PUBLIC

THE PARLIAMENTARY STANDING COMMITTEE ON PUBLIC WORKS MET IN COMMITTEE ROOM 1, PARLIAMENT HOUSE, HOBART, ON MONDAY 10 JULY 2023

The committee met at 1.30 p.m.

ROYAL HOBART HOSPITAL PHARMACY EXPANSION PROJECT

CHAIR (Mr Valentine) - Welcome, everybody, to the Parliamentary Standing Committee on Public Works Reference for the Royal Hobart Hospital Pharmacy Expansion Project submission before us today. Thank you to those that showed us through the pharmacy area this morning; it was very valuable. We cannot do our job properly unless we are aware of the circumstances you are currently in. Quite a few of us would say they are cramped spaces, to say the least. We will go through this particular reference and ask for the witnesses to be sworn in. We have to have the message from the Governor first.

We have apologies from Ms Butler and Ms Rattray and we do have the message from Her Excellency, the Governor, on this project.

Message from Her Excellency the Governor-in-Council

Royal Hobart Hospital (RHH) Pharmacy Expansion Project

> Pursuant to section 16(2) of the Public Works Committee Act 1914, the Governor refers the undermentioned proposed public work to the Parliamentary Standing Committee on Public Works to consider and report thereon.
>
> Pursuant to section 16(3) of the act the estimated cost of such work, when completed, is $21.96 million. The Royal Hobart Hospital Pharmacy Expansion Project.

CHAIR - Thank you. We are in receipt of one submission.

Receipt of submission

> Royal Hobart Hospital (RHH) Pharmacy Expansion Project - Submission to the Parliamentary Standing Committee on Public Works, Department of Health, July 2023.

Can I have a member move we received that submission and we take it into evidence and it be published?

Mr TUCKER - Yes.

CHAIR - Thank you, Mr Tucker.

Motion agreed to.

CHAIR - Now, for the record, before we get to our witnesses. The members of the committee are: Simon Wood, myself - Rob Valentine, and John Tucker.

Mr ANDREW HARGRAVE, DEPUTY SECRETARY INFRASTRUCTURE, DEPARTMENT OF HEALTH; **Mr GEORGE CLARKE,** DEPUTY SECRETARY COMMUNITY, MENTAL HEALTH AND WELLBEING, DEPARTMENT OF HEALTH; **THOMAS SIMPSON**, EXECUTIVE DIRECTOR, STATEWIDE HOSPITAL PHARMACY OPERATIONS, TASMANIAN HEALTH SERVICE; **Mr DARREN JONES**, DIRECTOR (LEAD DESIGN CONSULTANT), BPSM ARCHITECTS; AND **JASON HOLTMAN**, PROJECT MANAGER, INFRASTRUCTURE, PROGRAMMING AND DELIVERY, DEPARTMENT OF HEALTH, MADE THE STATUTORY DECLARATION, AND WERE EXAMINED.

CHAIR - Thank you very much, gentlemen, much appreciated. I also would like to welcome any person who happens to be looking on the web at these proceedings today, your attendance is noted and we trust you find this interesting. I just need to remind you of the hearing process in regard to today. First of all, thank you again for appearing. Evidence is really important for us to be able to properly assess the project, but I remind you a committee hearing such as this is a proceeding in parliament. This means it receives the protection of parliamentary privilege. It is an important legal protection that allows individuals giving evidence to a parliamentary committee to speak with complete freedom without the fear of being sued or questioned in any court or place out of parliament.

It applies to ensure parliament receives the very best information when conducting its inquiries. It is important to be aware this protection is not accorded to you if the statements that may be defamatory or repeated or referred to by you outside the confines of the parliamentary proceedings. It is a public hearing and members of the public and journalists may be present and this means your evidence may be reported.

Do you understand that? I need a definite answer. Thank you.

WITNESSES - Yes.

Mr VALENTINE - As we always do with these hearings, there is an opportunity to make an opening statement.

Are you happy for us to refer to you by first names?

WITNESSES - Yes.

Mr SIMPSON - I would like to talk a little about the RHH Pharmacy Department and what it does for the hospital and southern Tasmania and describe some of the constraints that are placed on it by the current facility which will, obviously, then materialise as the benefits from the redevelopment of the pharmacy department.

The pharmacy department has been in its current location for 25 years. When it moved there it was with a halving of the space allocation granted to the pharmacy. Part of that was predicated on a number of assumptions - the assumption we could move to 'just in time'

inventory without impacting on the viability of the supply chain to the hospital; that we could entirely move to outsourcing all of our sterile compounding; and that the rest of the hospital's footprint would remain unchanged. I am old enough and have been around in that pharmacy for long enough to have seen all of those things turn out unfortunately not to be the case. Fast-forward to now and what was a 300-bed hospital is now a 650-bed hospital, with a huge demand on its pharmacy services.

The redevelopment will create for us a pharmacy facility that meets the current and projected needs of the hospital, its patients and staff safely and efficiently.

In order to meet the challenges of the last 25 years, we have had to create a number of satellite pharmacy locations spread across the campus that we will be able to then merge together as part of this redevelopment, including locations on 2A, 8A, lower ground floor F, second floor F and the Wellington Clinics.

I would like to briefly describe the elements that comprise the pharmacy service and in doing so talk about some of the benefits. At the heart of the pharmacy is the stores area where we purchase medicines, hold them in inventory, distribute them to wards of the hospital and distribute them to out-centres attached to the hospital. We hold around 3000 unique products, which is a doubling since we moved to that location. We purchase from over 40 different suppliers in order to get best value for government, although two main wholesalers make up a large proportion of that volume.

Our annual purchase on behalf of government is between $50 million and $60 million every year that flows into that pharmacy department in inventory and the vast majority of that gets used for treatment at the Royal Hobart Hospital. We have roughly $6 million in stock on hand held at that hospital in its stores. The inventory holdings have gone up there markedly over that time period for a number of reasons. First, there are more medications, more treatments available for patients than there were 20 years ago. Second, when we introduced the Pharmaceutical Benefits Scheme into our public hospitals in 2011, that allowed us to benefit patients by providing them with a month's worth of medicines on discharge rather than a week's worth, but it also meant a quadrupling of the medications we held. And, finally, the impact of the pandemic which has disrupted and continues to disrupt and will disrupt the supply chain for pharmaceuticals and many other things on the planet for the year to come. Countries such as China and India have been particularly hard-hit by the pandemic throughout the last three years and that is where 60 per cent of the world's pharmaceuticals come from, or the ingredients required for their manufacture. We are expecting shortages to be with us for a long time into the future.

The Therapeutic Goods Administration records around 500 medication shortages right now. Every single day we are notified of around five new or extended shortages that will affect the Royal Hobart Hospital. Our main protection against that is keeping sufficient inventory on the island to buffer us against those supply chain disruptions, which we are doing very effectively. The vast majority of those shortages do not actually reach the patient. All of those things have meant we are now keeping a large amount of stock on hand in that pharmacy department.

The redeveloped pharmacy department will see a doubling of the linear shelf space available to store medications and will provide greater certainty that the medications at our hospital needs will be on hand when we need them.

The dispensing area of the pharmacy is probably what most people think of when they think of a pharmacy where we supply medicines to patients. That includes outpatients who come to the hospital every month many of whom are accessing medications that cannot be accessed elsewhere. Some of those high cost medications that the Commonwealth funds are on the highly specialised drug scheme or life-saving drug scheme - drugs such as Trikafta for cystic fibrosis, which is a life-changing drug but which costs about $22 000 a box. That is only available, by and large, through our public hospitals. We also supply medications to patients being discharged from hospital to make sure that they safely transition home, and to inpatients in hospital. If a medication is not held in the ward's drug cupboard it will be dispensed to them from our dispensary.

That dispensing workload has gone up dramatically as well as our hospital has increased from 300 to 650 beds. Just in the last five years alone there has been approximately 30 per cent increase in the amount of dispensing activity that we are doing for our patients. A lot of that has been due to the new beds that have been opened up in K Block. It is not just about inpatient beds; outpatient occasions of service have gone up dramatically by about 20 per cent from 55 000 outpatient dispensings a year in 2018-19 to 66 000 in the most recent financial year.

We want our dispensary to be a safe and effective hive of activity and to have the space that it requires to do that job so that staff have sufficient separation, have sufficient access to medications to do that safely, efficiently and free from distraction. That is what the redeveloped Royal Hobart Hospital pharmacy department creates: a dispensing work space that meets all of the expected standards now and into the future.

We also operate clinical trials out of our hospital. We are a level 6 pharmacy service and that means that clinical trials are very much part of our remit. We have about 80 to 100 clinical trials open at any one point in time and they all require medications and documentation to be stored. That allows us to provide access to clinical trials that a patient might otherwise need to go across to Peter Mac every week to access some of those investigations.

CHAIR - Peter Mac?

Mr SIMPSON - Peter MacCallum Cancer Centre - sorry, Chair. Otherwise they might be travelling there every week or so to access some of those investigational drugs that we can make available here in Tasmania through our clinical trial service. It is also fair to say the current facility is constrained. We can take on no more clinical trials without stopping some until we have a redeveloped pharmacy space and that is another thing that the pharmacy redevelopment grants Tasmania.

Compounding is the next area I will talk about. Compounding is one of the main drivers for this project to make sure that when we make up the medicines in the pharmacy that do not exist as a commercially prepared product that they can be made safely and efficiently. Compounding is the act of taking the pharmaceutical ingredient and turning it into a patient-specific dose and dosage form.

Some of that work we do, like in a kitchen on a bench - a very clean bench, where we make up skin creams and things like that by taking oral medicines like tablets and capsules and turning them into a cream - what the new pharmacy redevelopment gives us there is a much

safer space for staff to work in to do that with access to eye wash stations and fume hoods and things like that.

The main challenge that we are facing in our current pharmacy is the huge constraint on the sterile compounding area in which we make up things like chemotherapy. We outsource a large proportion of our chemotherapy compounding and sterile compounding. That is an arrangement that works very much to the favour of the hospital and allows us to do a large volume of repetitive work. A number of mainland-based suppliers do that compounding work so that when we receive a chemotherapy script for a patient for a drug and dose, after we have clinically checked that for safety we send that over to one of our interstate suppliers. They will have pharmacists and pharmacy technicians there who compound that in their sterile facilities, label it for that patient and send it back to us for us to check before it goes into a patient's arm.

A large majority of that work is outsourced but there is a significant amount that simply cannot be outsourced for whatever reason due to the stability of the drug. It may only last a few hours between compounding and injection into the arm or it may not withstand transport from Victoria. We need to have the capacity on the island to do sterile compounding. The Royal Hobart Hospital is a level 6 pharmacy, for which that is a requirement. We also have access to the level 5 pharmacy at the Launceston General Hospital when needed.

Chemotherapy, as I have spoken about, is one of our challenges from an OH&S point of view in ensuring that not only do we make a sterile product but that we make a product that does not spread contamination. Chemotherapy is an OH&S risk. We take those risks very seriously and we mitigate those to the full extent that we are able to; however, whilst our facility meets the expected standards, it could certainly be improved to bring it closer to best practice. That involves a much larger number of layers of airflow and separation between the area where people are working alongside of toxic medications and on the rest of the pharmacy department.

We also need redundancy and backup. There is the one facility here in southern Tasmania as well as the one facility in northern Tasmania. In the event that one of those is unavailable, we are able to use the other, but we do not have the backup that we would feel comfortable with in the southern half of Tasmania. It is also true to say that we cannot currently be self-sufficient in that where we could lose access to that style of compounding that takes place in Victoria, we would be unable to make a 100 per cent of the chemotherapy that is required for southern Tasmania in that facility because the facility is physically constrained. These are the barriers that have opened up with the redevelopment, the ability to be self-sufficient when we need to and the ability to have redundancy built in such that we can undertake routine maintenance or have equipment that is out of service, that kind of thing.

Other things that we make up are things that keep people living their best possible life. We make up intravenous immunomodulators, which are prepared in our sterile suite for which people come into our hospital, week after week or month after month. These are things that sustain life for people and keep them as healthy as they can be living with diseases such as rheumatoid arthritis, Crohn's disease, ulcerative colitis. Those are made up in our sterile facility for many dozens of patients each week.

We also make up things like IV nutrition solutions. Our most vulnerable patients, people such as premature babies, or people who have just had gastric surgery, cannot eat food by mouth and so we will make up intravenous nutrition in our sterile suite. That product, by definition, has to be sterile. You are injecting it into premature babies. My own son, Jack, was

born at the Royal Hobart Hospital 11 weeks premature, 1.2 kilograms and all of the first meals of his life came from the compounding suite at the RHH pharmacy.

We make a good product there, but the facility itself is a challenge to work in and a barrier to greater volume.

As I said, there is a limit on what we can get to compound externally. We need to have some availability on the island of those facilities and we need to move beyond those constraints to ensure that southern Tasmania can be self-sufficient.

I will briefly speak about the jack jumper ant venom desensitisation program. Although it is not one of my responsibilities, the work for that program takes place currently within the RHH pharmacy. That is the sterile production of one of the only ant venom products anywhere in the world. That is made up there for patients to be desensitised to the jack jumper. We are all very familiar with Tasmania's native, nasty ant. That is a lifesaving program that prevents people who would otherwise be at risk of anaphylaxis from a jack jumper sting from reacting. That is made in that facility and the expanded facility that we are going through the redevelopment, gives us the ability to significantly scale up manufacture of that product.

The final area I'll speak about doesn't necessarily take place within the pharmacy, and that is our clinical pharmacy service, where we have pharmacists and pharmacy technicians working on the wards as part of good multidisciplinary care. We have in our other pharmacy departments now nearly 170 staff. About half of those are engaged in ward-based work, where they are reviewing medication charts, taking medication histories, educating patients on their medication changes prior to discharge.

Local research that we undertook with the University of Tasmania two years ago showed that our average general medical patient who comes through the hospital, through the ED, is roughly 78 years old, comes in on nine medications on average, is on 11 medications within 24 hours, and by the time of discharge is on 10 medications. That is not always the case of one extra, that might be many different things that are substituted.

Clinical pharmacists are very much involved in supporting that safe transfer of care back to the community, re-labelling medicines, dealing with community providers and GPs, et cetera. We know that when patients receive those services, they are 10 times safer and stay in hospital 10 per cent less duration.

That is a lot of the activity that goes on in the pharmacy. We have a large number of people in that footprint. That footprint is currently approximately 700 square metres. That footprint nearly doubles through this redevelopment and gains us a lot of capacity to work more efficiently, more effectively -

CHAIR - Number of staff you have there?

Mr SIMPSON - We have 170 or thereabouts. I should also note it is a teaching space as well. We have students who come through the area. Around 140 undergraduate students each year go through one of our hospital pharmacies and we provide around 10 000 hours of supervision on site to develop Tasmania's up-and-coming pharmacists through the university. There is a lot in there that provides benefit to the staff working in the space but, just as

importantly, to give the hospital the pharmacy service it needs so that southern Tasmania and Tasmania as a whole has access to medications it needs reliably, safely, efficiently, timely.

CHAIR - Thank you, a very full explanation of what the project is about. All of that will certainly assist people if they are watching online to understand the project, there is no question about that. Earlier, when I was talking about our visit, I don't think anyone would suggest that you are overly endowed with space currently. It is our task today to go through what is proposed and make sure it solves a recognised problem, it is the best solution to meet the identified needs and it is fit for purpose, provides value for money and it is a good use of public funds. It is those sorts of things that we need to satisfy ourselves of today.

We normally work our way through page by page with the project submission provided. Thank you for providing your submission and also for the accompanying diagrams. It helps us to understand the significance of the task. We will commence with a couple of quick questions on page 1. Knowing the task you have before you, is that statement, right from the word go, you are proposing here adequate well into the future? Because of the redevelopments that are happening at the Royal, seemingly on a regular basis because they are redeveloping the site in situ rather than on a greenfield site, it is important for us to understand that what we are doing here is of lasting quality. Does someone want to address that aspect of its longevity?

Mr SIMPSON - Certainly, throughout the design of this process we have been looking at ensuring that there is at least 10 to 15 years of capacity based on what we have seen over the last 10 years. You are right. This doesn't just bring us up to where we should be now but creates some capacity in the future.

Mr TUCKER - We talked about this and about asset replacement plans this morning. We talked a little more about the equipment than the area where the building is. Do you want to go into that? Maybe the department wants to talk about whether they do have plans for an asset replacement plan, especially around this pharmacy issue. In my opinion, we don't want to get to the point where we are now with the pharmacy at the Royal Hobart Hospital. It seems a very cramped space, from what I saw, and inadequate facilities for what you are doing. I will talk more about the risks going forward, but if you could go into that for us.

Mr SIMPSON - Historically, we've replaced our sterile suite infrastructure. That is the stuff with the long lead time and the higher cost, which we need to import from overseas. That has been historically replaced on a 5- to 10-yearly basis. We have a smaller amount of that infrastructure in the current facility than we will in the new. What we gain by having a better space is also the ability to cast the net wider when we do replace those assets.

Our intention will be that as that equipment reaches the 10-year mark in seven years' time, we will start that process of putting a request through to government to fund the replacement cost of those assets.

Mr TUCKER - It would be nice to know that they are on a plan going forward so you do not have to put the request as we do at councils. The state Government has pushed this down onto councils - that they have asset replacement plans. The department should be doing this sort of work themselves. Andrew?

Mr HARGRAVE - The management and the asset management approach to equipment broadly across the whole department has been incorporated into the infrastructure portfolio. At

the moment we are in the process of developing an equipment management framework which basically forms the basis for an asset management plan that relates to equipment, not just within the pharmacy project but more broadly across the entire portfolio and Health. That includes surgical equipment, endoscopes. Tom has mentioned some of the pieces of equipment that are particularly important for the pharmacy project.

But yes, it is very much taking that asset management approach: understanding what your inventory is; understanding what the useful life of those particular pieces of equipment are; understanding the risks associated with the failure of those pieces of equipment; and, particularly to your point, Mr Tucker, understanding and planning for their replacement, knowing what their useful life is.

So, for example a laminar flow or an analyser of some description may have a 10-year useful life. As part of our asset management planning process and as part of the development of our long-term financial plan associated with that, we would understand when we need to start making budget submissions and planning for their replacement. That piece of work is in its infancy but it is underway.

Mr TUCKER - There is probably more than budget submissions. If you have an asset replacement plan, it is in the budget because you know that that replacement is coming forward in 10 years' time and that you have to replace that piece of equipment or replace that asset. So, it is in the actual budget before we start dealing with the other things. I suppose the cream on the budget is when you can spend money: you know what you have to be doing to keep the assets you have, where they need to be in the submissions.

Mr HARGRAVE - I think our process is a little different. We have a long-term financial plan for identifying and understanding when those costs are due to fall but we then, through our annual budget process, need to make a submission to make that application for funding.

CHAIR - So, when you put infrastructure in place like this - and let's concentrate on the equipment that is needed for it to function as opposed to bricks and mortar -with your asset management process, do you have that in a software system that records when something fails? Does it automatically update the life of the rest of those products? That sort of thing.

Mr HARGRAVE - We do, and we have just signed a contract for the procurement of an asset management system with a company by the name of Brightly. Yes, that is captured in an inventory within that system and its condition or any maintenance that is undertaken on it is also recorded. Obviously, the costs associated with it are also captured in that system. It is not rolled out yet but it is in procurement.

CHAIR - So, the point that Mr Tucker makes in effect though is putting those funds aside - I think you were saying this.

Mr TUCKER - They are listed there in the budget papers in that year. So, say you have a 10-year replacement plan, you have certain things you have already replaced on year one, year two, year three, year four but, in that year, they are in the budget before anything else that happens.

Mr HARGRAVE - They are in the budget in the sense of they are planned for, unless there is an appropriation of money in the state Budget for it and often there is. We have had

some recent equipment appropriations in the Budget. Those funds would be used if they are not there or we need a continuation of them, we need to make a submission annually for those funds. That is the state process.

Mr TUCKER - I know that is the state process but what I am saying is, we need to be looking into this a bit harder because this process that you are talking about isn't working the way we want it to be working. We are replacing those assets going forward, as we have seen today. We need to have something solid. What I am saying is that what they do in councils now with their asset replacement plans for all their outside equipment - it is something that's easier for me to explain - you have to replace a grader at year 8. At year 8, that's in the budget on the council papers because you know you have got to replace that grader. What I am saying is that we should have the same thing in the health system and in the education system, so we replace those assets when they need to be replaced, instead of letting them get to that point when we say - 'Oh, we've got to act urgently. We have to replace this.'

CHAIR - Are you talking about the general situation as opposed to specific for this project?

Mr TUCKER - Yes. I am explaining what I am saying to them - what I am asking them with regard to this project that this equipment needs to have an asset replacement plan going forward.

Mr HARGRAVE - Yes, it does.

CHAIR - Especially given that it is such a central component of the operation of the hospital. I cannot imagine how the hospital would function properly with any component of this missing. It is very integral to the whole operation of the hospital and significant.

Mr HARGRAVE - Critical, yes.

CHAIR - With that said and point made, it is something for them to take on board.

With regard to stock holding increases, when you have been designing this particular space, have you done that with any clear understanding of forward population growth or simply on the fact it has been 300 beds in the past and now 600 beds? Are you designing this space for the current capacity of the hospital or for growth?

Mr SIMPSON - There are a few factors we have looked at there to ensure that what we will have will be adequate for the future. Part of it is how much will we need to keep for the number of beds for the population very roughly based on historical, but also on the number of medicines and the growth there. Things like the narcotic Schedule 8 safe in the new facility. Because that is landlocked and made out of a solid construction that cannot easily be demolished, that has to have 10-15 years worth of growth built into it.

CHAIR - When we were on our trip around this morning, you were saying you used to do 500 dispensings a day and it is now 700.

Mr SIMPSON - That is right.

CHAIR - One assumes that that could grow to 800 or indeed 1000.

Mr SIMPSON - One thousand would be the prediction we would go with.

CHAIR - And that is basically how you designed this space to cope with that sort of level?

Mr SIMPSON - Roughly one dispensing work station for every 100 items a day and we have at least 10 dispensing work stations in the new pharmacy.

CHAIR - With the standard of space required, you are currently working probably a third of what might be considered a standard for the number of dispensings you do?

Mr SIMPSON - That is true. Although the Tasmanian Pharmacy Authority does not have guidelines in relation to hospital pharmacies, the Pharmacy Board of Victoria does and our dispensing space at the RHH currently does not meet those standards and, of course, will do so with the redevelopment.

CHAIR - Are there any other questions?

Mr TUCKER - It was about the budget of the $21.86 million and about it being so exact. Do you want me to talk about that later on or now?

CHAIR - We could do it when we get to the budget section, when we have the figures in front of us.

Moving over to Document Purpose:

> The purpose of the document is to inform the Parliamentary Standing Committee of the need to expand the existing Royal Hobart Hospital Pharmacy and the construction of sterile production facilities …

What were the alternative solutions to building our own sterile manufacturing facility or wasn't that at all considered because it is so important to the function of the hospital? Can you describe that?

Mr SIMPSON - Certainly. The facility we have right now was designed with outsourcing built in as a factor. Perhaps 25 years ago the view was cancer treatment, in particular, would be moving to oral medicines - tablets and capsules you can get from a dispensary. The opposite has happened. Cancer treatment is moving more towards immunomodulators, monoclonal antibodies. These are protein products that can only be given intravenously - the stomach digests proteins very well. We have had to significantly increase the amount of sterile compounding and a lot of those things are not stable for transport. In terms of looking at other options, there is no private sector option within Tasmania. We already utilise private sector options from the mainland to meet the vast majority of the work that we do. But there is around 10 or so per cent, maybe 20 per cent, of work that has to be done on the island and therefore has to be done within those public facilities as the only providers.

CHAIR - Okay. That is all about timeliness and safety of the product?

Mr SIMPSON - Many of these medicines are time critical. Every now and then someone will come through with a cancer diagnosis where hours matter in terms of keeping that person alive and that is where we need to be able to compound chemotherapy right then and there in that hospital pharmacy or life-threatening ocular infections. We will need to compound products for injections into the eye to treat those things. You cannot have those things sitting in standby. You cannot be waiting for them to be shipped across from suburban Melbourne. They have to be made here on the island.

CHAIR - You talked about supply chain disruptions, that it was four weeks previously and you are talking about 12 weeks worth of stock?

Mr SIMPSON - I was describing earlier our approach to medication shortages which have become common, not just in Tasmania or Australia, but across the entire world. There have been entire countries that have had the supply chain of antidepressants, antipsychotics, other medications - common, regular, everyday essential medications - out of supply, like antibiotics which we depend on. We have had to dramatically increase our stock holding to buffer us against the effects of those disruptions on the supply chain which we do not see going away any time soon.

CHAIR - Do you think the storage in this new site is going to be sufficient? Obviously, you must do because you have designed it. In the event we have another COVID-19 outbreak or some other circumstance that causes us to have to rely on current products in store because there have been disruptions to manufacture elsewhere, are you satisfied the space you have for storage is sufficient to be able to continue to operate?

Mr SIMPSON - There is a balancing act at play here. We are currently keeping up to 12 weeks worth of stock on hand. If we wanted to protect against every shortage we would need to keep a year's worth of stock on hand, which is impractical to do. We are also dependent upon our suppliers and wholesalers as part of that equation. We work closely with them to balance that risk out. On the balance of risk that we are facing, we think we are currently keeping a good balance of the right amount of stock versus having too much or too little and see the space available through the redevelopment big enough to continue that.

CHAIR - You told us you had something in the vicinity of $6.2 million total holding of drugs, that is packets of. I don't know how you describe that $6.2 million. Is that likely to grow significantly when you get the new site or is it something not likely to grow significantly?

Mr SIMPSON - It will probably only grow as either demand for medications grows.

CHAIR - Increase in beds, et cetera?

Mr SIMPSON - Yes. If new medications get listed on the PBS then it will drive it up, otherwise we expect that dollar amount to stay relatively static.

Mr TUCKER - I have a question on the next page. With the jack jumpers, it talks about that potentially lifesaving product to Tasmanians as well as patients in South Australia and Victoria. In my memory, we were told today that is going Australia-wide. Is that correct, or just to those two states?

Mr SIMPSON - I am afraid I do not know which states that product is made available to. I believe South Australia and Victoria, but I am the wrong person to ask.

Mr CLARKE - The conversation we had with Troy this morning, who is responsible for that area, was about Victoria and South Australia.

Mr TUCKER - It was not Australia-wide?

Mr SIMPSON - I believe it follows the distribution of the ant, which is mostly around that southern crescent.

Mr WOOD - I had a question on page 5 in relation to staffing. With the huge demand now for the services of the pharmacy, obviously the staff numbers have gone up. Having a look through there today, the staff amenities did not look to be up to scratch.

CHAIR - Constrained.

Mr WOOD - Yes, constrained. In this redevelopment, perhaps you could elaborate on what will be created and facilitated for better staff comfort?

Mr SIMPSON - 'Constrained' might be the word of the day, perhaps. Currently, we have limited bathroom facilities for our staff. There are two female toilets, one male toilet and one urinal and one publicly accessible toilet near the meeting room. There is a staff break room or tearoom which can hold eight or nine people. We have gone from roughly 50 staff to now 170 staff whilst still drawing upon those same facilities.

The new facility grants us bathroom facilities that meet the expected code and ratios but also staff break areas. Breaks are important. Dispensing and compounding is work where you want people to concentrate very hard for a period of time and breaks are critical to that. The tearoom facilities and the lunch room facilities in the new meeting room are quite spacious. I cannot remember the number of people they can fit, it would be of the order of 15 to 20 people who could simultaneously have a break there. It will include artworks that hopefully will make staff feel more relaxed and at ease in that space than they can currently feel.

CHAIR - On page 5, down the bottom, you are saying the project will provide a number of things and one is the incorporation of automation technologies where appropriate. Can you explain a little about what you expect to be automated compared to what is being provided today?

Mr SIMPSON - Pharmacy automation covers a number of things and there are some things that we are not touching as part of this. Some of those large greenfield developments across the country, like Royal Adelaide Hospital, have included large pharmacy robots to do inventory management and that only works in a greenfield site.

What we are talking about with the Royal Hobart Hospital pharmacy, the automation there is more focused on management of the environment, that sterile environment. Currently, we have to manually manage things like the air pressure in the rooms, manually count particulate counts and airflow changes in those areas. The automation that is part of this project will allow us to track all of those things automatically and in real time through the sophisticated environmental management system.

CHAIR - Thank you. Expansion relocation of pneumatic tube capacity to service areas?

Mr SIMPSON - Pharmacy is still a world that needs to exchange both paper and medicines with the rest of the hospital. Most of the hospital is kitted out with a pneumatic tube system, a canister system, where you can fold up a script and put it in there and send it to pharmacy or we can send some things back. They are currently near the front entrance of the pharmacy and that is how we receive some of our works, particularly some of those discharge prescriptions which require a pen and paper ink signature rather than a scanned copy sufficing. Those paper originals come to us through that system and we will be relocating that closer to the dispensary as part of this.

CHAIR - Fascinating. I remember seeing those in operation many years ago in some of the department stores. I thought to myself that might be a thing of the past but obviously not.

Mr SIMPSON - Whilst paper is here, they are here.

CHAIR - Moving over, in regard to the jack jumper provision of services there. The facility that is needed for that is not something that could be outsourced? Is that something that, because of its specialty nature, has to be manufactured? If it is going to be manufactured it is going to be manufactured by the Royal Hobart Hospital, which owns the intellectual property, I believe. Can you explain that?

Mr SIMPSON - This is true, it is quite a novel product that is made there. As Troy told you earlier, it is one of only two double-blind placebo controlled trials ever conducted on earth in relation to desensitisation with an insect venom product. That work was conducted by the Royal Hobart Hospital. It was the hospital that performed that research and the hospital owns the intellectual property associated with making up the ant venom product that is then used to desensitise people over a period of time. They will come to the hospital - I do not know the cycle, it is every week or fortnight or something like that - for desensitisation with increasing doses of the venom.

As I said, the IP is owned by the RHH. The work is a good fit there, particularly given Tasmania being the homeland of the jack jumper. I don't believe any efforts are being made to look at a commercial provider for that; I believe it is solely being looked at as an in-house Royal Hobart Hospital product.

CHAIR - Quite clearly, the anaphylaxis that results being so severe, it is a good thing to be having. Is that right?

Mr SIMPSON - Yes, 3 per cent of Tasmania's population has a risk of anaphylaxis if they are stung by one of these jack jumper ants. There are people who live in fear. People who don't want to go out to their washing line to hang up their clothes because they're worried they might get stung by one of these ants. There are people who can't go on bushwalks or cycle around Mount Wellington because of their fear. The desensitisation program is life-changing for them. They can experience Tasmania's natural wilderness without that fear.

CHAIR - For the record, we were told this morning that 15 per cent of all allergic reactions that present at the Royal Hobart are from jack jumper bites. Is that right?

Mr SIMPSON - That is correct, yes, 15 per cent.

CHAIR - That is a high level of anaphylaxis. It is certainly higher than I thought it would ever be.

We have a licence from the Therapeutic Goods Authority and, for the record again, we have been exporting that since 2009. Is that correct?

Mr SIMPSON - I don't run the program, so I am not sure.

Mr CLARKE - Chair, we would have to check that.

CHAIR - That is what I wrote down, so I am assuming that it is correct at the time.

The coolrooms. You talk about the new facility having two coolrooms with separate systems in the new building. Can you talk us through what you have currently, some of the issues that you might be having and how you are expecting to mitigate that?

Mr SIMPSON - We store a number of medications that need to be refrigerated, particularly those protein medications that I was referring to earlier. They all need to be refrigerated between two and eight degrees. We have a coolroom in the pharmacy, effectively a large walk-in fridge. The compressor in that has probably been operating continuously for 20 years and every now and then we have had failures of that equipment.

We have been fortunate that we have the Wellington Centre Pharmacy which has a coolroom also, although it is across an airbridge. We can get medications to store them there if we have a failure of the coolroom. That is what has happened when we have had a failure, with an additional backup plan of being able to call in a refrigerated truck and park it on the loading dock as an absolute last resort.

CHAIR - In the new facility, you are going to have two?

Mr SIMPSON - Two dual redundant coolrooms so that we can immediately move stock from one to the other in the event of a failure, or to undertake maintenance, which is one of our challenges with the current facility.

CHAIR - And the size of those compared to the size you have at the moment, is it simply double? Or are they both much bigger than you currently need, in terms of growth in the future?

Mr JONES - I could best answer that. We're approximately quadrupling the available space for the coolroom. We are going from approximately 7 square metres that we currently have to a total volume of about 28 square metres for two new ones.

CHAIR - It sounds like a fair thing.

Mr TUCKER - The project benefits on page 6 - quite substantial benefits for the community, especially for the pharmacy, going forward. This backs up supporting this project. I suppose it is a statement, not a question.

CHAIR - You talk about the RHH being a level 6 pharmacy. Could you describe that? How many levels are there in pharmacies and where does that sit?

Mr SIMPSON - That's the classification under the Tasmanian Role Delineation Framework, which allocates a service level up to six for any of the services that a hospital might provide, from critical care to ED to general medicine. A large number of services at the RHH are level six services.

What it means for the pharmacy is twofold. First of all, that the pharmacy needs to be capable of supporting other level 6 services. That includes things like supporting trauma and critical care medicine to the very highest level and, of course, supporting things like the neonatal and paediatric intensive care unit which is our level 6 unit for premature babies.

We need to support those with the services they require, such as that real-time sterile compounding which you wouldn't, for example, find in a level 4 maternity facility elsewhere, where they are not dealing with premature babies. The pharmacy itself also needs to provide a higher range of services for level 6. Effectively, at level 6, it is comprehensive. It is clinical trials, medicines, information - all of those dispensing services that you saw earlier. There is no higher level under our role delineation framework.

CHAIR - If you were to go interstate, for instance, are there other levels in pharmacy departments or is this pretty well top of the line?

Mr SIMPSON - There are probably only two hospitals in the country that provide a service level that is higher. Those are ones doing gene therapy, which we are not doing here. We are at level 6, which is the highest recognised classification.

CHAIR - The redundancy and backup that you were talking about in your opening statement was about how the southern half of the state at present, how shall we say, doesn't have the level of redundancy that you would like. Can you talk a little more on how this project is going to meet that?

Mr SIMPSON - I guess upfront there is just the issue of the hospital pharmacy being available for southern Tasmania as a facility. We have no backup for that. If we do not have a hospital pharmacy, the hospital cannot function. The next level down, the compounding service, is one that I particularly focus on as defining the challenges of redundancy. We have one cytotoxic isolator unit at the RHH which we can use to make chemotherapy on demand. We have one sterile suite with a single laminar flow cabinet in it. If that capacity is exceeded, then we cannot meet whatever that demand is and if that equipment is out of action, we cannot meet that demand in the south.

CHAIR - And the new facility will provide how many of those?

Mr SIMPSON - Correct me if I am wrong but I believe there are six laminar flow cabinets in the sterile facility rather than the one in the new facility. Sorry, Darren, I look to you for the number of cytotoxic cabinets.

Mr JONES - In terms of cytotoxic cabinets, we have currently worked on the assumption at the moment that there will be three installed immediately but we have capacity for a fourth.

CHAIR - So, that is not so much as a step as it is a leap.

Mr JONES - If you look at it in in the context of floor area, we are going from something in the order of not much more than 20 square metres, if you take those two rooms by themselves, to an environment where we are approaching more in the order of 160 square metres as a direct like-for-like comparison. So there is a fairly significant upgrade in scale capacity and technical ability.

CHAIR - Going forward with so many drugs being manufactured internationally, do we ever see that we would be manufacturing more of them in Tasmania? Or is it not going to be a facility that would cope with such an idea?

Mr SIMPSON - Are you talking about compounding products for infusion or actually making up the tablets?

CHAIR - Is a bigger manufacturing facility required?

Mr SIMPSON - There is a global supply chain challenge there. I guess that you are still somewhat at the whim of - if you want to make phenoxymethylpenicillin capsules, you need to buy in the raw ingredient, which is penicillin. That is still probably going to be made somewhere else, unless you introduced a large-scale industrial manufacturer. There are some products in which Australia could be self-sufficient and has in the past, but that is a bigger discussion than at my level.

CHAIR - Yes, and it is a bit outside of this project. But it is an interesting thing that we import 60 per cent, for instance, from China. Presumably, there is another set of percentages that come from other locations on the globe.

Mr SIMPSON - Yes, the US, Switzerland, Singapore.

CHAIR - So, it is a significant thing. I do not think there are too many other questions apart from the budget, when we get to that.

Mr TUCKER - I have one about risk and the risk management. I will read part of what is said here in the submission:

> The existing pharmacy site and design has been noted to be a risk to staff and service delivery for decades with the May 2005 Estimates Committee being told, 'In the pharmacy department, dispensing space is limited and is a potential source of error due to cramped work areas'. In the 18 years since these remarks, demands on the pharmacy have continued to increase year on year, with service volume and staffing requirements far outstripping the capacity of the existing footprint and design to meet service delivery obligations.

From what we saw today, I can fully understand that statement. The biggest concern to me is that it has taken 18 years for us to get to this point where we are doing something about it. Why has it taken so long to get to this point?

Mr HARGRAVE - Did you want to talk to that one, George? I can speak about the allocation of money to the projects which were first made in 2016-17 but if you wanted to talk more about the pharmacy and its history -

Mr CLARKE - I might suggest that Tom talk to the history since 2005 and then we can come to 2016.

Mr SIMPSON - The pharmacy is part of that whole hospital ecosystem and there have been a number of plans for that hospital. I was involved in the planning for the new Royal with previous governments and what the pharmacy department would have looked like there. At that time, we were not at that time planning a short-term tactical solution. We were planning for that hospital. Then plans changed and K-Block was commissioned a couple of years ago, which, thankfully, has made available the space that we now have to develop into. It has been a few steps along the way to find a good space and to make sure that what we were doing was compatible with a 10- to 15-year future for the hospital.

Mr TUCKER - You would have to say that we could have done this better than what we have, considering it has taken 18 years to get to this point when it has been brought to an Estimates Committee in 2005. There have been some failings along the way with this.

Mr SIMPSON - It has taken a number of steps along the way. It is disappointing. I was involved in the SIIRP bid, the strategic infrastructure renewal project [Structured Infrastructure Investment Review Process?]. I think we started that project in 2013, which led to the start of that bid, which has led to where we are today.

Mr TUCKER - When I read some of the significant risks here, it has documented 'increased risk of medication error due to poor dispensary design and limited dispensing space will be addressed'. Then we go 'and some of these risks are very concerning'.

Everyone on this side will probably say that it is very concerning that we have come to this point with the pharmacy, and how do we go about stopping these risks occurring again going forward? I am saying that the asset replacement plan is part of it, but we need to be looking at this more thoroughly, considering this has taken 18 years. This has been a major failing.

CHAIR - They're policy issues you are pointing up in that regard. Is it a fair bit to do with the replacement of the hospital per se and all the argument that went around that? There was a fair bit of delay associated with that but they're policy questions that you raise and fair enough to raise them. I don't know that we can expect some answers coming this way but making the point is important.

Can we flick across to management on site, chemical spills and the like? Can you describe for us what you have at the moment and how you cope with serious chemical spills on site and how this new development will improve that circumstance?

Mr SIMPSON - We store a number of medications in the pharmacy which can be classified as hazardous or cytotoxic and those can be a risk through inhalation or skin contamination from exposure. Every one of those hazardous and cytotoxic medications we record in ChemAlert and material Safety Data Sheet systems so we have an inventory as to what is hazardous in the place. We also undertake annual mandatory training for all pharmacy

staff. Every pharmacy staff member there has a certificate to demonstrate they can deal with a cytotoxic spill. That spill training is done every year and we keep spill kits on hand wherever we store those hazardous medicines sufficient to deal with up to a 2-litre single spill.

The airflow within the current design probably does not help us deal with that and where the new facility really will support us in that if there is a spill there will be entirely separate airflow enclosures from -

CHAIR - Increasingly negative pressure rooms - is this what you are referring to?

Mr SIMPSON - You were listening.

CHAIR - I was listening.

Mr SIMPSON - Darren talked about the negative pressures.

Indeed, we gain compartmentalisation of the pharmacy that allows us to deal with spills of volatile or aerosolised contaminants.

CHAIR - With the filtering systems associated with all of that, are there any dangers to the public at all? Can you go a little bit through that so we can have it on the record?

Mr SIMPSON - It is not my area of technical expertise. I will only speak about the things I know about, which is that the airflow into all of those sterile production and cytotoxic production facilities is HEPA filtered, that it is sterile air in those places and there are national standards for how many exhausts from those rooms are ventilated, which the new facility will meet.

CHAIR - It meets the standards.

Mr JONES - We are required to comply with AS 1668, which is the Australian Standard covering basic mechanical air-conditioning systems. Over and above that, there is a series of specific standards relating to cytotoxic drug safety as well as aseptic production - one of which is just a straight Australian Standard and the other one is an international organisation standard. We have to maintain compliance with both of those in addition to the mechanical standard under AS 1668.

CHAIR - On the last paragraph on page 10, you say:

> Where possible, the use of natural light and ventilation incorporating passive solar principles have been optimised and maximised.

Quite a lot of the areas we saw today did not have any external windows and, no doubt, those people who work in them must find that a little frustrating.

Can you tell us how that has been addressed in the new facility - the percentage of areas that may not have access to natural light and what measures might be taken to mitigate some of that?

Mr SIMPSON - There is a doubling of sides of walls that have windows, in that the pharmacy spans both sides of the D Block now. We have natural light currently in the dispensary - that remains an integral part of the design of the new facility. We want natural light in that area because that is the area where we know people need to focus their work, so all along that northern side.

Mr JONES - You would have noticed there is a series of two or three offices running along that external wall on the outside of the dispensary. What we have done is moved those offices so all the current dispensing work stations which are located inboard have now been moved adjacent to those windows. The dispensing pharmacists will be working in natural light environments. It has also allowed us to open up and get natural light deeper into the footprint of the building, whilst maintaining an openness to the dispensary area. We have also then been able to shift the dispensary area a little bit further inboard, so the product itself is not suffering the direct impact of natural light whilst still maintaining an open light area.

On the other side of the building, which was the old CSD, there is less natural light on that side.

CHAIR - The CSD?

Mr JONES - The old Central Sterilising Department, which has subsequently moved to the K-Block once that work was completed. What we are doing in that space is where the new sterile production suite for both pharmacy and also jack jumpers will be located, because both of those areas, by the nature of the work undertaken, have no requirement for natural light, and therefore, we have located those areas in the space that provides the least light into the building. We have used natural light where we can for heavy orientated work sites that are suited to natural light. Where no natural light is required, that is where we have located those particular work functions.

CHAIR - There are certain steps I thought I heard described might improve the work environment for those areas without natural light. There was something to do with light or was it wall treatment or something?

Mr JONES - Certainly in the staff room, which you would have seen earlier today, which is in the order of about 15 to 20 square metres.

CHAIR - How many staff?

Mr SIMPSON - One hundred and seventy.

Mr JONES - We have been able to allocate approximately nearly four times that size for a new staff facility. It is one of those spaces that has been a transitional space rather than a fully occupied space located in the old operating theatre in the north-east corner that we quickly looked at today. As a way of mitigating the lack of natural light, part of the thought process is to engage with Arts Tasmania as part of the arts program for the project and look at the creation of light boxes so that we can utilise, whether it be a landscape feature or something like that, that is actually backlit as part of the art to enhance the light and take away from the fact there is no physical window there.

CHAIR - That is what I heard explained and wanted on the record. I did ask whether there were any new software products being introduced at the same time as the redevelopment - not because I have a background in ICT - in terms of having to cope with bringing in new ways of working as well as an entirely new space to work in. Can you address that?

Mr SIMPSON - To my knowledge, we are acquiring one extra suite of software to support the new pharmacy and that is around the automation of the monitoring for the sterile suite. More broadly than that, Tasmania is investing in a digital health record system that will include electronic medication management across our hospitals. It is a very exciting transformation. It might even see the end of paper for medication prescriptions and medication records.

CHAIR - We heard it here first.

Mr SIMPSON - It has been a long time coming and the work going on there is fantastic to bring us to the point in a couple of years where we will have a clinical digital support and an electronic health record system for Tasmania's acute hospitals. That includes medication management, which is where so many of the benefits of digital health systems are realised in supporting safe prescribing, safe administration and communication of medication information between the acute sector and the primary care sector.

CHAIR - Hopefully, a very important continuity plan in the event we have a power failure.

Mr SIMPSON - I have great faith that that is being planned for.

CHAIR - Over the page, anything else on 12?

Mr TUCKER - We could go a little bit more into the air conditioning because that has been a big part of this project and the building service upgrades. Can you discuss that a little more? I know you did that diagram and we have discussed it a fair bit. Is there anything you would like to add about the air conditioning with what has been added to the rooms?

Mr SIMPSON - You have hit on the fact that is a major component of the challenge of designing this facility, to make sure that we have both the positive pressure in those rooms where we need it to prevent bacterial contamination and the negative pressure for those areas where we are protecting staff. I hope I have got that the right way around.

Airflow handling, filtration and conditioning is challenging. We know our staff need to be at comfortable temperatures when working in these sterile spaces. They are often wearing layers of plastic gowns, latex gloves, aprons and things. It is a sweat box if it is not properly treated. Yes, a lot of infrastructure work.

Mr JONES - The areas, particularly the jack jumper one, are being designed and therefore constructed to achieve certification under the Therapeutic Goods Administration. There is actually a guideline that has been put together for GMP, or good manufacturing practices, and within that guideline it sets out the tenets of the minimum requirements under that standard to achieve the certification. One of the big things it sets out is the minimum temperature requirements, not only as a general rule of thumb but also particularly relating to

each of the individual rooms, whether it be the clean store and documentation, the airlock, the assembly and also the production suites.

It also sets out the requirements for the air pressure differentials, whether positive or negative. Generally speaking across the board, if you take the outside air or the balance of the pharmacy, we will call that zero pascals. It is a little bit relative to the outside air because each room is set up with a Magnehelic device that is also connected to the outside air pressures. Not only are you getting differential pressures relating internally within the production suite and also the outer area of the pharmacy, but also outside air pressures.

Then you step into the airlock or change room. That will be at a positive pressure compared to the outside space so that, as Thomas said, you do not get transmission of airborne bacteria or viruses or any sort of contaminant that may try to find its way into the clean area. From the airlock into the clean store documentation space, which is where the vast majority of those pharmacy staff will predominantly operate on a regular basis, there is, in fact, a negative pressure to mitigate or to stop further transfer. Then, as you step your way through each of the rooms, there is a pressure differential building up to the point where you move into the actual production room. There is actually a positive differential between there and the adjoining airlock, again, to mitigate or minimise the opportunities for bacteria or other foreign bodies to enter the room.

They are all set out and identified in the GMP guidelines prepared by the Therapeutic Goods Administration. It is also set out and utilised in the Australasian Health Facility Guidelines as a basis. There is a pharmacy planning unit document contained within those guidelines which also makes reference to sterile production suites. That also sets out the minimum requirements in terms of which particular ISO standard to refer to or which Australian standard. It is very heavily regulated, even setting down the minimum number of air changes and the maximum size of particles per cubic metre that is allowed in each area. It is very heavily regulated.

CHAIR - On page 12 you talk about various materials being used. The sterile production area has very specific requirements for harder wearing materials than normal due to the need for a higher frequency of cleaning using strong chemical and alcohol-based products et cetera. You run through a few things. You then say coving of the floor, wall and ceiling interfaces is required using a finish which does not conceal unknown physical damage such as water leaks. I am thinking to myself, if it is impervious everywhere, how can you have a surface that cannot conceal water leaks? Water is not going to come through it if it is impervious. I cannot understand that statement. Maybe I am reading it incorrectly:

> Coving of the floor, wall and ceiling interfaces is required using a finish which does not conceal unknown physical damage, such as water leaks.

Mr HARGRAVE - I think what the report is saying is that it does not allow the water to move into the space more than it just indicates that there would be a leak in the membrane or behind the membrane.

CHAIR - So it bubbles out of it, is that what you are saying?

Mr HARGRAVE - Yes, or stains or something along those lines.

CHAIR - It just does not allow incursion.

Mr HARGRAVE - Yes, I think that is it. Correct me if I am wrong, Darren, but that is the way I read it.

Mr JONES - If you take a normal standard room of any description, you will have a square set ceiling or you will have a cornice of some description as a feature. What we do here is apply a radius so the ceiling actually comes up and radiuses into - or radiuses down, I should say - into the wall. It is exactly the same way we would have a seamless cove skirting between the floor vinyl and the wall vinyl.

We generate our impervious surfaces from the wall vinyl and the floor vinyl which go all the way up to the ceiling. As Andrew has said, this minimises or prevents the opportunity of water ingress into the room by the nature of vinyl as a surface and a material.

CHAIR - I understand that, but what I couldn't understand is how you could actually conceal water leaks. It says, it won't conceal water leaks. I am thinking, if it is impervious, and it is built so it is not letting anything in, or indeed can be cleaned effectively, it just seems a bit odd to be saying using a finish which does not conceal unknown physical damage, such as water leaks. It just doesn't compute for me. Maybe I am thinking of it in the wrong way.

Mr SIMPSON - It's painted plasterboard, isn't it?

Mr JONES - In terms of the way it's structured, what we have deliberately done, the only place that you have water actually within the two sterile areas is a hand basin in the change room. That is the only place that water exists. All other cleaning takes place through the use of typically an alcohol-based cleaning product.

CHAIR - You don't have pipes in the wall?

Mr JONES - No pipes or anything else like that. It is actually a deliberate strategy where everything is kept outside the room in terms of a water feature or water source. This is even to the point that where the external staff toilets may be adjacent, we have two separate wall systems so that there is actually no pipework within the wall that backs onto a leak in that location. It will be the jack jumper facility.

CHAIR - It is probably just the way it is described. You describe it well.

You mentioned on page 13, new EWIS system installation for level 5. What is an EWIS system?

Mr JONES - That is the Emergency Warning and Intercom System.

CHAIR - Okay. Things like duress alarms; is that incorporated into all of that?

Mr JONES - Yes. There are very few public spaces or areas that the public can actually physically access in the pharmacy because, by its nature, it is a secure environment. There are one or two meeting rooms where members of the public who are participating in clinical trials may come for a meeting or a consult.

We provide duress alarms in that particular location. There are also duress alarms located at the reception point. Outside of that, in terms we will call 'safety features', a lot of that is generated through, for example, again in the sterile suites, every room is heavily observed both by CCTV but also by physical window. There is a window between the production area, into the assembly area, into the clean store. Any staff member who is in any one of those rooms is always under observation by another staff member, such that if there is an incident or accident for some of the reasons we talked about previously, in terms of the type of product that is being either produced or utilised in those spaces. Outside that, the general pharmacy is protected by levels of security associated with access control to the perimeter building or perimeter door, and also CCTV.

CHAIR - Okay. You mentioned just below this, installation of fire sprinkler protection for level 5 and the provision of additional fire hydrants to meet Tasmania Fire Service and building egress requirements.

In the event of sprinkler systems coming on, and given the chemicals you are dealing with and whatever else, can you describe the systems in place? If there was a fire, the sprinkler goes on, you get a whole heap of water into the space, so how is that water being dealt with, especially given that it could be contaminated?

Mr JONES - In the first instance, within the sterile production suite, we don't actually run a fire sprinkler system for that reason. That part of the area is discretely separate from the rest of the building and it is protected with a fire detection system, but certainly not a fire 'protection'. The rest of the level 5, within which the pharmacy does occupy, will be protected by sprinklers. The way the sprinklers work, they are very similar to - you might be familiar with addressable smoke detection systems. An addressable smoke detection system works on the basis that each fire detector is allocated - a bit like a computer, it almost has its own IP address. Therefore, when that particular detector goes off, it identifies where it is within either a footprint of a floor or a building so when Tasmania Fire Service turns up, they can look at the fire indicator panel and go, 'we have to go to that room on that floor'. The way the sprinklers are set up is similar. They are not fully addressable. They can to a point, tell you which one is going off, but the way it works is that fire sprinklers will only go off, unlike in the movies where they go across the entire floor -

CHAIR - They go off where they are needed.

Mr JONES - They go off where they are needed. If the fire is localised to only the location of one sprinkler head, only that one sprinkler head will go off to mitigate any unnecessary discharge or deluge of additional water.

CHAIR - Thanks. So any volume of water can be handled reasonably?

Mr JONES - Yes.

CHAIR - Are there drainage systems in place for that? The floors below aren't going to all of a sudden be flooded?

Mr JONES - We hope not. Certainly, when we go through and do the work, we will try to ensure as much as we are able, to seal our floor from the floor below for predominantly the

reason of fire separation. But unfortunately you can't guarantee there won't be a little crack or a crevasse that it won't wander down.

CHAIR - Or it will find its way through.

Mr TUCKER - I talked about this earlier today and the presentation for the PSCPW.

At the time of completion of detailed design documentation in February 2023, the project was placed on hold pending confirmation of the availability of required funding.

We also talked about the construction tender date of April 2023. I am wondering whether we could go through what we discussed earlier today, also taking into account the 30 per cent allocation to address risks associated with the Tasmanian construction market conditions about that issue.

Mr HOLTMAN - Firstly, in relation to the closing of the construction tender and the project being placed on hold in February 2023. That was at the end of Darren's detailed design process, the funding allocation had been made. Completion of the detailed design was part of the process to establish what budget would be required. At that time, the estimated budget didn't match the funding available at the time.

Mr TUCKER - What was the estimated budget at the time?

Mr HOLTMAN - The estimated budget was what is now the complete budget. The approved budget available at that time was $5.861 million. That was the current approved budget as of February 2023.

Mr TUCKER - Quite a difference between that and what it is actually costing to do it, isn't there?

Mr HOLTMAN - Absolutely. In May 2023, an additional $16 million was allocated and that now forms the total project budget of $21.861 million.

You asked a question in relation to the closing of the construction tender and the fact that there is still a 30 per cent construction contingency and allocation for changes.

Mr TUCKER - After the tenders have been received and closed, explain why there is a 30 per cent contingency on top of that after you received the tender.

Mr HOLTMAN - The budget as is presented in the paper is the budget that was generated as the pre-tender estimate. As of April 2023, that was the closure of the budget submission period on 26 April and that started the post-tender evaluation period. That post-tender is ongoing. Just recently a decision has been made by the current review committee to vote on our preferred tenderer, who has not yet been advised of their success. The period we are entering now, with our preferred tenderer, will be for negotiation to work through their submission. We will try to get the best value we possibly can out of their submission, which will ultimately be the fixed construction sum.

Mr TUCKER - Coming back to our discussion earlier today, Darren talking about the fact some of the stuff that is put in the tender is not finalised and you need to go through that, would you like to expand a little so it can be on the record?

Mr JONES - By way of explanation, and certainly in terms of my experience over the years, I have rarely seen a fully conforming tender. Generally speaking, a tenderer will provide a tender submission in response to the documentation that he has provided. However, he will always list his clarifications and any assumptions he has made. He will also inadvertently exclude things or he may deliberately exclude an item for whatever reason. On top of that, there will be conditions of contract that have been provided by Crown Law that he/they or whichever company it may be, will potentially disagree with or have a different version of events that they would like to incorporate.

That has all been combined as part of this tender assessment process. Now that we are in that situation that we have our notification with regards to which tenderer, we can now go back and instigate those conversations to resolve those outstanding issues that require clarification.

CHAIR - We have seen some elevate above the 30 per cent.

Mr TUCKER - We won't talk about Brighton High School today.

CHAIR - We won't talk about Brighton High School.

In relation to this project, contingency is 13 per cent.

Mr TUCKER - Isn't that included in the construction cost?

CHAIR - No, the 30 per cent escalation cost is in the construction but the $1.811 million is a construction contingency, is it not? It is 13 per cent. Is there a reason 13 per cent was chosen or is it the quantity surveyor who is telling you this?

Mr HOLTMAN - There is construction contingency within the $13.9 million. The project contingency is additional funds held back for the project to cover off things that are noted there; for example, latent conditions, issues with the hospital that haven't yet been identified at the point of time that the project is undertaken, and hazardous materials. We are well aware that there is asbestos within those areas. Quite an extensive survey has been done but not the complete surveying. There is a likelihood that additional cost is incurred to manage those things. It is an additional level of contingency to ensure that we do not go over budget.

CHAIR - You are not quite sure how much asbestos you are going to come up with or other possible circumstances like piping or whatever that has to be redone because of its state. Is that what you are telling me?

Mr HOLTMAN - Exactly. Old buildings that have had multiple layers of development and redevelopment over them have particular quirks, some of which are known, many of which are not known and that is part of the process.

CHAIR - Your comment about the construction contingency, you are right. It is in the $13.9 million, but it is in there with the 30 per cent in escalation costs.

Mr HOLTMAN - The 30 per cent was provided by the quanity surveyor on construction costs specifically related to the build. There is a note in the paragraph just below the table, which comes directly from the QS, noting risks associated with Tasmanian construction market conditions, challenge of construction within the aging Royal Hobart Hospital facility.

CHAIR - So it is a combination?

Mr HOLTMAN - Yes, and allowances for the complexities of working within a live environment because that is difficult. Given the critical nature of the pharmacy service, allowances must be made to ensure that the works of the contractor don't, in any significant way impact the valuable work that Tom and his team must do and must continue to be able to do to service the hospital, and that itself incurs a cost.

CHAIR - The furniture and equipment - $2.3 million is a significant amount and there is specialist manufacturing furniture and equipment of $800 000 also. All up it is $3.1 million, a fair old bit.

Mr HOLTMAN - It is a fair old bit.

CHAIR - How does that equate with similar areas being redeveloped in the hospital over time in the past? It seems to me to be a lot of money for furniture and equipment.

Mr TUCKER - It is a lot more specialised area.

Mr HOLTMAN - For example, there is the $800 000 in the specialist manufacturing equipment which relates directly to the items we have spoken about quite extensively today. The pass-through hatches and part of the equipment which maintains the pressure differentials between the rooms, as well as the environmental monitoring systems - those two pieces have been separated out because they are in and of themselves quite expensive, but also very specialised, but also because of the required large area for compounding other manufacturing speciality pieces of equipment within those spaces, including pass-through hatches.

CHAIR - Are you talking about new storage cabinets and things like that?

Mr HOLTMAN - Cool rooms, new shelving - all of that regular stuff but certainly, beyond the pass-through hatches and the EMS, all of the specialist manufacturing equipment which needs to go in those spaces, like the laminar flow hoods and the number increase that we have spoken about which goes into contributing to that large cost.

CHAIR - Not cheap items.

Mr HOLTMAN - Unfortunately, not.

Mr TUCKER - This goes back to what Andrew and I discussed about asset replacement plans and what I am talking about -

Mr HOLTMAN - Yes.

Mr TUCKER - that needs to be renewed and have a 10-year asset replacement plan done around them.

CHAIR - Because there's no question they are going to be needed.

Mr HOLTMAN - Absolutely, that is right.

CHAIR - Otherwise, you cease to provide the service properly.

Mr HARGRAVE - Really pulling together that inventory, understanding what is the useful life of the equipment and planning for its replacement well in advance and when that equipment reaches the end of life.

CHAIR - You have $200 000 for staged decanting allowance. I am glad I am not managing this project. It must horrendous to think with all of that gear that has to be decanted out of there and continue to operate while you redevelop -

Mr HARGRAVE - Sorry, Chair, for interrupting - decanting has been one of the challenges of this project and as Jason has alluded to -

CHAIR - The same with a lot of the Royal Hobart Hospital relocations.

Mr HARGRAVE - Absolutely. Building a hospital, renewing a hospital, refurbishing a space while you continue to provide high-quality services out of it is the tricky bit. It is difficult for Darren and his team to design it so it can function that way and also difficult for a contractor to price it and goes a little bit to why you are seeing some of the -

CHAIR - Thirty per cent.

Mr HARGRAVE - Correct. That is about market conditions as well because post-COVID-19 we have seen the market inflate across a whole range of things, but the building construction sector is no different and we have seen significant escalations in building and construction - that is part of it.

The other bit is the complexity of the decant and the staging and, obviously, a contractor has to factor that into their pricing when they make a submission or a response to a request for tender.

CHAIR - The project working group has a job ahead of it, not just in getting this approved but going forward. It is just starting.

Mr HARGRAVE - Yes, only just starting.

Mr SIMPSON - There is no shortage of goodwill amongst the staff to make it work for the obvious reason this is something that they have been hoping for for some time and will make it work.

CHAIR - Fair enough.

Are there any further questions on that page? It encompasses the recommendations. Is there anything else you would like to share with us in relation to this project before we ask you the final questions?

Mr SIMPSON - I would like to put on the public record my gratitude as head of pharmacy for all of those people who have been involved in getting this project to this point. It is not necessarily taken for granted that services get redeveloped when they need it, but what we've seen within the organisation and the organisation's leadership has been great support to get this project the resources that it needs and get it done now. I am immensely grateful as someone who cares a lot about pharmacy services and how they support the rest of the hospital and the state.

Mr TUCKER - Tom, you are a very tolerant person after 18 years.

Mr SIMPSON - I have worked there for 23 years.

CHAIR - There are the five standard questions we always ask and it is important because it goes in as a result of the Public Works Committee Act 1914, that we are satisfied with these things.

The first is, does the proposed works meet an identified need or needs or solve a recognised problem?

Mr SIMPSON - Yes, it does.

CHAIR - And the problem being not enough space, not enough equipment to service the hospital as it presently stands and operates?

Mr HARGRAVE - I would defer to Tom in that instance, Chair. The other thing the project does is that it provides capability for expansion, which we spoke about earlier in the committee meeting.

CHAIR - Are the proposed works the best solution to meet identified needs or solve a recognised problem within the allocated budget?

Mr SIMPSON - I believe so, yes.

CHAIR - Considering something offsite was never in the imagination as to how it might function?

Mr SIMPSON - All options were considered, including offsite, in the early days. But the reality is the flow of thousands of doses of medicines a day between the pharmacy and the rest of the hospital and the many hundreds of people that move between the wards and the pharmacy simply requires it to be on site.

CHAIR - Are the proposed works fit for purpose?

Mr SIMPSON - Yes, they meet our needs.

CHAIR - Do the proposed works provide value for money?

Mr HARGRAVE - Yes, in the current market.

CHAIR - Thinking about something that might have been offsite, would it have been a lot more expensive to even consider that?

Mr HARGRAVE - That would remain to be seen. The functional and operational reality of Tom's area and what it is, the functions and the things they do, it needed to be on site. Tom, I will refer to you to talk on that. We had those conversations early on in the project development, it had to be on site, particularly in relation to some of those radioactive isotopes Tom spoke about earlier on in the committee's hearing, particularly in relation to the treatment of cancer patients and chemotherapy drugs.

Mr SIMPSON - There would not be an acute hospital in the country that does not have a pharmacy department integrated on site. The only way you could make it work would be some kind of monorail or something like that.

CHAIR - Not for whatever budget we have before us today, I cannot see a monorail being provided for that. Do the proposed works provide value for money, you said yes. Are the proposed works a good use of public funds?

Mr SIMPSON - Yes.

CHAIR - What we saw today certainly leads us to believe something has to be done. We will now look at the evidence before us and deliberate.

Before you go, apart from thanking you for coming today and presenting, very important. I also thank Terry on *Hansard*, who has been doing the recording today, and our secretary to the committee, Scott Hennessey, who does all of the organisation when it comes to these things, a very important cog in our wheels.

It is good evidence we have received. I remind you as I said at the beginning of the evidence, what you have said to us here today is protected by parliamentary privilege. Once you leave the table you need to be aware that privilege does not attach to comments you may make to anyone, including the media, even if you are just repeating what you have said to us. Do you understand that?

WITNESSES - Yes.

CHAIR - Thank you for attending and those who joined the broadcast.

THE WITNESSES WITHDREW.

The committee adjourned at 3.09 p.m.