ability to offer a more integrated approach for sub-acute patient care:

> ***Professor ASHBY*** *- …… clearly this investment is about generating better patient outcomes and increasing our capacity to cope with the demand for inpatient beds of all sorts in Southern Tasmania. It is not in my portfolio but I do sit in the leadership group that has been struggling with this the last few years as you would be very well aware in Parliament. The real need was for more acute beds. Those who know the infrastructure of the Royal well from top to floor did put up options, some of which were taken up and most of which ultimately had to be rejected due to their disruptive nature, the small volume of beds, and the things that would then deprive the hospital of in order to have those additional beds.*
>
> *The quickest, most efficient way to get a large pool of beds was to have them in the sub-acute sector at the Repatriation site. The main aim of the beds in operational terms is to make them medical transitional care beds in the sub-acute sector because it is very clear amongst my colleagues that we cannot replicate acute levels of care escalation at the Repat site as well as the Royal and that it would not be safe and sustainable to do so.*
>
> ***Mr EDWARDS*** *- Can I add in analysing I suppose the need, we have a number of sub-acute services whether it be psycho-geriatrics out at Roy Fagan, our rehab aged care and palliative care services, but while initially it was around where was the acute bed capacity the reality is*

even despite our sub-acute capacity there are still a reasonable number of people who no longer require acute care remaining in the Royal Hobart Hospital.

When we looked around, and as Michael has said in regard to trying to increase that acute care capacity at the Royal, it was not going to give the number of beds and would have been disruptive. Also, having another sub-acute area and moving out of that busy acute area into a better environment where we can provide better sub-acute care and better planning for this patient group was going to be a better option. Also, as Greg had mentioned, when you look around the real estate that we have for in-patient care is only the Royal, the Repat site and Roy Fagan, and we have a few areas for mental health that really are not for the managing of medical patients.

***Mr LLEWELLYN** - Can you make a comment about whether the new 22 bed sub-acute facility will accommodate most sub-acute people that are currently in the Royal Hobart Hospital? What efforts are going to be put to moving the people from the sub-acute unit at the Repat back into the community? That could become a blockage if we do not look at that question.*

***Prof. ASHBY** - That is a very fair point. It is a little bit like in the country, where I come from, you build another motorway like the M25 where I live and then that becomes a traffic jam. The emphasis of care on the ward will be on a multidisciplinary team. The medical care will need to be of a high standard and adequate to cover the patient safety 24 hours a day. The model we are evolving with our colleagues is one where nurses, social workers, OTs and physios will have a prominent role in determining the pathways of care and the direction of care in order to get people to where they want to be and need to be in a timely fashion.*

***Mr EDWARDS** - Having a critical mass of sub-acute patients at the Repat site allows for greater efficiencies in regard to that because there are a lot of needs around mobility and social issues that have to be managed for people who are in that sub-acute space. At the moment, many of those patients who still remain at the Royal Hobart Hospital site are dotted around multiple wards and they do not tend to have the concentration of allied health staff allocated. There will be some levels of efficiency when those patients are brought together at the Repat.*

Project Development and Consultation

4.7 The Committee questioned the witnesses on the development, consultation and governance processes that had been undertaken in design the proposed works. Mr Ballard noted that the project had gone through a comprehensive development process, drawing on the health facility management, project management and clinical expertise available within the DHHS, as well as the architects and engineering consultants engaged:

***Mr SHELTON** - ….. How many people were involved in the whole consultation process? We have the project control group and then a project team. In the parliament we look at these things as far as the money side of it. How many people have been involved in pulling it together? Can you give us an outline of that process?*

***Mr BALLARD** - The project control group consists of senior members of the Department of Health and Human Services in THS, and Greg Cooper is a representative on that as well as Bruce Edwards and Maija. They are meant to be a guiding influence on the project in setting the broad parameters.*

At the next level down, we have the people with more involvement, such as myself, in project manager. Maija is also a member of that group. Then we have Peter Gaggin and other sub-consultants in engineering who are participating in that process.

We access other skills, such as people within the department who specialise in infection control to assist with issues associated with doing a major upgrade in a building when there are patients present.

Basically that is the structure we work with. I have given the diagram which shows the responsibilities and the reporting processes. The project control group meets regularly to

review the progress and status of the project, and signs off major milestones such as the overall design and other aspects.

***Mr SHELTON** - Thank you. Therefore it has been through those clinical processes of the design and so forth, and the recommendation is that your group says to us that you recommend this goes ahead. It makes my job all that much easier. I do not have to worry about it too much at all, bearing in mind it has had a microscope put over the whole the thing.*

Replacement of the Emergency Diesel Generator

4.8 The Committee noted that the current emergency generator would be replaced, and sought further details from the witnesses on why this was needed. The witnesses noted that there would be more services provided on site, resulting in greater electricity demand, and a new generator was required to ensure the higher future electricity demand could be met:

***Mr SHELTON**- - … … One question and it was raised quickly this morning and thank you for the tour up there. As a diesel fitter/motor mechanic, I presume the gen-set you are replacing is an old diesel operated generation set that was put in the building when it was first installed and however old the building is, that technology -*

***Mr GAGGIN** - 1972.*

***Mr SHELTON** - 1972, therefore the engines are more efficient, the gen sets are more efficient and so forth. It is commonsense to replace that at this time when you are going through a major refit.*

***Mr COOPER** - **… …** It is also a capacity issue as well. There are more services, more intense use of electricity, so having a larger generator means that we can adequately respond.*

4.9 The DHHS submission provided further detail on the proposed generator upgrade:

The general broad scope of works proposed to upgrade the generator and associated infrastructure is as follows:

- *De-commission the existing generator and remove from site for re-sale.*
- *Install a new generator – Detailed measurements will need to be undertaken to confirm if the larger generator can be installed within the existing room. The proposed alternative is to install a packaged generator in an acoustic enclosure external to the building.*
- *Upgrade and modify the existing radiator exhaust.*
- *Upgrade fresh air make-up system.*
- *Remove existing engine exhaust and install new system.*
- *Provide bunding etc. to generator room.*
- *Modify fuel filling and venting.*
- *Assess if the large fuel storage is required or if integrated storage within the package unit is adequate.*
- *Modify and upgrade electrical/controls.*
- *Provision of sound proofing to the generator room.*[4]

[4] DHHS Submission, page 15

4.10 The Committee also sought further information on the size of the diesel generation system and an assurance from the witnesses that the implications of a prolonged electricity outage on the capacity to continue service delivery had been fully considered:

> ***CHAIR*** *- The diesel tank that you are talking about replacing. Can you explain for the benefit of the committee, the issue around the size of the tank, and how you are going to ensure that you have adequate supply of diesel for a prolonged outage?*
>
> ***Mr BALLARD*** *- First of all the replacement of the diesel unit and the generator set is still at a very early stage of design. Our focus has been on the design of the 22-bed ward. We are aware that the diesel generator may not provide enough energy to operate the whole building. The engineers who provided the comments that were incorporated into the document have suggested that there may be no need to have 3000 litres but a smaller amount may be appropriate.*
>
> *One of the problems with diesel, if it is not managed properly, is that it can be affected by bacteria and then make the diesel unusable unless you have an adequate process of checking and testing and then refiltering. The diesel generator sets that we would expect to purchase today if we proceed to a new unit can be expected to be much more efficient and probably use less diesel.*
>
> *The department also has contracts in place with our fuel suppliers that give us some level of priority and comfort about supply. We spoke with people in the Royal Hobart Hospital who take a similar view that this is the approach that they would adopt now rather than having the risk of having large amounts of diesel fuel because diesel fuel smells. Of course we do not like that necessarily in a hospital environment. It is obviously something that we would like to manage very carefully and our expectation is that the consultants will optimise the size of the diesel fuel tank to suit the application.*
>
> ***Mr COOPER*** *- ……I add that when we had the energy security issues 18 months ago, the department did a general review of all its acute sites with its generators. Part of that was where it flowed through into making sure there were agreements in place with suppliers that we would get the highest level of priority of delivery, and they would turn up with their fuel trucks and continue putting it into the tank if there was a circumstance where power was lost.*
>
> ***CHAIR*** *- Very good. That is reassuring.*

Heating, Ventilation and Air Conditioning System (HVAC) Upgrade

4.11 The current heating system for the Peacock Building provides heating only and is beyond its useful economic life. As such, the system does not meet contemporary expectations for patient and staff comfort, and the age of the system presents an ever-increasing risk of failure. It is also energy inefficient and expensive to maintain. The DHHS submission notes that:

> *To ensure the comfort and health of all occupants in the building, an upgrade of Peacock Building HVAC plant will provide a more contemporary accommodation with heating and cooling, rather than simply heating as exists now (including to the wards).*
>
> *This work is necessary to maintain the existing sub-acute services on site as well as support the increased servicing load of Project One - with the heating system at end of life, there is a real risk of shut downs and failures in HVAC……*[5]

[5] DHHS Submission, page 7

4.12 The DHHS submission provided further detail, including the benefits of the proposed HVAC system:

> *The proposed upgrade involves extensive works to completely replace the central mechanical plant to significantly reduce maintenance and energy costs, and greatly improve reliability and comfort for patients and staff.*
> *In broad terms the proposed works include the following:*
>
> - *Replacement of electric boilers and chiller with 2 x multi-function units to simultaneously deliver heating and cooling at extremely high efficiencies, and provide long term redundancy.*
> - *Option to include domestic hot water integration.*
> - *Replacement of Air Handlers with modern energy efficient units including heat recovery.*
> - *Installation of chilled and heating water risers in each existing shaft to serve each floor.*
> - *Installation of ducted fan coil units in each zone of each floor, including Modifications to ductwork and diffusers in some areas to improve air distribution, zoning and comfort.*[6]
>
> *The proposed system is the most appropriate strategy due the following reasons:*
>
> - *The design is flexible such that each stage may be executed as required. i.e. central plant can be upgraded without effecting the floors… …*
> - *Individual Fan Coil Units can be installed above the tile ceiling in the existing corridors to prevent the need to close an entire ward, thus maintaining the maximum number of beds.*
> - *Water based systems are very flexible, controllable and reliable, and will continue to operate effectively for 20+ years.*
> - *Although rare, leaks in water-based systems are only likely to cause minor damage to internal finishes, and are not a major safety hazard like refrigerant leaks.*
> - *Multifunction chillers are extremely efficient and are well suited to an application like the Peacock Building with simultaneous heating/cooling requirements. In general the proposed system is likely to be:*
> - *~ 3-4 times more efficient in heating than current system.*
> - *~ 1.5 times more efficient in cooling than current system.*
> - *~ 4-6 times more efficient in simultaneous heating and cooling than current system.*

[6] DHHS Submission, pages 13-14

- *Preliminary energy modelling has indicated expected mechanical plant energy savings in the region of 40% p.a.*[7]

Medical Gases Upgrade

4.13 The existing medical gases installation dates to the early 1970's and is "reported as being marginally adequate for the current duty."[8] As such, the current system will not be have sufficient capacity to cater for the increase in patients on the site.

4.14 The current system also gives rise to occupational health and safety risks for staff. Mr Ballard noted:

> *……The medical gases is another one of the small items are under what we have termed project 2, which is the infrastructure for the site. We are aware the existing arrangement for gas bottles can cause occupational health and safety issues for our staff…… The expectation is, when the review is completed and we determine the capacity requirements, that we will end up with a fixed, larger capacity container that will serve the needs of the whole building.*

4.15 The DHHS submission provided further detail on the scope of the medical gases upgrade:

> *Given the age and capacity of the installation and its inability to cater for the loads associated with the proposed site upgrades, it is proposed to provide new central equipment and common distribution to allow adequate supply capacity to each floor.*
>
> *The general broad scope of works proposed to upgrade the medical gasses and associated infrastructure is as follows:*
>
> - *Supply and install a new vacuum pump.*
> - *Upgrade the main vacuum lines to each floor.*
> - *Upgrade the header and capacity of the oxygen distribution.*
> - *Upgrade the main oxygen lines to each floor.*[9]

[7] DHHS Submission, page 14
[8] Ibid, page 16
[9] Ibid, page 16

5 DOCUMENTS TAKEN INTO EVIDENCE

5.1 The following document was taken into evidence and considered by the Committee:

- Repatriation Centre Redevelopment – Submission to the Parliamentary Standing Committee on Public Works – Department of Health and Human Services August 2017.

6 CONCLUSION AND RECOMMENDATION

6.1 The Committee is satisfied that the need for the proposed works has been established. Once completed, the proposed works will provide a 22 bed sub-acute ward on Level 1 of the Peacock Building at the Repatriation Centre. This will help in meeting demand for bed space for acute patients at the Royal Hobart Hospital, contribute to the consolidation of sub-acute inpatient services at the Repatriation Centre, facilitate new, integrated approaches to care and allow for a more efficient discharge planning process. In addition, the proposed plant and infrastructure upgrades will ensure that key building services will be able to meet current and future demands once the Repatriation Centre is consolidated as a sub-acute hospital.

6.2 Accordingly, the Committee recommends the Repatriation Centre Redevelopment Program, at a cost of $7 million, in accordance with the documentation submitted.

Parliament House
Hobart
8 September 2017

Craig Farrell MLC
Deputy Chair