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**THE PARLIAMENTARY STANDING COMMITTEE ON PUBLIC WORKS MET IN
THE LEGISLATIVE COUNCIL MEETING ROOM, HENTY HOUSE,
LAUNCESTON, ON WEDNESDAY 12 JULY 2023**

LAUNCESTON GENERAL HOSPITAL ELEVATED HELICOPTER LANDING SITE

The Committee met at 1.30 p.m.

CHAIR - We acknowledge and pay respect to the Tasmanian Aboriginal people as the traditional and original owners and continuous custodians of this land on which we gather today and acknowledge their elders, past, present and emerging.

I welcome you all to this Standing Committee on Public Works in relation to the reference to the Launceston General Hospital elevated helicopter landing site. We have apologies from a member of the committee, Ms Butler, who is unable to be here today. The members of the panel here today are Simon Wood and myself, Rob Valentine, Tania Rattray and John Tucker. We have Scott Hennessy, secretary of the committee, and James Reynolds on Hansard, a very important role in recording everything that is said today.

I will ask the secretary to read the message from Her Excellency the Governor in relation to this.

Message from Her Excellency the Governor-in-Council

Launceston General Hospital Elevated Helicopter Landing Site

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 \$15 million. This project provides for the Launceston General Hospital elevated helicopter landing site project.

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

Receipt of submission

Launceston General Hospital Elevated Helicopter Landing Site - Submission to the Parliamentary Standing Committee on Public Works, Department of Health, June 2023

Can I have a member of the committee to move that the submission be received and taken into evidence in public?

Ms RATTRAY - So moved, Chair.

Motion agreed to.

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Ms FIONA LIEUTIER, ACTING CHIEF EXECUTIVE HOSPITALS NORTH, DEPARTMENT OF HEALTH; **Mr SCOTT CURRAN**, LEAD DESIGN CONSULTANT, DIRECTOR, ARTAS ARCHITECTS; **Mr STEVE GRAHAM**, MANAGING DIRECTOR, AviPro, AVIATION MANAGEMENT AND SAFETY ADVISORS; **Mr ANDREW GOELST**, PROJECT MANAGER, INFRASTRUCTURE SERVICES, PROGRAMMING AND DELIVERY, DEPARTMENT OF HEALTH; AND **Mr RANDAL CARLISLE**, DIRECTOR, CRITICAL CARE AND RETRIEVAL UNIT, AMBULANCE TASMANIA, WERE CALLED, MADE THE STATUTORY DECLARATION AND WERE EXAMINED.

CHAIR - Before we go any further, I need to advise you of the committee proceedings today. It is a committee that is an important aspect of parliamentary proceedings. It is a proceeding in parliament, which 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 that parliament receives the very best information when conducting its inquiries.

It is important to be aware that this protection is not accorded to you if statements that may be defamatory are repeated or referred to by you outside the confines of the parliamentary proceedings. It is a public hearing, members of the public and journalists may be present and this means your evidence may be reported. Do you understand that? I need a clear acknowledgement on that.

WITNESSES - Yes.

CHAIR - Normally, we allow an opportunity for an opening statement. Do you wish to make an opening statement in relation to this reference?

Mr GOELST - I'll ask Scott Curran, Lead Design Consultant, to give that statement.

CHAIR - Scott, are you happy for us to use first names?

Mr CURRAN - Yes, thank you. It might be best if you refer to drawing A733PO2 out of your booklet. I think that is the easiest and simplest 3D to be able to understand. I will give you an overview of the project.

The project is the construction of a new helideck on top of the existing Cleveland Street car park. The helideck is 27 metres by 27 metres and is a modular lightweight aluminium construction. It is to be positioned on top of the existing car park. This level will be closed and 66 parking spaces will be lost from this facility.

The helideck system is manufactured by Aluminium Offshore in China and shipped to Tasmania in nine shipping containers and will arrive on 27 December 2023. It will be pre-assembled in the existing allied health car park on the ground floor level adjacent to the site in nine sections and lifted into the position by a tower crane. It will be bolted to 16 new columns.

The new tank, pump and Puraceptor will be positioned prior to the installation of the columns. The 16 steel columns will sit directly over the existing concrete columns in the

existing car park. They will be bolted into the existing slab and accurately positioned to take the new helideck. You could see some evidence of that when we were on top of the car park today. Steel bracing and a new service platform will be installed at this stage. The service platform is to allow maintenance access to the underside of the helideck. The height of the helideck, which is predetermined by AviPro, the aviation consultants, is of reduced level Australian Height Datum 45 or approximately 10 metres above the existing carpark deck. The existing lights will be removed.

The helideck has a perimeter safety net which replaces a conventional hand rail. This is to comply with the safety requirements of no projection higher than 250 millimetres above the landing surface. A separate escape stair will be constructed on the western side of the deck and allow escape to one of either of the fire stairs. The helideck has substantial supporting equipment and these services will be positioned on the existing carpark top, open-air level. This includes the water supply tank, pumps, backup generator to provide the required water pressure and flow rate to service the DIFF system.

The DIFF system is the Deck Integrated Fire Fighting system or deck system which we spoke about this morning. The oil-water separator, or Puraceptor, will capture the runoff if the DIFF system is activated. This waste will not enter the council system and will be pumped from the Puraceptor and removed by a contractor. Careful planning has been undertaken to ensure all these systems are able to be safely maintained, replaced or relocated as future needs require.

The aluminium aerobridge connects the helideck to the operations room and lift and is for the safe transfer of patients to and from the elevated helideck. The aerobridge will also provide a support for building services to be supplied to the helideck and supporting equipment for the DIFF system. The aerobridge will be over a live internal roadway and will have a fixed balustrade for most of its length. There is a safety net and retractable balustrade for the remainder of that length which impacts the approach and departure zone to ensure helicopter safety.

The elevated operations room incorporating provisions of emergency patient care is at a height equivalent to the LGH level 7, which is RL44.720. The operations room holds all the required HLS safety systems to manually activate anything that is required for safe operation. Most of these systems are remotely controlled by the helicopter pilot but have the manual backup in the unlikely event of failure of the remote control.

The top of the operations room will be used to locate the required wind sock and navigation beacon. It will also provide a floodlight to illuminate the helideck for safety at night or in low light conditions. Fully compliant working at height safety systems will be provided to allow safe maintenance of this critical equipment. To connect the operations room to the link on level 2 will be a new lift supporting bariatric use. This carefully selected lift will be ordered before appointment of the head contractor to address the long lead times of this item.

A new precast concrete lift shaft, or tower, to support the operations room in the new lift, including provisioning of the lift to stop at LGH levels 3 to 6 to allow integration of the lift tower into future master plan projects. A new foyer at the base of the lift tower at LGH level 2 RL23.720 includes an additional store room to provide a cost-effective cleaners store and bulky good storage required for the HLS operations.

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Connections from the new foyer to the LGH main access spine will be via a semi-enclosed walkway into the existing level 2 entrance into the LGH, which is where we stood today. This allows for access to the emergency department on level 3, the intensive care unit on level 4 and the operating theatres on level 5 and to all other areas of the hospital.

Upgrades to the existing building structure and services will be completed in addition to the installation of new building services required to facilitate the proposed works.

In summary, our proposal will deliver a contemporary building, designed in line with current Australasian Health Facility Guidelines, whilst responding to the operational requirements as determined by the project working group.

CHAIR - Thank you. Our members will be able to ask questions. We normally work our way through page by page, just to make sure that we don't miss anything.

Just as an overview, in relation to helicopter pads across Tasmania, is it fair to say that this is the only hospital that doesn't have a direct helipad on site, compared to most of the hospitals across the state?

Mr CARLISLE - That's correct, Rob. At this time, of the North West Regional, the Mersey Community and the Royal Hobart, the LGH is the only major hospital that doesn't. With the LGH essentially declaring the old pad closed, at this point in time, it doesn't have a helipad available on site.

CHAIR - The number of occasions that this is likely to be used over the year?

Mr CARLISLE - Referencing figures 2021-22 and in finalising the figures for 2022-23, it was used 78 times between 2021 and 2022. That was both inter-hospital transfers and also bringing patients to the LGH as required who are suitable for treatment here.

CHAIR - Which might be accidents in the wilderness, or whatever?

Mr CARLISLE - It could be a number of incidents. Not referencing the capability of the hospital, that is not my place, but we would bring what was appropriate to this hospital. We would give a handover as the aircraft was departing a location to see if they are happy to accept such patients.

In the foyer area is what you call a 'FAST [Face-Arms-Speech-Time] reference', which is about strokes. ... That requires a patient to be taken to a major facility within 4 to 6 hours. The timeliest way to do that is in a helicopter. Therefore, you need to have a place for it to land in a convenient spot.

Ms RATTRAY - I have an overarching question. Thank you for the site visit this morning. It is always very useful to get that understanding of what's being proposed. There is a lot of green space around the hospital and we went to the old helipad site, which is no longer being used. So, why couldn't it have something in the grounds of the hospital? It would probably be more cost effective. I appreciate that being put on the record.

Mr GOELST - I'll begin but Steve Graham would be best to answer that as the aviation safety consultant. It is all about the obstacle limitation surface that has to be generated. It is

impacted by Launceston being in a valley. We need to clear the ridge line, what we call the Prospect ridge line, for the suburb nearby, which is defined by the RL45 height that the helipads had to be fixed at, which is 25-30 metres higher than the green space that's around it. So, that is the predominant reason that it has to be an RL45. Steve is the expert on all the circulars and guidelines that have driven that requirement.

Ms RATTRAY - We did give you notice that this question would be coming, Steve.

Mr GRAHAM - That's a good summary from Andrew. From my perspective, the bottom line is the safety of flight and following the guidelines and the advisory circular issued by the Australian Civil Aviation Regulator, known as CASA (Civil Aviation Safety Authority). CASA has issued the guidelines, which is AC139.R-01 version 1.0, called the Guidelines for Heliports. That's the main document. There are a couple more that we use to apply the international standards for heliports to locations in Australia.

With that there is an expectation that any safe operations have a certain access. In other words, we have to have a flight path or a gradient that the helicopter can safely navigate on approach or departure in consideration of - should it have one of the two operating engines no longer be able to deliver power for whatever reason, it has to have an out - it has to have an opportunity to either conduct a missed approach -

Ms RATTRAY - I think you call it a 'plan B'.

Mr GRAHAM - Plan B is a reasonable way to put it. It has to have an opportunity to conduct a missed approach or abort the landing safely. Clearly, for any location, the green grounds that you refer to or anywhere else in the area or in the country, we have to make sure that that flight path and the gradient, which is 2.5 degrees or about 4.5 per cent, as they say in the documentation, has to be able to be met. Simply, if you put that on any point of measurement you then look at that to see where we can go.

It so happens that the current closed helicopter landing site is in the highest point of the Ockerby Gardens so anything further down is exacerbating this basin effect and making it more difficult for the helicopters to get in and get out. So, from a technical perspective, without any form of mechanical elevated deck in that location, no, nothing on the ground would work, would meet anything of the compliance of the aviation circular. So you'd have to look at some form of structure.

Mr GOELST - After an assessment of options on the LGH site and, also, it's worth noting that the Ockerby Gardens - the old helipad that's closed - was on City of Launceston land; it needed a special act of parliament to be able to come into being. So we assessed the LGH site and the only location that it can currently be on the LGH site is on top of the Cleveland Street multistorey car park.

CHAIR - While we're talking about sites and flight paths, obviously, there are residences and other infrastructure around in terms of approaches to the proposed site. Why is that the best site of the options that may have been looked at?

Mr GRAHAM - Thank you, Chair. We looked at a number of site options and following on from my response to Ms Rattray before, we looked at what location would fit this scenario we talked about - the 2.5 per cent either side. It became pretty obvious that probably the only

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way would be the longitudinal axis of the Tamar River up through, heading towards Launceston Airport because either side has higher ground. So that was a pretty obvious lead-in to wherever it might be. We checked a number of sites, including the water site - it was either Launceston Water or TasWater -

Mr GOELST - The Margaret Street Detention Basin was looked at as an option.

Mr GRAHAM - Correct. We looked at that but it was putting it in the basin again. To remind the committee, we're talking about operating safely; we're not rescuing people as you would see a helicopter do in the bush. The regulator acknowledges that. When we talk of the safety of operations into a state-significant infrastructure such as a hospital, we need to operate safely. Don't spread the risk. It's risky enough pulling somebody out of the bush or somewhere dangerous but when we come to this, we need to treat it like an airport almost.

We then looked at available directions for the flight paths and the impacts thereof. The only choice as it turned out was an elevated position higher than you could get by standing on top of the multistorey car park. That turned out to be 10 metres higher and it would provide the approach and departure gradients to meet compliance.

You also mentioned other aspects of selection and that's important to consider. We talk about any obstructions, including trees. We also consider things like helicopter downwash, depending upon the helicopter itself, helicopter noise and the impact on residents - that was high on our consideration - with the direction from the helipad down the Tamar River trying to reduce any noise over residences that way, but to the east side of the helipad we have quite a basin full of residences.

The committee must be mindful and everybody needs to recall helicopters have been coming in here for quite a while. Whilst the frequency of use is directly determined by the need and that could be currently from hospital requirements or any activities around the area requiring the helicopter to come into the actual hospital, major events - fires, vehicle rollovers or anything like that - could see an increase. That is an aberration rather than the rule. We already have the 70 plus over a year as a frequency, but I would like to remind the committee because noise is an important consideration, each activity has a six-minute window; half of that when the helicopter arrives and then shuts down the noise, it finishes, then you allow the medical process to go on either collecting or delivering the patient, whatever that might be. The second half of that six minutes is when the helicopter starts up and departs. Therefore, it is not like Sydney Airport or any other major airport. It is a small amount of noise over an infrequent period, but the noise is only there when somebody is in a critical way and needs to be transferred.

Direction is determined by the topography of the basin Launceston lives in, the height again by the flight path requirements and the degrees - I have already presented to the committee - noise and downwash are all considerations here, for sure.

Ms RATTRAY - This one will probably be for Fiona as the Chief Executive of Hospitals North. Do you see an increase in the number of times that the helipad will be used once it is put in place, given that at the moment you have to go out to the Launceston Airport and be transferred in? Do you see more transfer activity between hospitals once there is a helipad at the LGH again?

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Ms LIEUTIER - I would think it would become far more efficient and therefore there would be a greater frequency in the use of the helicopter, which reflects on the safety of the community and means we can deliver patient care more effectively.

Mr WOOD - My question is on the lift access being proposed. We noted today there is an existing lift in the multistorey car park. There is a plan to have the modern bariatric lift created. A little bit of explanation on that, for the record.

Mr GOELST - Fiona would maybe explain the bariatric and the need for that in a modern care setting.

Ms LIEUTIER - The bariatric lift is used for larger people that need to be transported through the hospital. Likewise, bariatric ambulances are designed for larger people. Most lifts do not accommodate the equipment required to safely transport larger people, hence the need for the lifts to be increased to accommodate those people. Randal may also be able to provide some advice.

Mr CARLISLE - Sure. That is correct. The current lift in the car park would not be able to accommodate a Stryker stretcher, which is the standard ambulance stretcher used throughout the road ambulances. The helicopters would unload onto a Stryker stretcher to facilitate a patient either into the hospital or out. You would have to consider that they would travel with a medical team and most likely a ward man that would assist with movement at the bed. Also, the current lift in the car park would be publicly accessed and we try to conserve patient privacy where possible.

CHAIR - When you say Stryker stretcher, are you talking about the collapsible legs?

Mr CARLISLE - Correct. A fully motorised stretcher now where the legs collapse up and load into a road vehicle. They can be put into helicopters in the future. It may be a consideration, but at this point of time we load on a litter-style arrangement that slips off onto a stretcher.

Mr TUCKER - First thing, one of the positives out of this is looking at the picture here with the helicopter putting it up so high with the fog. It would have to be an advantage for the helicopter coming in when we have foggy days instead of having it on the ground where you cannot see. Scott, when you were talking about the aluminium construction, the fire risk with that when it gets on fire, there is extreme heat with aluminium - am I correct? How will we handle the fire suppression?

Mr GRAHAM - Helicopter fires - let's take in gradients, should there be one. We are looking to upgrade the helicopter system eventually and more modern helicopters have better fuel systems which do not split apart on impact, but should the worst happen and there happens to be an impact and a fire, aviation fires are very swift fires. They are very, very quick; they are out in a matter of minutes - especially when you are only talking the size of fuel capacity we are talking about here.

CHAIR - Which might be how many litres?

Mr GRAHAM - Depending upon the helicopter, it could be up to 800-900 litres of kerosene. The issue in this scenario if there happens to be a fire is, automatically in this

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particular design there is a deck-integrated firefighting system built into the helideck. A series of 24 probes stick out up to 300 millimetres from the surface and issue in a rapid fashion, over 2 minutes, 20 000 litres of water. That itself is like having a firetruck putting a spray onto it.

That will contain any spread; number one, spread of the fire itself; number two, significantly reduce and or eliminate any potential of the fire actually creating any structural damage to the deck itself. It has a draining system whereby that water plus any kerosene which has already gone out or even if it is still burning, goes into a trap system which extinguishes the flame. It has been specifically designed for fires or operations on oil rigs, so fires are not long-lived and as a consequence of that, do not have any structural impact on the helideck itself.

Mr TUCKER - You are fairly confident if a fire gets going we are not going to have any structural damage.

Mr GRAHAM - Absolutely; number one, the kerosene would drip down away from that structure; and number two, we have got 20 000 litres straightaway. Now, that's two ways to start the DIFF - the Deck Integrated Fire Fighting system. One is an automatic system whereby you have two or three infrared monitors on the edge of the deck, totally automated when they detect fire and that could actually include - and it has in some places - a bit of flame coming out of the back of an engine when it shuts down. All of a sudden, the helicopter is getting a bath. It is quite sensitive and effective. The other method is the manual activation of the system itself.

Mr GOELST - We have engaged independent fire engineers who have checked all aspects of the design and providing the fire engineering brief to Tasmania Fire Service. We have also carefully consulted with TFS in the design process. We are happy we have really gone belt and braces approach to ensure the fire safety. The Aluminium Offshore system selected for the lightweight aluminium deck has an integrated firefighting patented system. The deck itself has perforated holes, so if the aviation fuel leaks it actually goes straight in and is starved of oxygen. It has multiple layers of fire protection in the system.

Mr TUCKER - Say that again, it goes straight in?

Mr GOELST - Into the draining system. It has very small holes throughout the deck and is part of the innovative patented idea to drain the fire source away from the fire.

Mr TUCKER - It starves it of oxygen.

Mr GOELST - There is a very impressive YouTube clip on that.

Mr TUCKER - I was about to say there are videos available.

CHAIR - That drains to a location at the base of the building?

Mr GOELST - On the deck. About 6 metres underneath the helideck itself. It is on a special steel platform to spread the loads and it is a 25 000-litre Purceptor - is the brand name. It is a triple interceptor system that separates the oil and water. If it is ever triggered for a fire it has a special suction point for a Veolia truck or equivalent to come and safely remove that contaminated water to an appropriate disposal facility and protect the sewerage system.

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CHAIR - I was going to say, where would an appropriate disposal facility be?

Mr GOELST - I have not looked to where that is with Veolia but I would say it would be somewhere like Dulverton outside of Sheffield or perhaps down at Port Latta or somewhere like that. Maybe I can take that on notice if that is all right.

CHAIR - That is okay.

Mr TUCKER - I know the design at the moment is not to go higher, but if the Launceston General Hospital does go higher in the future, it would be quite easy to pick this up and move it onto the roof of the building itself, thinking to the future.

Mr GOELST - It has been part of the brief for myself as a project manager to ensure that this can be a temporary location. Every aspect of it is bolted together so it can be as cost-effective as possible to be picked up and moved to a new location.

Mr TUCKER - It could be moved to another hospital.

Mr GOELST - It could be moved to another hospital or it could be moved to another building.

Mr GRAHAM - It could be moved interstate. We could sell it. One of the features of the design of the flight path design which I should have mentioned before is it is built for the prevailing wind and the available topography, as we have discussed. Also, it totally stays clear of the hospital precinct so any further developments that may happen in the future will not overly impact the access because sometimes cranes are involved in this but there are management techniques to do that. Therefore, continued patient care using this new helipad could almost be assured, access-wise.

CHAIR - With respect to what John is saying, if there are new buildings that are built and not just vertically on top of the Launceston General Hospital and it was considered a more suitable site for the helipad, then it is transportable. It is not an easy thing because you have to make sure the building can cope with the strain and stress and all those things.

Mr GRAHAM - It is a prefabricated design, specifically created so it could be relocated.

Ms RATTRAY - Following on from that, we were informed this morning that in the Launceston General Hospital precinct master plan there is a proposal for another multistorey car park. Following on from the questions that have been asked about this being transferrable, can you put on the record why it is not going to be used now or in the future on that new proposed building or that new proposed car park?

Mr GOELST - the design brief for the new car park is for it to be incorporated in and ensure that it will be strong enough to take the helipad in the future. The current car park was built to five levels and then left for eight years and then three years ago extended to seven levels. Part of the planning for the new car park may be to do that, they may build the first four levels and they might need to go, 'Well, we may need five and six levels on top of that'. Then after that is done the helipad can go on top of that, for example. They might be able to build the car park to its permanent size and it will sit there able to have the helipad transferred to it if future health planning deems that is required.

Ms RATTRAY - Why are we not waiting for that to happen?

Mr GOELST - The earliest the car park will be finished at this stage in the planning to my understanding is late 2025 and maybe early 2026.

Ms RATTRAY - It is a time issue, thank you.

CHAIR - One further thing with regard to the helicopters themselves in terms of any public concern, you mentioned that these are twin-engine craft. Is that correct?

Mr GRAHAM - That is correct.

CHAIR - A failure does not mean it drops out of the sky.

Mr GRAHAM - That's right. The contracted helicopters to Tasmania Health presently are twin-engine helicopters with full single-engine capability.

CHAIR - If they are both operating at the same time and if only one operates it can still operate effectively? Is one simply in standby or do they both operate?

Mr GRAHAM - No, they both operate and contribute to the transmission of the helicopter, the gearbox, if you like. If one stops working for whatever reason, the other one takes over that load. The helicopter can still fly quite safely.

CHAIR - Yes, okay, that's great.

One thing on the walkways on page 1, you mentioned direct access via semi-enclosed walkways to all areas, avoiding public areas. Can you clarify what is semi-enclosed? There is an airbridge that connects the top of the carpark with a point closer to the hospital and then a vertical lift, and then another walkway that goes into the hospital. Can you describe what that looks like, for the record?

Mr CURRAN - When you get down to level 2 from the lift, you will come into a covered walkway or a breezeway, and then you will be able to access through that breezeway into level 2 into that doorway that we were standing in on the site visit today.

The reason that it is not fully enclosed is because of issues with fire connecting into the existing hospital. It is a covered area but it is not fully enclosed.

CHAIR - Issues around fire. Can you explain that a little more?

Mr CURRAN - When you have a hospital, you have fire compartments and this will enlarge the fire compartment. It will have an effect on the fire compartment. This is classified as a breezeway rather than an enclosed corridor.

CHAIR - It is an operational reason, in terms of keeping the hospital safe.

Mr CURRAN - Yes, and it provides cover for the patient during transfer, but it is not an airconditioned space.

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CHAIR - Imagining a patient coming in a helicopter, they are taken out of the helicopter. Presumably they are exposed to the elements for a distance?

Mr GOELST - About 25 metres.

CHAIR - Once you get into that airbridge?

Mr GOELST - Into the operations room, what we've called it in these documents, operations room, but we've changed the name of it to multipurpose room. Once you enter the multipurpose room you are not exposed to wind or rain any longer.

CHAIR - And that's 25 metres away from where the helicopter lands?

Mr GOELST - Approximately.

CHAIR - From there it is a covered for what distance to the lift?

Mr GOELST - About 45 metres.

Mr CURRAN - From the lift back into the building? It is approximately 40 metres. I can take that on notice and confirm that distance for you.

CHAIR - It is just for the record.

Mr GOELST - It keeps the patient out of the wind and the rain. The operations room at the top of the lift shaft is temperature controlled for heating and cooling. That is where some emergency patient care is able to be undertaken. That is why we control the temperature there to make it more pleasant to be in. Everything else is fast transfer to the areas of patient care within the hospital.

Mr WOOD - Just regarding the sky bridge, that is not enclosed at all?

Mr GOELST - No. For aviation safety reasons to respect obstacle limitation surface that's required for helicopter safety.

What we have maximised, and it even has a retractable element to it, is we do have a balustrade, a guardrail. When you are walking across that entrance road, that's going to be a long way in the air, and so I believe it is a 1.1-metre-high guard rail for the maximum distance that we can have to still meet the CASA guidelines. People will feel quite safe walking across that aerobridge now.

Mr GRAHAM - At the end of the day, it is quite normal to have the safety net go from the deck itself following the walkway to the entrance to this operations room. We also have a little kick rail that is high enough in case there is a strong wind and the trolley wants to start exiting stage left or right, it will stop in that regard. We have covered the fall from height risk by having the safety net and there is a little kick rail there to make sure the trolley cannot go off the side.

CHAIR - Importantly, public access to that whole site.

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Mr GRAHAM - It is totally controlled and denied because it is secured. Access is only done with an approved member of the LGH staff and is controlled access from below. It is not a public access lift - it is a fob-only lift and access to the deck which has to be activated by some form of control card. From the deck into the operations room, however, it will be a push-green-card because, for whatever reason, if the helicopter arrives early or unannounced, then the crew can get people inside that little foyer area.

Mr GOELST - It is the same security system for doors used throughout the hospital. It is completely integrated with the hospital.

Mr GRAHAM - The hospital will control and manage who gets access to what.

Ms RATTRAY - With regard to the project program, what will be the negative impact on the workings of the LGH for the scheduled approximately nine months. Is it envisaged there will be any significant impacts on the workings of the hospital over that time?

Mr GOELST - No, by introducing the use of the tower crane, we have largely mitigated impacts on the hospital. It is just about car parking and then the loss of that very small allied health car park and those few patients who park there will have to park elsewhere and enter the hospital through other entrances.

Ms RATTRAY - Parking at the hospital is a major challenge but we will talk about that later.

The defects liability period of 12 months seemed a bit short for a significant project of this nature. It is not like you may well see a significant defect within that year time frame. Why was that chosen?

Mr GOELST - Scott might like to back me up, but it is a standard defects liability period for major works construction contracts.

Ms RATTRAY - This is not a standard build; this is not a Cambridge School redevelopment; this is significant and probably something as a state we do not do very often.

Mr CURRAN - We have two years of backup and support from Aluminium Offshore. It is a 24-month warranty period.

Ms RATTRAY - Did I miss that?

Mr CURRAN - I did not put that in the report and apologise for that.

CHAIR - That makes it a lot better because I also had it listed. There are only 78 landings and it does not give it a lot of time to test it.

Mr GRAHAM - Typically, for building lifts and lift shafts like this the 12-months defects warranty period tends to pick things up.

Ms RATTRAY - For the lift itself, you will probably need one month, but for other parts I felt that that was short.

Mr GRAHAM - The warranty provided by AO is also backed up by the fact that for this we will only be using a 6.8-tonne static weight, which is probably the largest that will ever come here. The decks are used to taking 12- to 13-tonne helicopters - the large transport helicopters that go out to the oil rigs with 19 passengers, they are significantly heavier. This is exactly the same deck, so we have the capacity.

Ms RATTRAY - This is a question I asked earlier on the Rolls Royce model versus the Commodore model. I do not know if I can use 'Commodore' anymore seeing we do not make them.

Mr GRAHAM - Yes, they are no longer built.

It is a standard deck; they do not offer -

Ms RATTRAY - That is the question - do they offer anything else?

Mr GRAHAM - There are no lesser structural decks for lighter helicopters - there is just one type of deck.

Mr TUCKER - Coming back to your point before, Chair, about the safety on the top - it comes back to what I said with the picture. What happens if we have pea soup on the top of the deck and you bring a helicopter in and you do not have safety rails?

Mr GRAHAM - Randal can probably answer that.

Mr CARLISLE - The pilot in command would make that assessment on approach. The pilot would have done the weather checks. Predominantly, one of the advantages we are integrating into the HLSs around Tasmania is integration of camera. We are going to have a camera where the pilot will be able to dial in and see what the weather is like. That is before they depart or during their flight. They have been installed at the Mersey Community Hospital while construction is on currently so they can assess what is going on and if it is safe for them to come in and land.

If they are unable to land at the helipad due to a fog rolling in, they would do what is called an ILS or an instrument approach into the airport where they could land there. If they could not land, they would most likely return to Hobart.

Mr TUCKER - This is a difficult bit, because they might be able to land with their instruments to get the helicopter down on the pad, but what I am talking about is the safety of the paramedics and the people working there with the patient, because they have no barrier around them apart from that 250 mm.

Mr GRAHAM - I see what you mean. There are two aspects here for the helicopter operator. One, if it is suitable and it is not just fog, it could be a thunderstorm or whatever it might be that will stop the helicopter landing, pilot's discretion, will land or won't land. Once they are on, also introduce night into this also. At night-time, there are certain pathways marked on the deck and there will also be a wardsperson there to come in with the trolley and escort people off.

PUBLIC

All the people, the pilots and the paramedics who operate the helicopters, are used to operating off elevated helidecks. They know the dangers. They know and there is a well-marked 14-metre or thereabouts circle in which they have landed the helicopter. They know where the gate is and the alleyway to go off, as in the walkway to go off.

They are well used to it, they are acclimatised to fall from height risks. There are no awareness issues in darkness, fog, rain at all for the air crew or the clinical crew onboard the helicopter. Again, that is mitigated somewhat because there is a security or wardsperson from the hospital coming out from that bridge.

The other thing, of course, is if there is a strong wind. If there is a wind greater than 30 knots or thereabouts, you would probably consider how safe is that. Again, that is the pilot's decision, because they will know it is going to be too risky to unload the patient and walk them across potentially the little walk bridge.

That is all part and parcel of the operating procedure, which, by the way, will be articulated or detailed in the helicopter landing site operations manual. Separately, the operator will have an operations procedure for the LGH. There could be, in that procedure, additional areas like no-fly areas because of local wildlife or reduced noise area because it is over a nursing home or a school or whatever it might be.

That's common throughout every approach you make. That is a local, on the iPad the pilot will look at when he or she is approaching that location. They are well trained, well informed and have all the pictures. They will be familiar and current with the deck. They would have walked it. As part of our commissioning we will get the helicopter to come in and do some approaches and actually land. We want the crews to actually talk to the local staff. There is a lot of stakeholder engagement with this and firsthand knowledge of the deck.

You have three now. This will be the forth elevated deck in the state. The pilots will know it well.

CHAIR - Just a corollary, will the Launceston General Hospital have carriage over constructing the site operations manual? Or is this something standard provided and they add their components?

Mr GRAHAM - A bit of both, Chair. We actually provide the baseline document, the template. Then we add to it whatever Launceston General Hospital wants to add to it. We offer best practice for workflows for individuals, inspection criteria, details of the helideck, et cetera. It is a pretty standard document in operation throughout the country, but it does become very much a Launceston General Hospital document. If they want to say no, we want to change it into a format that resembles our actual existing procedures, it is not a problem. We do that regularly. That is part of my company's engagement, to actually develop that together with the hospital.

CHAIR - Can you describe for us what happens in regard to audits and inspections on an annual basis? I presume it would be annually or is it every five years?

Mr GRAHAM - Two aspects to this, Chair. I will talk about the inspection of the facility in the first instance. Every time a helicopter is coming in, the procedure will be our baseline procedure that I will present to the hospital. We will make sure that the attending security

and/or wardsperson will go on the deck to make sure that there is not a dead bird or whatever else, some rubbish that is left on the deck - that happens from time to time. We will also turn on the lights to inspect all the lights for functionality. We will check the windsock.

As a slight story, I had a brand-new helipad opened at the Children's Hospital at Westmead. Three weeks later the executive general manager rang me. He said, 'What do I do about this?' There were two white cockatoos eating the windsock and tearing it apart. The windsock is an important part of the last bit as the pilot wants to know exactly what the wind is doing. That is an example of what that inspecting person per event will do. There is a little check list, tick, tick, tick. That is put on the folder in the operations room as a record of inspection. So, that is the first one. Every time a helicopter comes in, the deck is inspected.

In a regular monthly inspection, the engineering team should go around to look at exactly these things, to make sure the lights are functioning, how the paintwork is going, how is this, how is that. Then, every two years, it's normal for a formal compliance audit to come in. That includes not only the physical aspects of the deck itself, the windsock, the lighting, the automatic radio-controlled pilot-activated lighting systems, which we all activate. We also include the checking of the DIFF system. That is normally every year but we will develop the frequency of that because you are spreading the love of 20 000 litres every time you do it. But you have to make sure it is working. That can be done every two years. We then put against the aviation circular the compliance check list. We then, as an independent aviation adviser, will say, 'your helideck meets the requirements'. By then Tas Health might even have their own guidelines for this, which includes the national guidelines for it. So there is a formal set of criteria that will hold up to say that yes, this deck is still working.

The other things that will happen during the inspections will be developments. If there is a big construction going up there on the ridge line, the grandmother's house or whatever, that will have to be noted. We will have to look at how that is managed in that particular case.

CHAIR - When it comes to things like testing every so often, presumably there would be public notification of that?

Mr GRAHAM - Absolutely. The normal process is that there is a lot of stakeholder engagement about this. This is what the helideck does and what it is all about. It is all for safety and disposal of fire. My recommendations to the hospital would be do the testing over a window but if there is a heavy rain period happening, for example, there is nothing wrong with doing it during that period. I am not saying you don't let the neighbourhood know but there is no impact on the neighbourhood if it is already wet.

CHAIR - Fair enough. They might wonder what is happening if they have 10 000 litres of water coming down the hill.

Mr GRAHAM - It does spray quite widely. It is more like a mist.

Ms RATTRAY - I am not sure if this fits in, but there has been a considerable amount of discussion on site today about the trees at the site. We were informed that the trees would receive a haircut. It would be useful to have it on the public record that there will be some pruning of the trees and people need not be worried about them coming down. They will just be pruned.

PUBLIC

Mr GOELST - Correct. The heritage-listed oak trees have been a consideration from the inception of the project. We have engaged expert arborists to provide advice on that. The works that are going to be undertaken are standard maintenance works for the trees themselves to keep them healthy and to help with their longevity. It will be a canopy reduction but again that is a standard process. That is why I used that layman's term of 'a haircut'. There will be a small canopy reduction of both of the oak trees closest to the helipad as well as a dead-wooding exercise. The oak trees drop branches continuously and we are making sure that the trees have as many of the branches removed as possible so that the community does not perceive that there is a branch come down because of the helicopter.

Ms RATTRAY - Is that component included in the project schedule?

Mr GOELST - It is in the costing, yes. It will be part of the works by the head contractor.

CHAIR - Before we leave that page you might describe for us what is happening with that top level of car parking. You mentioned today that that would not be used for car parking at all and that there would be roller doors and those sorts of things. Can you describe that fully?

Ms RATTRAY - And the loss of the 66 and the alternative arrangements.

CHAIR - And what the alternative arrangements are, yes.

Mr GOELST - Due to safety reasons and also fire engineering reasons we have chosen at this time to build a solid wall that has a roller door for maintenance vehicles to access what we call the open-air deck. Every undercover car parking spot with a deck above it will be maintained but that car parking will be maintained safely during construction because we have a very thick concrete slab that protects those cars.

We are counting a loss of 66 car parking spots through the construction period. Within the last week, working with the expert fire engineers, for inducted staff and trained staff who have the access fob there may be an ability to park 22 vehicles on areas of the open deck that are sufficiently separate from the helipad itself. So, not parking underneath the helipad but parking outside.

Ms RATTRAY - The periphery.

Mr GOELST - Yes, the periphery. So, there is about 22 spots that may be able to be reactivated. A final decision has not been made on that but it would help the car parking at the hospital where every car park counts. We are doing everything that we can under expert advice to see what we can do. We will activate those spots if it is signed off by the fire engineers.

To offset the staff car parking that is lost, our highest priority is to maintain availability of car parking spots for staff who are returning to their cars after dark so that their safety is considered rather than walking the side streets in the night. So, the top one-and-a-half levels of the car park are reserved for the late shift who start in the afternoon and return to their cars in the dark. We will be lowering the boom gate so that the same number of car parking spaces is available for late shift staff. It will be the morning shift and dayworkers who will have their car parking reduced.

PUBLIC

In partnership with the City of Launceston we will activate 66 leased car parking spaces for free parking for LGH staff who choose to use it, with a shift change shuttle bus from the UTAS Stadium Inveresk northern car park that was recently redeveloped with over 780 parking spaces with it. The City of Launceston have done their analysis and believe there are no problems with providing 66 leased car parking spaces there. The shift change shuttle bus is augmented by the Tiger bus which travels to and from the hospital four times a day as well.

Staff may help the hospital out by parking there will have to make taxi vouchers available. If they had to return to their car in an emergency, to pick up a sick child from school or the like, we could provide that to allay any staff concerns about if they are parking a lot further from the hospital than they normally would. Hopefully that gives sufficient explanation.

CHAIR - I appreciate that.

Ms RATTRAY - I understand it is first in, best dressed or best parked as it is now. How are those discussions progressing with staff members? As I indicated, parking around the hospital is atrocious.

Mr GOELST - Through the project working group we have been liaising with LGH executive and management staff who are managers for house services, which is in charge of monitoring car parking. There has been very close consultation between the project team and LGH staff. The LGH executive has been briefed and we've brainstormed other options through that group.

Ms LIEUTIER - We haven't progressed down to communicating broadly with our staff, in terms of what their outcome is because we are still working through some of it. There will be a change management process put in place for consultation and explanation to staff.

Ms RATTRAY - If you are able to utilise 22 extra spaces on the site, then you might only need 44 or thereabouts at Inveresk. So, you don't really know yet?

Mr GOELST - It's been a moving target. We are actually onto option number 8 on how to solve this. Unfortunately, seven other options that we thought would have a reasonable chance have fallen through. They were different, closer locations for car parking. Unfortunately, option 8 looks like it is going to be employed.

Ms RATTRAY - That new car park is looking better every minute.

Mr GOELST - That is why that has been brought forward.

Mr WOOD - That was going to be my question. What is the capacity of the new car park on the corner of Howick and Charles streets?

Mr GOELST - I would want to take that on notice to give an accurate answer. It is well over 400 spaces.

Mr TUCKER - Following on with the parking and transfer of those people from Foster Street, is that where you are going to pick them up from a bus and bring them out?

PUBLIC

Mr GOELST - Yes. Essentially the Tiger bus route. It should be about eight minutes; it's 12 minutes with multiple stops. A fast-track service, I'm suggesting, would be about eight minutes.

Mr TUCKER - With our discussion before, you were going to leave it to staff to make that decision themselves, whether they come in.

Has there been any thought about actually nominating certain staff to park there so that you know you are going to have a certain number of staff to be picked up from that bus point at a certain time and taken back there?

Mr GOELST - We will essentially be working on that over the next four weeks.

CHAIR - You mentioned on page 2, importance level 4 classification, right at the bottom there. Can you describe how many levels there are and where that all sits?

It says:

The Department of Health considers the Launceston General Hospital site, including this proposed helicopter landing site, to fit into Importance Level 4 classification.

Referring to the MCC table B1.2A: Importance Levels of Buildings and Structures.

Mr GOELST - I will give an explanation and then Scott, you correct me if I say anything incorrect.

To my best understanding, Importance Level 4 classification guides seismic design load characteristics and the ability of a structure to survive a major natural disaster, a tremor or other natural disasters. Hospitals are classified as Importance Level 4, and are given far higher design loadings than other buildings, so that they are still operational. They are designed to be operational after a natural disaster.

The worst case loading of a natural disaster isn't a wind loading from a typhoon or a hurricane or the like; it tends to be an earthquake. So, Importance Level 4, particularly for the lift shaft, and the multipurpose room/operations room and the helideck itself, have been done to Importance Level 4, which does add cost, but it is important to match the hospital itself.

The existing carpark itself is Importance Level 2 because carparking after a national disaster isn't critical for patient care. So, the carpark itself is being left at Importance Level 2.

CHAIR - Thank you for that. Moving over, I think we have covered the need for the project quite well. Any further questions in regard to that, members?

Any questions on page 5?

Ms RATTRAY - Can I ask a question on page 3?

CHAIR - If you want to go back, yes.

PUBLIC

Ms RATTRAY - In regard to the dot point about the proposed works anticipated achieving the following outcomes, it says 'increase the immediacy of emergency treatment available and extend this support to broader areas'.

It is probably a question for Fiona. Is that more needed impact on the ED treatment area? I am not sure what that actually means.

Mr GOELST - That was my layperson's wording. I will take responsibility for that dot point.

Essentially, short of a bit of consultation with Randal, the immediacy of treatment was to save that travel time from the Launceston Airport. We talked on site about that pad-to-pad transfer and we had taken advice from Randal that in the north of the state, a state-of-the-art helideck does allow some better transfers. To support the broader areas is really about the capability.

Ms RATTRAY - It is not Fiona's ED, it is Randal's area.

Mr GOELST - It is more about the critical care retrieval.

Mr CARLISLE - With a lot of transfers, pad to pad is the preferred option; less transfer or movement of a patient, directly out of a hospital. One of the major entities in Tasmania would be NETS (Non-Emergency Newborn Transport Service). The NETS teams need to travel direct to a location - and that is all the major hospitals in Tasmania - and facilitate minimal movement of a patient.

Ms RATTRAY - It cuts out double handling.

CHAIR - What is NETS?

Mr CARLISLE - Neonatal transport service, lots of young babies and children. Critically unwell patients, be they spinal, neuro, head injuries, back injuries, the less movement pad to pad is preferred.

Ms RATTRAY - Thank you, Chair, for allowing me to go backwards.

CHAIR - To be quite honest, the page stuck and I missed that page. Can we go to page 5 now? In terms of the manufacture of this helideck, clearly, we have some good aluminium manufacturing capacity on the island. Can you describe for us why that simply would not be an option?

Ms RATTRAY - We like to buy local.

Mr GOELST - In every area other than that we will largely be using local contractors and the local head contractor will lead the installation process. It is the manufacture. What we are really taking advantage of is AviPro's advice about how good these helidecks are and that patented system, and the fact that we needed it to be lightweight. To have attempted to design that ourselves would have taken considerable time.

CHAIR - Timeline-wise it would be way out.

Mr GOELST - I am on *Hansard* but I would say greater than 12 months, well north of that plus then fitting it in. Tasmania is booming at the moment so trying to fit into Tasmania's manufacturing capability could be a challenge but it was not explored because this was an off-the-shelf solution that could meet time lines.

CHAIR - You talk about a retractable balustrade for the length it impacts the approach and departure obstacle limitation surface to ensure helicopter safety. Can you describe what that is talking about?

Mr GOELST - The aerobridge is approximately 14 metres long and for 11 metres of the aerobridge we are able to have a permanent balustrade because that fits into the obstacle limitation surface.

CHAIR - That is for people accessing the deck when there isn't a helicopter.

Mr GOELST - It is good safety for maintenance staff as well but it is also added safety for those who are coming off the helicopter as well. The last 3 metres is for when we have maintenance staff operating, the handrail can be extended out so we have a full handrail for the entire length of the bridge. Through the safety and design process, we deemed that as something that was worthwhile, and that is largely to keep maintenance workers safe.

CHAIR - The aluminium safety stair - alternative path of egress?

Mr GOELST - That's part of the aviation guidelines.

Mr GRAHAM - Worst-case scenario, if we do have a crash and a fire which blocks off the access to what we have just been talking about, there has to be a secondary exit from the deck. That is why typically it is normally 180 degrees away, depending upon design, but hopefully, the other side of where the fire might be. If you cannot get off that way you go off down to the exit way which, at this stage, is on the western side of the deck. It then leads down to the deck below that we walked on today, to the lift, exit, fire escape et cetera.

Mr TUCKER - You said to me before that we wouldn't get a fire with a 20 000-litre system, that should put it out straight away.

Mr GRAHAM - Absolutely agree.

CHAIR - Fair enough. Any further questions on that page? We dealt with relocation.

Ms RATTRAY - Page 7, where it talks about -

LGH helicopter landing site associated facility will provide an upgrade to existing critical infrastructure and services.

Does that mean we are replacing the old helipad that is no longer fit for purpose? Is that another way of saying that, Andrew?

Mr GOELST - Yes, that is fair.

PUBLIC

CHAIR - The question that needs to be asked as essential as we all understand them to be was any public consultation undertaken or has there been any dissemination of information the public might have had access to in relation to these changes?

Mr GOELST - The development application through the City of Launceston is publicly advertised as of last Wednesday. There was media in February with explanation of the project and we did the helicopter flight testing.

Ms RATTRAY - I did not see any rallies or protests?

Mr GOELST - That is right. For example, it is in the report, we are impacting the childcare centre playground when a helicopter flies in for those 6 minutes that Steve talked about, the children go inside. The response from the owner and manager of that childcare centre said you are saving lives. We want this to happen.

Ms RATTRAY - Kids will love it.

Mr GOELST - That is the other thing. They say the children love it so, it is a feature of the childcare centre.

CHAIR - They will all be drawing helicopters.

Ms RATTRAY - Whenever the helicopter lands at Scottsdale we always say someone has fallen off their bike at Derby and they are checking in to Scottsdale, then they will be on their way and everyone is out looking around.

Mr GOELST - You see the long list on page 10. We have done targeted consultation and ensured immediate stakeholders have had a voice and publicly available media in February, media in May with the announcement of the development application being lodged. There has not been any adverse feedback.

CHAIR - When the old site was being used, was there much public complaint about that?

Mr CARLISLE - I would not say complaint. There was a consultation process undertaken as a result of the brief and minute going through, both with hospital and council and even Rotary. The Rotary Club provided the electric doors you go in through from the old pad. We undertook all that. There was some radio talkback shows talking about a lot of people not fully understanding helicopter operations and what the regulations need and require, but short-lived would be my answer.

CHAIR - Not lots of public complaint about noise and all this?

Mr CARLISLE - To follow on from Andrew's comments, when the aircraft was undertaking testing, we brought in the larger of the helicopters we have in Tasmania. It was well received. Most people that came out had a high level of interest of what it provides and why it was there. You jokingly talk about the childcare centre. I was on the aircraft and the pilot drew my attention to the fact that when we were coming in from the south and going out to the north, the kids were plastered on the windows. You are right. There will be a lot of drawings of helicopters.

PUBLIC

Mr GOELST - As part of the development application we did do some acoustic testing. We had an acoustic expert take measurements of noise. That has been published and made publicly available. We have endeavoured to hide nothing.

CHAIR - They do have access to that process. When is that expected to be dealt with?

Mr GOELST - Within the next two to three weeks.

CHAIR - Moving over to page 10, unless anyone has any questions on the other diagrams. Any questions on that page? You have given that list of consultations, specialist sub-consultants for acoustics, helicopter downdraft and traffic management input into the project - where are they situated? Are they from Melbourne?

Ms RATTRAY - That sounds important.

Mr GOELST - Acoustics was local to Launceston.

CHAIR - Oh, really?

Mr GOELST - Very competent, and helicopter downdrafts we brought in from Sydney because that really is specialist. Expert wind engineers linked to the University of Sydney, from memory, and the traffic engineer was Launceston-based.

Mr GRAHAM - PDA is a Tasmanian-based surveyor.

Mr GOELST - Everyone who has done all the drawings for the helideck set-out and those obstacle limitation surface techs are all Tasmanian surveyors. We have predominantly used Tasmanian consultants.

Mr GRAHAM - We use them all over Australia. They know us, we know them and they are well renowned, PDA Surveyors.

CHAIR - Are there any other questions on that page?

Members - No.

CHAIR - Approaches on page 13, you give the corridors and the height floor - the minimum height they can come in. Is there a minimum height they are allowed to approach that pad?

Mr GRAHAM - When you are landing, it will be zero.

CHAIR - No, of course, when you land, but when you get to the site?

Mr GRAHAM - No, there is a normal way a helicopter or an aircraft can fly around the countryside but in this particular stage, you are approaching and departing to land; therefore, you have to be sufficiently clear of obstacles to be safe.

CHAIR - It is as simple as that?

Mr GRAHAM - It is as simple as that but you will find they will come down by a mile or so out; they are still 500 feet up and it will be quite a high approach angle when you see them coming in. The flight path gradients I gave - the 2.58 degrees, 4.5 per cent - is what it is created for so the obstructions have to be below that. The helicopter, of course, is like a normal aeroplane - a normal aeroplane operating with full engines will just take off and the same with a helicopter so they will be a lot higher.

Ms RATTRAY - They can go straight up.

Mr GRAHAM - Of course, they can. But in this particular case, you will find the helicopter is a lot higher than the allowed gradient because the gradient is there in case the aircraft has an engine failure on take-off and cannot land again but wants to continue on. It will dip down, descend slightly but still be above that gradient - that obstacle limitation surface created so you have the flight path and the gradients all laid out. You may never use them because the helicopter has full access and can go in different directions. To answer your question, there is no low flying. Helicopter operators will always try to operate in a very neighbourly sense. They know they do not want to upset the neighbourhood by flying too low. The only reason they will be low is if they are coming in to land.

CHAIR - That is fine.

Page 15. What is plain off-form concrete?

Mr GOELST - I am not sure; I probably should have pointed that out, sorry. That is directly opposite where there is a precast panel which has a little door - an entrance - and it is plain concrete. That is where we are not building the Rolls Royce; we are building something cost-effective.

CHAIR - I was wondering what 'off-form' meant.

Mr CURRAN - When they cast the panel there is form work and basically, it is just off-form - there is no treatment to the concrete; it is as it comes out of the formwork.

CHAIR - Okay; I am with you.

Ms RATTRAY - It is very popular these days for a lot of buildings. People like the natural look.

Mr GOELST - It is almost an industrial look.

CHAIR - Page 16 - anything on electrical lighting, power

Ms RATTRAY - Is it correct that there is just one light on that tower? Or are there more lights than I can see?

Mr GRAHAM - There is an obstruction light on the top of the windsock.

Ms RATTRAY - And then two further down.

PUBLIC

Mr GRAHAM - The two further down you will probably find are - you have better eyes than I have.

Ms RATTRAY - There are two little dots either side of the pole about halfway between the top and the windsock.

Mr GRAHAM - The only requirements from a lighting compliance sense is a red obstruction light on top of the tower itself because it is the highest obstacle in the little area. Then we will also have an aerodrome beacon, which is a white, yellow and green LED beacon. We have the same on the Mersey, the same in Burnie. It's a little aerodrome beacon that the helicopter can see from about 10 miles away. So, when it's within 10 miles it will operate the specific frequency to turn the lights on, on this deck. The little beacon and the windsock light come on.

Those little lights you are talking about there, Tania, I suspect are the white lights that will illuminate the white of the windsock so you can see it. So, you will find that there are four. I see them now.

You will find that a lot of other areas have a physical cross on the windsock pole and the little spotlights of the extensions facing down, not up into the pilot's eyes, onto the sock, so wherever the sock is swinging, you can see it.

Ms RATTRAY - I notice that the existing TasNetworks power supply to the site will be maintained. There is no increased power required? No electrical work?

Mr GRAHAM - No, that has been assessed by Engineering Solutions Tasmania.

Ms RATTRAY - Well, aren't you lucky. Well done.

CHAIR - So, a backup generator?

Mr GOELST - The backup generator is there to run the fire pump for the deck-integrated firefighting system.

CHAIR - That thing would have some capacity.

Mr GOELST - Yes, it will.

CHAIR - What are we talking about there? Is that a diesel generator?

Mr GOELST - It is a diesel generator with its own fuel supply. That will run the large pump. The pressures are significant.

CHAIR - Sounds like you would need a D2 motor or something D4.

Ms RATTRAY - We only know about D10s at this end of the table.

CHAIR - Okay, any other questions on that page? Security? No, we've dealt with security.

PUBLIC

Mr GOELST - I just want to emphasise that it's the exact same security system we use throughout the hospital.

CHAIR - Page 17, we have dealt with fire sprinklers and drenchers and fire hydrants.

Ms RATTRAY - You were going to come back to us about where the waste might go.

Mr GOELST - In terms of how it is treated? Yes.

CHAIR - If you could just give us some detail on that. The point is, wherever this is built, the discharge of such material would have to happen anyway.

Mr GOELST - They are a very common practice for fuel farms and other systems around.

CHAIR - You talk about the Purceptor. It sounds like quite an interesting beast if it can separate oil and water. How does it do that?

Mr GOELST - It's just baffles.

Mr GRAHAM - Oil floats.

CHAIR - Yeah, oil floats.

Mr GRAHAM - That's interesting. On other helipads that do not have DIFFs, the capacity for this is 2400 litres, which is twice the maximum of the helicopter it uses. You don't have that 20 000-litre spray but you do have potential break of the helicopter with the fuel and potential if it was raining, for example, they're a lot smaller. But in this case, this is the correct size Purceptor.

CHAIR - So what are the chances of having contaminated water going into the stormwater system?

Mr GRAHAM - Very small.

Mr GOELST - Definitely zero to stormwater and zero to sewer, if there was a non-designed event.

CHAIR - So it goes through the blackwater system?

Mr GRAHAM - Modern helicopters these days are getting better. They're not leaking too much. There is no refuelling to be done on this helideck.

CHAIR - Backflow protection.

The domestic cold-water services on this site are classified high hazard as required of health care facilities. Reduced Pressure Zone Device (RPZD) backflow protection of the TasWater main will be located at the meter assembly.

PUBLIC

Why would there be a need for backflow protection?

Mr GOELST - That's standard. That is essentially on everything.

CHAIR - If this is just delivering straight water, why is a backflow necessary?

Mr CURRAN - We have some hand basins in the operations room and we've also got a sink in the cleaners' store as well. So, we have other traditional basins and taps that are required to comply with that system.

CHAIR - That stops grey water going back into the potable water system, is that what that's telling me?

Mr GOELST - It's extraordinarily conservative, for sure, but it is a TasWater requirement and a City of Launceston requirement. It has become standard practice. The odds of being able to get something back up the pipe, you'd have to go out of your way to do it. Theoretically, it is possible.

CHAIR - Page 18: it is interesting it is a roller door and not a folding door of some description.

Mr GOELST - A panel lift door, my apologies for that. It will be an appropriate wind-tested or wind-certified door.

CHAIR - I was going to say because there's a fair degree of wind pressure on that door.

Ms RATTRAY - I still call my panel-lift door a roller door. It's okay, Andrew.

CHAIR - It's just whether it will cave in.

Mr GOELST - It will be part of the engineering design.

CHAIR - We are on to the budget. We celebrate over budgets, don't we?

Ms RATTRAY - We do. You do, because you add them all up. I don't bother, because the Chair always adds them up to make sure they are equal.

CHAIR - You never know, I might miss some.

With respect to this page, 22.3 per cent contingency. I am asking about construction costs. You've got consultancy costs, management and statutory fees. Then you have construction costs of \$8.891 million. With the construction contingency that is 22.3 per cent. What about escalation cost? The contingency's obviously for unforeseen construction issues and asbestos or something that you come across, but is not likely.

Ms RATTRAY - Concrete cancer.

CHAIR - Yes, could be anything like that. But, escalation costs, in terms of cost of materials and the like, how much is factored in for that? We've noticed on quite a few projects

that costs have elevated significantly from when we have given the recommendation to when it has been built.

Mr GOELST - We got our first quantity surveyor's estimate at the end of February this year and they had escalation in that estimate. Because we got this quantity surveyor's estimate the day before this report was submitted to Scott, and because we intend to have construction underway on 28 August, all orders for elements placed on that day and costs fixed, the quantity surveyors advised that things have stabilised slightly. So, because it's such a very short time frame, less than a quarter of a year, he has removed escalation from his estimate.

But on projects that at this committee, far earlier in the process, generally, you would still want to leave, in this current market, escalation in there. So, at the moment, the quantity surveyor has removed escalation.

CHAIR - That's fine. Any other questions on this page?

Ms RATTRAY - Please don't be offended, I have a question around the consultancy costs. I know we have expertise here at the table, but I am starting to get a feel for the expertise that is needed when it comes to consultancy costs, management and statutory fees for this project, because they are almost \$1.8 million. Andrew, this might be a question for you, am I heading in the right direction here, again, with all respect to the people at the table?

Mr GOELST - I acknowledge the diligence of the committee to say why is that a higher percentage than other projects. The challenge is the technical complexities of this. Scott added up our sub-consultant list and we have had to engage 20 separate firms to provide what is required for the safety, fire engineering, acoustics, arborist. The other thing we have had to do is -

Ms RATTRAY - For the wind speed.

Mr GOELST - The wind engineers were not cheap, that is on *Hansard*, sorry, well, it is appropriate in this, one had to come out eventually.

Ms RATTRAY - Significant expertise is expensive, is that what you are trying to say, Andrew?

Mr GOELST - That is right. Because of the pad being shut down, we had to do it once and do it right, and so we went to the right people. I went to Tasmanian consultants for a number of these and they said too busy and also, we haven't done a helipad before. I went and got people who had done helipads before and who had capacity, because we had to hit these time lines in order to -

CHAIR - Well, it is important to get it right.

Mr GOELST - Do it once, do it right, get it operational. A lot of technical aspects to get it right. I would say a normal consultant list, maybe closer to 10 to a dozen and we have almost doubled the consultant firms we have had to engage.

CHAIR - Just because of the special nature of the -

PUBLIC

Mr GOELST - Because of the special nature and the fire engineering of this has been a significant investment to get that right.

Ms RATTRAY - We know Scott is an expert, but he is not an expert in everything, is that fair to say?

Mr CURRAN - Well, I have to coordinate these 20 people, so that is where -

CHAIR - That is where his expertise comes in.

Mr CURRAN - the expertise comes in is the 20 people that are inputting into this and to manage and coordinate them. As Andrew said, there are people we would not normally use, for example, the guys that did the survey of the steel work in the slab you saw today. Where that was all marked out, ordinarily, we would not have to do that, but because of this project, it is critical that those columns get positioned properly and get bolted through. We want to basically ensure we do not have any unforeseen things that happen to us. These are the steps you have to go through to ensure those things do not happen when the builder gets onsite.

Mr GOELST - We have had to bring forward elements that would normally be construction costs into the design phase, so when the builder is engaged, he is able to place his orders immediately. Things like shop drawings of those ground-penetrating radar would normally be part of the first couple of weeks for the builder, we have brought that to the design phase and that has increased those consultancy costs.

Ms RATTRAY - And what about the aluminium helideck itself at \$1 788 922?

Mr GOELST - The exact price for the exchange rate for Singapore dollars, at that time. The quantity surveyor working on this project was also the quantity surveyor for the Royal Hobart helideck, which is the identical company. He has been comfortable the pricing has been very fair. I have found Aluminium Offshore to be a very honourable and excellent firm.

Mr GRAHAM - May I add the two other programs where I have been involved with Aluminium Offshore, the Westmead Children's Hospital and Lismore Base Hospital in New South Wales; the price has not gone up more than 5 per cent. That is now five, six years ago, so, to me, I saw that and thought it was very good.

Ms RATTRAY - About the only thing that has not in the building industry, Steve. This is probably nit-picking, Chair, but we will have a go, and that is the fact the public works committee is not listed in your project schedule, but it was picked up by Steve earlier in the day and I would like to congratulate him on that.

Mr GOELST - I have written that in red for my report to pass through to future project managers. It will be a learning for our team; in my next team meeting, I will be passing that on, Tania.

Ms RATTRAY - You should have just given me a call, Andrew.

CHAIR - You might not want to be mentioning this in glowing turns if you do not pass it. Post-occupancy allowance; \$189 000, what are we expecting there?

PUBLIC

Mr GOELST - I did a little bit of rounding with that.

Ms RATTRAY - To make a neat \$15 million? Pretty much.

Mr GOELST - We have moved fast. What that might be, it might be a couple more lights, it might be some improved handrails. It is very difficult to predict, that percentage, that quantum, hopefully I will give all that back. The aim is that we will not spend that, but it is wise to put a level of approximately that aside. It might be more arborist works or something like that.

CHAIR - And the arts scheme.

Ms RATTRAY - Where are you going to spend \$80 000 in this show?

Mr GOELST - Scott and I are still arm-wrestling over that and working with the art scheme.

Ms RATTRAY - Do you want me to help?

CHAIR - I am sorry, this is something that gets asked quite often.

Mr GOELST - It is compulsory because that is the maximum amount it can be. I thought the level 2 corridor is perhaps a little tired, so, enlivening there. It is slightly outside of the project scope but it is something to add amenity to the hospital of something that will not be relocated, that level 2 corridor will be there.

CHAIR - It will give a bit of glee to people coming in on the helicopter about to go under the knife.

Mr GOELST - The staff morale down there in the allied health area. Scott will guide that with the public art experts.

Ms RATTRAY - I do not think you need my help.

CHAIR - ICT infrastructure, \$126 000, what are we getting for that?

Mr GOELST - Optic fibre connections, good band width that links for all the aviation safety and the like. Redundant systems as well.

CHAIR - Optic fibre rather than Wi-Fi, not an option? Safety-wise?

Mr GOELST - No. Wi-Fi is not reliable enough and we need the band width.

CHAIR - Furniture and equipment is to do with the control and operations?

Mr GOELST - The primary cost of that is the Stryker stretcher, the motorised stretcher.

Ms RATTRAY - This is your request, Randal.

PUBLIC

Mr CARLISLE - To unload the helicopter, yes, it is the preferred work health & safety standard piece of equipment.

CHAIR - Are there backups for that, if that fails?

Mr CARLISLE - A backup could be as simple as a road ambulance arriving and they take their stretcher out of the ambulance and take it up to the helideck. There are also additional spares at the airport where the fixed-wing operates from.

Ms RATTRAY - Was that the full contingent of that \$150 000 for the Stryker stretcher?

Mr CARLISLE - No, the Stryker is approximately \$35 000 to \$40 000.

Mr GOELST - I allowed \$50 000.

Ms RATTRAY - There is \$150 000 here.

Mr GOELST - Other elements of that is the fitout of the operations centre. Up until now I thought we also had to purchase a very large 90-kilogram fire extinguisher, but we have actually removed that now. That will go back into the contingency, we will reduce that down. Safety equipment for orderlies and the like, walkie-talkies, torches.

Mr GRAHAM - You should always have a spare, the road ambulance may not be available, so having a second stretcher available is it. The helicopter can also take two patients. You might have two patients arriving at the same time.

Ms RATTRAY - You might get two Strykers. I will leave that for you to negotiate, Andrew.

Mr CARLISLE - Thank you.

CHAIR - Any further questions on the project schedule budget? No. Is there anything that you would like to impart to us?

Ms RATTRAY - Anything we did not ask you think we should have? Or that you think the community should know.

Mr GRAHAM - Looking at the number of these we do across the country, the engagement has been quite good and the planned engagement is sound. There is a lot of transparency there. For a service that already exists and all we are doing is making it better and safer for everybody concerned, it is a good message to give out to the community.

CHAIR - We have covered most questions. Thank you for appearing and we need to go through five questions based on the act for these sorts of projects, the references that we look at and it is important that we do get answers to these.

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

PUBLIC

Mr GOELST - Definitely. I think that is best answered by Fiona and Randal because I am serving them.

CHAIR - And the recognised problem would be getting -

Ms LIEUTIER - Patient safety and care and immediacy of service.

CHAIR - In a timely manner.

Ms RATTRAY - A fit-for-purpose helipad.

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

Ms LIEUTIER - The only solution, that is my understanding.

CHAIR - Are the proposed works fit for purpose?

Mr GOELST - From a compliance sense, absolutely.

Mr CARLISLE - From a medical sense, a vast improvement.

CHAIR - On transferring people from the airport to the LGH as you do at the moment, obviously not in a timely manner - well, as timely as it can be.

Mr CARLISLE - Correct.

CHAIR - With this facility it will be even more timely. Is that what you are saying?

Mr CARLISLE - Definitely and it will change the way health is delivered in the north of the state. If you look at the old helipad as it was, a lot of your questions were about access and walking across. They existed on the old helipad but were unaddressed, let alone the safety issues that were attached to it. This will be a vast improvement, contemporary and accommodate well into the future.

CHAIR - And members of the public are well away from the operational site as well.

Mr CARLISLE - Correct. One of your statements today as you were walking, you saw all the cigarette butts. That says it all.

CHAIR - A lot of people use that site.

Mr CARLISLE - And as a recreational site, which is quite concerning in helicopter operations around a hospital.

CHAIR - They need to learn how to put them into a butt bin.

Mr CARLISLE - Correct.

PUBLIC

Mr GOELST - We haven't mentioned that Dr Nicholas Scott, who is a critical care clinician, has been consulted on the entire journey. He was mentioned in the consultation list on behalf of the LGH. They have been extensively consulted to make sure we can meet patient care needs.

Ms RATTRAY - He was a member of the project working group.

Mr GOELST - Yes.

CHAIR - Do the proposed works provide value for money?

Mr GOELST - Yes.

Ms LIEUTIER - Yes.

CHAIR - Are the proposed works a good use of public funds?

Ms LIEUTIER - Yes.

Mr GOELST - I agree, definitely.

Mr CARLISLE - And our quantity surveyor agrees.

Ms RATTRAY - As head of the project, do you agree, Andrew?

Mr GOELST - I agree. I have been quite passionate about maximising project budgets right across my career. I believe this is a good use of public funds for lifesaving care.

Ms LIEUTIER - Yes, and for those of us that live in the north and north-west of the state it is critical to have that access to good medical services.

Ms RATTRAY - And for those who represent the Bass Strait islands.

CHAIR - It is a factor. You do handle quite a number of cases, I presume, from the islands?

Ms LIEUTIER - Yes. I couldn't tell you off hand.

Mr CARLISLE - It is not uncommon for helicopters to go to Flinders and Cape Barren islands and the option to bring the patient directly here would be well received.

CHAIR - Thank you for that information. As I advised you at the commencement of your evidence, what you have said to us here today is protected by parliamentary privilege and 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 said to us. Do you understand that?

WITNESSES - Yes.

THE WITNESSES WITHDREW.

PUBLIC

The Committee adjourned at 3.14 p.m.