Canterbury
District Health Board
Te Poari Hauora ō Waitaha

CORPORATE OFFICE

Level 1
32 Oxford Terrace
Christchurch Central
CHRISTCHURCH 8011

Telephone: 0064 3 364 4160
Fax: 0064 3 364 4165
Ralph.lasalle@cdhb.health.nz

14 October 2020

9(2)(a) [redacted]

[redacted]

[redacted]

RE Official information request CDHB 10421

I refer to your email dated 18 September 2020 requesting the following information under the Official Information Act from Canterbury DHB. Specifically:

1. **All correspondence (including reports, letters, emails, texts) between the CDHB board chair Sir John Hansen, and the clinical leaders group, and Ministry of Health staff (including Crown Monitor Lester Levy) regarding hospital facilities from August 18 to September 18.**

Please find attached as **Appendix 1.**

2. **All correspondence between the clinical leaders group and CDHB executive leadership team staff members regarding hospital facilities from August 18 to September 18.**

Please find attached as **Appendix 2.**

Note: We have redacted information pursuant to the following sections of the Official Information Act:
9(2)(a) *i.e. "…to protect the privacy of natural persons, including those deceased".*
9(2)(h) i.e. "… to maintain legal professional privilege"
9(2)(i)(j) i.e. ….to enable the organisation holding information to carry out commercial activities or negotiations."
We have also removed pages that are double ups or out of scope.

I trust this satisfies your interest in this matter.

You may, under section 28(3) of the Official Information Act, seek a review of our decision to withhold information by the Ombudsman. Information about how to make a complaint is available at www.ombudsman.parliament.nz; or Freephone 0800 802 602.

Please note that this response, or an edited version of this response, may be published on the Canterbury DHB website after your receipt of this response.

Yours sincerely

Ralph La Salle
Acting Executive Director
Planning, Funding & Decision Support

APPENDIX 1

From:	David Meates
To:	John Hansen; Barry Bragg
Subject:	Fwd: Tower 3 / Compliance
Date:	Thursday, 20 August 2020 4:42:52 PM
Attachments:	image001.jpg ATT00001.htm image001.jpg ATT00002.htm image002.png ATT00003.htm bbc-sinstglt-tp-2018 August 2020.docx ATT00004.htm

FYI

David Meates MNZM
CEO Canterbury and West Coast DHBs

Begin forwarded message:

From: Karl Wilkinson <Karl.Wilkinson@health.govt.nz>
Date: 20 August 2020 at 4:34:14 PM NZST
To: David Meates <David.Meates@cdhb.health.nz>
Cc: John Hazeldine <john.hazeldine@health.govt.nz>, John Hansen <John.Hansen@cdhb.health.nz>
Subject: RE: Tower 3 / Compliance

Hello David,
Referring your email, please see below (in red) our responses to your queries. I hope that this helps.
If you do have any further questions or are seeking further clarity on anything here, I would be happy to discuss this directly.
Regards,
Karl

From: David Meates <David.Meates@cdhb.health.nz>
Sent: Wednesday, 19 August 2020 6:29 pm
To: Michelle Arrowsmith <Michelle.Arrowsmith@health.govt.nz>; John Hansen <John.Hansen@cdhb.health.nz>
Cc: Karl Wilkinson <Karl.Wilkinson@health.govt.nz>
Subject: RE: Tower 3 / Compliance

Kia ora Michelle

Just following up regarding the email below. It would be useful to get this clarified as soon as possible. I am conscious of the very tight timelines / timeframes that we are working to.

Nga mihi

David Meates, MNZM
Chief Executive | Canterbury District Health Board and West Coast District Health Board
T: 03 364 4110 (ext 62110) | E: david.meates@cdhb.health.nz
P O Box 1600, Christchurch 8140
www.cdhb.health.nz | www.westcoastdhb.org.nz

Values – Ā Mātou Uara

Care and respect for others - Manaaki me te whakaute i te tangata | Integrity in all we do - Hāpai i ā mātou mahi katoa i runga i te pono | Responsibility for outcomes - Te Takohanga i ngā hua

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From: David Meates
Sent: Thursday, 13 August 2020 2:34 PM
To: Michelle Arrowsmith <Michelle.Arrowsmith@health.govt.nz>; John Hansen <John.Hansen@cdhb.health.nz>
Cc: Karl Wilkinson <Karl.Wilkinson@health.govt.nz>
Subject: RE: Tower 3 / Compliance

Kia ora Michelle

Thank you for your letter.

It would be helpful to clarify a number of points so that the request that you have sent through can be expedited:

I am assuming that what you are requesting is a summary document that reflects all of the work that has been undertaken to date and previously provided? Correct – the key purpose of the request is to provide a simple, stand-alone document that accurately reflects the preferred solution, rationale, and costs in line with business case requirements. Reference can be made to previous documentation for additional detail and analysis, but the summary should be sufficient to inform a decision-maker who has not reviewed the various previous reports in extensive detail.

I am assuming that the:

- Investment objectives and case for change (Strategic Case)
- Preferred option (Economic Case)
- Financial costing and affordability (Financial Case)
- Proposed procurement and risk sharing approach (Commercial Case)
- Project management strategy (Management Case)

relate to referencing these sections that were part of the MOH / DHB Detailed Programme Business Case and First Tranche Business case? Correct

The clear direction from the MOH was that Tower 3 needed to be consistent with the approved masterplan and that the revised Tower option that was approved by the Board included 5 options and was based purely on affordability. I am therefore assuming that this is what you are seeking to have included in the summary document? Correct

Re the Campus Compliance Works project – are you requiring a separate paper? Yes, a separate paper for the Compliance Works is required.

Again the details that you have requested are contained in the previous information provided and I am assuming that this will be re-packaged in the revised document? Correct. The previous (draft) information that you shared with us substantially addressed these elements. Presentation of this information in alignment with the BC framework will help to ensure that all key elements are fully addressed, and in a consistent format that can be directly assessed alongside the Tower 3 proposal.

Regarding alternative post disaster approaches there are several points to note:

- The minimum compliance is based on Parkside Blocks C&D remaining designated as IL4. However there has never been any intent on trying to strengthen that up to 100% of IL4 rather just doing the minimum compliance including dampers (to deal with shear towers / stairs), panels and passive fire. This facility remains designated as IL 4 gived that critical functiosn such as three / four cath labs are in this facility along with 8 /9 operating theatres – Parkside operating thetreas / cath labs still remains a significant part of the total DHB operating capacity.
- The minimum compliance is based on Parkside a&B being designated as IL3 (inspite of critical IL4 infrastructure running through these facilities). Again the minimum dampers, panels and passive fire remediation.
- None of these options deals with the poor and not fit for purpose clinical space including toilets / showers which does mean that there is also very limited options for managing infectious diseases etc.
- It is important to note that both Burwood and other facilities in Canterbury and Te Nikau on the West Coast have been significantly downgraded from post disaster IL 4 capability on the basis that Christchurch Hospital was the regional and one of the key national post disaster enabled facilities. This was done to limit the total cost of unnecessary health infrastructure investment elsewhere.
- Private facilities don't play a major part of post disaster enabled facilities. They do however play an important part in the management of responses such as covid-19.

The context and analysis of the DHB's considerations and options in addressing post-disaster planning and response, with respect to the proposal to designate Parkside C&D at IL4 and A&B at IL3, must be captured in the summary paper. Specifically, this should address how facilities available to the DHB (including Hagley coming on line) have been considered in contributing to the DHB's overall Post-disaster response. Where options (such as other off-campus facilities, private) have been assessed and are considered less suitable than the proposed investment in structural works for Parkside, this should be presented in the summary paper with concise rationale.

If you have a template for a "no more than 10 page" document it would be great to get so that what we provide matches expectations. Attached is a short-form template we have previously used, which you can adopt and amend to address the outlined requirements.

I am assuming that what is required should not involve the need for external consultants to re-write and undertake an additional significant piece of work – rather what you are requesting is anchored back into the previous DBC. The documents should be sufficiently self-explanatory and should reflect the key information needed for decision-makers to assess each proposal. The analysis already undertaken and available should be sufficient for this, without involving significant additional work.

Ngā mihi

David Meates, MNZM

Chief Executive | Canterbury District Health Board and West Coast District Health Board

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From: Michelle Arrowsmith <Michelle.Arrowsmith@health.govt.nz>
Sent: Monday, 10 August 2020 12:59 PM
To: John Hansen <John.Hansen@cdhb.health.nz>
Cc: David Meates <David.Meates@cdhb.health.nz>; Karl Wilkinson <Karl.Wilkinson@health.govt.nz>
Subject: Tower 3 / Compliance

Kia ora Sir John

Please see attached letter regarding Christchurch Hospital Tower 3 and Campus Compliance Works projects.

Ngā mihi
Michelle

Michelle Arrowsmith
Deputy Director General | DHB Performance, Support and Infrastructure | Ministry of Health

E: michelle.arrowsmith@health.govt.nz | M: 9(2)(a) [redacted]

http://www.health.govt.nz

From: Karl Wilkinson
To: John Hansen
Subject: RE: Tower 3 / Compliance[EXTERNAL SENDER]
Date: Thursday, 20 August 2020 9:29:47 AM
Attachments: image002.png

Morning John,
Yes, I'll provide a response today.
Regards,
Karl

From: John Hansen <John.Hansen@cdhb.health.nz>
Sent: Wednesday, 19 August 2020 7:21 pm
To: Karl Wilkinson <Karl.Wilkinson@health.govt.nz>
Subject: Fwd: Tower 3 / Compliance

Karl I understand you are now fully responsible for this? Can you confirm and respond to David urgently.
Thanks
John Hansen

Sent from my iPhone

Begin forwarded message:

Out of Scope or Double Up

[redacted]

From: David Meates
To: John Hazeldine
Cc: John Hansen
Subject: FW: Tower 3 / Compliance
Date: Sunday, 23 August 2020 2:04:46 PM
Attachments: image002.png
bbc-sinstglt-tp-2018 August 2020.docx

John

I understand from our Chair that you are now the contact person in relation to progressing the Tower 3 / compliance issues.

Earlier this year, the Chair received a letter from the acting Chair CIC confirming receipt of the revised Board approved Tower 3 business case and that this was going to the next CIC meeting. We have received no confirmation that this occurred and that CIC in fact reviewed this case as CDHB has received no feedback.

As you will recall the MOH commissioned and the joint MOH / CDHB detailed programme business case and Detailed First Tranche Business case was approved by the CDHB Board and was submitted to the CIC in 2019. These business cases were developed as part of the agreed process and outcomes from the "Truth and Reconciliation" process that built on the MOH / DHB agreed Christchurch Hospital Campus Masterplan.

The revised Tower 3 proposal was created based on CIC not agreeing to the joint MOH / CDHB Detailed Business Case in November 2019. It was agreed with the MOH that the revised Tower 3 proposal needed to be consistent with the Masterplan and NOT compromise any further development of the campus and that this proposal would be treated as an addendum to the Detailed Business Case i.e. it did not need a further Business case to be developed as the following had already been developed:

- Investment objectives and case for change (Strategic Case)
- Preferred option (Economic Case)
- Financial costing and affordability (Financial Case)
- Proposed procurement and risk sharing approach (Commercial Case)
- Project management strategy (Management Case)

We are unclear as to what is now expected to be resubmitted in relation to Tower 3. We had been previously informed that there was no further information. What we have already provided, is in more detail that would normally be submitted to CIC for approval. Therefore being asked to provide a summary single stage business case again for Tower 3 when this has already been submitted to CIC as requested when the MOH / CDHB joint Detailed business case was rejected by CIC in November 2019 is somewhat puzzling.

RE the Compliance proposal, we had provided a very detailed outline of the minimal compliance required to meet regulatory minimum standards (as requested). This was provided to the MOH many months ago and the DHB was advised that this contained all the detail and rationale that was required. Again this was a very minimal compliance programme that explicitly does not meet or deal with any of the clinical and patient / staff safety issues that have been very clearly articulated in the MOH commissioned joint MOH / CDHB detailed programme and first tranche

business cases.

There is no further work that we can undertake to provide any more rationale or justification than has already been developed / provided from the 2012 Cabinet approved DBC, the 2016 PWC draft revised campus DBC, the MOH / DHB approved campus masterplan, the MOH commissioned joint MOH / DHB 2019 Detailed Programme and Detailed First Tranche Business Cases, the revised Board approved Tower 3 Business Case (2020) and the Board approved minimum compliance case (2020).

From what you and your team have now requested, my understanding is that we are largely representing the Board approved revised Tower 3 and the revised Board approved compliance proposals back to CIC. Can you please confirm that.

Nga mihi

David Meates, MNZM
Chief Executive | Canterbury District Health Board and West Coast District Health Board
T: 03 364 4110 (ext 62110) | E: david.meates@cdhb.health.nz
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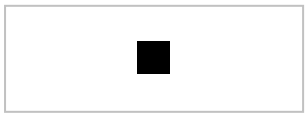

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Out of Scope or Double Up

From: Paula Steven on behalf of John Hazeldine
To: 9(2)(a) ; "david.meates@cdhb.govt.nz"; 9(2)(a) 9(2)(a)
Cc: 9(2)(a) John Hansen; 9(2)(a)
Subject: Requests for funding from Health Capital Envelope from Budget 2020 and future years
Date: Friday, 28 August 2020 9:33:46 AM
Attachments: Letter to DHBs re Prioritisation Process 270820.pdf
Prioritisation Template.xlsx

Kia ora Koutou

Please see attached letter that outlines the outcome from Budget 2020 and seeks information from you to support the prioritisation of Crown equity funding from Budget 2020 and out-years.

Please complete the attached templates and return them to the Ministry of Health (capital.assurance@health.govt.nz) by 25 September 2020.

If you have any questions about the above, please contact Jo Strachan-Hope, Manager, Investment Strategy on: jo.strachan-hope@health.govt.nz

Nga mihi
John

John Hazeldine
Acting DDG - DHB Performance, Support and Infrastructure
Ministry of Health
DDI: 9(2)(a)
http://www.health.govt.nz
mailto:john.hazeldine@health.govt.nz

133 Molesworth Street
PO Box 5013
Wellington 6140
New Zealand
T+64 4 496 2000

27 August 2020

DHB Chief Executives

Prioritisation Process - Requests for funding from Health Capital Envelope from Budget 2020 and future years

This letter outlines the outcome from Budget 2020 and seeks information from you to support the prioritisation of Crown equity funding from Budget 2020 and out-years.

Please complete the attached templates and return them to the Ministry of Health (capital.assurance@health.govt.nz) by 25 September 2020:

1. Form One: 10 year capital intentions - all DHBs to complete: this includes all projects >$5 million, including those projects intended to be DHB-funded.
2. Template One: Project detail – required for any capital investment signalled for the next three financial years (2020/21 - 2022/23) where you may request Crown equity funding.

The information provided should be based on your best estimate of need. The compiled information will be used for relative prioritisation and to develop future Budget bids.

Budget 2020 – Health Capital Envelope

Budget 2020 appropriated an additional $750 million in a multi-year appropriation (MYA) to the Health Capital Envelope (HCE). The phasing is shown in Table One.

Table One: Budget 2020 appropriation for Health Capital Envelope				
Financial year	2021/22	2022/23	2023/24	2024/25
Funding	$50 million	$150 million	$300 million	$250 million

The HCE funding from Budget 2020 follows recent capital investment of:

- $300 million for the Health Infrastructure Package (HIP), announced in 2019
- $1.7 billion from Budget 2019
- $750 million from Budget 2018.

The funding from Budget 2019 was for the financial years 2019/20 and 2020/21. This funding has been fully allocated.

Prioritisation and Indicative Prioritisation Process

Prioritisation of capital investment is necessary as the sector's need exceeds available funding.

A clear, prioritised pipeline of capital investment will provide your DHB with clarity on the relative priority and expected timing of proposed future investments. This will ensure that you can focus your resources appropriately for delivery of prioritised projects. Only prioritised or agreed business cases will be submitted to the Capital Investment Committee (CIC) for consideration.

There is significant pressure against the Budget 2020 appropriation.

We will not know whether there will be additional funding from Budget 2021 until next year. The approach to indicative prioritisation will take account of this uncertainty.

Prioritisation process

The prioritisation process is overseen by the CIC based on advice provided by the Ministry of Health and The Treasury. Final prioritisation recommendations are subject to the approval of the Ministers of Health and Finance (joint Ministers).

We expect prioritisation decisions will occur at the CIC meetings of 12 November 2020 and 8 December 2020. Final recommendations are expected to be provided to joint Ministers in early 2021.

The recent current state assessment completed as part of the National Asset Management Programme[1] identified key areas of focus for your DHB. We expect that your DHB's capital intentions will prioritise DHB funding towards these areas as appropriate and we will review the capital intentions on this basis. The Ministry will continue to work with you to support asset management activities, including through the development of asset management frameworks, tools and assessments.

Supporting the Business Case and Investment process

As you are aware, the Ministry is building capability and capacity through the Health Infrastructure Unit (HIU). The HIU will support improvements in capital planning and delivery across the sector. Our work programme includes improvements to standards and guidance across service modelling, asset management, business cases, facility design and procurement.

A key component of the HIU will be the delivery of a longer-term strategic plan for capital investment across the sector.

We will provide further information on the establishment of the HIU and expected next steps over coming months.

1. [1]*https://www.health.govt.nz/publication/national-asset-management-programme-district-health-boards-report-1-current-state-assessment*

Thank you for your continued efforts to develop and implement capital projects. We look forward to working with you more closely to support the investment process.

If you have any questions about the above, please contact Jo Strachan-Hope, Manager, Investment Strategy on: jo.strachan-hope@health.govt.nz

Ngā mihi

John Hazeldine
Acting Deputy Director-General
DHB Performance, Support and Infrastructure

cc: DHB Chair
DHB Chief Financial Officer

From: David Meates
To: John Hansen
Cc: Barry Bragg; Peter Bramley
Subject: Re: Chch Hospital Campus Masterplan - Tower 3 and Compliance Costs[EXTERNAL SENDER]
Date: Wednesday, 2 September 2020 10:44:33 AM

Yes. 9(2)(a) already engaged and will have draft Thursday pm

Sent from my iPad

On 2/09/2020, at 10:09 AM, John Hansen <John.Hansen@cdhb.health.nz> wrote:

Thanks David. I take it Chris has stressed timelines to 9(2)(a)
John

From: David Meates
Sent: Wednesday, 2 September 2020 10:05 AM
To: John Hansen <John.Hansen@cdhb.health.nz>; Barry Bragg <barry@bclimited.co.nz>
Cc: Peter Bramley <Peter.Bramley@cdhb.health.nz>
Subject: Fwd: Chch Hospital Campus Masterplan - Tower 3 and Compliance Costs[EXTERNAL SENDER]

Sent from my iPad

Begin forwarded message:

From: Chris Fry <Chris.Fry@health.govt.nz>
Date: 2 September 2020 at 9:10:00 AM NZST
To: David Meates <David.Meates@cdhb.health.nz>
Subject: RE: Chch Hospital Campus Masterplan - Tower 3 and Compliance Costs[EXTERNAL SENDER]

David,
Further to our discussion Friday afternoon, I can confirm that we on Monday commenced preparing a submission to CIC for the Tower 3 and Compliance cost proposal with the aim that they can be assessed by CIC on 15th September. As flagged, to enable us to pull together the submissions we have engaged 9(2)(a) to assist.

Once we have a draft summary of the proposals we shall share with CDHB for commentary that we have correctly captured the key points, before we submit on your behalf to CIC. The CIC papers are ordinarily sent to members 5 working days ahead of the meeting, so time remains tight.

Happy to speak further if required.

Nga mihi nui

Kind Regards

Chris Fry
Director, Health Infrastructure – Capital Investment
Chris.Fry@health.govt.nz | **M:** 9(2)(a) DHB Performance, Support & Infrastructure |
[redacted]
http://www.health.govt.nz

From: David Meates <David.Meates@cdhb.health.nz>
Sent: Thursday, 27 August 2020 5:26 pm
To: Chris Fry <Chris.Fry@health.govt.nz>
Cc: Susan Fitzmaurice <Susan.Fitzmaurice@cdhb.health.nz>
Subject: FW: Chch Hospital Campus Masterplan - Tower 3 and Compliance Costs

Hi Chris

Documents as discussed yesterday

Nga mihi

David Meates, MNZM
Chief Executive | Canterbury District Health Board and West Coast District Health Board
T: 03 364 4110 (ext 62110) | E: david.meates@cdhb.health.nz
P O Box 1600, Christchurch 8140
www.cdhb.health.nz | www.westcoastdhb.org.nz

[redacted]

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From:	Rob Ojala
To:	Peter Bramley
Cc:	John Hansen; Sue Nightingale; Mary Gordon (Executive Director of Nursing); Susan Fitzmaurice; Kay Jenkins
Subject:	Letter from CLG re Tower 3 business case - URGENT
Date:	Monday, 14 September 2020 8:39:38 AM
Attachments:	Letter to acting CE and copy to CDHB Chair CMO and EDON re MoH proposed option 1C for campus redevelopment 11 Sept 2020.pdf

Peter

Please find appended a letter from the CDHB Clinical Leaders Group, and copied others.

Regards,

Rob Ojala
Chair, CLG

Canterbury
District Health Board
Te Poari Hauora ō Waitaha

14th September 2020

Dear Peter,

As per the accepted CDHB facilities redevelopment process, CLG has reviewed the Tower 3 Business Case, DBC Addendum (MOH-T3 case) and Christchurch Campus Compliance Work Business Case.

It should be noted the review is not exhaustive given the very short time-frames.

We acknowledge the urgent need to secure the next redevelopment steps for the Christchurch Campus and associated funding for at least $154M plus $80M for compliance work [previously lodged with CIC by the Board].

The MOH-T3 Case

We are greatly concerned that the MOH-T3 Case describes a new option (1C) proposed without CDHB consultation. This option is described as CDHB 'preferred' – this is entirely inappropriate both in that the CDHB's views have not been sought, and more importantly could in no way be described as preferred by this organisation.

We note this Addendum document was developed by Destravis as agents of the Ministry of Health and as such it should not be seen as a CDHB document. The associated labelling should therefore indicate the Ministry of Health's commissioning and ownership.

The option in more detail includes

1. Full continuation of Parkside facility as the key strategy -
    a. With beds and theatres remaining completely clinically unaltered for at least 10-15 years and beds fully occupied [>300 patients]. This is completely unacceptable for the patient cohort involved.
    b. It inappropriately proposes housing 6 rather than 4 *medical* patients in ward rooms barely suitable the current surgical group– the lack of mobilisation and care space will almost certainly drive an increased length of stay (LOS).
    c. Proposes housing higher acuity patients in the newer Hagley facilities to mitigate this space issue – quite aside from the operational implausibility of this notion, it suggests the author has misunderstood both how specialty patients are managed and that the space issues are not about high acuity per se – they are about the avoidance of issues like sarcopenia ['pyjama paralysis' etc] in virtually all this medical patient group.
    d. Provides just 7% basic bathroom ensuite room capacity [ie toilet/shower] – this is completely inadequate especially with this patient group and more pertinent in the context of our current pandemic. It should be noted that MoH were deeply concerned that we reduced single rooms with ensuites in Hagley from 100% to 50%. Effectively this means that 11 patients share each shower and there are 7 patients per shared toilet in Parkside for 10-15 years [noting 4 patients per room would assist these ratios].

2. That theatre capacity constraints will be addressed by resuming outsourcing activity – a concerning strategy in the face of pressure to reduce our operational deficit. In addition, it imposes significant logistic limitations on case-mix and efficient use of staff. Outsourcing of the case-mix envisaged should be a temporary response to inadequate amenity or resource; not a strategy for a redevelopment proposal.
3. The Critical Success Factor Analysis used to justify the option – again without CDHB input – seems arbitrary and the explanatory notes suggest the tool to be poorly informed 'guesstimates' at best.

   By way of example when comparing option 1B with 1C -

   a. Weighting of Patient experience and quality of care 26% to 15% - how is this possibly justified?
   b. Population outcomes 21% to 35% - based on a capacity metric that has no clear science
   c. Compliance is adjusted to 0% - presumably this is based on the statutory work being in a separate business case. In reality there is no net change in overall CDHB capital.
   d. So, item 'c' above ultimately re-adjusts the matrix (below) to an incredible **50%** fiscal weighting
   e. Affordability, is also now heavily weighted with a five-fold increase in capital over operational weighting. In the context of deficit reduction this is a perplexing approach.

Critical Success Factors	Former Weight	New Weight	Subcategory	Former Weight	New Weight	Option 1b (scores as per DBC*)	Option 1c
CSF1: Compliance and Safety	23%	0%	Statutory Compliance	18%	0%	0	0
			Other Compliance	5%	0%	0	0
CSF 2: Patient experience and quality of care	26%	15%	Patient / Staff experience	7.5%	2.5%	2	1
			Quality of Care	7.5%	2.5%	3	2
			Minimised Disruption	10%	10%	2	2.5
CSF3: Population outcomes	21%	35%	Capacity	11%	24%	2	3
			Resilience	11%	11%	2	1.5
CSF4: Value for Money	15%	15%	Economy	5%	5%	3	2
			Effectiveness	5%	5%	3	2
			Efficiency	5%	5%	3	2
CSF5: Affordability	15%	35%	Capital	5%	25%	1	3
			OPEX	10%	10%	2	1
				Total - Unweighted		23	20
				Total - Weighted		1.93	2.36

The Christchurch Campus (statutory) Compliance Work Business case

The Compliance Work funds for this appear very tight, but noting the national capital constraints and, based on advice from experts, we believe this is a pragmatic approach to a challenging series of issues.

We note comments around degrading aspects of the Parkside facility from IL4 to IL3 – while this may have been a consideration for Building 'A' based on the original masterplan – the proposal to use Parkside *in toto* for inpatient care for a more extended period would preclude this. It should be emphasised that CDHB decisions on other facilities [such as Burwood, West Coast etc] were limited to IL3 construction based on the Main Christchurch Campus being the core IL4 post-disaster facility.

It should further be noted that this is statutory compliance work only. Any *clinical* compliance work entertained for Parkside etc would be operationally prohibitive unless staged simultaneously due to decant and disruption challenges. Given that this case contains no allocation for clinical

improvements [as per Board direction], it would appear this is another opportunity missed which cannot be pragmatically recaptured at a later date.

The Ministry, and we understand CIC, was very clear that a full DBC following the initial case was not required, but latterly indicated that more than a simple Addendum was necessary with 1-2 weeks' notice. The Ministry's attempts to commission this on behalf of the CDHB have resulted in a document that completely fails to understand the challenges of the campus, the amenity and the appropriate delivery of care.

The CDHB Board has taken the position that they needed to accept the circa $150M option to urgently secure the first part of Tower 3. There was however, no directive from the Capital Investment Committee (CIC) that this was contingent on the CDHB proposing a case that imposed further limitations on redevelopment.
We would be surprised if the Board would support such a further concession and would be grateful if you could clarify their position as a matter of urgency.

Further, we ask that CIC is made aware of the deficiencies of the MOH T3 case and that we do not support assumptions underpinning option 1C when they consider the urgent funding request for Tower 3 and compliance works. We need to ensure that this does not prejudice the CDHB's position in future requests for capital in the timely redevelopment of the masterplan

Yours sincerely,

p.p. The CDHB Clinical Leaders Group

CC: Sir John Hansen, Chair, CDHB Board

Dr Sue Nightingale, CMO, CDHB

Mary Gordon, EDON and Executive Director, CDHB Facilities

From: Kelly Ritchie on behalf of Michelle Arrowsmith
To: John Hansen
Cc: Evan.Davies@Toddproperty.co.nz
Subject: Hon Sir John Hansen[EXTERNAL SENDER]
Date: Friday, 18 September 2020 4:20:22 PM
Attachments: 18092020161422-0001.pdf

Dear John

Please find attached my letter in response.

Nga mihi
Michelle

Michelle Arrowsmith
Deputy Director General l DHB Performance, Support and Infrastructure l Ministry of Health
E: michelle.arrowsmith@health.govt.nz l M: 021 572 584 l
https://urldefense.com/v3/__http://www.health.govt.nz__;!!NUwMCyKv!PLfq92mBtfzrekxq3fUK4T09nR5j97fJdaeCDezlfVq4k_FTc5OK5toJ45tz086LOYcU$

133 Molesworth Street
PO Box 5013
Wellington 6140
New Zealand
T+64 4 496 2000

Hon Sir John Hansen
Chair
Canterbury District Health Board
john.hansen@cdhb.health.nz

Dear Sir John

Canterbury District Health Board (DHB) Hillmorton Campus Mental Health Services Programme Business Case

Thank you for submitting Canterbury DHB's Programme Business Case regarding Mental Health Services at Hillmorton for the Capital Investment Committee (CIC), provided to Evan Davies on 7 September 2020.

The phasing and prioritisation of this proposed long-term programme will need to be assessed against other capital demands.

The prioritisation against Budget 2020 and future funding is about to commence. On 31 August 2020, your DHB received a request for further information on capital intentions, including those expected to be funded over the next three financial years. Responses are due to the Ministry of Health by 25 September 2020.

The prioritisation process is administered by the CIC. Final decisions on prioritisation are made by the Ministers of Finance and Health. No commitment about potential future Crown funding can be made until the prioritisation process is complete. This is expected to occur in late 2020 or early 2021.

The Ministry of Health will provide advice to you regarding the expected timing for submission of this business case to the CIC following the prioritisation decisions by joint Ministers. The information you have provided will be used during the assessment as part of the prioritisation process.

Please don't hesitate to contact me if you have any queries regarding the prioritisation process.

Yours sincerely

Michelle Arrowsmith
Deputy Director-General
DHB Performance Support and Infrastructure
Ministry of Health

cc: Evan Davies, Capital Investment Committee Chair, evan.davies@toddproperty.co.nz

APPENDIX 2

Kathleen Smitheram

From: Rob Ojala
Sent: Friday, 21 August 2020 4:27 PM
To: David Meates
Subject: Fwd: Letter from the Prime Minister, Jacinda Ardern[EXTERNAL SENDER]
Attachments: 21082020162007-0001.pdf

[redacted]

From: Rt. Hon Jacinda Ardern <jacinda.ardern@parliament.govt.nz>
Sent: Friday, 21 August 2020, 16:22
To: rob.ojala@cdhb.health.nz
Subject: Letter from the Prime Minister, Jacinda Ardern[EXTERNAL SENDER]

Dear Rob Ojala The Prime Minister, Jacinda Ardern, has asked me to send you the attached reply to your letter. Best wishes 9(2)(a) [redacted] Office of the Prime Minister Authorised by Rt Hon Jacinda Ardern MP, Parliament Buildings Wellington 6012 _____

Prime Minister

MP for Mt Albert
Minister for Arts, Culture & Heritage
Minister for National Security & Intelligence
Minister for Child Poverty Reduction

20 August 2020

Rob Ojala
Chair
Clinical Leaders Group
Canterbury District Health Board
Rob.Ojala@cdhb.health.nz

Dear Rob Ojala and members of the Clinical Leaders' Group,

Thank you for your letter of 5 August 2020 about the Canterbury District Health Board and concerns you have about the future of health care in Canterbury.

I have spoken directly to the Minister of Health, Hon Chris Hipkins, about the issues you have raised, and will ask him for regular updates. The Minister will be responding to your letter in more detail, as he is the most appropriate person to reply to these matters.

In the meantime I understand that the Chair of the Board, Sir John Hansen, and the Director General of Health, Dr Ashley Bloomfield, will be meeting with your group as soon as it can be arranged, and I hope this will be productive for your group.

Thank you for writing

Kind regards

Jacinda Ardern
Prime Minister

Authorised by the Rt Hon Jacinda Ardern, Parliament Buildings, Wellington 6160

Kathleen Smitheram

From: Susan Fitzmaurice
Sent: Monday, 7 September 2020 4:41 PM
To: Mary Gordon (Executive Director of Nursing); Rob Ojala; Peter Bramley
Subject: FW: CDHB Business Cases - Tower 3 and Compliance Works[EXTERNAL SENDER]
Attachments: CDHB Compliance Works Business Case.docx

From: 9(2)(a) @health.govt.nz]
Sent: Monday, 7 September 2020 4:40 p.m.
To: Susan Fitzmaurice <Susan.Fitzmaurice@cdhb.health.nz>
Subject: FW: CDHB Business Cases - Tower 3 and Compliance Works[EXTERNAL SENDER]

1 of 4

Ngā mihi
9(2)(a)

9(2)(a)
Michelle Arrowsmith
Deputy Director-General | DHB Performance Support & Infrastructure
Ministry of Health | Email: 9(2)(a)
http://www.health.govt.nz

From 9(2)(a)
Sent: Monday, 7 September 2020 4:35 pm
To: Susan Fitzmaurice <Susan.Fitzmaurice@cdhb.health.nz>
Subject: FW: CDHB Business Cases - Tower 3 and Compliance Works

Ngā mihi
9(2)(a)

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Michelle Arrowsmith
Deputy Director-General | DHB Performance Support & Infrastructure
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From: Michelle Arrowsmith
Sent: Monday, 7 September 2020 4:31 pm
To: peter.bramley@cdhb.health.nz
Subject: FW: CDHB Business Cases - Tower 3 and Compliance Works

Ngā mihi
Michelle

Michelle Arrowsmith
Deputy Director General | DHB Performance, Support and Infrastructure | Ministry of Health
E: michelle.arrowsmith@health.govt.nz | 9(2)(a)
http://www.health.govt.nz

From: Michelle Arrowsmith
Sent: Monday, 7 September 2020 4:21 pm
To: john.hansen@cdhb.health.nz; 'John Hansen' 9(2)(a) peter.bramley@cdhb.health.nz; Andrew Brant (WDHB) <Andrew.Brant@waitematadhb.govt.nz>; Lester Levy 9(2)(a) Barry Bragg 9(2)(a)
Cc: Karl Wilkinson <Karl.Wilkinson@health.govt.nz>; John Hazeldine <john.hazeldine@health.govt.nz>
Subject: FW: CDHB Business Cases - Tower 3 and Compliance Works

Dear Sir John et al

Please find attached the CDHB papers for CIC on Tower 3 and compliance provided on behalf of the DHB by HIU.

I would appreciate a read through and approval by you all that these papers represent the DHBs view before we send them to CIC.

It would be helpful if we could gain your feedback, comments and approval by return tomorrow COB so that we can send on to CIC ahead of the meeting next week. If you require any longer to review could you let me know so I can manage with CIC.

As always happy to discuss or Karl will also be able to assist in this regard.

Look forward to hearing back from you.

Ngā mihi
Michelle

Michelle Arrowsmith
Deputy Director General | DHB Performance, Support and Infrastructure | Ministry of Health
E: michelle.arrowsmith@health.govt.nz | 9(2)(a)
http://www.health.govt.nz

From: 9(2)(a) @health.govt.nz>
Sent: Monday, 7 September 2020 3:51 pm
To: Michelle Arrowsmith <Michelle.Arrowsmith@health.govt.nz>; John Hazeldine <john.hazeldine@health.govt.nz>
Cc: Karl Wilkinson <Karl.Wilkinson@health.govt.nz>
Subject: CDHB Business Cases - Tower 3 and Compliance Works

Hi John and Michelle,

Please find attached the two word documents of the CDHB Business Cases. John, as requested I have moved the 'Recommendation' to before 'Next Steps' in the Tower 3 document.

I've also attached the Appendices and the Campus Master Plan documents in case you need these as well.

Thanks,
9(2)(a)

Kind regards,
9(2)(a)

Executive Assistant to Karl Wilkinson - Director Health Infrastructure
DHB Performance, Support & Infrastructure
9(2)(a)

MINISTRY OF HEALTH
MANATŪ HAUORA

http://www.health.govt.nz

Canterbury
District Health Board
Te Poari Hauora ō Waitaha

Canterbury District Health Board

Christchurch Hospital Compliance Works Business Case

Prepared by:	9(2)(a) [redacted]
Prepared for:	Canterbury District Health Board
Date:	06 September 2020
Version:	0.1
Status:	Draft

Document Control

Document Information

	Position
Document ID	
Document owner	Canterbury District Health Board
Issue date	06 September 2020
Filename	*CDHB Compliance Works Business Case*

Document History

Version	Issue Date	Changes
0.1	06/09/2020	Draft

Document Review

Role	Name	Review Status
Project Manager		

Document Sign-off

Role	Name	Sign-off Date
Project Manager		
Senior Responsible Owner/ Project Executive		

Purpose

Describe the investment proposal at the beginning in two or three sentences. State what decision-makers are being asked to consider or decide.

Christchurch Hospital Main Campus is made up of a series of buildings developed over the last 60 years. During that time, seismic and passive fire requirements for hospital facilities under the New Zealand Building Code have become more stringent and ongoing refurbishments plus wear and tear to the buildings over time has seen a growing gap between new build requirements and those achieved by the current facilities.

This paper considers the necessary passive fire and seismic compliance works that are required to be undertaken in the existing buildings on the Campus to allow ongoing legal occupation.

This business justification case seeks formal approval to invest up to $80million in the years 2020 to 2025.

This business case follows the Treasury Better Business Cases guidance and is organised around the five case model.

Strategic Case

Describe and explain the problem

CDHB as a building owner, is required to obtain a yearly Building Warrant of Fitness (BWOF) for its facilities in order to continue to operate on the site. Christchurch Hospital Main Campus contains multiple buildings constructed at different times, under different iterations of the NZ Building Code (NZBC).

The NZBC has evolved over time; in particular there have been significant changes to the structural standards following the 2010/2011 earthquakes; and events such as the Grenfell Towers fire has also focussed a spotlight on passive fire compliance.

The buildings that will that will be covered by this passive fire and seismic rectification work include:

- Parkside Building Blocks A, B, C & D
- Clinical Services Building
- Riverside
- Food services Building
- Oncology Building
- Women's Hospital Building

Works on the St Asaph Street site are not included (including Labs)

Passive Fire Overview

As part of the detailed engineering analyses undertaken by structural engineers post the Canterbury earthquakes, to ascertain levels of damage to the facilities and their safety status for continued occupation, it was noted that there were many deficiencies associated with the passive fire systems within the buildings. These deficiencies ranged from damage caused by the earthquakes to incomplete works associated with the facilities' original construction and alterations / additions undertaken to the facilities, where specific passive fire requirements have not been implemented.

Passive fire compliance has been highlighted as an ongoing concern by the Christchurch City Council (CCC) and Fire Emergency NZ (FENZ); and obtaining BWOFs in June 2019 for a number of buildings on site required additional operational responses to satisfy the Council (and FENZ) that the buildings will achieve the minimum allowable threshold for a caveated BWOF compliance, as well as relying on commitments that once the Hagley facility opens, it is the DHB's intention to start addressing the numerous areas of non-compliance.

The process of establishing the true extent of passive fire non-compliances within buildings such as these is complex; requiring negotiation between CDHB, CCC and FENZ based on a method of benchmarking all parties agree to and a remedial action plan that allows the building to at least exceed its benchmark score as compared to code requirements at the time it was constructed.

Seismic Overview

Following the 2010/11 earthquakes; there was significant widespread damage to CDHB facilities across the region. The DHB has been following an earthquake programme of works for a number of years across the region and this process describes Christchurch Hospital Main Campus remaining work required for the continued legal occupation of those facilities.

Attached in Appendix 1 is a more detailed breakdown of the various buildings and individual packages of work associated with each, in order to exceed the 34% of equivalent New Building Standard (NBS); the threshold required for a building to not be classed as earthquake prone (EPB).

In addition to the legal requirement to repair buildings to above 34% of NBS for their main structure, there is also the need undertake repairs to some of the buildings' cladding systems that pose a potential failure risk in an event 9(2)(h) [redacted] 9(2)(h) [redacted]

The third consideration associated with seismic repair relates to insurance. Where the detailed seismic engineering evaluations have identified earthquake damage and CDHB has been paid by the insurer to repair, there is an expectation from parties providing ongoing insurance cover that that repair work has been completed. 9(2)(h) [redacted] 9(2)(h) [redacted]

The opening of the new Hagley Importance Level 4 (IL4) facility opens up the potential from a disaster planning perspective to consider downgrading Parkside blocks A and B from IL4 to IL3 as they would contain essentially ward / ambulatory care functions. This possible reduction

in importance level would reduce the scope of seismic work required under the NZ Building Code, however Council have recently indicated that this partial building Importance Level reduction would contradict current fire egress standards and if CDHB wanted to pursue this issue, they would have to request a determination from MBIE.

The additional factor across both passive fire and seismic compliance works is that there are significant areas of the buildings that have not been assessed in detail; some because of access issues and others just due to scale. Scoping these types of remedial works within existing facilities is notoriously difficult due to the unknowns and careful consideration needs to be applied when assessing contingencies at this stage of the process.

What benefits will be achieved from the investment i.e. investment objectives and case for change.

The benefit from the proposed investment would be to allow CDHB to legally occupy the facilities for the foreseeable future in order to continue to provide a variety of critical healthcare services.

Without this investment the DHB would require markedly more significant investment into new replacement facilities across the site to meet service demand.

Economic Case

Identify options that were considered and assessment criteria used.

Due to the legal compliance nature of the proposed works package, it leaves a very limited number of options for consideration and assessment was based on ongoing ability to provide services to the community.

Do nothing: this option would leave the CDHB as the facility operator in breach of earthquake prone building legislation and would be served notice under the Act by early 2025; Council can follow Dangerous and Insanitary Buildings Policy 2018 and invoke sections of the Building Act to stop the use of the facility.

Following a number of discussions with FENZ and CCC around passive fire requirements and the annual BWOF certificate, it is clear that without commitment to an ongoing passive fire programme of works, it is unlikely future certificates would be issued by Council and the buildings would then have their legal right for public occupation removed.

New build: this option looked at replacing the buildings that contain ongoing compliance issues with new facilities. This option very clearly becomes untenable due to cost and logistics of how to roll out such a significant package of work in the timeframes available on a constrained site; the overarching Campus Programme Masterplan has a very specific sequence of decant/ demolish/build activities allowing physical space to develop new buildings over an extended duration and trying to replace non-compliant facilities all at once does not fit this logic.

Consultant recommended level of work: this option looked at the various consultant reports obtained over the last few years looking to rectify non-compliances; this work added up to $134m. These individual packages have been reviewed, re-scoped, rationalised to provide in part the basis for the preferred $80m solution presented here.

Preferred option: this option evolved from a critical review by the CDHB's Client Advisors of the consultant recommended option. This reduced cost option focused on the minimum legal level of remediation for seismic and a carefully managed scope for the passive fire works as well as the synergies of undertaking these works concurrently and in unoccupied areas where possible.

Identify a preferred option which represents the best value for money.

Preferred option: from the perspective of passive fire and seismic compliance, the preferred option is to systematically repair defects to bring the facilities in line with minimum legislative requirements.

The nature of the proposed scope is in some areas very disruptive to the ongoing operational requirements of the CDHB; the proposal therefore looks to programme works as far as possible to be undertaken in areas of the hospital that have been temporarily vacated as part of the move to the Hagley building and to undertake both tranches of work (passive fire and seismic repairs) concurrently.

In order to deliver best value for money, from the seismic perspective it is proposed to continue detailed engineering reviews of non-compliances; identifying construction solutions that are safe to undertake, economic and can be tailored to individual situations.

For the passive fire, the process of engagement with council and FENZ is well underway; there is general agreement on the measurement tool to be used around benchmarking and scoring the individual buildings in terms of their levels of non-compliance. This process involves not only the physical state of the building's passive fire elements but also evacuation procedures, staffing rates and patient status. Fire engineers then develop options to improve the building's non-compliance scores; these options are then debated with CCC and FENZ until remedial actions are agreed and individual fire zone scopes of work are documented for pricing / construction.

Financial Case

How much will this cost? Is the DHB contributing to the project cost (and if so, please specify)?

The CDHB are requesting $79.972m to complete the works; $21m of which would come from the remaining earthquake insurance fund – leaving **$58.972m** of funding required from the Crown.

Assess the whole of life costs. Be clear on assumptions.

Whole of life costings are not applicable in this situation as once the work is completed the buildings will be at an acceptable level to legally occupy. Alternatively if the works are not completed the CDHB may face fines and ultimately not be able to occupy the facilities; the costs associated with this have not been calculated to date as they are avoidable with this proposed investment.

What allowance has been made for contingency?

Contingency allowance is variable over the different packages of work.

Items encompassing seismic repair of columns, shear towers and the like are based on quantity surveyors estimates and contain a contingency of 10% or 15% depending on the nature of the work

As the scope of the passive fire work is under development the plan is to cost plan the work installed to the budget allowed.

Precast panel repair work is currently being tendered as a package by the CDHB and the 9(2)(a) 10% contingency allowed is currently deemed sufficient. The CDHB has advanced the panel work due to Health and Safety risks associated with it and it is being costed to the $21m remaining earthquake proceeds.

What types of cost are involved, and over what period? Over how long?

The CDHB are requesting $79.972m to complete the works; $21m of which would come from the remaining earthquake insurance fund – leaving **$58.972m** of funding required from the Crown.

The costs are made up of investigations, modelling, benchmarking, design, consent, management and contractors.

The detailed delivery programme is still under development and is contingent upon funding approvals and the occupation of the Hagley building. It is anticipated that the overall duration will be in the order of five years and we expect the majority of the work to be completed in the first three years.

Operational costs have not been included as they are near impossible to quantify however there will no doubt be some costs incurred when physical works are being undertaken in occupied areas. These cost would be very difficult to identify and need to be absorbed by the CDHB.

It is noted that decanting costs are included within the allowed estimates.

If it's multiple year and multiple revenue stream, fill in the table below. Be clear on any capital requirement from the Crown.

	2020/21	2021/22	2022/23	2023/24	2023/24	Total
Capital expenditure	$20m	$20m	$20m	$10m	$10m	$80m
Operating expenditure	Excl	Excl	Excl	Excl	Excl	Excl
Total expenditure	$20m	$20m	$20m	$10m	$10m	$80m
Revenue	Nil	Nil	Nil	Nil	Nil	
Crown Capital required	**$15m**	**$15m**	**$15m**	**$7m**	**$7m**	**$59m**
CDHB Earthquake funds	**$5m**	**$5m**	**$5m**	**$3m**	**$3m**	**$21m**
Total Funds		$20m	$20m	$10m	$10m	$80m

Commercial Case

What things are needed to be purchased/procured?

As noted previously the compliance works are made up primarily of passive fire remediation, seismic repair works and building demolition. To enable the works to proceed design and project management consultants would need to be procured initially. Once the investigation, assessment, benchmarking and design phases are completed; contractors would need to be sought to undertake the works.

How will this be purchased/procured?

The CDHB has progressed the precast panel repair programme as part of the seismic repair works as there are ongoing Health & Safety issues and statutory timeframes that must be complied with. This portion of the works has a budget of 9(2)(i)(j) and the first tranche of which, in relation to Parkside Blocks A & B, has been designed, tendered and is ready to award to a contractor once funding is secured. It is proposed that the balance of the panel repair works would also follow this procurement methodology.

The Passive Fire remediation works has an estimated budget of 9(2)(i)(j) and the design work has started at a high level with negotiations between the CDHB, Consultant fire engineers, CCC, FENZ and Consultant peer reviewers already well underway. This will be followed by detailed design by fire engineers, architects and service engineers all led by project managers. Following agreement on scope with the CCC, the works will be tendered with the CDHB's pre-approved passive fire installers noting that the CDHB will procure all passive fire materials

under their existing supply agreement. Building contractors will be tendered from the CDHB's existing panel of contractors.

The demolition works will be scoped out by project managers and design consultants and then put out to the market for demolition contractors to competitively price.

The balance of the works is primarily seismic repairs and rectification and these will be designed, managed and tendered in the usual manner.

What commercial (not project) risks are there? How will those risks be dealt with?

Most of the items noted bellow are linked to the physical works as they have potential to impact upon scope and timing:

Programme – the ability to time specific elements of work to suit vacant spaces that are available once the Hagley building move is completed. Equally there will be a sequence of rolling seismic and passive fire works that must be completed before the CDHB bed growth takes up currently vacant wards. This will be mitigated by close control of the programme by the project managers. It is assumed that the $154m will be proceeding in parallel with the compliance works and if this occurs the enabling portions of the $154m package will need to be interwoven with the compliance activities to minimise disruption and cost.

CCC/FENZ interpretation of scope for Passive Fire – the scope of works required will be based on a risk framework that is being agreed between the CCC/FENZ & CDHB. As the first pilot project has not passed design and negotiation with respect to scope, this will remain a risk. CDHB have a Passive Fire Steering Group and they are responsible for managing this interface with CCC/FENZ; they will be monitoring this aspect and advising if requested scope is exceeding budget expectations. Further there is a commercial risk associated with 'evolving' scope of works. As areas are opened up, scope of works will be further quantified with associated cost and time. Proposed Commercial / contractual model and mechanisms to manage this is that contractors involved will have a pre-agreed schedule of rates that can be applied to any new activities.

Reinstatement of buildings to pre-earthquake levels to satisfy insurers – as the CDHB has received a global earthquake settlement that was less than the agreed value to rectify all incurred damage, the scope of seismic repair needs to be carefully identified. The proposed programme targets will be to repair any structural damage that has potential to impact upon any future event claims in preference to cosmetic damage.

Operational hospital environment – all of this work will be taking place in or adjacent to a fully operational tertiary hospital. This aspect would require lessons learnt from numerous post-earthquake repairs and projects carried out on the CDHB campus to be implemented. Also this risk will be mitigated, where possible, through staging / decanting to align with migration to Hagley and projected future demand

COVID lockdown – obviously any increase in Levels above the current Level 2 would impact upon project progress. Should a Level increase happen it is suggested that these works be catagorised as a priority project to minimise delay.

Perception – as recorded in the MOH National Asset Management Plan the Parkside building has the lowest scoring operating theatres nationally and the wards rate amongst the lowest scoring as well. The commissioning of the new Hagley building provides additional Operating Theatres and Wards of a clinical best-practice standard, nevertheless projected demand

growth over coming years means that the existing Parkside facilities are required to support clinical services on the Christchurch Hospital campus. This work will not deliver any improvements to these facilities from a clinical non-compliance or inconsistencies with current clinical best-practice.

Management Case

How complex will the delivery be?

The delivery will be quite complex in that works must be undertaken in an operational hospital environment with a tight programme necessitated by short term availability of bed and operating theatre capacity.

The initial stages of the passive fire and panel repair will be the most challenging as methodologies and implementation strategies are developed. The mitigation strategy is that the first tranche of work will be carried out in a mostly vacated Parkside Building blocks A and B. After this the balance of the works would largely be undertaken in an operational setting. It should be noted that while Parkside blocks A & B will be mostly empty for the duration of the proposed works, they are still attached to the existing occupied buildings.

It is assumed that the $154m will be proceeding in parallel with the compliance works and if this occurs the enabling portions of the $154m package will need to be interwoven with the compliance activities to minimise disruption and cost.

Who is ultimately responsible for this project? What mechanisms are there to keep them and stakeholders appraised of problems?

The CDHB should be responsible for this project because of the complex delivery process noted above. This places them in the best position to manage the day to day risks and operational impacts that inevitably and historically occur on these types of projects.

It would present a major risk if the MOH were to undertake delivery and accept this operational responsibility.

The CDHB has policies and procedures for projects of this type that will see a typical reporting structure put in place incorporating reporting lines for risk management and the like. The SRO is proposed to be the CDHB's Executive Director of Facilities and will be a member of the Executive Leadership Team.

How will this project achieve the benefits, and how will benefits be managed and evaluated?

The main benefits to completing this project are the retention of the legal right for the CDHB to occupy the buildings involved and also the reinstated insurance value of currently at risk buildings.

The benefits will be progressively achieved as the various tranches of the projects are completed and signed-off from a compliance perspective.

What risks are there? What's the mechanism for monitoring and seeking resolution?

In addition to the risks noted in the Commercial case section above the standard budget, time and quality aspects will need to be managed by the project teams.

Given that the passive fire scope is relatively untested at this time with the consenting authority, the overall quantum of work is unconfirmed although the budget allocations are restrained but pragmatic.

From a seismic perspective it should be noted that on previous projects of this nature on the campus there has typically been additional items of work discovered when linings are stripped back. The budget allowances include for some of this 'discovery' but if an unexpected major item is exposed, this will be a risk to the budget.

Summarise the project management, benefits and risk management and post project evaluation arrangements.

As noted previously, given the complex nature of the proposed scope and the fact that most work will be undertaken in an operational environment, the work is best delivered by the CDHB. The Site Redevelopment department is experienced in delivering post-earthquake repairs within operational areas of the hospital and limited passive fire remediation projects. This scope, whilst larger than work undertaken to date, is within their capability. External project managers and design teams would be engaged in the usual manner.

The CDHB has policies and procedures for projects of this type that will see a typical reporting structure put in place that will have reporting lines for risk management and the like.

Benefits realisation is simply the implementation of the designed scopes. There will be a need for staged post occupancy evaluations as this will be a rolling programme of work and lessons from the early stages must be implemented in the following tranches.

Next Steps

Please provide an update of procurement / construction timelines and other key milestones.

The CDHB is progressing passive fire strategy and design with the CCC and FENZ currently and this work is being costed to the [redacted] CDHB earthquake funds. It was vital that this work progress otherwise Parkside Blocks A & B could be vacant following the Hagley go-live without an agreed scope of work for the passive fire remediation.

Façade panel replacement and seismic repair for Parkside Blocks A & B is also being progressed by the CDHB. Tenders have been received for the north/east corner and are ready to be awarded upon funding approval while tenders are currently being obtained for the south/east corner.

A detailed programme is currently being prepared and this will be available in the near future. It is assumed that all passive fire and seismic repairs along with any approved enabling works to Parkside Blocks A & B will be implemented next year.

Kathleen Smitheram

From: Susan Fitzmaurice
Sent: Monday, 7 September 2020 4:41 PM
To: Mary Gordon (Executive Director of Nursing); Peter Bramley; Rob Ojala
Subject: FW: CDHB Business Cases - Tower 3 and Compliance Works[EXTERNAL SENDER]
Attachments: Canterbury DHB Campus Master Plan Compliance Works June 2020.pptx

From: 9(2)(a) @health.govt.nz]
Sent: Monday, 7 September 2020 4:40 p.m.
To: Susan Fitzmaurice <Susan.Fitzmaurice@cdhb.health.nz>
Subject: FW: CDHB Business Cases - Tower 3 and Compliance Works[EXTERNAL SENDER]

2 of 4

Ngā mihi
9(2)(a)

9(2)(a) **Michelle Arrowsmith**
Deputy Director-General | DHB Performance Support & Infrastructure
Ministry of Health | Email: 9(2)(a)
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To: john.hansen@cdhb.health.nz; 'John Hansen' 9(2)(a) peter.bramley@cdhb.health.nz; Andrew Brant (WDHB) <Andrew.Brant@waitematadhb.govt.nz>; Lester Levy 9(2)(a) Barry Bragg 9(2)(a)
Cc: Karl Wilkinson <Karl.Wilkinson@health.govt.nz>; John Hazeldine <john.hazeldine@health.govt.nz>
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I would appreciate a read through and approval by you all that these papers represent the DHBs view before we send them to CIC.

It would be helpful if we could gain your feedback, comments and approval by return tomorrow COB so that we can send on to CIC ahead of the meeting next week. If you require any longer to review could you let me know so I can manage with CIC.

As always happy to discuss or Karl will also be able to assist in this regard.

Look forward to hearing back from you.

Ngā mihi
Michelle

Michelle Arrowsmith
Deputy Director General | DHB Performance, Support and Infrastructure | Ministry of Health
E: michelle.arrowsmith@health.govt.nz | 9(2)(a)
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From: 9(2)(a) @health.govt.nz>
Sent: Monday, 7 September 2020 3:51 pm
To: Michelle Arrowsmith <Michelle.Arrowsmith@health.govt.nz>; John Hazeldine <john.hazeldine@health.govt.nz>
Cc: Karl Wilkinson <Karl.Wilkinson@health.govt.nz>
Subject: CDHB Business Cases - Tower 3 and Compliance Works

Hi John and Michelle,

Please find attached the two word documents of the CDHB Business Cases. John, as requested I have moved the 'Recommendation' to before 'Next Steps' in the Tower 3 document.

I've also attached the Appendices and the Campus Master Plan documents in case you need these as well.

Thanks,
9(2)(a)

Kind regards,
9(2)(a)

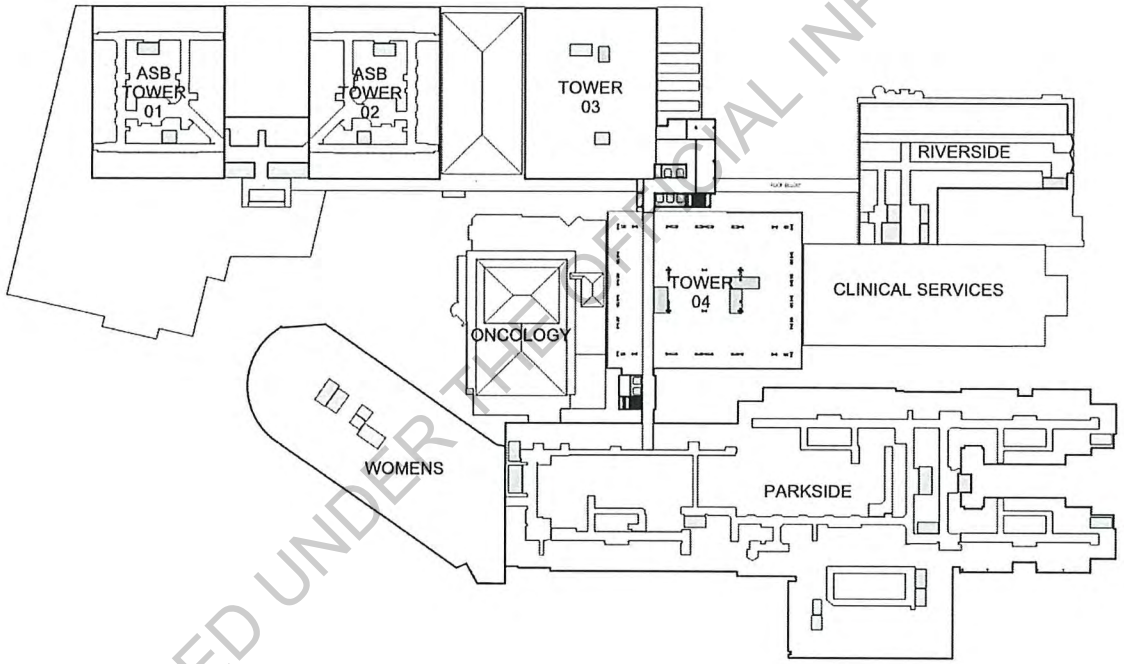
9(2)(a) Karl Wilkinson - Director Health Infrastructure
DHB Performance, Support & Infrastructure
9(2)(a)

MINISTRY OF HEALTH
MANATŪ HAUORA

http://www.health.govt.nz

Canterbury DHB Campus Master Plan Compliance Works

June 2020



Canterbury
District Health Board
Te Poari Hauora ō Waitaha

Christchurch Hospital Main Campus Passive Fire / Seismic Compliance

Overview

Participants at the recent Reset & Refresh workshop held in Christchurch on the 17th June, which included representation from MOH, CDHB Board and Senior Management, requested a paper be prepared that clearly outlines the suite of issues surrounding Christchurch Hospital's ongoing passive fire and seismic compliance and provides potential solutions, programme and costs associated with rectification.

Following the Canterbury earthquakes there has been ongoing review and in some areas upgrading of seismic and passive fire systems at the main Christchurch Hospital Campus. It has been challenging to schedule these works while the Campus Master Planning and associated business cases have been underway but now that there is greater clarity around that process; this allows the compliance programme of works scope to be finalised.

Issues around compliance are complex and in many ways open to interpretation. This paper is a high level document that highlights compliance issues along with associated challenges, consequences and risks; estimates costs associated to remedy and ranks them as the writers see the order of importance.

The costings noted within this document are the result of an earlier process of scrutinising and challenging previous budgets associated with these works; it now represents the lowest possible cost solutions to achieve compliance. As part of that process, a number of initiatives haven't been fully tested and by virtue of that, they contain additional levels of risk. Those initiatives also look at the way in which services are procured and again these alternative procurements bring with them different risk profiles.

The scope and budgets in this document capture capital costs associated with complaint occupation of the main campus buildings and do NOT include compliance with Health Facility Guidelines, MOH accreditation requirements or the like. Further there are no improvements to facilities from an operational point of view e.g. no additional toilet or isolation facilities etc. are included.

Structure and Inputs

The CDHB has engaged project managers previously involved in the Campus Master Planning process, and who also provided advice to CDHB on the Ministry's DBC / PBC to prepare this document.

In addition, this paper has required input from quantity surveyors, programmer, fire and structural engineers, as well as CDHB's Senior Management, clinical / operational staff, Site Redevelopment Management and Maintenance & Engineering Department - all of whom have had experience in the ongoing operation of the campus and aware of previous decisions and details around compliance issues. Additional information has been sourced from many related consultant reports from the last few years.

Overview of Existing Campus Compliance Issues and Options

CDHB as a building owner, is required to obtain yearly Building Warrant of Fitness (BWOF) for its facilities in order to continue to operate on the site. Christchurch Hospital main Campus contains multiple buildings constructed at different times, under different iterations of the NZ Building Code (NZBC).

The NZBC has evolved over time; in particular there have been significant structural changes to the code following the 2010/2011 earthquakes and events such as the Grenfell Towers fire has also focussed a spotlight on passive fire compliance.

Passive fire compliance has been highlighted as an ongoing concern by the Christchurch City Council and Fire Emergency NZ. Obtaining BWOFs in June 2019 for a number of buildings on site required additional operational responses to satisfy the Council (and FENZ) that the buildings will achieve the minimum allowable threshold for a caveated BWOF compliance as well as relying on commitments that once the Hagley facility opens, it is the DHB's intention to start addressing these areas of limited compliance.

The main Campus has ongoing 'business as usual' (BAU) upgrades to facilities and equipment, some of which have links to building compliance; for example the recent Riverside lift update, where lifts are a noted item in the BWOF compliance schedule, this paper does not cover BAU items such as this.

This paper is exclusively concentrating on the two key compliance risks (seismic and passive fire) and assuming BAU items will continue as normal under the DHBs capital round process.

Passive Fire Overview

Over recent years CDHB has undertaken a number of inspections of fire cell separations (walls and floors) across various buildings on the campus.

This process of assessing remedial scope and costs is complex – individual buildings built under different code requirements with differing levels of compliance when handed over; then occupied / adjusted / refurbished over the years creating in many cases more non-compliances. Inspections undertaken to date are only ever partial because there are many areas of the hospital where detailed inspections (and potentially future repairs) are not possible due to limited access.

The campus wide passive fire benchmarking, remedial design and Council / FENZ engagement process is still in its relatively early stages.

Due to capital constraint; the strategy for the CDHB team is to follow the agreed passive fire scoring model across all of the buildings on the main campus to establish a benchmark then review a series of options for improving the passive fire scores of each building with appropriate cognisance of patient mix, staffing, age / likely future life of the building; the aim being to reach agreement with the Council and FENZ to deliver improvements within the reduced budget. Agreed solutions may not include repairing walls / floors that are non-compliant because to do so would require a level of invasive work resulting in spiralling costs and operational impacts. Instead the group adopts an ANARP approach (as near as is reasonably practicable) and will consider a variety of solutions; this process is in part subjective and can be influenced by individual's beliefs and opinions; all of which adds to the difficulty in programming, scoping and pricing physical works.

The budget noted in the compliance paper as 'lowest possible compliance cost' is substantially less than the amounts shown in the DBC because those budgets were set anticipating major refurbishments across large sections of the site and used historic costings from some more recent ward renovations. The process we are now suggesting is targeting specific passive fire related issues once the scope is agreed with Council and FENZ working towards an agreed quantum of work rather than trying to bring all the buildings on campus up to the current bar set by the building code.

Seismic Overview

The DHB has completed many seismic upgrades on their buildings and this paper focuses solely on remaining works still to be completed on the main campus.

Seismic 'compliance' repairs fall into two broad categories:

Firstly where a structure falls below 34% of current new building standard it is classified as earthquake prone and depending on the importance level of the building it has to be repaired to get above the 34% within set times. IL3 buildings within 15 years from assessment and IL4 building within 7.5 years. If the buildings aren't repaired within that timeframe then Council can follow Dangerous and Insanitary Buildings Policy 2018 and invoke sections of the Building Act to stop the use of the facility.

The other category for seismic repairs relates to insurance. Where the detailed seismic engineering evaluations have identified earthquake damage and CDHB has been paid by the insurer to repair there is an expectation from parties providing ongoing cover that that repair work has been completed. If the decision is not to repair a specific section of damage for reasons of access / cost / future life of the building; legal feedback indicates that insurers would not cover unrepaired works and likely that if further damage occurred because previously identified work wasn't done then insurers wouldn't cover any associated consequential loss.

Financial

The last slide in this set has a table that lists items of compliance in a priority order with the most urgent being at the bottom and the least urgent being at the top. There are three cost columns with the first being the total estimated cost for each individual item and all works total to approx. $80m. The second column is the cumulative total of the items from the first column in a bottom up order and the third column shows the same numbers but removes the $21m of funds that all agree that the CDHB has available to contribute and leaves the nett amount of capital that is required to be funded by the Crown.

The Notes column of the spreadsheet provides information on each individual item and background on where it comes from and why it is included and further the sheet is colour coded to show what aspect of compliance the items relate to.

Further Considerations

I addition, the Parkside shear tower work in blocks C and D may have operational impacts on operating theatres and Cath labs in that part of the building. Budgets in this paper refer to the anticipated capital costs of doing the physical works but not the operational costs associated potentially with outsourcing of these clinical services should that be required.

The programme of works for this compliance package must fit around the Tower 3 programme and enabling packages in general terms. Items such as the Women's passive fire rectification is independent but should also proceed within these timeframes.

This review also has added additional compliance works scope, over and above the DBC work, as requested by the MOH to give a full view of total compliance works on the main Campus. We now include Women's, Oncology and Food Services Building and also some items that were incorrectly omitted from the DBC.

Passive fire compliance works budgeted in this paper for Riverside Central and East blocks include funds to remediate any significant items discovered in the upcoming survey. Areas where refit works are noted under the Tower 3 / enabling project (separately funded) will undertake passive fire rectification to those areas under that budget (docks, back of house). The masterplan still anticipates sleeping patients leave Riverside in the short term (when Parkside block A is repaired) and the old wards in Riverside East become workspace (no fit out at this point). This reduces the passive fire upgrade requirements under the NFPA scoring system.

Categorisation of the Compliance Works and Associated Implications

Building:	Work description	Clarifications
Women's	Canopy repair - (f)(i)(z)6	Original DBC contained allowance to reinstate glass to the front canopy, providing weather protection to drop off. Not completing this work means there is no rain screen for people arriving at the front door and the building design was wind modelled with the canopy to reduce swirling winds into the lobby/reception area during winter months; this has been noted by users of this space as an ongoing issue.
Clinical Services Building	Strengthen shear walls / roof - (f)(i)(z)6	The plantroom level of CSB is earthquake prone (30% New Building Standard (NBS) at IL3) and needs repairs following earthquake damage. The rest of the building is NOT earthquake prone and as such the Engineers do not deem this to make the whole building earthquake prone as the plantroom is generally a non-occupied space and the mode of failure in this space, should an event occur, would not put other occupants at risk. Engineers advise that there is precedence with CCC accepting a non occupied Earthquake Prone Building space and this does not then automatically make the remainder of the building EPB. This topic has not been addressed with CCC but could be if the decision to look at not doing this work was advised. In Masterplan terms this building would need to be demolished to make way for podium and tower 5 (following central podium and tower 4) – so it has at least a medium term future. If the decision is to not undertake remedial work and CCC accept this, then if there is a future seismic event that impacts upon the building and causes further damage the claim resolution process could be troublesome and liability matters will be raised.
Parkside	Shear tower strengthening - (f)(i)(z)6	Parkside is seismically separated into 4 blocks A,B,C and D. Currently it houses ED, theatres, ICU and as such is rated as an IL4 structure, both the exterior panels and some of the internal stairs score under 33% NBS at IL4. When Hagley opens the DHBs critical emergency response regarding ED, theatres and ICU moves to that building however blocks C and D of Parkside still house 11 operating theatres and cath labs and would be part of any post seismic earthquake response and should remain IL4. Additional stiffness of the building is delivered by strengthening the shear towers; following this work and the repairs to panels, the building overall will be above 33% NBS (not EPB) at IL4. Simply put the panel remedial work is based on the building being less flexible. After Hagley opens, Blocks A and B will serve essentially as ambulatory care and wards – justifying a downgrade of these 2 blocks to IL3. At IL3 blocks A and B still require external panels to be repaired as they remain under 33% NBS but these panels do not need the additional stiffness from the shear towers to get over the 34% threshold at IL3, similarly the stairs' score rises slightly at IL3 with the worst ones being 35% (just above EPB). At this point engineers advise that we don't have to strengthen the shear towers in these 2 block under the NZ Building Code – potentially saving circa (f)(i)(z)6 It should be noted that there are some structural computer models being generated on block B at the moment and the current direction is assumed and will require confirmation once the assessment is completed. Choosing to NOT strengthen blocks A and B means under a significant seismic event some of the stairs in blocks A and B could be damaged making egress more challenging and panels could spall / fall off (occurring in a lesser magnitude event than would occur in the adjacent IL4 – blocks C and D). Legal opinion has been sought regarding the health and safety aspect of this situation from Work Safe and Chapman Tripp - WorkSafe advise that if you own or occupy an earthquake-prone building and you're meeting the earthquake performance requirements of the Building Act 2004, then they are not going to enforce to a higher standard under HSWA. In addition, it should be noted that services infrastructure passes through Parkside basement to Women's and Hagley (IL4 emergency buildings). If Parkside blocks A and B become IL3 this won't physically alter the basement or the protection provided to the infrastructure. Engineers have advised in their opinion that not strengthening the shear towers will not increase risk of damage to these basement services. Women's and Hagley both have 'inboard' generation of power / steam to service their needs immediately post an event.
Clinical Services Building	Strengthen to level 3 columns - (f)(i)(z)6	The level 3 columns are not earthquake prone; they score 35% NBS at IL3 so just scrape above the threshold, however this item was included in this list due to the relatively low value of the repair, the likely medium term (15 years plus) use of the building coupled with related insurance risks if the work is not carried out.
Riverside Central / Parkside	Water storage - (f)(i)(z)6	Riverside has some large water storage tanks housed at the top of the central block which compromise that building's seismic capacity and need to be removed. In addition to providing backup supply to the Riverside block, these tanks are also connected to Parkside and in part make up the emergency water supply for this IL4 building. As Parkside C and D blocks are to remain IL4, this package of works is to provide water storage solution in Parkside to retain its IL4 status.
Parkside / Riverside and Clinical Service Building	Seismic Compliance Strengthening - (f)(i)(z)6	This budget was allocated by RLB in the business case across the three main buildings requiring seismic repair. It represents a nominal allowance across the 3 structures to cover unanticipated issues that arise when the scheduled works are undertaken. The need for this sum is based on previous actual findings over the past 10 years of seismic repairs where construction teams have discovered further unseen damage when work faces are properly opened up for repair.
Riverside Central Block	Concrete wall repairs (f)(i)(z)6	Riverside Central structural modelling revealed an earthquake prone weakness in the concrete wall behind the lift shaft resulting in shear failure – this element scores 25% NBS at IL3 and even if the building was downgraded to IL2 sometime in the future as masterplan moves this building to workspace / docks the wall would score 25% NBS at IL2 and the building would still be noted as earthquake prone.
Parkside / Food Services Building / Oncology	Precast Concrete Panel fixing repairs - (f)(i)(z)6	Panels currently present a health and safety risk due to inadequate fixing back to the primary structure.
Riverside West	Removal (f)(i)(z)6	Riverside West removal is required to enable the construction of tower 3 and it also presents a fall risk in a significant seismic event due to its proximity to the new Hagley structure.
Women's	Seismic repairs (f)(i)(z)6	Women's is not classed as an earthquake prone building. This estimate covers outstanding seismic repairs required to one stairwell and grouting of some cracked floors to bring the building back up to earthquake seismic compliance for an IL4 structure. This building forms part of the site's emergency response housing 7 theatres and 'inboard' services generation which allow it operate as an island post event and given the age of the facility it has a long term future on campus so repairs are recommended for these reasons and to mitigate any ongoing insurance issue.
All existing Campus buildings (bar Hagley)	Passive Fire - (f)(i)(z)6	Following investigations across the campus it is clearly documented that all the building have non compliances under the NZ Building Code and CDHB has negotiated additional operational responses and limited repairs to reduce the risks and obtain building warrants of fitness from Council over the last 2 years. Ongoing dialogue with Council and Fire and Emergency NZ has made it clear this response is a temporary measure as the DHB plans more permanent passive fire repairs. Remedial works will need to be reviewed and agreed between CDHB/CCC and FENZ on an ongoing basis

Lowest forecast level of compliance works - Priority Order - Bottom Up for Importance

Building	Item	Reduced estimate $000	Cumulative Total $000	Cumulative Total Less CDHB $21m Earthquake Funds $000	Notes
Women's	Women's canopy repair	9(2)(i)(j)			Original DBC allowance to reinstate glass to front canopy to provide weather protection to drop off
Clinical Services Building	Strengthen shear walls and roof structure				The plantroom of CSB is earthquake prone and needs repairs from earthquake damage. The Engineers do not deem this to make the whole building earthquake prone as the plantroom is generall a non-occupied space. This has not been confirmed by the CCC and does remain a risk area although no EPB notice has been issued for the building. If the remedial work is not undertaken then if there is a future seismic event that impacts upon the building and causes further damage the claim resolution process could be troublesome and liability matters will be raised
Parkside	Shear towers strengthening and rework				Works required to stiffen structure to Parkside Blocks A & B
Clinical Services Building	Compliance strengthening to level 3 columns				Strengthening work to columns as reccomended by Engineers however building not EPB
Women's	Seismic repairs				Outstanding work required to one stairwell and grouting to cracked floors to bring the building back to pre earthquake seismic compliance. As this building has a long future on the Campus and given that this expenditure is relatively low it is reccomended that the work proceed based on RLB figures
Parkside	Compliance strengthening				Nominal allowance for any uncovered issues during construction because every time a project has been undertaken in Parkside additional issues are discovered when linings are removed..
Riverside	Central block strengthening				Original RLB DBC allowance for rectification as required due to element making building earthquake prone
Riverside	EQ work allowance by RLB				Nominal allowance for any uncovered issues during construction because every time a project has been undertaken in Parkside additional issues are discovered when linings are removed..
Clinical Services Building	Earthquake remediation allowance				Nominal allowance for any uncovered issues during construction because every time a project has been undertaken in Parkside additional issues are discovered when linings are removed..
Riverside	Riverside water supply rectification				Original allowance to remain as water supply needs to be provided for emergency back up to Parkside (emergency facility) when Riverside tanks decommissioned due to seismic requirements
Parkside	Shear towers strengthening and rework				Works required to stiffen structure to Parkside Blocks C & D
Oncology	Oncology panels				Original allowance to remain aspanels are a H & S risk for the Oncology building and need to be remediated
Parkside	Panel repair				Parkside panels need to be repaired to remove H & S risks associated and also stop the building being classed as earthquake Prone
Riverside	Riverside West removal				Original DBC allowance to remain as building needs to be removed to allow construction of Tower 3 and also removes fall risk that this building has on the Hagley building
Riverside	Fire compliance for Central and East				Nominal allowance for minor rectification of any significant elements of non-compliance uncovered during the process. Assume that passive fire compliance works to refitted areas will be completed under the new fit-outs (docks / back of house). In the relatively short term, overnight patients will vacate the wards and area will be occupied for workspace (ambulant occupancy); this will reduce the compliance requirements required by CCC / FENZ.
Food Services Building	Passive fire				Reduced allowance: Explore alternatives methods of improving buildings NFPA score other than completing all vertical and horizontal penetrations to a fire stop level. This will require close liasion with FENZ and the CCC with an understanding of risk and budget constraints.
Oncology	Passive fire				Reduced allowance: Explore alternatives methods of improving buildings NFPA score other than completing all vertical and horizontal penetrations to a fire stop level. This will require close liasion with FENZ and the CCC with an understanding of risk and budget constraints.
Women's	Passive fire				Reduced allowance: Explore alternatives methods of improving buildings NFPA score other than completing all vertical and horizontal penetrations to a fire stop level. This will require close liasion with FENZ and the CCC with an understanding of risk and budget constraints.
All	Passive Fire - Riverside, Parkside, CSB				Reduced allowance: Explore alternatives methods of improving buildings NFPA score other than completing all vertical and horizontal penetrations to a fire stop level. This will require close liasion with FENZ and the CCC with an understanding of risk and budget constraints. Does not allow for passive fire compliance works to areas that will be receiving a full refit under the proposed Master Plan - i.e. Riverside old ward converted to workspace

BWOF Related	Items that need to be completed so that the CCC will issue the Building Warrant of Fitness required for occupation
H & S Related	Items that need to be completed to remove H & S issues and make the enviroment comply
Insurance Related	Items that require rectification with insurance proceeds if the buildings are to be fully insured
Miscelaneous	Miscellaneous items

Kathleen Smitheram

From: Susan Fitzmaurice
Sent: Monday, 7 September 2020 4:42 PM
To: Peter Bramley; Rob Ojala; Mary Gordon (Executive Director of Nursing)
Subject: FW: CDHB Business Cases - Tower 3 and Compliance Works[EXTERNAL SENDER]
Attachments: CDHB Compliance Work Paper for MOH September 2020 Appendices.docx

From: 9(2)(a) [redacted] @health.govt.nz]
Sent: Monday, 7 September 2020 4:41 p.m.
To: Susan Fitzmaurice <Susan.Fitzmaurice@cdhb.health.nz>
Subject: FW: CDHB Business Cases - Tower 3 and Compliance Works[EXTERNAL SENDER]

3 of 4

Ngā mihi
9(2)(a) [redacted]

9(2)(a) [redacted] **Michelle Arrowsmith**
Deputy Director-General | DHB Performance Support & Infrastructure
Ministry of Health | Email: 9(2)(a) [redacted]
MINISTRY OF HEALTH MANATŪ HAUORA [redacted]
http://www.health.govt.nz

From: 9(2)(a) [redacted]
Sent: Monday, 7 September 2020 4:35 pm
To: Susan Fitzmaurice <Susan.Fitzmaurice@cdhb.health.nz>
Subject: FW: CDHB Business Cases - Tower 3 and Compliance Works

Ngā mihi
9(2)(a) [redacted]

9(2)(a) [redacted] **Michelle Arrowsmith**
Deputy Director-General | DHB Performance Support & Infrastructure
Ministry of Health | Email: 9(2)(a) [redacted]
MINISTRY OF HEALTH MANATŪ HAUORA [redacted]
http://www.health.govt.nz

From: Michelle Arrowsmith
Sent: Monday, 7 September 2020 4:31 pm
To: peter.bramley@cdhb.health.nz
Subject: FW: CDHB Business Cases - Tower 3 and Compliance Works

Ngā mihi
Michelle

Michelle Arrowsmith
Deputy Director General | DHB Performance, Support and Infrastructure | Ministry of Health
E: michelle.arrowsmith@health.govt.nz 9(2)(a)
http://www.health.govt.nz

From: Michelle Arrowsmith
Sent: Monday, 7 September 2020 4:21 pm
To: john.hansen@cdhb.health.nz; 'John Hansen' 9(2)(a) peter.bramley@cdhb.health.nz; Andrew Brant (WDHB) <Andrew.Brant@waitematadhb.govt.nz>; Lester Levy 9(2)(a) Barry Bragg 9(2)(a)
Cc: Karl Wilkinson <Karl.Wilkinson@health.govt.nz>; John Hazeldine <john.hazeldine@health.govt.nz>
Subject: FW: CDHB Business Cases - Tower 3 and Compliance Works

Dear Sir John et al

Please find attached the CDHB papers for CIC on Tower 3 and compliance provided on behalf of the DHB by HIU.

I would appreciate a read through and approval by you all that these papers represent the DHBs view before we send them to CIC.

It would be helpful if we could gain your feedback, comments and approval by return tomorrow COB so that we can send on to CIC ahead of the meeting next week. If you require any longer to review could you let me know so I can manage with CIC.

As always happy to discuss or Karl will also be able to assist in this regard.

Look forward to hearing back from you.

Ngā mihi
Michelle

Michelle Arrowsmith
Deputy Director General | DHB Performance, Support and Infrastructure | Ministry of Health
E: michelle.arrowsmith@health.govt.nz | 9(2)(a)
http://www.health.govt.nz

From: 9(2)(a) @health.govt.nz>
Sent: Monday, 7 September 2020 3:51 pm
To: Michelle Arrowsmith <Michelle.Arrowsmith@health.govt.nz>; John Hazeldine <john.hazeldine@health.govt.nz>
Cc: Karl Wilkinson <Karl.Wilkinson@health.govt.nz>
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Please find attached the two word documents of the CDHB Business Cases. John, as requested I have moved the 'Recommendation' to before 'Next Steps' in the Tower 3 document.

I've also attached the Appendices and the Campus Master Plan documents in case you need these as well.

Thanks,
9(2)(a)

Kind regards,
9(2)(a)

9(2)(a) Director Health Infrastructure
DHB Performance, Support & Infrastructure |
9(2)(a)

http://www.health.govt.nz

Appendices

Following are 3 appendices that provide further background and detail to the Single Stage Light Business Case for Christchurch Hospital Main Campus Compliance.

Appendix 1 describes the current thinking around seismic compliance issues along with estimates of the associated costs. This information is in part repeated in the other 2 appendices but appendix 1 reflects the most current information and advice received; the other 2 papers were prepared in June and May respectively and ongoing design and investigations have updated some of that information.

Appendix 1

The information below itemises the seismic repair works included by building and by category and explains at a high level why the work is necessary and the implications of not completing the items:

Clinical Services Building strengthening of shear walls / roof - 9(2)(i)(j) [redacted]

The plantroom level of CSB is earthquake prone (30% New Building Standard (NBS) at IL3) and needs repairs following earthquake damage. The rest of the building is NOT earthquake prone and as such the Engineers do not deem this to make the whole building earthquake prone as the plantroom is generally a non-occupied space and the mode of failure in this space, should an event occur, would not put other occupants at risk. Engineers advise that there is precedence with CCC accepting a non-occupied Earthquake Prone Building space and this does not then automatically make the remainder of the building EPB. This topic has not been addressed with CCC but could be if the decision to look at not doing this work was advised.

In Masterplan terms this building would need to be demolished to make way for podium and tower 5 (following central podium and tower 4) – so it has at least a medium term future.

If the decision is to not undertake remedial work and CCC accept this, then if there is a future seismic event that impacts upon the building and causes further damage the claim resolution process could be troublesome and liability matters will be raised.

Parkside shear tower strengthening - 9(2)(i)(j) [redacted]

Parkside is seismically separated into 4 blocks A,B,C and D. Currently it houses ED, theatres, ICU and as such is rated as an IL4 structure, both the exterior panels and some of the internal stairs score under 33% NBS at IL4. When Hagley opens the DHBs critical emergency response regarding ED, theatres and ICU moves to that building however blocks C and D of Parkside still house 11 operating theatres and cath labs and would be part of any post seismic earthquake response and should remain IL4.

Additional stiffness of the building is delivered by strengthening the shear towers; following this work and the repairs to panels, the building overall will be above 33% NBS (not EPB) at IL4. Simply put the panel remedial work is based on the building being less flexible.

After Hagley opens, Parkside Blocks A and B will serve essentially as ambulatory care and wards – justifying a downgrade of these 2 blocks to IL3 from a disaster planning point of view however Council have recently indicated this potential change may be in breach if fire egress / evacuation requirements – CDHB continue to review this item.

It permitted, blocks A and B at IL3 would still require external panels to be repaired as they remain under 33% NBS but these panels do not need the additional stiffness from the shear towers to get over the 34% threshold at IL3, similarly the stairs' score rises slightly at IL3 with the worst ones being 35% (just above EPB). At this point engineers advise that we don't have to strengthen the shear towers in these 2 block under the NZ Building Code – potentially saving circa 9(2)(i)(j) [redacted] It should be noted that there are some structural computer models being generated on block B at the moment and the current direction is assumed and will require confirmation once the assessment is completed.

Choosing to NOT strengthen blocks A and B means under a significant seismic event some of the stairs in blocks A and B could be damaged making egress more challenging and panels could spall / fall off (occurring in a lesser magnitude event than would occur in the adjacent IL4 – blocks C and D). Legal opinion has been sought regarding the health and safety aspect of this situation from Work Safe and Chapman Tripp - WorkSafe advise that if you own or occupy an earthquake-prone building and you're meeting the earthquake performance requirements of the Building Act 2004, then they are not going to enforce to a higher standard under HSWA.

In addition, it should be noted that services infrastructure passes through Parkside basement to Women's and Hagley (IL4 emergency buildings). If Parkside blocks A and B become IL3 this won't physically alter the basement or the protection provided to the infrastructure. Engineers have advised in their opinion that not strengthening the shear towers will not increase risk of damage to these basement services. Women's and Hagley both have 'inboard' generation of power / steam to service their needs immediately post an event.

Clinical Services Building strengthening to level 3 columns - 9(2)(i)(j) [redacted]

The level 3 columns are not earthquake prone; they score 35% NBS at IL3 so just scrape above the threshold, however this item was included in this list due to the relatively low value of the repair, the likely medium term (15 years plus) use of the building coupled with related insurance risks if the work is not carried out.

Riverside Central / Parkside water storage - 9(2)(i)(j) [redacted]

Riverside has some large water storage tanks housed at the top of the central block which compromise that building's seismic capacity and need to be removed. In addition to providing backup supply to the Riverside block, these tanks are also connected to Parkside and in part make up the emergency water supply for this IL4 building. As Parkside C and D blocks are to remain IL4, this package of works is to provide water storage solution in Parkside to retain its IL4 status.

Parkside / Riverside and Clinical Service Building seismic compliance strengthening - 9(2)(i)(j) [redacted]

This budget was allocated by RLB in the business case across the three main buildings requiring seismic repair. It represents a nominal allowance across the 3 structures to cover unanticipated issues that arise when the scheduled works are undertaken. The need for this sum is based on previous actual findings over the past 10 years of seismic repairs where construction teams have discovered further unseen damage when work faces are properly opened up for repair.

Riverside Central Block Concrete wall repairs - 9(2)(i)(j) [redacted]

Riverside Central structural modelling revealed an earthquake prone weakness in the concrete wall behind the lift shaft resulting in shear failure – this element scores 25% NBS at IL3 and even if the building was downgraded to IL2 sometime in the future as masterplan moves this building to workspace / docks the wall would score 25% NBS at IL2 and the building would still be noted as earthquake prone.

Parkside / Food Services Building / Oncology Precast Concrete Panel fixing repairs - 9(2)(i)(j) [redacted]

Panels currently present a health and safety risk due to inadequate fixing back to the primary structure.

Riverside West removal - 9(2)(i)(j) [redacted]

Riverside West removal is required to enable the construction of tower 3 and it also presents a fall risk in a significant seismic event due to its proximity to the new Hagley structure.

Women's seismic repairs 9(2)(i)(j) [redacted]

Women's is not classed as an earthquake prone building. This estimate covers outstanding seismic repairs required to one stairwell and grouting of some cracked floors to bring the building back up to earthquake seismic compliance for an IL4 structure. This building forms part of the site's emergency response housing 7 theatres and 'inboard' services generation which allow it operate as an island post event and given the age of the facility it has a long term future on campus so repairs are recommended for these reasons and to mitigate any ongoing insurance issue.

Women's canopy repair - 9(2)(i)(j) [redacted]

Original DBC contained allowance to reinstate glass to the front canopy, providing weather protection to drop off. Not completing this work means there is no rain screen for people arriving at the front door and the building design was wind modelled with the canopy to reduce swirling winds into the lobby/reception area during winter months; this has been noted by users of this space as an ongoing issue.

Appendix 2

Final version of the June 2020 Campus Master Plan Compliance Works PowerPoint

Appendix 3

CHRISTCHURCH HOSPITAL CAMPUS PASSIVE FIRE AND SEISMIC COMPLIANCE WORKS

Canterbury District Health Board
Te Poari Hauora ō Waitaha

TO: **Chair and Members, Canterbury District Health Board**

ACCOUNTABILITY: **David Meates, Chief Executive Officer**

DATE: **29 June 2020**

Report Status – For:	Decision	☑	Noting	☐	Information	☐

1. ORIGIN OF THE REPORT

The Christchurch Hospital Campus Master Plan was co-commissioned by the Ministry of Health (*MoH*) and the Canterbury District Health Board (*CDHB*) to inform both the Programme Business Case (*PBC*) and the Detailed Business Case (*DBC*) Tranche 1 scope for this campus.

The Master Plan includes population demand for tertiary hospital services through to 2031.

The PBC covers the facilities demand and location of services from 2020 through to 2031.

The resulting DBC covered the first tranche of facilities development outlining the options considered, identifying the preferred option (Option 1b) and outlining the economic, financial, strategic, commercial and management cases. The DBC preferred Option 1b required $387m of Crown funds and $51m of CDHB funds – totalling $438m.

The MoH (via the Capital Investment Committee (*CIC*)) advised the CDHB that there was insufficient capital available nationally to support the preferred Option 1b and requested that a reduced cost Option, excluding Passive Fire and Seismic Compliance Works, was presented requiring a maximum of $154m of Crown funds. The reduced cost Option currently sits with CIC for consideration.

This paper covers the necessary Passive Fire and Seismic Compliance works that are required to existing buildings on the Campus to allow ongoing legal occupation along with a recommendation.

2. RECOMMENDATION

That the Board:

i. notes that the CDHB DBC preferred Option 1 for Campus Masterplan Implementation requiring $777m of Crown funds and $51m of CDHB funds – totalling $828m was not adopted due to national health capital constraints;
ii. notes that the joint MoH/CDHB DBC Option 1b for Campus Masterplan Tranche 1 Implementation requiring $387m of Crown funds and $51m of CDHB funds – totalling $438m

previously approved by the Board and Clinical Leaders Group (*CLG*) has been declined due to national health capital funding constraints;

iii. notes the Campus Masterplan $154m Reduced Cost Option (excluding Passive Fire and Seismic Compliance works) has been endorsed by the Board and sits with the CIC for consideration;

iv. notes that CDHB Design Consultants have recommended that Passive Fire and Compliance works totalling $134m is implemented and that this has been critically reviewed and reassessed down to $79.037m by CDHB Management and Client Advisors;

v. notes that the CDHB Management endorse the $79.037m Passive Fire and Compliance works Option requiring Crown funding of $58.037m after the CDHB contribution of $21m is accounted for;

vi. approves the new proposal Passive Fire and Compliance works Option requiring **$58.037m of Crown funds**;

vii. approves the submission of the Passive Fire and Compliance works Option to the MoH / CIC.

3. BACKGROUND

The 2012 Government approved, CDHB Facilities Redevelopment (Hagley) DBC stated further future projects were required on the campus and that they needed to be delivered by 2022 to keep pace with growing demand. The current DBC programme sees T3 completion in 2025, some three years later than required, incurring additional cost escalation and capacity concerns. It is also worth noting that the population projection in 2012 for 2020 has in reality been exceeded by 60,000 (a population expansion that places the region currently at levels not anticipated until 2024).

During the drafting of the jointly sponsored (MoH and CDHB) 2019 DBC/PBC document; the agreed goal was to complete a series of enabling works to the existing campus to facilitate the construction of T3 and Central Building and Tower 4 *(CT4)*; with both design and construction to be considered under one funding package; a process that would allow the removal of possible roadblocks to unlock the campus and assist the CDHB in delivering the necessary bed and theatre capacity as demand increases. The developed Option 1 achieved all of these criteria and was costed at $828m.

MoH indicated at the time that in order to align with the national capital funding envelope it would not be possible to undertake all these elements of work under a single tranche and the DBC was updated to deliver several separately funded tranches within a wider Programme Business Case.

In addition, the CDHB entered into a process with the MoH consultant team to significantly reduce the quantum of heavy / moderate refurbishments within the existing facilities following the philosophy that with limited capital available, as much of that capital as possible should be directed toward the new facilities rather than investing too much in existing facilities with limited future working life.

The result was the creation of DBC preferred Option 1b delivering a reduced existing facilities enabling work package, T3 design and construction and full design of CT4 (Tranche 1) and required $387m of Crown funds and $51m of CDHB funds – totalling $438m.

From CDHB's perspective, the compromises were contingent on agreement for a fast track programme to achieve CT4 (the construction of which had been moved to Tranche 2 although design was retained in Tranche 1 to keep the programme moving forward). Clinical leaders involved in this process had agreed, for example, in a reduction in scope for the then proposed Parkside works and redevelopment alone from circa $150m down to $77m on the basis that the limited capital available should be focussed more prudently on new facilities.

The demand forecasting (both beds and theatres) has been through five separate external reviews between MoH/CDHB and expert consultants and is now agreed as per the DBC.

The MoH response to the submission of the jointly sponsored DBC has required the DHB to examine what might be achieved with a further reduced option. This process has significantly increased operational compromises as compared to DBC Option 1b as well as raising potential hurdles for future Campus development over and above what the CDHB had previously anticipated.

The Campus Masterplan $154m Reduced Cost Option (excluding Passive Fire and Seismic Compliance works) has now been endorsed by the Board and sits with the CIC for consideration. This proposal retained critical elements that were essential to 'unlock' the site and were consistent with the overall agreed campus masterplan objectives, however, a number of these changes are making the implementation of the masterplan more difficult and expensive for the future.

At the recent Reset & Refresh workshop, management were asked to come up with a list of essential Passive Fire, Seismic and Compliance works that were deemed essential for legal and Health and Safety requirements especially given the new expectation that Parkside would be housing patients for a substantially longer time than anticipated in the DBC.

The result of this exercise was the critical review of the previously prepared design consultant's recommended actions in relation to these items that were costed at $134m, down to what is considered a minimal essential scope which is summarised in the attached document, with the minimum level of works deemed essential by management is $79.037m

The programme of works for this compliance package was originally required to fit around the Tower 3 programme and enabling packages in general terms, however, this is currently being pressured by the delay in the occupation of the Hagley building.

The $154m Reduced Cost Option sees the bulk of the existing facilities in Parkside retained, as a minimum, for the next 10 to 15 years without any upgrades. This includes a large portion of the hospital's theatre capacity (deemed to be the poorest facility in the country by the recently released MOH Clinical Fit for Purpose review) and these are generally the original theatres now in excess of 35 years old not having had any significant upgrades in their life.

Please also note that given the current COVID-19 pandemic that none of the compliance work as outlined provides for a facility able to manage and cohort infected patients – this is an issue that the Board will need to provide some guidance on as to deal with this would take us back down the path of an accelerated CT4.

The scope and budgets in this document capture capital costs associated with complaint occupation of the main campus buildings and do **NOT** include compliance with Health Facility Guidelines, MOH accreditation requirements or the like. Further there are no improvements to facilities from an operational point of view e.g. no additional toilet or isolation facilities etc. are included.

It must be emphasised that for each scale back in project capital cost over the development of the various Options there is a diminished return to the CDHB in terms of bed capacity and future gains (achieving the Master Plan outcomes) as well as further compliance complications with CCC/FENZ.

4. Categorisation of the Compliance Works and Associated Implications

The following Table itemises the works included by building and by category and explains at a high level why the work is necessary and the implications of not completing the items:

Building	Work description	Clarifications
Women's	Canopy repair - $0.935m	Original DBC contained allowance to reinstate glass to the front canopy, providing weather protection to drop off. Not completing this work means there is no rain screen for people arriving at the front door and the building design was wind modelled with the canopy to reduce swirling winds into the lobby/reception area during winter months; this has been noted by users of this space as an ongoing issue.
Clinical Services Building	Strengthen shear walls / roof - [redacted] 9(2)(i)(i)	The plantroom level of CSB is earthquake prone (30% New Building Standard (NBS) at IL3) and needs repairs following earthquake damage. The rest of the building is NOT earthquake prone and as such the Engineers do not deem this to make the whole building earthquake prone as the plantroom is generally a non-occupied space and the mode of failure in this space, should an event occur, would not put other occupants at risk. Engineers advise that there is precedence with CCC accepting a non occupied Earthquake Prone Building space and this does not then automatically make the remainder of the building EPB. This topic has not been addressed with CCC but could be if the decision to look at not doing this work was advised. In Masterplan terms this building would need to be demolished to make way for podium and tower 5 (following central podium and tower 4) – so it has at least a medium term future. If the decision is to not undertake remedial work and CCC accept this, then if there is a future seismic event that impacts upon the building and causes further damage the claim resolution process could be troublesome and liability matters will be raised.
Parkside	Shear tower strengthening - [redacted] 9(2)(i)(i)	Parkside is seismically separated into 4 blocks A,B,C and D. Currently it houses ED, theatres, ICU and as such is rated as an IL4 structure, both the exterior panels and some of the internal stairs score under 33% NBS at IL4. When Hagley opens the DHBs critical emergency response regarding ED, theatres and ICU moves to that building however blocks C and D of Parkside still house 11 operating theatres and cath labs and would be part of any post seismic earthquake response and should remain IL4. Additional stiffness of the building is delivered by strengthening the shear towers; following this work and the repairs to panels, the building overall will be above 33% NBS (not EPB) at IL4. Simply put the panel remedial work is based on the building being less flexible. After Hagley opens, Blocks A and B will serve essentially as ambulatory care and wards – justifying a downgrade of these 2 blocks to IL3. At IL3 blocks A and B still require external panels to be repaired as they remain under 33% NBS but these panels do not need the additional stiffness from the shear towers to get over the 34% threshold at IL3, similarly the stairs' score rises slightly at IL3 with the worst ones being 35% (just above EPB). At this point engineers advise that we don't have to strengthen the shear towers in these 2 block under the NZ Building Code – potentially saving circa [redacted] 9(2)(i)(i) It should be noted that there are some structural computer models being generated on block B at the moment and the current direction is assumed and will require confirmation once the assessment is completed. Choosing to NOT strengthen blocks A and B means under a significant seismic event some of the stairs in blocks A and B could be damaged making egress more challenging and panels could spall / fall off (occurring in a lesser magnitude event than would occur in the adjacent IL4 – blocks C and D). Legal opinion has been sought regarding the health and safety aspect of this situation from Work Safe and Chapman Tripp - WorkSafe advise that if you own or occupy an earthquake-prone building and you're meeting the earthquake performance requirements of the Building Act 2004, then they are not going to enforce to a higher standard under HSWA. In addition, it should be noted that services infrastructure passes through Parkside basement to Women's and Hagley (IL4 emergency buildings). If Parkside blocks A and B become IL3 this won't physically alter the basement or the protection provided to the infrastructure. Engineers have advised in their opinion that not strengthening the shear towers will not increase risk of damage to these basement services. Women's and Hagley both have 'inboard' generation of power / steam to service their needs immediately post an event.
Clinical Services Building	Strengthen to level 3 columns [redacted] 9(2)(i)(i)	The level 3 columns are not earthquake prone; they score 35% NBS at IL3 so just scrape above the threshold, however this item was included in this list due to the relatively low value of the repair, the likely medium term (15 years plus) use of the building coupled with related insurance risks if the work is not carried out.
Riverside Central / Parkside	Water storage - [redacted] 9(2)(i)(i)	Riverside has some large water storage tanks housed at the top of the central block which compromise that building's seismic capacity and need to be removed. In addition to providing backup supply to the Riverside block, these tanks are also connected to Parkside and in part make up the emergency water supply for this IL4 building. As Parkside C and D blocks are to remain IL4, this package of works is to provide water storage solution in Parkside to retain its IL4 status.
Parkside / Riverside and Clinical Service Building	Seismic Compliance Strengthening - [redacted] 9(2)(i)(i)	This budget was allocated by RLB in the business case across the three main buildings requiring seismic repair. It represents a nominal allowance across the 3 structures to cover unanticipated issues that arise when the scheduled works are undertaken. The need for this sum is based on previous actual findings over the past 10 years of seismic repairs where construction teams have discovered further unseen damage when work faces are properly opened up for repair.

Riverside Central Block	Concrete wall repairs [redacted] 9(2)(i)(j)	Riverside Central structural modelling revealed an earthquake prone weakness in the concrete wall behind the lift shaft resulting in shear failure – this element scores 25% NBS at IL3 and even if the building was downgraded to IL2 sometime in the future as masterplan moves this building to workspace / docks the wall would score 25% NBS at IL2 and the building would still be noted as earthquake prone.
Parkside / Food Services Building / Oncology	Precast Concrete Panel fixing repairs - [redacted] 9(2)(i)(j)	Panels currently present a health and safety risk due to inadequate fixing back to the primary structure.
Riverside West	Removal [redacted] 9(2)(i)(j)	Riverside West removal is required to enable the construction of tower 3 and it also presents a fall risk in a significant seismic event due to its proximity to the new Hagley structure.
Women's	Seismic repairs - [redacted] 9(2)(j)	Women's is not classed as an earthquake prone building. This estimate covers outstanding seismic repairs required to one stairwell and grouting of some cracked floors to bring the building back up to earthquake seismic compliance for an IL4 structure. This building forms part of the site's emergency response housing 7 theatres and 'inboard' services generation which allow it operate as an island post event and given the age of the facility it has a long term future on campus so repairs are recommended for these reasons and to mitigate any ongoing insurance issue.
All existing Campus buildings (bar Hagley)	Passive Fire [redacted] 9(2)(j)	Following investigations across the campus it is clearly documented that all the building have non compliances under the NZ Building Code and CDHB has negotiated additional operational responses and limited repairs to reduce the risks and obtain building warrants of fitness from Council over the last 2 years. Ongoing dialogue with Council and Fire and Emergency NZ has made it clear this response is a temporary measure as the DHB plans more permanent passive fire repairs. Remedial works will need to be reviewed and agreed between CDHB/CCC and FENZ on an ongoing basis

5. FINANCIAL

The Table on page five of the appendices itemises the individual items of compliance works with the least critical items at the top of the list flowing down to the most important items at the bottom.

The Table in Item 4 above groups together like items of works while the appendices Table places the individual items in order of priority.

The only item that management see is discretionary is the replacement of the glass to the Christchurch Women's Hospital entry canopy and the implications of this omission are noted.

It is the view of the Management that Compliance works should be undertaken to the value of $79.037m with the CDHB contributing the agreed $21.000m of uncommitted funds remaining from the earthquake programme of works leaving an amount of $58.037m requiring Crown funding.

6. APPENDICES

Appendix 1: Canterbury DHB Campus Master Plan Compliance Works

Kathleen Smitheram

From: Susan Fitzmaurice
Sent: Monday, 7 September 2020 4:46 PM
To: Mary Gordon (Executive Director of Nursing); Peter Bramley; Rob Ojala
Subject: FW: CDHB Business Cases - Tower 3 and Compliance Works[EXTERNAL SENDER]
Attachments: 200907_Canterbury DHB Business Case Tower 3_0.2.docx

From: 9(2)(a) @health.govt.nz]
Sent: Monday, 7 September 2020 4:41 p.m.
To: Susan Fitzmaurice <Susan.Fitzmaurice@cdhb.health.nz>
Subject: FW: CDHB Business Cases - Tower 3 and Compliance Works[EXTERNAL SENDER]

4 of 4

Ngā mihi
9(2)(a)

9(2)(a)
Michelle Arrowsmith
Deputy Director-General | DHB Performance Support & Infrastructure
Ministry of Health | Email 9(2)(a)
http://www.health.govt.nz

From: 9(2)(a)
Sent: Monday, 7 September 2020 4:35 pm
To: Susan Fitzmaurice <Susan.Fitzmaurice@cdhb.health.nz>
Subject: FW: CDHB Business Cases - Tower 3 and Compliance Works

Ngā mihi
9(2)(a)

9(2)(a)
Michelle Arrowsmith
Deputy Director-General | DHB Performance Support & Infrastructure
Ministry of Health | Email 9(2)(a)
http://www.health.govt.nz

From: Michelle Arrowsmith
Sent: Monday, 7 September 2020 4:31 pm
To: peter.bramley@cdhb.health.nz
Subject: FW: CDHB Business Cases - Tower 3 and Compliance Works

Ngā mihi
Michelle

Michelle Arrowsmith
Deputy Director General | DHB Performance, Support and Infrastructure | Ministry of Health
E: michelle.arrowsmith@health.govt.nz 9(2)(a)
http://www.health.govt.nz

From: Michelle Arrowsmith
Sent: Monday, 7 September 2020 4:21 pm
To: john.hansen@cdhb.health.nz; 'John Hansen' 9(2)(a); peter.bramley@cdhb.health.nz; Andrew Brant (WDHB) <Andrew.Brant@waitematadhb.govt.nz>; Lester Levy 9(2)(a) Barry Bragg 9(2)(a)
Cc: Karl Wilkinson <Karl.Wilkinson@health.govt.nz>; John Hazeldine <john.hazeldine@health.govt.nz>
Subject: FW: CDHB Business Cases - Tower 3 and Compliance Works

Dear Sir John et al

Please find attached the CDHB papers for CIC on Tower 3 and compliance provided on behalf of the DHB by HIU.

I would appreciate a read through and approval by you all that these papers represent the DHBs view before we send them to CIC.

It would be helpful if we could gain your feedback, comments and approval by return tomorrow COB so that we can send on to CIC ahead of the meeting next week. If you require any longer to review could you let me know so I can manage with CIC.

As always happy to discuss or Karl will also be able to assist in this regard.

Look forward to hearing back from you.

Ngā mihi
Michelle

Michelle Arrowsmith
Deputy Director General | DHB Performance, Support and Infrastructure | Ministry of Health
E: michelle.arrowsmith@health.govt.nz | 9(2)(a)
http://www.health.govt.nz

From: 9(2)(a) @health.govt.nz>
Sent: Monday, 7 September 2020 3:51 pm
To: Michelle Arrowsmith <Michelle.Arrowsmith@health.govt.nz>; John Hazeldine <john.hazeldine@health.govt.nz>
Cc: Karl Wilkinson <Karl.Wilkinson@health.govt.nz>
Subject: CDHB Business Cases - Tower 3 and Compliance Works

Hi John and Michelle,

Please find attached the two word documents of the CDHB Business Cases. John, as requested I have moved the 'Recommendation' to before 'Next Steps' in the Tower 3 document.

I've also attached the Appendices and the Campus Master Plan documents in case you need these as well.

Thanks,
9(2)(a) [redacted]

Kind regards,
9(2)(a) [redacted]

9(2)(a) [redacted] Director Health Infrastructure
DHB Performance, Support & Infrastructure |
9(2)(a) [redacted]

MINISTRY OF HEALTH
MANATŪ HAUORA

http://www.health.govt.nz

Canterbury
District Health Board
Te Poari Hauora ō Waitaha

Canterbury DHB
Tower Three Business Case
(DBC Addendum)

Prepared by:	Destravis
Prepared for:	Canterbury District Health Board
Date:	07 September 2020
Version:	0.2
Status:	Final draft

Contents

Tables

Figures

Purpose

This business case for the Canterbury District Health Board (CDHB) Tower Three (DBC Addendum) seeks formal approval to invest in the preferred option 1c, being the creation of the Christchurch Hospital Tower Three (T3). T3 will be eight storeys high and will incorporate five new levels of 32 bed Inpatient Units (IPU's) above the existing podium. Two of the levels will be fitted out, providing 64 new beds, while three levels will be created as shell space capable of being fitted out in future years as bed demand grows. The project will have reduced D space compared to previous options, suitable to meet the needs of T3.

The preferred option 1c will cost approximately $154,000,000 with commissioning expected in the 2024/25 financial year.

This Business Case will outline the strategic case for undertaking the preferred option, building on the work undertaken to develop the November 2019 DBC for the Christchurch Hospital Redevelopment. This Business Case will identify the bed need at Christchurch Hospital and bed strategy to meet those needs. It will compare the previous preferred option (November 2019 DBC – option 1b) to the current preferred option 1c, making the case that option 1c is able to deliver on the bed needs of Christchurch Hospital for a lower capital spend while enabling future bed needs to be met. Financial, Commercial and Management considerations will be detailed, demonstrating T3 is able to be delivered mid-2025.

Strategic Case

Background

In November 2019, the CDHB submitted a DBC for the Christchurch Hospital Redevelopment (The DBC). The DBC articulated a case to deliver the preferred option 1b, a $437,800,000 ($387,000,000 sought from the crown) project that would deliver the following:

- enabling works, including decanting and demolition of Riverside West
- enabling works for Tower 4 including kitchen relocation, demolition of Food Services Building, demolition of lower ground extension of CSB, loading docks, plant relocation and ground improvement
- construct Tower 3 (9 floors, inclusive of D-space and Riverside link)
- construct in ground services for Tower 4
- full design for all tranche 2 activity, including Central Podium and Tower 4
- clinical refurbishment within remaining buildings for ambulatory clinics and office space
- compliance work to address earthquake damage and some passive fire rectification.

These works are considered part of 'tranche 1' works, delivering on short and medium term clinical and building safety (fire and earthquake) needs. The DBC also sought to design tranche 2 capital works (T4 and podium) given these were required to increase theatre capacity and meet additional bed needs from the decommissioning of bed spaces within the Parkside building. The construction funding for these works was to be subject to a future capital request.

In late 2019 the DBC was assessed by the Capital Investment Committee. Due to potential capital constraints, the Committee asked CDHB to provide an alternate option that would be able to deliver on bed needs with a lower capital cost, separating out building safety works to a separate business case and funding pool (Canterbury DHB Campus Master Plan Compliance Works).

From January to September 2020 CDHB re-analysed project need and scenarios to deliver an alternate preferred option that will meet the identified investment needs, the subject of this business case.

Problem Statements and Investment Objectives

The former DBC identified three key problem statements CDHB was seeking to address.

Problem Statement 1 – Building compliance and Safety

This problem largely relates to the need to bring existing hospital buildings up to earthquake safety standards. This problem remains and remediation works are proposed to go ahead in line with the DBC proposal. These works are subject to a separate case for the Canterbury DHB Campus Master Plan Compliance Works, allowing the problem to be resolved. Given this, this problem is no longer relevant to this business case.

Problem Statement 2 – Growing Demand for Hospital Services

The DBC made a clear case for the growth in service need that that CDHB is experiencing. This problem can be broken down into projected inpatient bed demands and projected theatre capacity, discussed below.

Projected Bed Demand

As stated within the DBC, CDHB's population continues to grow at a rate faster than projected, with an aging population and existing health needs placing pressure on clinical infrastructure, in particular on medical inpatient beds and theatre capacity. This is combined with areas within Christchurch Hospital that are aged, compromising patient and staff safety and wellbeing, and creating operational inefficiencies.

These strategic drivers have not changed, and the agreed bed projections as noted in the DBC have been used within this Business Case.

The base projected bed demand and demand deficits based on current bed numbers are noted in Table 1 and Figure 1.

Table 1 – Projected Bed Demand – Base Case

ADULT BED CAPACITY TOTAL ON & SS DEMAND	FY16/17	FY17/18	FY18/19	FY19/20	FY20/21	FY21/22	FY22/23	FY23/24	FY24/25	FY25/26	FY26/27	FY27/28	FY28/29	FY29/30	FY30/31
TOTAL CAPACITY	539	539	539	635	635	635	635	635	635	635	635	635	635	635	635
TOTAL ON AND SS DEMAND	513	506	559	577	595	613	630	648	667	687	709	730	750	771	793
INFRASTRUCTURE GAP	26	33	-20	58	40	22	5	-13	-32	-52	-74	-95	-115	-136	-158

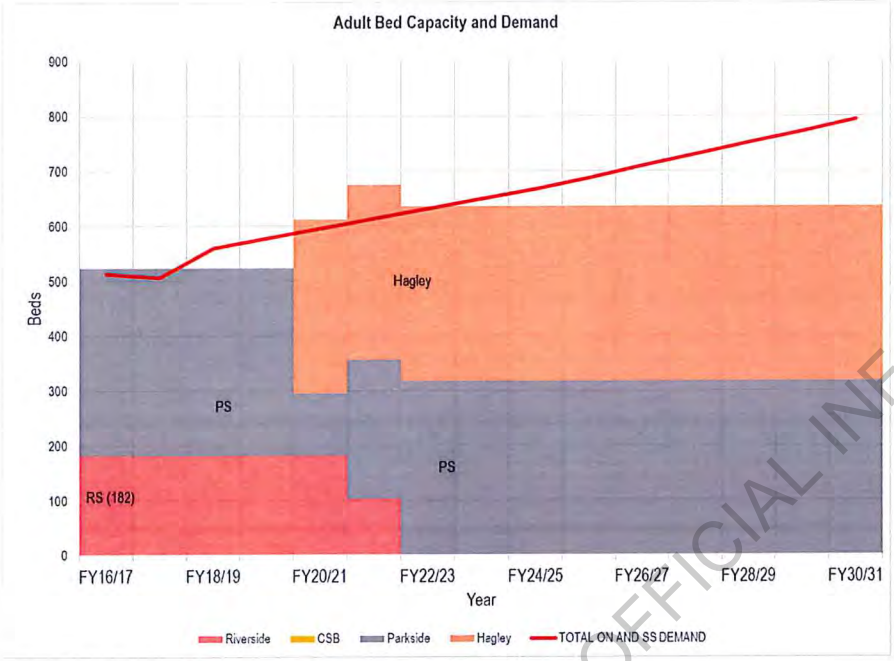


Figure 1 – Projected Bed Demand – Base Case

The information above demonstrates increasing bed need growing from 513 beds in 2016/17 to 793 beds in 2030/31.

Current infrastructure bed capacity is 539 spaces, growing to 635 based on the recent commissioning of the Hagley Building, Tower 1 and Tower 2. A bed deficit of 13 beds is experienced in the 2023/24 financial year, growing to 158 beds by 2031.

It is noted that bed capacity has been adjusted to take account for building safety compliance (earthquake remediation) works within these figures. These works will result in a reduction of current bed capacity of 24 beds within Parkside by 2024/25. These figures have been included in the projections above, meaning the bed deficit is ***13 beds in the 2023/24 financial year, growing to 158 beds by 2031.***

The DBC's previous preferred option 1b sought to address clinical functionality concerns by decommissioning existing 6-bed room layout wards within the Parkside, converting these to 4-bedroom ward layouts. This would have resulted in the decommissioning of an additional 64 beds, increasing the deficit in spaces to 77 in 2023/24, growing to 222 by 2031. The DBC also envisioned the sequential closing of Parkside in the 2023/24, 225/26 and 2030/31 financial years, further reducing beds by 254 spaces over the time period. These significant additional deficits were the primary driver behind opening additional wards within the DBC's preferred option 1b.

CDHB has reanalysed these needs and has determined that, while not clinically preferred, it will to continue operating the 6-bed ward layouts within Parkside until 2031, by which time

additional IPU capacity beyond the scope of this project is expected to be required if current population trend and models of care continue as per current assumptions.

The protected bed demand is therefore in line with Table 1, with a requirement to deliver 13 beds by 2023/24, growing to 158 beds by 2031.

Projected theatre infrastructure

The DBC also identified that theatre capacity would be constrained by 2024/25 where a deficit of one theatre is expected. This deficit grows to two theatres in 2026/27, three in 2028/29 and four in 2029/30, in line with Figure 2 below.

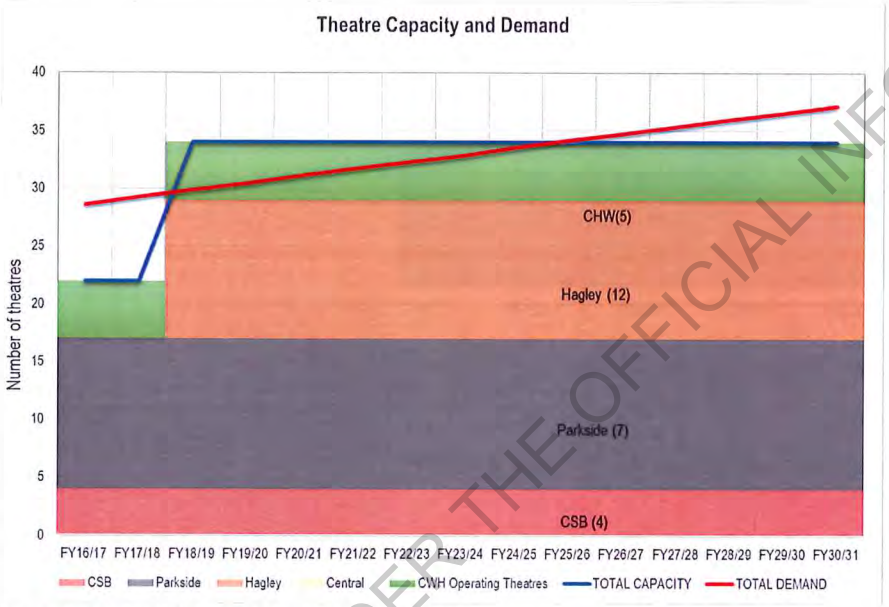


Figure 2 – Projected Theatre Capacity – Base Case

The former DBC identified that additional theatres would be accommodated within a new podium and tower (T4), with anticipated commissioning in the late 2020's. While the DBC did not include a request for construction funding for these works, it was proposed that a full design would be undertaken with all early enabling works (demolition and relocation of services) and in ground services constructed to enable T4 to be constructed when funding allowed.

Theatre demand has not been modified within this Business Case. However, this Business Case does not seek capital funding to construct additional theatre capacity. The existing strategy of outsourcing additional growth in theatre demand is proposed until such time as additional IPU capacity is expected to be required (2031), where a combined theatre and IPU build will be considered. Alternate strategies and models of care to manage or reduce theatre demand across CDHB facilities will also be explored prior to theatre capacity thresholds being met.

Problem Statement 3 – Diminishing quality of care and operational efficiency

The DBC outlined the existing functional deficiencies of a number of the Christchurch Hospital's buildings with respect to meeting AusHFG recommendations on configuration and spatial allowances. The key issues are:

- insufficient space in patient rooms due to the age of facilities
- shortage of key spaces, in particular a lack of single rooms, patient bathrooms and showers, and treatment rooms.
- infection risks, in particular a lack of negative pressure rooms and insufficient patient bathrooms and showers
- poor ward configuration, in particular poor line of sight, open layouts, shortage of storage leading to crowded corridors and bathroom sizes that do not cater for patient assistance needs.
- poor departmental connectivity due to services being spread out post earthquake
- low staff wellbeing with a high absenteeism rate.

These issues lead to a desire by CDHB to improve clinical layouts, patient bedrooms and amenities and deliver contemporary models of care.

Improvements to address these issues largely relate to providing new infrastructure that will support contemporary facility benchmarks, allowing the decanting of old ward layouts.

While this is the case, in a constrained capital environment, CDHB is focused on delivering new infrastructure to meet growing service needs. This will allow some improvement to patient care as higher acuity patients will be able to be facilities within new facilities, with lower acuity patients managed within older ward layouts.

While not clinically preferable, existing layouts can continue to be used while new infrastructure is built to manage additional demand. When future demand grows to the point where additional investment is required, improving or decanting existing facilities can be addressed.

Given the above information, Problem Statement 2: Growing Demand for Hospital Services, is the key problem seeking to be addressed through this Business Case, with Problem Statement 3 taking a lower priority within the Business Case.

Economic Case

Scenarios to deliver the alternate preferred option

CDHB considered five additional scenarios to deliver growing bed demands. All scenarios used the DBC's preferred option 1b as a base given this option aligned with the strategy of opening up T3 to meet increased IPU demand, integrating into the existing Hagley Building as had been planned at previous stages.

CDHB also sought to reduce the amount of D space required from approximately 5,000sqm to 1,800sqm within this option. While additional D space is preferable, reduction in these spaces does not compromise key clinical areas (e.g. ward layout and beds), ensuring the core components of the project are able to be catered for.

All scenarios continue to allow for some improvements to departmental location and relocation of areas impacted by demolition works associated with earthquake compliance (demolition of Riverside West), with all scenarios continuing to include the following in scope:

- relocation of Respiratory Lab
- move Medical Physics from Riverside West
- move Clinical Engineering from Riverside
- move Blood Bank closer to Hagley
- fit out new DOSA and recovery
- build new docks
- move ENT/Audiology from Riverside West
- convert theatre into Cath Lab
- compliance works for Gastroenterology
- relocate sleep unit
- create holding area in lower ground floor or Hagley.

Table 2 over page identifies the scope, cost, risk/disadvantages and benefits of each.

Table 2 – Alternate preferred option - scenarios

	Scenario A	Scenario B	Scenario C	Scenario D	Scenario E
Scope	T3 @ eight storeys: • five new ward floors – 160 beds • 2 floors fitted out (64 beds) • 3 shell floors (96 bed future fit out)	T3 @ eight storeys: • five new ward floors – 160 beds • 4 floors fitted out (128 beds) • 1 shell floor (32 beds future fit out)	T3 @ nine storeys: • six new ward floors – 192 beds • 2 floors fitted out (64 beds) • 4 shell floors (128 beds future fit out)	T3 @ nine storeys: • six new ward floors – 192 beds • 4 floors fitted out (128 beds) • 2 shell floors (64beds future fit out)	T3 @ nine storeys: • six new ward floors – 192 beds • all floors fitted out (192 beds)
Cost	$154,000,000	$178,000,000	$178,000,000	$198,000,000	$214,000,000
Risks / Disadvantages	Does not optimise all clinical functionality improvements.	Does not optimise all clinical functionality improvements. Higher capital cost.	Does not optimise all clinical functionality improvements. Higher capital cost. Increase structural works to Hagley podium to account for additional level- operational impact.	Does not optimise all clinical functionality improvements. Higher capital cost. Increase structural works to Hagley podium to account for additional level- operational impact.	Does not optimise all clinical functionality improvements. Highest capital cost. Increase structural works to Hagley podium to account for additional level- operational impact.
Benefits	Meets immediate bed need to 2025/26 with shell space capable of meeting all bed needs to 2030/31. No operational impacts due to strengthening works in Hagley Podium In alignment with capital cost expectations	Meets bed needs to 2028/29 with shell space capable of meeting all bed needs to 2030/31. No operational impacts due to strengthening works in Hagley Podium	Meets immediate bed need to 2025/26 with shell space exceeding 2030/31 needs.	Meets bed needs to 2028/29 with shell space exceeding 2030/31 needs.	Exceeds 2030/31 bed needs.

In addition to the above it is noted that this scenario carries the risk that theatre activity continues to need to be outsourced, increasing operational funding requirements.

Given CDHB requires only 32 beds by the estimated completion date of the project (2024/25), with a second ward needed by 2026/27, and due to the lowest capital cost, scenario 1 was chosen, becoming the preferred Option 1c.

The preferred Option 1c and its comparison to the DBC preferred Option 1b is detailed in the below.

Preferred Option Comparisons

A comparison of the former preferred Option 1b and the new preferred Option 1c is undertaken in below.

Table 3 – Option 1b and 1c comparison

	Option 1b	Option 1c
Scope*	• Construct Tower 3 - 192 beds (6 ward floors all fitted out, inclusive of more expansive "D" space) • Full design of new Central Building and Tower 4 • In ground Services for new Central building and Tower 4 • Infrastructure for new Central building and Tower 4 • Respiratory Lab relocation • Move Medical Physics from Riverside West • Move Kitchen into Women's Building • Build offices in Hagley LGF for Anaesthetics, Radiology and Surgical staff • Move Clinical Engineering from Riverside • Move Blood Bank closer to Hagley • Relocate Apheresis • Move staff and public café to Hagley • Demolish old Food Services Building • Fit out new DOSA and Recovery • Move Terminations to Women's • Move Child Protection Team • Build new Docks • Move ENT/Audiology from Riverside West • Convert theatre into Cath Lab • Gastro compliance works • Relocate Sleep unit • Passive fire remediation – existing facilities (Tranche 1)* • Create holding area in LGF Hagley	• Construct Tower 3, 5 ward floors; fit out 2 floors (64 beds and shell 3 floors, inclusive of reduced "D" space) • Respiratory Lab relocation • Move Medical Physics from Riverside West • Move Clinical Engineering from Riverside • Move Blood Bank closer to Hagley • Fit out new DOSA and Recovery • Build new Docks • Move ENT/Audiology from Riverside West • Convert theatre into Cath Lab • Gastro compliance works • Relocate Sleep unit • Create holding area in LGF Hagley

	Option 1b	Option 1c
Cost	$386,600,000*	$154,000,000
Risks / Disadvantages	Relies on capital funding in excess of that sought to meet clinical functionality (decommissioning of Parkside) and theatre demand projections (T4) – i.e. capital funding sought did not address the service need or full clinical functionality improves. High capital cost Service disruptions during building compliance rectification will further disrupt bed capacity during works (1-2 years of sequential disruptions) Disruption to operations in Hagley podium for structural improvements (enabling T3 9th storey)	Does not optimise clinical functionality within the existing Parkside building and within support functions Relies on an alternate strategy (e.g. activity in other CDHB facilities or outsourcing) to deliver growth in theatre activity beyond the 2024/25 financial year Service disruptions during building compliance rectification will further disrupt bed capacity during works (1-2 years of sequential disruptions) Potential ongoing operational inefficiencies due to poor clinical functionality in units occupying Parkside.
Benefits	Exceeds new bed demand projections Meets desired clinical functionality (noting the final solution (T4) was not included in the capital funding request) Ensures theatre growth is able to be accommodated on campus (centralised approach – note this was not included in the capital funding request) Aligned with Master Plan strategy	Optimal capital cost No disruptions to Hagley podium operations Aligned with new bed demand projections with immediate bed fit out meeting needs to 2025/26 and shell space capable of meeting bed needs to 2030/31. Does not impede Master Plan strategy

*Note both options do not include building compliance works as these are subject to a separate business case.

The key differences between the two options revolve around what occurs within the Parkside building. As the former preferred option 1b sought to improve clinical functionality (reduce 6 bed wards to 4 beds) and to decommission Parkside between the 2023/24 and 2030/31 years, the former preferred option 1b required additional bed capacity to be installed up front, and required additional spend to design and enable T4. The former preferred option 1b also sought to meet theatre demand, which it has been noted is not a priority for this Business Case and it is noted that capital funding was not sought for the construction of T4 that would enable this demand to be met. Option 1b would result in additional disruptions to operational services with significant decanting and refurbishment required, along with significant additional structural works to enable the 9th storey of T3. This would create operational impacts to the new Hagley building podium.

While option 1b does enable improvements to clinical functionality and theatre capacity, it is significantly stymied by a higher up front capital cost (more than $230,000,000 higher than option 1c) and did not seek funding for the construction of T4 which would have resulted in

significantly more capital funds being required in the mid-term to meet the actual service needs it identified it was resolving.

The new preferred option 1c does not deliver optimal clinical functionalities, with existing deficiencies in Parkside remaining until an alternate strategy to manage Parkside is enabled. option 1c also requires an offsite solution to meet future deficits in theatre demand (4 theatres) and will likely result in some operational inefficiencies due to older and less functional clinical layouts in the Parkside building.

While this is the case, option 1c delivers benefits included an optimal capital cost, fewer service disruptions than option 1b, in particular option 1b will include no service disruptions to the podium of the Hagley building. option 1c does not impede the Master Plan, with all future building locations preserved and clinical areas aligned with preferred or suitable interim locations. Option 1c also delivers on the new bed projections, meeting capacity to 2031/32, ensuring critical be needs are met.

A comparison of how the options meet projected bed demand is provided is provided in Table 4 below.

Table 4 – Option 1b and 1c projected bed capacity comparison

FY	Option 1B			Option 1C		
	Demand Projection	Capacity	Gap	Demand Projection	Capacity	Gap
2019/20	594	577	17	524	577	-53
2020/21	610	595	15	612	595	17
2021/22	571	613	-42	674	613	61
2022/23	571	630	-59	635	630	5
2023/24	686	648	38	635	648	-13
2024/25	686	667	19	699	667	32
2025/26	799	687	112	699	687	12
2026/27	799	709	90	763	709	54
2027/28	799	730	69	763	730	33
2028/29	799	750	49	763	750	13
2029/30	799	771	28	795	771	24
2030/31	745	793	-48	795	793	2

As can be seen form the table above, both options met the bed needs, with an additional shortage in bed needs experienced under the former preferred option 1b given it included significant reductions in existing bed capacity within the Parkside building. This strategy of faster decommissioning of Parkside, and of refurbishment to make Parkside more clinically functional also resulted in a greater deficiency in the 2021-2023 financial years during construction works. option 1b exacerbated bed shortages.

The new preferred option 1c results in no bed deficiencies in future years, with only a small gap in beds experienced in 2023/24 while earthquake and fire compliance safety works are undertaken.

The information above demonstrates that the preferred option 1c meets the required bed demands into the future.

Bed projections are noted graphically for each option in Figure 3 and Figure 4 below.

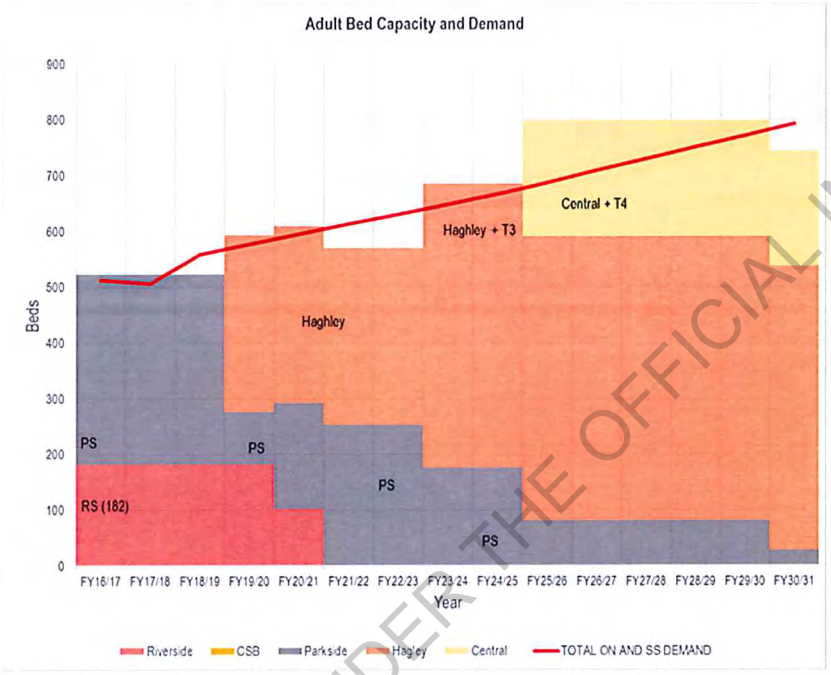


Figure 3 – Option 1b Bed Projection Graph

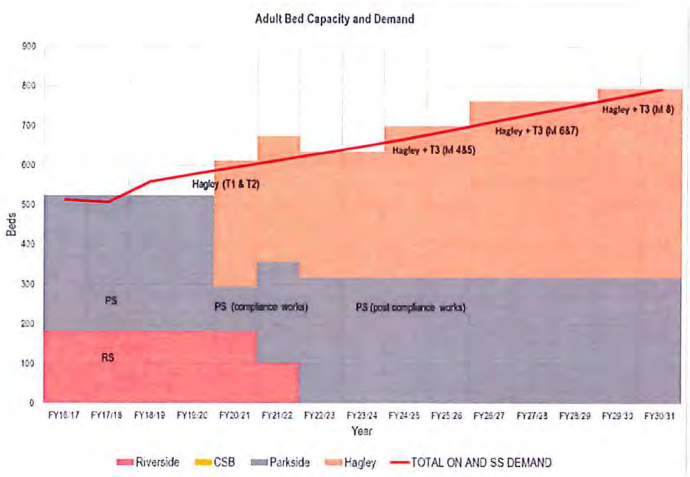


Figure 4 – Option 1c Bed Projection Graph

A comparison of the typical floor layouts of option 1b and option 1c is provided in Figure 5 below. This allows comparison of the modified D-space between the two options.

Figure 5 – Option 1b (left) and Option 1c (right) floor layout comparison

The right image above shows the preferred option 1c. This image shows the former option 1b D-space in green outline. As can be seen from these images, option 1 c has realigned the D Space to be over the existing Hagley podium entirely, requiring no new build out or additional structural works. The layout of the IPU has been changed, with no reduction in bed numbers. Additional lift core and link work to the T4 building (below / South) are also not undertaken, with half the lift core built and the fire safety stairs in an alternate location to ensure fire safety is able to be achieved regardless of T4's construction date. This does result in a small reduction in areas. However, it is noted that critical rooms including meeting rooms, treatment rooms, gym, staff room and space for Whanau are included in both options.

This demonstrates that the D-space and ward layout of option 1c remains functional and is still able to link to T4 in the future, ensuring future functionality in line with the Master Plan.

Additional plan details are provided in Appendix A.

Critical Success Factor Comparison

Critical success factors that aligned with the investment objectives of the DBC were developed with the former preferred option 1b analysed against these.

These factors have necessarily changed as a result of meeting growing service demand being the key priority of this Business Case, with building compliance dealt with via a separate process, and improving clinical functionality taking a secondary focus.

For this reason, Critical Success Factor (CSF) 1 (Compliance and Safety) has been removed, with CSF 2 (patient experience and quality of care) reduced in focus slightly. Table 5 identifies the changes in CSCF weighting and scoring for the options.

Table 5 – Critical Success Factor analysis – Option 1b vs Option 1c

Critical Success Factors	Former Weight	New Weight	Subcategory	Former Weight	New Weight	Option 1b (scores as per DBC*)	Option 1c
CSF1: Compliance and Safety	23%	0%	Statutory Compliance	18%	0%	0	0
			Other Compliance	5%	0%	0	0
CSF 2: Patient experience and quality of care	26%	15%	Patient / Staff experience	7.5%	2.5%	2	1
			Quality of Care	7.5%	2.5%	3	2
			Minimised Disruption	10%	10%	2	2.5
CSF3: Population outcomes	21%	35%	Capacity	11%	24%	2	3
			Resilience	11%	11%	2	1.5
CSF4: Value for Money	15%	15%	Economy	5%	5%	3	2
			Effectiveness	5%	5%	3	2
			Efficiency	5%	5%	3	2
CSF5: Affordability	15%	35%	Capital	5%	25%	1	3
			OPEX	10%	10%	2	1
				Total - Unweighted		23	20
				Total - Weighted		1.93	2.36

* Note – Scores for Option 1b are as per the DBC, with the exception of scores for CSF1 – these scores have been reduced from 2 to 0 as they are no longer part of the case. The weighted total is different as weightings have changed.

As can be seen from the table above, CSF1 has its weighting reduced from 23% to 0%, with CSF 2 reducing its weighting from 26% to 15%, with the sub categories of patient / staff experience and quality of care reduced from 7.5% to 2.5% each.

CSF 3 has had weighting increased from 21% to 35%, with all increases going into the capacity subcategory.

CSF5 has had weighting increase from 15% to 35%, with all increases going into the Capital subcategory.

This results in the score for option 1b being reduced from its DBC score of 2.2, to 1.93.

Option 1c scores at 2.36, higher than option 1b, confirming its status as the preferred option via a CSF analysis.

The main driver behind option 1c scoring higher is its significantly lower capital cost, allowing a high score to be obtained in this category. Its capacity score is also increased as the bed strategy adopted ensures a higher volume of beds is available over the duration of the bed projections.

Option 1c does score lower than option 1b in the patient / staff experience and quality of care sub categories, as is expected given option 1c maintains Parkside wards to 2030/31. Option 1c is also less resilient overall, with a lower but moderate score for all CSF4: Value for Money categories.

Overall, option 1c scores higher than option 1b. Option 1c is able to meet bed demands, provides an acceptable level of patient and staff amenity, does not stymie the ability of the Master Plan to be furthered int the future (subject to additional capital) and does so at a significantly reduced capital cost.

Financial Case

The estimated cost of this project is $154 million, as per the Table 6 below These costs are based on CDHB and Quantity surveyor (RLB) amendments of the original DBC cost plan of option 1B and a value engineering approach. This includes the original allowances for escalations.

Given the time constrains, no operational costing and revenue modelling has been undertaken. It is expected that this would be of a very similar nature (benchmark assumptions) as DBC option 1B for the Tower 3 component only. Updated operational and revenue modelling will be undertaken upon approval of the DBC.

The full amount has been requested as Crown funding.

Table 6 – Estimated project cost summery

In Millions $	2020/21	2021/22	2022/23	2023/24	2024/25	2025/26	2026/27	2027/28	Total
Capital expenditure	8,178	13,592	29,843	40,421	37,666	21,326	2,400	574	154,000
Operating expenditure	TBC	TBC	TBC	TBC	TBC	TBC	TBC	TBC	TBC
Total expenditure	TBC	TBC	TBC	TBC	TBC	TBC	TBC	TBC	TBC
Revenue	TBC	TBC	TBC	TBC	TBC	TBC	TBC	TBC	TBC
Capital required	8,178	13,592	29,843	40,421	37,666	21,326	2,400	574	154,000
Operating required	TBC	TBC	TBC	TBC	TBC	TBC	TBC	TBC	TBC

A detailed overview of capital cost estimates for option 1C is attached in appendix F.

Commercial Case

Due to the vast similarities in the scope concerning Tower 3 in both option 1B with 1C, this commercial case has been based on a review and comparison of the commercial arguments in the DBC for option 1B and in particular the items applicable to tower 3 . This approach resulted in a similar outcome and conclusion without the need to undertake procurement analysis, workshops, evaluation criteria, assessment, etc. The key considerations have been highlighted in this section to reflect the nature and scope of option 1C and the reduced scope when compared with option 1B. It is designed to deliver capacity in line with forecast demand pressures facing CDHB. The programme and estimated capital costs for the recommended option is based on a traditional, design then construct model which attempts to weigh up and recognise a range of prevailing circumstances including the experience of similar projects and the capacity and capability of the local market. In this regard, the assessment result and criteria undertaken during the DBC for option 1B remain applicable: undertake a completed design that is fully scheduled and costed before the point of tender.

It should be noted that a detailed procurement plan will be developed following the approval of this Business Case and endorsement of the recommended option.

The project and market context and circumstances that have led to the conclusion is described as follows:

- Current concerns exist based on other health projects around design risk and the failure to provide fully documented design and drawings at point of tender.
- There are current gaps in capability in the local industry for more complex procurement methods. Quite simply, the local market does not have the maturity and appetite for more complex procurement methods. It is critical however that the learnings from past traditional procurement approaches are observed and acted upon. The Ministry of Health is taking the lead on providing learnings from the procurement and construction of Hagley. As noted above, completing fully documented design and drawings is a key learning from previous projects and this must be applied in the procurement approach for this project
- The recommended option has co-location of the proposed new facilities with existing CDHB facilities on the Christchurch Hospital site. This means there is limited opportunity for substantial whole-of-life risk transfer; consequently, more complex procurement approaches are unlikely to mitigate potential risks.

Table 7 – Preferred procurement method: traditional procurement

Traditional procurement model	
Description	• The Ministry of Health enters into contracts for construction based on separately procured design (either concurrently or consecutively) • No ongoing obligations for asset maintenance and operations by Contractor as separate in-house or separate externally procured operations, maintenance and lifecycle arrangements would be put in place • Funded by public sector
Rationale / advantages for choosing this approach	• Greatest level of cost certainty prior to engagement with the construction market • Timeframes and scope are agreed upfront • Similar time to market relative to alternative procurement approaches (dependent on adherence to respective methodology) with a complete design

Traditional procurement model	
Risks to the Ministry of Health and / or CDHB	• Similar or lower tendering cost relative to alternative procurement approaches dependent on adherence to respective methodology • High level of design and implementation control • Most competitive and attractive to the market • Least risk for contractors • Tailored bundling in order to meet timeframes • Majority of risks retained by public sector, though cost and design risk is transferred to the contractor especially with complete design being undertaken • Contractor only models may increase interface risks between designers and contractors • A separate competitive tender process for design and then construction contractor may put the targeted 2025 operational commencement at risk • Positive outcomes and risk management for the public sector dependent on high internal capability and capacity • Better management of design risk is paramount – further discussion on these matters is set out below but with a particular focus on ensuring design is complete and fully documented at the point of tender i.e. so that the delivery of a robust traditional construct model is achieved

The characteristics of the project remain aligned with the DBC and are described in Table 8.

Table 8 – Characteristics of the recommended option that impact procurement

Characteristics	Description	Implication for procurement
Site location	Tower 3 will be located on the Hagley podium in the location of the Christchurch Hospital site. The Hagley podium was developed with future expansion with the third tower to be built on the existing podium footprint. It is consistent with the Master Plan's long-term vision and site wide connectivity	Co-location of the proposed new facilities with existing CDHB facilities on the Christchurch Hospital site means there is limited opportunity for substantial whole of life risk transfer and consequently more complex procurement approaches are unlikely to be appropriate
Scope	The key components of the project will be: • Enabling works, design and construction of new Tower 3 and fitout of two floors delivering 64 beds. (160 IPU final bed capacity) • Minimum refurb works across the site, with focus on enabling decant of Riverside West	• The scope of projects and their complexity will impact the procurement approach. • Various packages of the project can be procured as separate packages. • In addition to the build component, maintenance and lifecycle services for varying durations and standard defect liability periods could be included within contracts for the components detailed
Scale	It is anticipated that the project will require $154 funded works. This cost is largely comprised of:	• The scale of projects (capital value and on-going services cost) directly impacts the procurement decision-making criteria for project delivery

	• $13m for design package of Tower 3 • $116m for construction Tower 3 that consists of 8 floors and 64 beds fitted out beds • $2.5m for design package of Minimum refurb works, • $22.5m for Minimum refurb works,	• The larger a project is the greater ability it will likely have to absorb the transaction costs associated with more complex procurement models • The procurement advisors observed that for smaller scale packages there is sufficient market capacity and competition to drive better value for money outcomes
Timing	Early completion of the facility is both desirable and necessary in light of the risks associated with the continued provision of health services for the CDHB region. The need to provide more inpatient beds to the region means the facility should be in service as quickly as possible to meet the projected demand. • The current assumption is that the new Tower 3 facility will be in service by mid-2025. • Tower 3 approvals process (expedited) (by 30/10/20) • Tower 3 early works contractor procurement (by 30/07/22). • Tower 3 contractor procurement (by 30/03/23)	• Procurement timescales (and cost) will normally increase with the complexity of the procurement option applied • The expedited programme is facilitated by several early works packages e.g. early • structural steel, works/migration to enable riverside west demo, Tower 3 shell, core and structure design • If timescales and programming are significant constraints, design then construct procurement methods are more appropriate • Design then construct procurement methods are likely more appropriate due to similar time to market with a more thorough brief relative to alternative procurement approaches and the ability to provide surety around time and cost deliverables
Services	As CDHB will be the owner of the facility, asset management services will be provided by CDHB upon completion of construction Operations/clinical services will be provided by CDHB. Operated and maintained by CDHB.	The existence of facilities maintenance and infrastructure contracts covering the co-located CDHB facilities presents opportunities for economies of scale through extension of those contracts to the contractors for the new facility
Live operating environment	The work will be happening in a live hospital operational environment	The requirements associated with working in an operational environment will influence cost, time requirements and may influence market interest
Delivery Agency	Current assumption is that Ministry of Health will deliver Tower 3 design and construction. Meanwhile CDHB will deliver: • Minimal refurbishment works on existing buildings (Parkside, Riverside, Clinical services building) • Remaining compliance on existing buildings (covered in a separate business case)	Delivery agency should not impact on the assessment of the preferred procurement method for each package of works. However, there may be an opportunity to integrate some of these works with Ministry of Health delivered works to streamline operational impact of construction works and mitigate dependency risk

In addition to the asset and service requirements of the project, a set of potential risks related to the procurement of the project were identified for consideration in the evaluation of the procurement options. These risks are not presented with mitigations as they were intended to inform the overall discussion on the suitability of procurement models. Some mitigations therefore form part of the overall assessment. The impact of risks becoming issues was considered in the Quantitative Risk Assessment (QRA) of the DBC with the full findings set out in Appendix M. Table 9 presents the summary of risks for the procurement of the project.

Table 9 – Summary of key risks for the procurement of the project

Risk	Impact
Timetable (drivers include approval / decision making delays)	• Time delays (impacting works programme or in-service dates) results in increased operating and capital cost, along with increased safety, wellbeing, and clinical risks due to: • Cost escalation • Continued pressure to manage increasing demand within existing capacity • Longer time spent in suboptimal facilities
Incomplete and/or inaccurate information and assumptions underlying the Business Case, procurement and/or design processes	• Material changes to the Project scope, scale and/or cost because of incomplete and/or inaccurate information and assumptions underlying the Business Case and/or the procurement process • Project becomes unaffordable and/or does not represent the best value for money resulting in poor decision making and/or time delay
COVID19	• To the extent possible, the impact of COVID19 and the risk of interruptions and delay claims will need to be managed in the contract conditions for design and construction. Further legal advice from the MOH is to be sought in this regard.
Site conditions	• Whilst Tower 3 is to be constructed on a future proofed podium, it appears that there is significant upgrade works to be undertaken to facilitate the additional tower to the existing podium and in particular to the level 3 plantroom services and structure. Further detailed investigation will be undertaken as part of the subsequent design process
Design	• Disagreements between designer and contactor may result in delays or the assumption of additional risk by the Ministry of Health and CDHB • Unique features and complexity of project results in costs overruns • Design targets capital cost, without sufficient regard to operating costs resulting in higher than expected operating costs
Construction	• Design is not buildable or results in material additional cost • Sequencing of construction is not met due to unexpected complexity of the project or events such as delays in scheduling of materials, trades, and design or buildability issues • The site requires more remediation work than initially anticipated resulting in significant cost overruns
Operating Risks	• Higher than expected operating costs • High than anticipated utilisation of the facility results in capacity constraints • Lower than expected utilisation of facility results in an overbuilt and OPEX heavy building

Risk	Impact
	• Higher than expected disruption of day-to-day operations in the hospital during the redevelopment
Asset	• The built facility is not fit-for-purpose • The design does not adequately meet the current needs of clinicians and patient realities • Scope and scale of the facility is not sufficiently flexible to cater to future growth / clinical mix: • Facility is not able to cater to changing patient demand • Treatment outcomes and benefit targets are not met • Exposure to future cost escalation and costly alterations to the facility at a later stage
Political	• A change in priority of this project relative to wider national health projects causes delay in timeline • Political pressures to accelerate timelines may result in rushed decision making, robust processes not being properly followed

Management Case

Project Delivery

The project delivery might appear straight forward since the original design was future proofed to facilitate the addition of tower 3. However, due to limitations in the detailed design prior to appointment of the Contractor and value management outcomes, the future proofing readiness has been compromised.

As such, it will be paramount that the design is given adequate investigation, documentation and verification/peer review time to identify the detailed scope of amendments and integration requirements of tower 3 with the existing building and in particular since the podium building is not a clinical operational acute hospital facility catering sensitive imaging and operating theatre equipment.

The commencement of the construction of Tower 3 is dependent on the Demolition of Riverside West, which in turn is dependent on the current occupant being decanted into other locations, which in turn require minimal refurbishment works.

The tight site conditions and working space adds to the construction complications, however the demolition of riverside west should significantly improve this situation. However, option 1C D-space footprint is no longer clashing with Riverside West, and as such construction of Tower 3 might be able to commence without Riverside West early demolition required. This would need to be investigated and developed as a contingency plan during dearly works design in collaboration with the demolition contractors' input.

To deliver Tower 3 to this tight timeframe and early works package is required to facilitate the procurement of long lead items such as the structural steel and the glazed façade. A review period should be applied to ensure that the structural package fully accommodated the functional requirements, whilst the later will not be document yet.

The project oversight will be a partnership arrangement between the MOH and CDHB. The MOH will be responsible to deliver Tower 3, whilst the CDHB will be responsible to deliver the minimal refurbishment works. The partnership arrangement will facilitate the operational input from the CDHB into the project to ensure that operational risks can be management and mitigated.

Benefit Management

Benefits management will be undertaken in line with the CDHB's benefits management framework, detailed in the DBC (pages 128-130).

Should capital funding be allocated, the following key documents will be created to support benefits realisation following project completion:

- Benefits realisation plan: Showing a view of benefits and when they are expected to be realised.
- Benefit profile(s): Showing details of each benefit.
- Benefits register: Showing consolidated benefit information.

These documents will be monitored by the Project Sponsor and Business Owner, who will report via internal committees to the Executive Management Team and Board, who will then provide information to the Ministry of Health as required.

Risk Management

The detailed risks and mitigation strategy of the preferred option 1c are identified in Table 10.

Table 10 – Risk & Mitigation Strategy – Preferred Option

No.	Risk	Mitigation Strategy
1	Recommended option does not meet the capacity requirements of the CDHB health system upon completion and/or beyond completion	• Retention of Parkside ensures additional bed availability • Ongoing testing and modelling, including monitoring of population projections, current and future health trends will be undertaken • Advancements in models of care to alleviate in-hospital demand • Contingency planning
2	Exposure to material time delays through the planning and approvals stage further reduces access to healthcare for the Canterbury population; reduces resilience and staff wellbeing; increases clinical risks and capital cost	• Proactive and ongoing communication between CDHB, Treasury and Ministry of Health • Contingency planning
3	Material changes to project scope, scale and/or cost as a result of incomplete and/or inaccurate information and assumptions underlying the Master Plan and/or DBC results in the project: becoming unaffordable; representing poor value for money; and/or being exposed to time delays due to scope change	• Project contingencies to manage design and scope risks • Ongoing and timely testing of key assumptions
4	The facility design cannot respond flexibly to changing requirements (model of care and demand) now and in the future resulting in diminished health outcomes, reduced operational efficiency and value for money – drivers include existing constraints on physical site	• Adequate engagement with clinicians, consumers, community and research partners • Drawing on lessons learned from recent developments • Design principles, such as "long life, loose fit" • Peer review
5	Unanticipated events onsite or in Canterbury cause significantly delay in construction e.g. unanticipated ground conditions, weather,	• Contingency plans • Communication plans • Project governance structure and decision-making forums • Utilise available contractual mechanism

No.	Risk	Mitigation Strategy
	seismic events, labour/resource shortages	
6	Construction timeline cannot be achieved	• Peer review • Continually reflect on recent lessons learned
7	Risk of defects/issues during commissioning and post occupation	• Development of robust commissioning plans, led by commissioning managers • Contracting mechanisms to manage defects • Expertise of Programme Director • Contingency plan
8	Capital funding constraints do not deliver a fit-for-purpose facility, adequate capacity and/or value for money Note current exclusions: specialist equipment, changes in digital technology and emerging political appetite for environmentally sustainable design	• Preferred Option delivers critical components at low capital cost – risk mitigated. • Preferred Option does not impede future development in line with Master Plan • Future requirements can be addressed via future capital funding allocations in the mid-term.
9	Operating efficiency savings do not eventuate, meaning operating costs are unaffordable	• Test robustness of assumptions in financial model • Benefits realisation strategy development and implementation
10	Capital costs exceed budget	• Test robustness of assumptions of capital costs, including peer review • Clear understanding and agreement of project scope and funding sources • Manage interface between business as usual investment and project scope to ensure consistency and understanding of assumptions • Leverage contractual mechanisms
11	Assumed funding models/assumptions do not materialise	• Continual communication with Ministry of Health • Sensitivity analysis of key assumptions • Develop financial accountability framework
12	Resources are insufficient to cover the level of engagement, planning and operating cost necessitated by a continual construction programme and the successful delivery of the project	• Leverage CDHB's extensive planning and change management experience, including lessons learned • Develop and ring fence budget for necessary activities
13	Procurement of design and/or construction resources and/or consenting process is overly	• Ensure project team have appropriate procurement experience, including lessons learned

No.	Risk	Mitigation Strategy
	complex and time-consuming and causes significant delays	• Ongoing and timely market engagement and communication with Treasury • Realistic programming • Contracting mechanisms to allocate risk
14	Constraints in the local construction market limit availability and/or quality of suppliers and contractors	• Early engagement with the market and Treasury's ICU team • Robust programming reflecting latest information on market constraints • Contractual mechanisms to mitigate quality risk
15	Disruption to day-to-day CDHB operations during the redevelopment	• Development of detailed transition plan, with substantial clinical and other stakeholder input • Contingency planning and mitigation steps
16	Clinical and operating risk is not adequately managed through staging and transition from existing to new (and refurbished) facilities	• Development of detailed operating plans to manage both patient safety and impact of capacity constraints through project delivery • Contingency planning • Detailed operational input into programme
17	Clinical functionality deficiencies lead to decreased patient and staff satisfaction, and ongoing operational inefficiencies	• Develop plan to ensure higher acuity and higher need patient cohorts are prioritised for new and clinically functional infrastructure • Lobby for future capital funding to address clinical functionality improvements in the mid-term. • Focus continual yearly improvement in operational efficiency
18	Theatre activity demand are not able to be met in the medium term	• Identify alternate pathways t deliver projected theatre activity (e.g. new models of care or lower acuity procedures, alternate site infrastructure strategies, outsourcing of select elective surgery activity). • Identify health prevention measures that align with reducing surgical procedure demands.

Benefits

The DBC identified benefits relating to compliance and risk, increased efficiency of service and increased access of service. Benefits of compliance standards are not included in this Business Case as they are being undertaking via a separate process. Table 11 identifies the alignment of option 1 with the main project benefits.

Table 11 – Preferred Option 1c Benefits Alignment

Main Benefits	Benefit Details	Option 1 c alignment
Increased efficiency of service provision	• Decrease in cost per patient discharge • Decrease in average length of stay of patient • Reduction in accidents, incidents and near misses associated with use of facilities which are not fit-for-purpose e.g. infections and falls • Decrease in re-admission rates	Option 1c will provide a moderate alignment with this benefit through providing contemporary facilities that meet service growth needs. This will allow patients to be seen in appropriate time frames, with patient quality and care in this new environment contributing to improved patient outcomes. Achievement of this benefit is tempered by wards within Parkside not being upgraded.
Increased access of service provision	• Decrease in bed blockages • Increase in elective surgery rates • Improved levels of wellbeing and morale, through Christchurch Hospital facilities and services which are more effective at supporting the community	Option 1c enables achievement of this benefit through providing for the projected bed needed to 2030/31. This will result in reduced bed blockages and improved patient outcomes.

Recommendation

Option 1c is recommended for approval by the Capital Investment Committee.

Option 1c includes the construction of T3 to a total height of eight storeys and with a reduced, but still clinically functional total D space. Option 1c will include 5 storeys of 32 bed wards per storey, with two storeys (64 beds) to be fit out within the project budget. This will ensure bed needs are met to 2025/26, with smaller capital ward fit outs for floors above able to be undertaken every two years to meet projected demand to 2030/31. Option 1c also includes decanting and fit out works for clinical and support areas that are impacted by building compliance demolitions, ensuring clinical and support areas can continue to operate through the duration of capital works.

Option 1c can be phased to align with building compliance and rectification works enabled under a separate business case. Option 1c comes at a cost of $154,000,000 and can be delivered by the end of the 2024/25 financial year.

Risks can be managed, with the benefits of the project suitable to meet identified need.

The sections below will further detail the Financial, Commercial and Management case for the preferred option 1c.

Next Steps

Following approval of this addendum to the DBC, the following actions and their anticipated timeframes are indicated in the table below:

Table 12 – Timelines– Preferred option

1	DBC approval	30/10/2020
2	Consultant engagement documents Tower 3	30/12/2020
3	Consultant engagement documents Minimal refurb works	30/12/2020
4	Consultant engagement T3	30/02/2021
5	Consultant engagement enabling works	30/02/2021
6	T3 concept approval	30/06/2021
7	Minimal refurb concept approval	30/04/2021
8	Documentation Minimal refurb	30/09/2021
9	Contractor procurement Minimal refurb	30/11/2021
10	Minimal refurb construction	30/02/2022
11	Documentation early works T3	30/06/2022
12	Contractor procurement early works T3	30/08/2022
13	Design and Documentation T3	30/11/2022
14	Steel and Façade/enabling works T3	30/04/2023
15	Contractor procurement T3	30/04/2023
16	Construction and fit-out T3	30/02/2025
17	Tower3 operational	30/06/2025

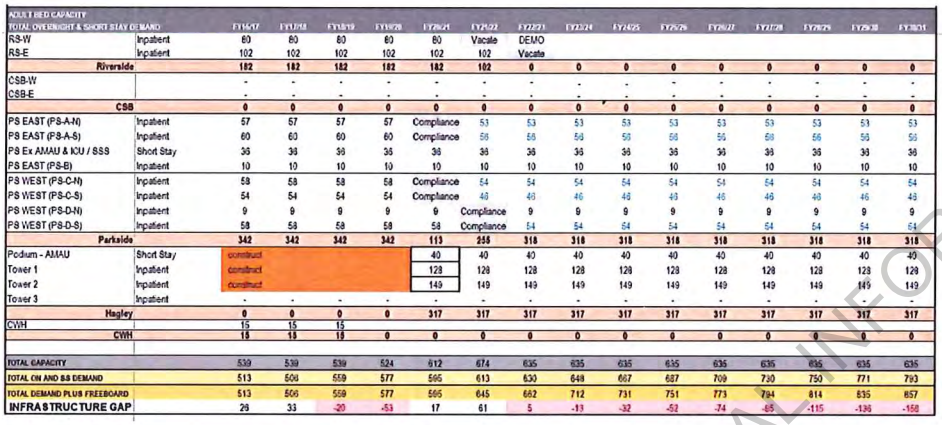
As indicated in the previous section, the construction of tower 3 is dependent on the completion of the minimal refreshment works in order to facilitate the demolition of Riverside West.

A program has been appended; however, the commencing date is already 3 months behind and hence times lines in this addendum have been updated to reflect updated dates.

Commented [A1]: Gunther to include implementation time frames – net project steps etc.

Appendix A- Adult Bed Capacity

Figure 6 – Base Case - Adult Bed Capacity

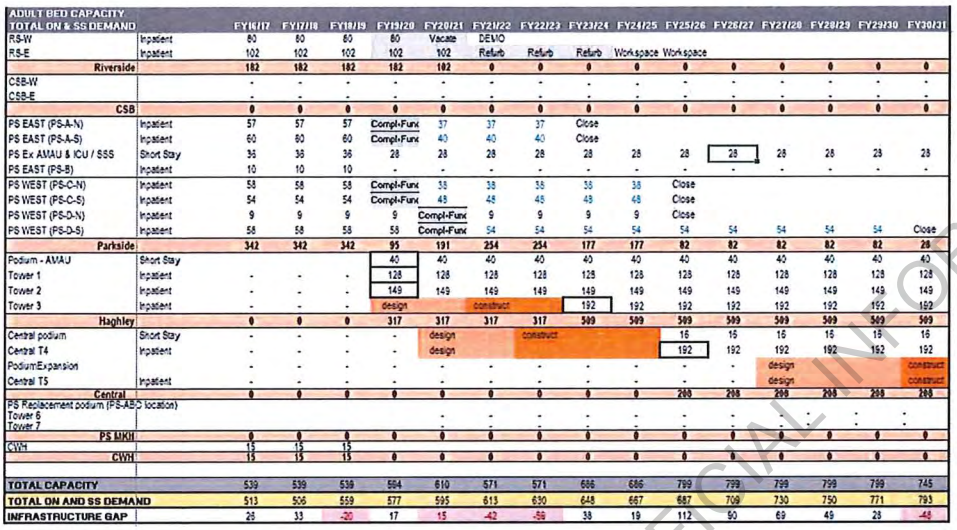


ADULT BED CAPACITY TOTAL OVERNIGHT & SHORT STAY DEMAND		FY16/17	FY17/18	FY18/19	FY19/20	FY20/21	FY21/22	FY22/23	FY23/24	FY24/25	FY25/26	FY26/27	FY27/28	FY28/29	FY29/30	FY30/31
RS-W	Inpatient	80	80	80	80	80	Vacate	DEMO								
RS-E	Inpatient	102	102	102	102	102	102	Vacate								
Riverside		**182**	**182**	**182**	**182**	**182**	**102**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
CSB-W		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CSB-E		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CSB		**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
PS EAST (PS-A-N)	Inpatient	57	57	57	57	Compliance	53	53	53	53	53	53	53	53	53	53
PS EAST (PS-A-S)	Inpatient	60	60	60	60	Compliance	56	56	56	56	56	56	56	56	56	56
PS Ex AMAU & ICU / SSS	Short Stay	36	36	36	36	36	36	36	36	36	36	36	36	36	36	36
PS EAST (PS-B)	Inpatient	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
PS WEST (PS-C-N)	Inpatient	58	58	58	58	Compliance	54	54	54	54	54	54	54	54	54	54
PS WEST (PS-C-S)	Inpatient	54	54	54	54	Compliance	46	46	46	46	46	46	46	46	46	46
PS WEST (PS-D-N)	Inpatient	9	9	9	9	9	Compliance	9	9	9	9	9	9	9	9	9
PS WEST (PS-D-S)	Inpatient	58	58	58	58	58	Compliance	54	54	54	54	54	54	54	54	54
Parkside		**342**	**342**	**342**	**342**	**113**	**255**	**318**	**318**	**318**	**318**	**318**	**318**	**318**	**318**	**318**
Podium - AMAU	Short Stay	construct				40	40	40	40	40	40	40	40	40	40	40
Tower 1	Inpatient	construct				128	128	128	128	128	128	128	128	128	128	128
Tower 2	Inpatient	construct				149	149	149	149	149	149	149	149	149	149	149
Tower 3	Inpatient	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Hagley		**0**	**0**	**0**	**0**	**317**	**317**	**317**	**317**	**317**	**317**	**317**	**317**	**317**	**317**	**317**
CWH		15	15	15												
CWH		**15**	**15**	**15**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
TOTAL CAPACITY		539	539	539	524	612	674	635	635	635	635	635	635	635	635	635
TOTAL ON AND SS DEMAND		513	506	559	577	595	613	630	648	667	687	709	730	750	771	793
TOTAL DEMAND PLUS FREEBOARD		513	506	559	577	595	645	662	712	731	751	773	794	814	835	857
INFRASTRUCTURE GAP		26	33	-20	-53	17	61	5	-13	-32	-52	-74	-65	-115	-136	-158

Figure 7 – Option 1C - Adult Bed Capacity

ADULT BED CAPACITY TOTAL OVERNIGHT & SHORT STAY DEMAND		FY16/17	FY17/18	FY18/19	FY19/20	FY20/21	FY21/22	FY22/23	FY23/24	FY24/25	FY25/26	FY26/27	FY27/28	FY28/29	FY29/30	FY30/31
RS-W	Inpatient	80	80	80	80	80	Vacate	DEMO								
RS-E	Inpatient	102	102	102	102	102	102	Refurb	Refurb	Refurb	Workspace	Workspace				
Riverside		**182**	**182**	**182**	**182**	**182**	**102**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
CSB-W		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CSB-E		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CSB		**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
PS EAST (PS-A-N)	Inpatient	57	57	57	57	Compliance	53	53	53	53	53	53	53	53	53	53
PS EAST (PS-A-S)	Inpatient	60	60	60	60	Compliance	56	56	56	56	56	56	56	56	56	56
PS Ex AMAU & ICU / SSS	Short Stay	36	36	36	36	36	36	36	36	36	36	36	36	36	36	36
PS EAST (PS-B)	Inpatient	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
PS WEST (PS-C-N)	Inpatient	58	58	58	58	Compliance	54	54	54	54	54	54	54	54	54	54
PS WEST (PS-C-S)	Inpatient	54	54	54	54	Compliance	46	46	46	46	46	46	46	46	46	46
PS WEST (PS-D-N)	Inpatient	9	9	9	9	9	Compliance	9	9	9	9	9	9	9	9	9
PS WEST (PS-D-S)	Inpatient	58	58	58	58	58	Compliance	54	54	54	54	54	54	54	54	54
Parkside		**342**	**342**	**342**	**342**	**113**	**255**	**318**	**318**	**318**	**318**	**318**	**318**	**318**	**318**	**318**
Podium - AMAU	Short Stay	construct				40	40	40	40	40	40	40	40	40	40	40
Tower 1	Inpatient	construct				128	128	128	128	128	128	128	128	128	128	128
Tower 2	Inpatient	construct				149	149	149	149	149	149	149	149	149	149	149
Tower 3	Inpatient	-	-	-	-	design		construct		64	64	123	128	128	160	160
Hagley		**0**	**0**	**0**	**0**	**317**	**317**	**317**	**317**	**381**	**381**	**445**	**445**	**445**	**477**	**477**
CWH		15	15	15												
CWH		**15**	**15**	**15**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
TOTAL CAPACITY		539	539	539	524	612	674	635	635	699	699	763	763	763	795	795
TOTAL ON AND SS DEMAND		513	506	559	577	595	613	630	648	667	687	709	730	750	771	793
INFRASTRUCTURE GAP		26	33	-20	-53	17	61	5	-13	32	12	54	33	13	24	2

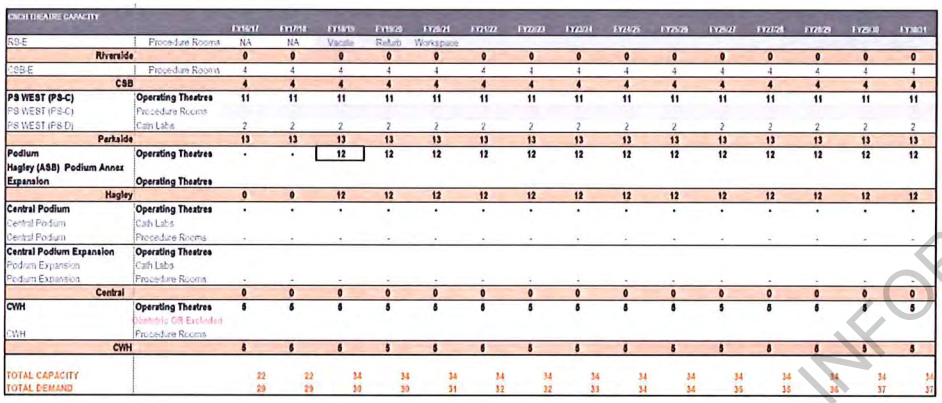
Figure 8 – Option 1B - Adult Bed Capacity



ADULT BED CAPACITY TOTAL ON & SS DEMAND		FY16/17	FY17/18	FY18/19	FY19/20	FY20/21	FY21/22	FY22/23	FY23/24	FY24/25	FY25/26	FY26/27	FY27/28	FY28/29	FY29/30	FY30/31
RS-W	Inpatient	60	60	60	60	Vacate	DEMO									
RS-E	Inpatient	102	102	102	102	102	Refurb	Refurb	Refurb	Workspace	Workspace					
Riverside		**162**	**162**	**162**	**162**	**102**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
CSB-W		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CSB-E		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CSB		**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
PS EAST (PS-A-N)	Inpatient	57	57	57	Compl-Func	37	37	37	Close							
PS EAST (PS-A-S)	Inpatient	60	60	60	Compl-Func	40	40	40	Close							
PS Ex AMAU & ICU / SSS	Short Stay	36	36	36	28	28	28	28	28	28	28	28	28	28	28	28
PS EAST (PS-B)	Inpatient	10	10	10	-	-	-	-	-	-	-	-	-	-	-	-
PS WEST (PS-C-N)	Inpatient	58	58	58	Compl-Func	38	38	38	38	38	Close					
PS WEST (PS-C-S)	Inpatient	54	54	54	Compl-Func	48	48	48	48	48	Close					
PS WEST (PS-D-N)	Inpatient	9	9	9	9	Compl-Func	9	9	9	9	Close					
PS WEST (PS-D-S)	Inpatient	58	58	58	58	Compl-Func	54	54	54	54	54	54	54	54	54	Close
Parkside		**342**	**342**	**342**	**95**	**191**	**254**	**254**	**177**	**177**	**82**	**82**	**82**	**82**	**82**	**28**
Podium - AMAU	Short Stay				40	40	40	40	40	40	40	40	40	40	40	40
Tower 1	Inpatient	-	-	-	128	128	128	128	128	128	128	128	128	128	128	128
Tower 2	Inpatient	-	-	-	149	149	149	149	149	149	149	149	149	149	149	149
Tower 3	Inpatient	-	-	-	design		construct		192	192	192	192	192	192	192	192
Hagley		**0**	**0**	**0**	**317**	**317**	**317**	**317**	**509**	**509**	**509**	**509**	**509**	**509**	**509**	**509**
Central podium	Short Stay	-	-	-	-	design		construct			16	16	16	16	16	16
Central T4	Inpatient	-	-	-	-	design					192	192	192	192	192	192
PodiumExpansion		-	-	-	-	-	-	-	-	-	-	-	design			construct
Central T5	Inpatient	-	-	-	-	-	-	-	-	-	-	-	design			construct
Central		**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**208**	**208**	**208**	**208**	**208**	**208**
PS Replacement podium (PS-ABC location)																
Tower 6						-	-	-	-	-	-	-	-	-	-	-
Tower 7						-	-	-	-	-	-	-	-	-	-	-
PS MKH		**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
CWH		15	15	15	-	-	-	-	-	-	-	-	-	-	-	-
CWH		**15**	**15**	**15**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
TOTAL CAPACITY		539	539	539	584	610	571	571	686	686	799	799	799	799	799	745
TOTAL ON AND SS DEMAND		513	506	559	577	595	613	630	648	667	687	709	730	750	771	793
INFRASTRUCTURE GAP		26	33	-20	17	15	-42	-59	38	19	112	90	69	49	28	-48

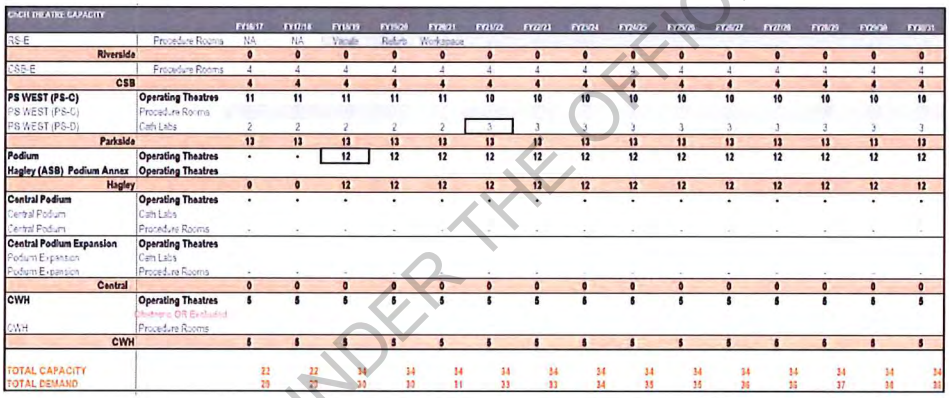
Appendix B - Theatre Capacity

Figure 9 – Base Case – Operating Theatre Capacity



CWH THEATRE CAPACITY		FY16/17	FY17/18	FY18/19	FY19/20	FY20/21	FY21/22	FY22/23	FY23/24	FY24/25	FY25/26	FY26/27	FY27/28	FY28/29	FY29/30	FY30/31
RS-E	Procedure Rooms	NA	NA	Vacate	Refurb	Workspace										
Riverside		**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
CSB-E	Procedure Rooms	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
CSB		**4**	**4**	**4**	**4**	**4**	**4**	**4**	**4**	**4**	**4**	**4**	**4**	**4**	**4**	**4**
PS WEST (PS-C)	**Operating Theatres**	**11**	**11**	**11**	**11**	**11**	**11**	**11**	**11**	**11**	**11**	**11**	**11**	**11**	**11**	**11**
PS WEST (PS-C)	Procedure Rooms															
PS WEST (PS-D)	Cath Labs	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Parkside		**13**	**13**	**13**	**13**	**13**	**13**	**13**	**13**	**13**	**13**	**13**	**13**	**13**	**13**	**13**
Podium	**Operating Theatres**	**-**	**-**	**12**	**12**	**12**	**12**	**12**	**12**	**12**	**12**	**12**	**12**	**12**	**12**	**12**
Hagley (ASB) Podium Annex																
Expansion	**Operating Theatres**															
Hagley		**0**	**0**	**12**	**12**	**12**	**12**	**12**	**12**	**12**	**12**	**12**	**12**	**12**	**12**	**12**
Central Podium	**Operating Theatres**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
Central Podium	Cath Labs															
Central Podium	Procedure Rooms	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Central Podium Expansion	**Operating Theatres**															
Podium Expansion	Cath Labs															
Podium Expansion	Procedure Rooms	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Central		**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
CWH	**Operating Theatres**	**5**	**5**	**5**	**5**	**5**	**5**	**5**	**5**	**5**	**5**	**5**	**5**	**5**	**5**	**5**
	Obstetric OR Excluded															
CWH	Procedure Rooms															
CWH		**5**	**5**	**5**	**5**	**5**	**5**	**5**	**5**	**5**	**5**	**5**	**5**	**5**	**5**	**5**
TOTAL CAPACITY		22	22	34	34	34	34	34	34	34	34	34	34	34	34	34
TOTAL DEMAND		29	29	30	30	31	32	32	33	34	34	35	35	36	37	37

Figure 10 – Option 1C – Operating Theatre Capacity



CWH THEATRE CAPACITY		FY16/17	FY17/18	FY18/19	FY19/20	FY20/21	FY21/22	FY22/23	FY23/24	FY24/25	FY25/26	FY26/27	FY27/28	FY28/29	FY29/30	FY30/31
RS-E	Procedure Rooms	NA	NA	Vacate	Refurb	Workspace										
Riverside		**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
CSB-E	Procedure Rooms	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
CSB		**4**	**4**	**4**	**4**	**4**	**4**	**4**	**4**	**4**	**4**	**4**	**4**	**4**	**4**	**4**
PS WEST (PS-C)	**Operating Theatres**	**11**	**11**	**11**	**11**	**11**	**10**	**10**	**10**	**10**	**10**	**10**	**10**	**10**	**10**	**10**
PS WEST (PS-C)	Procedure Rooms															
PS WEST (PS-D)	Cath Labs	2	2	2	2	2	3	3	3	3	3	3	3	3	3	3
Parkside		**13**	**13**	**13**	**13**	**13**	**13**	**13**	**13**	**13**	**13**	**13**	**13**	**13**	**13**	**13**
Podium	**Operating Theatres**	**-**	**-**	**12**	**12**	**12**	**12**	**12**	**12**	**12**	**12**	**12**	**12**	**12**	**12**	**12**
Hagley (ASB) Podium Annex	**Operating Theatres**															
Hagley		**0**	**0**	**12**	**12**	**12**	**12**	**12**	**12**	**12**	**12**	**12**	**12**	**12**	**12**	**12**
Central Podium	**Operating Theatres**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
Central Podium	Cath Labs															
Central Podium	Procedure Rooms	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Central Podium Expansion	**Operating Theatres**															
Podium Expansion	Cath Labs															
Podium Expansion	Procedure Rooms	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Central		**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
CWH	**Operating Theatres**	**5**	**5**	**5**	**5**	**5**	**5**	**5**	**5**	**5**	**5**	**5**	**5**	**5**	**5**	**5**
	Obstetric OR Excluded															
CWH	Procedure Rooms															
CWH		**5**	**5**	**5**	**5**	**5**	**5**	**5**	**5**	**5**	**5**	**5**	**5**	**5**	**5**	**5**
TOTAL CAPACITY		22	22	34	34	34	34	34	34	34	34	34	34	34	34	34
TOTAL DEMAND		29	29	30	30	31	33	33	34	34	35	36	36	37	38	38

Figure 11 – Option 1B – Operating Theatre Capacity

CHCH THEATRE CAPACITY		FY16/17	FY17/18	FY18/19	FY19/20	FY20/21	FY21/22	FY22/23	FY23/24	FY24/25	FY25/26	FY26/27	FY27/28	FY28/29	FY29/30	FY30/31
RS-E	Procedure Rooms	NA	NA	Vacate	Refurb	Workspace										
Riverside		**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
CSB-E	Procedure Rooms	4	4	4	4	4	4	4	4	4	Vacate					
CSB		**4**	**4**	**4**	**4**	**4**	**4**	**4**	**4**	**4**	**0**					
PS WEST (PS-C)	**Operating Theatres**	**11**	**11**	**11**	**10**	**9**	**9**	**9**	**9**	**9**	**9**	**9**	**9**	**9**	**9**	Vacate
PS WEST (PS-C)	Procedure Rooms				1	1	1	1	1	1	4	4	4	4	4	Vacate
PS WEST (PS-D)	Cath Labs	2	2	2	2	2	3	3	3	3						
Parkside		**13**	**13**	**13**	**13**	**12**	**13**	**13**	**13**	**13**	**13**	**13**	**13**	**13**	**13**	**0**
Podium	**Operating Theatres**	**-**	**-**	**12**	**12**	**12**	**12**	**12**	**12**	**12**	**12**	**12**	**12**	**12**	**12**	**12**
Hagley (ASB) Podium Annex	**Operating Theatres**									design	construct		**4**	**4**	**4**	**4**
Hagley		**0**	**0**	**12**	**12**	**12**	**12**	**12**	**12**	**12**	**12**	**12**	**16**	**16**	**16**	**16**
Central Podium	**Operating Theatres**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**4**	**4**	**4**	**4**	**4**	**4**
Central Podium	Cath Labs										3	3	3	3	3	3
Central Podium	Procedure Rooms	-	-	-	-	-	-	-	-	-	0	-	-	-	-	-
Central Podium Expansion	**Operating Theatres**															**9**
Podium Expansion	Cath Labs															0
Podium Expansion	Procedure Rooms	-	-	-	-	-	-	-	-	-	-	-				4
Central		**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**7**	**7**	**7**	**7**	**7**	**20**
CWH	**Operating Theatres**	**5**	**5**	**5**	**5**	**5**	**5**	**5**	**5**	**5**	**5**	**5**	**5**	**5**	**5**	**5**
	Geriatric OR Es (study)															
CWH	Procedure Rooms															
CWH		**5**	**5**	**5**	**5**	**5**	**5**	**5**	**5**	**5**	**5**	**5**	**5**	**5**	**5**	**5**
TOTAL CAPACITY		22	22	34	34	33	34	34	34	34	37	37	41	41	41	41
TOTAL DEMAND		29	29	30	31	32	34	34	35	36	35	36	36	37	38	38

Appendix C - Bed Numbers

Figure 12 – Bed Numbers - Current

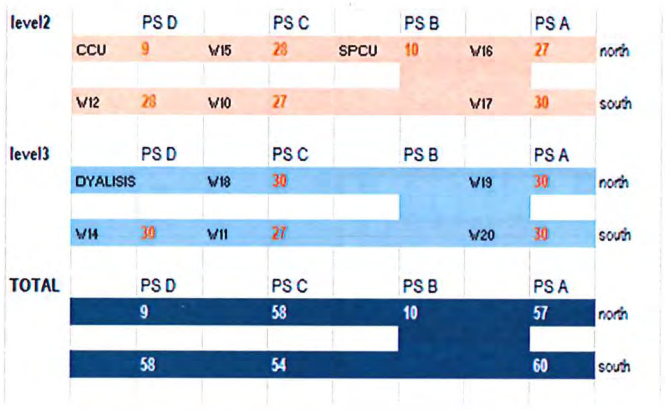


Figure 13 – Bed Numbers - Option 1C

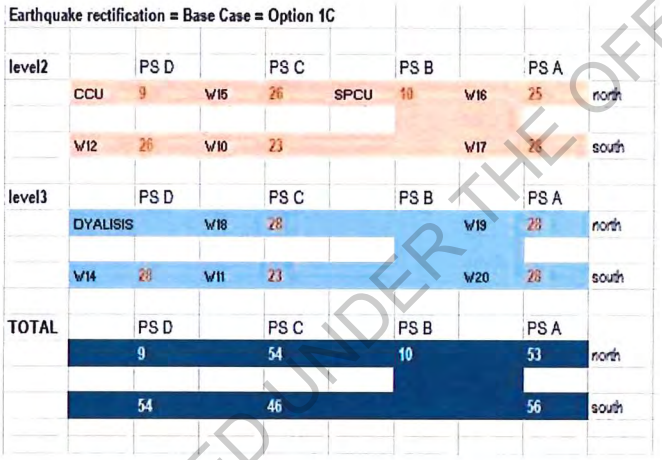


Figure 14 – Bed Numbers - Option 1B

6>4 beds and Earthquake rectification = Option 1B

level2		PS D		PS C		PS B		PS A	
	CCU	9	W15	18	SPCU	8	W16	17	north
	W12	18	W10	23			W17	20	south
level3		PS D		PS C		PS B		PS A	
	DYALISIS		W18	20			W19	20	north
	W14	20	W11	23			W20	20	south
TOTAL		PS D		PS C		PS B		PS A	
		9		38		8		37	north
		38		46				40	south

Appendix D - Drawings

Figure 15 – Drawings – Tower 3 - Option 1C

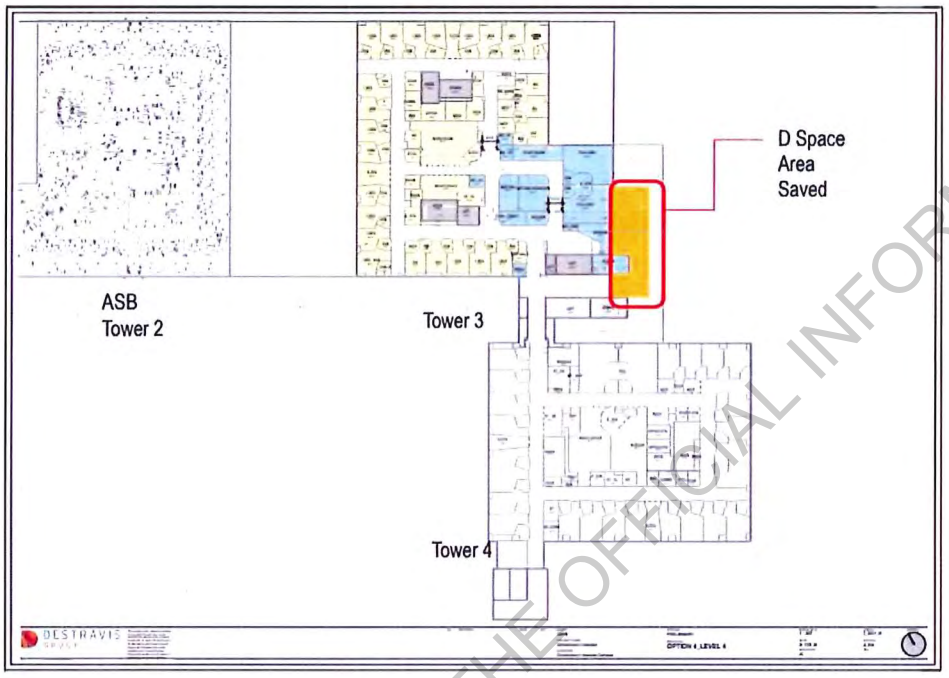


Figure 16 – Drawings – Tower 3 – Option 1B – Level 3

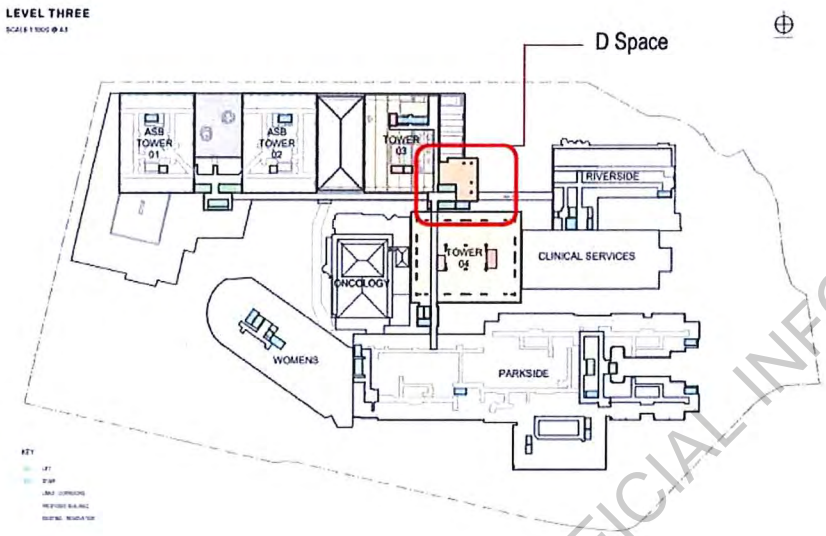
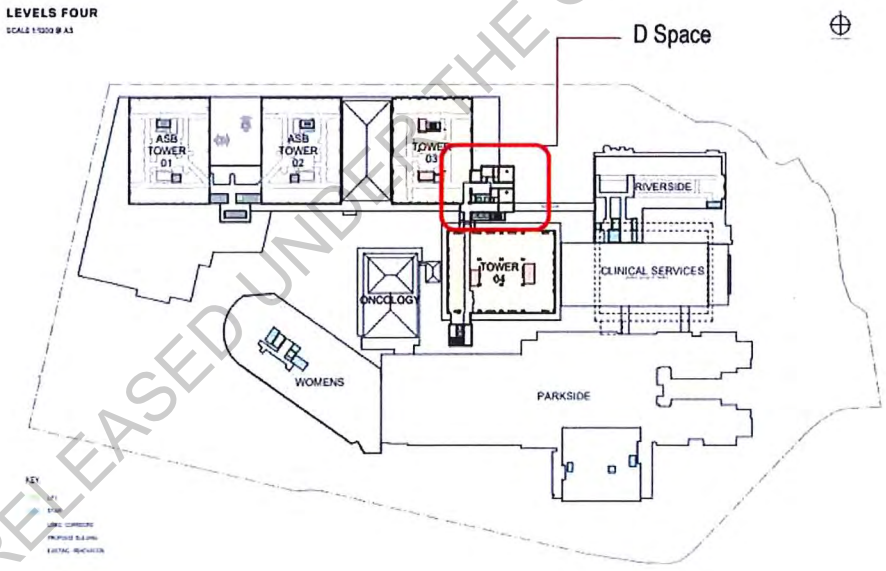
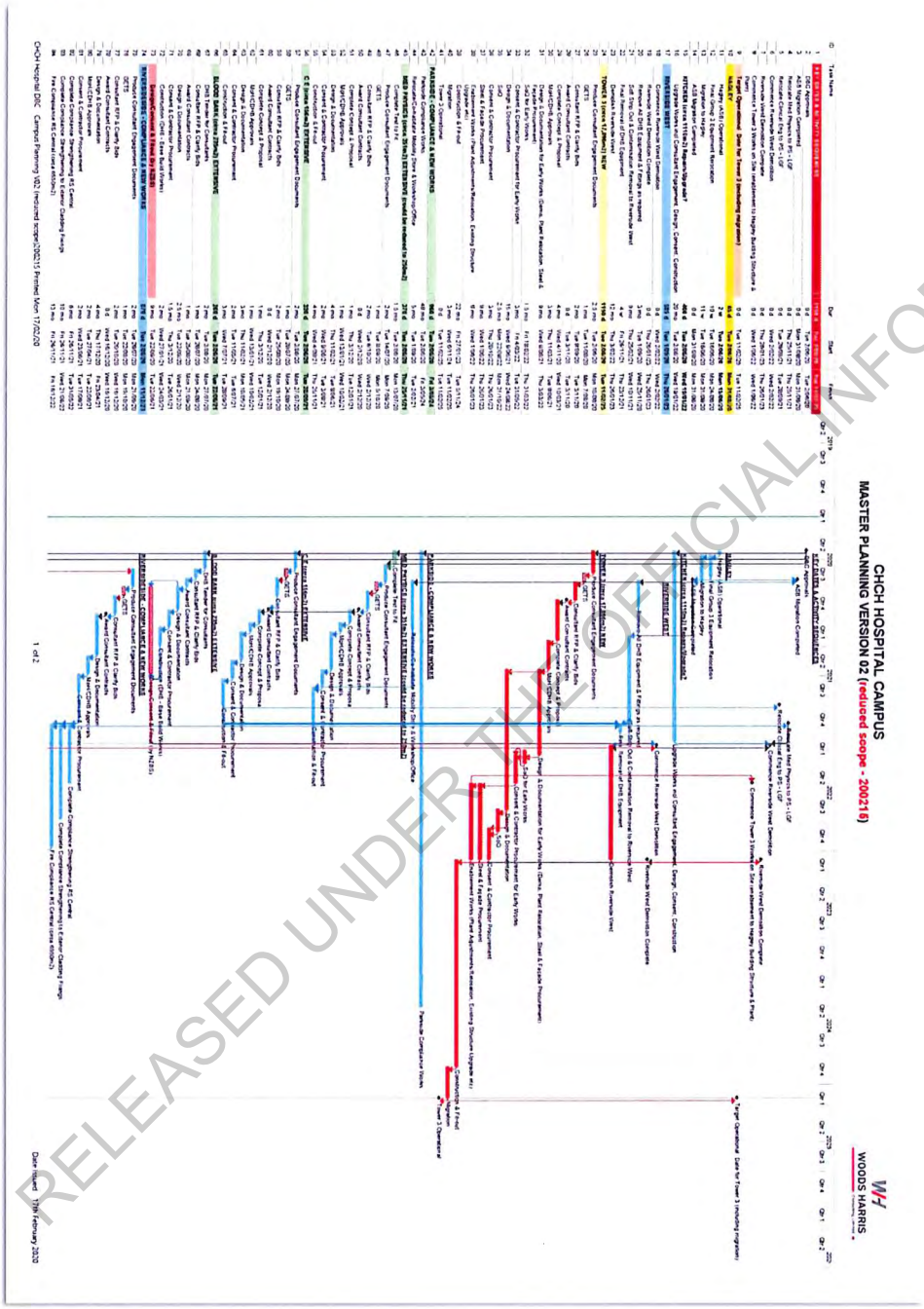
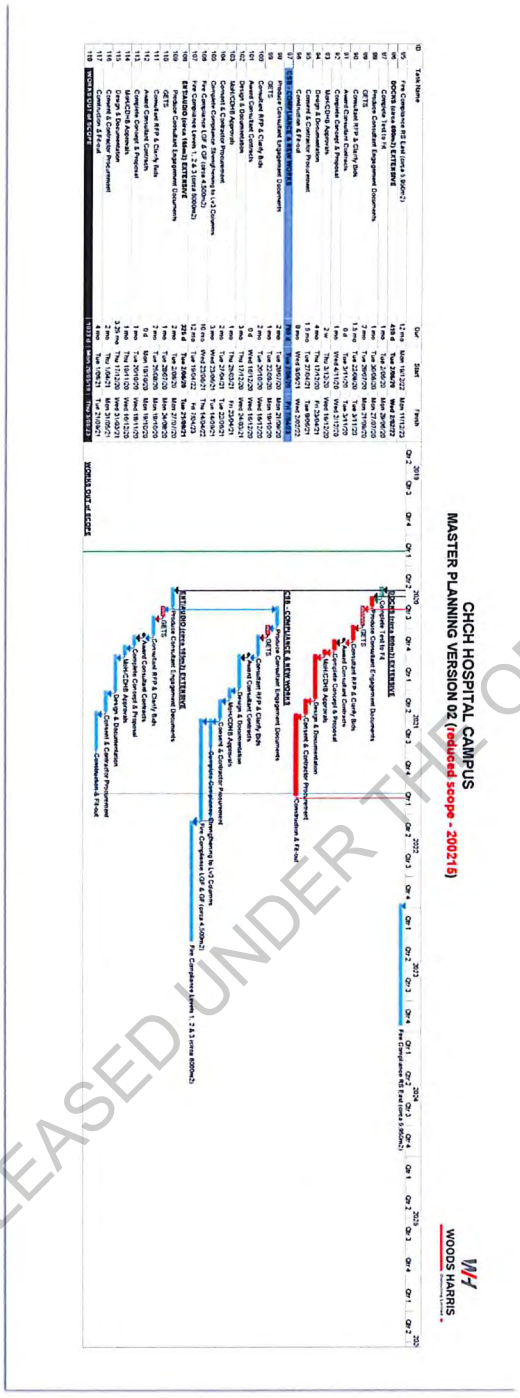


Figure 17 – Drawings – Tower 3 – Option 1B – Level 4



Appendix E - Program





Appendix F – Capital Cost estimates

Table 13 – Option 1C - Capital Cost estimate breakdown by building

Option A - $154m Reduced Cost Option - Tower 3 with 5 levels of wards with two fitted out and three shelled out for future fit-out without passive fire and seismic compliance costs

	2020	2021	2022	2023	2024	2025	2026	2027	Total	
Scope of work									$000	Notes:
Passive Fire						-			$ -	See attached details for areas altered
Decanting/staging	793	640	395	247	200	26			$ 2,301	As per original allowances
Tower 4	-	-	-	-	-	-	-	-	$ -	Tower 4 design, infrastructure and ground improvement deleted
Riverside	850	2,278	2,159	1,402	878	-	-	-	$ 7,567	See attached details for areas altered
Parkside	1,800	2,049	2,024	1,145	1,250	1,500	2,400	574	$ 12,742	See attached details for areas altered
Clinical Services Building	435	925	765	545	138				$ 2,808	See attached details for areas altered
Food Services Building	-	-	-	-	-				$ -	See attached details for areas altered
Christchurch Women's Hospital	-	-	-	-	-				$ -	See attached details for areas altered
Hagley (incl new Tower3)	4,300	7,700	24,500	37,082	35,200	19,800			$ 128,582	See attached details for areas altered
Total Revised DBC Scope Crown Capital	8,178	13,592	29,843	40,421	37,666	21,326	2,400	574	$ 154,000	

Table 14 – Option 1C Capital Cost estimate detailed breakdown -

Kathleen Smitheram

From: Rob Ojala
Sent: Tuesday, 8 September 2020 2:08 PM
To: Mary Gordon (Executive Director of Nursing)
Cc: Peter Bramley; Sue Nightingale; Richard French (Anaesthesia SMO)
Subject: Draft BC for T3 and draft BC for Compliance work chch campus

Dear Mary,
[CC to acting CE, CMO, Clinical co-lead facilities]

Re: The MOH-commissioned Business case for T3 and a separate business case for compliance work

I note the timelines in the email from Michelle Arrowsmith in terms of attempting to match alignment with CIC next week

I have had a brief review of this work as clinical co-lead for facilities [and in particular campus master planning].

As part of the accepted CDHB process I will seek input from CLG – but in the interests of time [as above], I make the following presumptive observations.

1. While CLG has expressed deep concern around the $154M option for T3 and enabling works – **I think we would all agree that it is highly desirable to secure this funding if we are to have any hope of aligning to the agreed Masterplan and capacity objectives.**

2. The compliance work outlined seems a prudent approach in a constrained environment – but note that there is pragmatically only one opportunity to undertake this work – and if any *clinical compliance* work was also envisaged at a later date [particularly in Parkside] that this would be operationally prohibitive – it should be entertained only on a 'do it all at once' basis.

3. The fundamental issue with the updated Tower 3 Business Case [DBC Addendum] is that it now relies on:
    a. Full continuation of existing [unaltered] Parkside as the key strategy ;
        i. Remaining completely clinically unaltered for at least 10-15 years and fully occupied [>300 patients]
        ii. Inappropriately house 6 *medical* patients [cf *surgical*] in rooms with space for 4 patients – the lack of mobilisation and care space will almost certainly drive an increased LOS as more patients will require rehab time at Burwood as a consequence
        iii. Proposes housing higher acuity patients in the newer Hagley facilities to mitigate this issue – quite aside from the operational complexity [?impossibility] of this notion, it suggests the author has misunderstood both how specialty patients are managed and that the space issues are not about high acuity per se – they are about the avoidance of issues like sarcopenia ['pyjama paralysis' etc] in the virtually all this medical patient group.
        iv. Providing just 7% basic 'isolation' room capacity [ie an ensuite toilet/shower] – when the MoH where deeply concerned that we reduced Hagley from 100% of rooms down to 50%
        v. Continuing with 11 patients per shared shower and 7 patients per shared toilet in Parkside for 10-15 years [noting 4 patients per room would assist these ratios]
    b. That the theatre capacity constraints will be addressed by resuming outsourcing activity – a concerning strategy in the face of pressure to reduce our operational deficit.
    c. Further to 3 above it implies that the CDHB will accept this facilities approach until at least 2031 without further requests for bed/theatre capacity funding – noting the opportunity to fit out shelled floors in T3 to meet growing demand.
4. I think any work undertaken would need to be managed under one auspice – while the MoH clearly has experience in this space with Hagley – the work now involves an fully operating hospital, each element is on a smaller scale but with multiple inter-dependencies and operational impacts. There is a much higher

chance of things unravelling [cost and time] if T3 and compliance is managed externally – something we can all ill-afford.

While time is a key factor here, I think it is vital that Clinicians and Management engage to discuss how best to support the process and options that will allow the Board to make suitable enabling decisions. It is critical to avoid locking the organisation inadvertently into an impossible capacity and operational cost trajectory.

Regards,

Rob Ojala

Kathleen Smitheram

From: Rob Ojala
Sent: Tuesday, 8 September 2020 5:01 PM
To: Mary Gordon (Executive Director of Nursing)
Subject: Fwd: CDHB Business Cases - Tower 3 and Compliance Works[EXTERNAL SENDER]
Attachments: image004.jpg; image005.jpg; image006.png; image007.png; 21848.pdf

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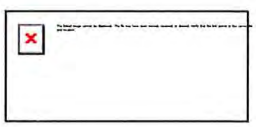
From: Susan Fitzmaurice <Susan.Fitzmaurice@cdhb.health.nz> on behalf of Peter Bramley <Peter.Bramley@cdhb.health.nz>
Sent: Tuesday, September 8, 2020 4:51:21 PM
To: 'Michelle.Arrowsmith@health.govt.nz' <Michelle.Arrowsmith@health.govt.nz>
Cc: John Hansen <John.Hansen@cdhb.health.nz>; Rob Ojala <Rob.Ojala@cdhb.health.nz>; 9(2)(a) [redacted] 9(2)(a) [redacted] @health.govt.nz>
Subject: RE: CDHB Business Cases - Tower 3 and Compliance Works[EXTERNAL SENDER]

Please find attached letter from Dr Peter Bramley, Acting CEO Canterbury DHB and West Coast DHB

Regards

Susan Fitzmaurice | EA to Chief Executive
Canterbury District Health Board and West Coast District Health Board

03 364 4110 | susan.fitzmaurice@cdhb.health.nz
P O Box 1600, Christchurch
www.cdhb.health.nz | www.westcoastdhb.org.nz

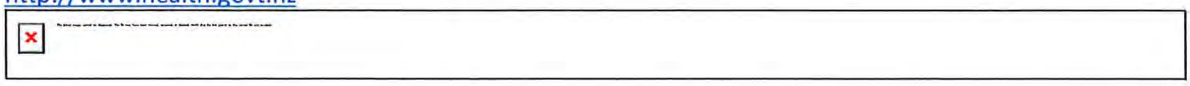



Values – Ā Mātou Uara
Care and respect for others - Manaaki me te whakaute i te tangata | Integrity in all we do - Hāpai i ā mātou mahi katoa i runga i te pono | Responsibility for outcomes - Te Takohanga i ngā hua

From: Michelle Arrowsmith
Sent: Monday, 7 September 2020 4:31 pm
To: peter.bramley@cdhb.health.nz
Subject: FW: CDHB Business Cases - Tower 3 and Compliance Works

Ngā mihi
Michelle

Michelle Arrowsmith
Deputy Director General | DHB Performance, Support and Infrastructure | Ministry of Health
E: michelle.arrowsmith@health.govt.nz | 9(2)(a) [redacted]
http://www.health.govt.nz



Canterbury
District Health Board
Te Poari Hauora ō Waitaha

CHIEF EXECUTIVE'S OFFICE

Tel: (03) 364 4110
E-Mail:chiefexecutive@cdhb.health.nz

8 September 2020

Michelle Arrowsmith
DDG – DHB Performance, Support and Infrastructure
Ministry of Health

Via email: michelle.arrowsmith@health.govt.nz

Dear Michelle

MOH Proposed Canterbury DHB Business Cases - Tower 3 DBC Addendum and Compliance Works CIC Documents

Thank you for the opportunity to review the above documents.

The Canterbury DHB Management support and agree to the Compliance Works business case.

We also support the expedited implementation of the capital approval for Tower 3 as you are aware from our previous correspondence and we ask that this is approved with urgency.

However, with respect to the Tower 3 business case we need to record that this document was not prepared by Canterbury DHB and has been supplied by the Ministry of Health and further it does not reflect the previously agreed position in the DBC document on beds, theatre supply and demand strategies. In support of this position, we note that the document suggests Canterbury DHB retain the current Parkside 6 bed wards (we understand the only remaining acute ones in the country) at least until 2031 where all previously agreed documents have these reverting to 4 bed wards for a number of clinically justifiable and essential reasons.

We also note the general absence of any future capital projects in the recast bed/theatre projections and cash flows and clearly do not support this position. Tower 3 is shown as being fully fitted out over time, however no budget is allowed for this work in the supplied document.

The Tower 3, compliance and enabling works are all intertwined and co-dependent upon each other and the suggestion that they are delivered by different parties is not preferable to the Canterbury DHB. Tower 3 is being constructed on top of the largest operational radiology department in New Zealand and the operational risks associated in terms of vibration and coordination must lie with the Canterbury DHB as the provider of the services. Any delays to the compliance and enabling works will impact the Tower 3 construction. The reality is that both the MOH and the Canterbury DHB will need to procure external consultants to manage the works and therefore their linking to the operational party is further validated.

Canterbury DHB
PO Box 1600, Christchurch, New Zealand 8140

We are unable to agree with the out year supply and demand profiles contained in the document as it will see the very tired Parkside wards and theatres being maintained in their current state until at least 2031; this is clinically unacceptable. We refer the readers to the recently released MOH National Asset Management Plan's assessments of these spaces. We believe that some capital should be assigned in support of improving the condition of Riverside for ongoing use. Further the MOH document suggests that we simply "outsource" theatre demand that we are unable to meet and we note that this action is a major contributor to the current financial position.

With respect we propose that both the Tower 3 and Compliance works business cases are approved from a capital perspective and implemented by the Canterbury DHB. We then propose that the Canterbury DHB Management will work with the Canterbury DHB Board and MOH Teams to review how agreed bed and theatre demands are best met in the future and formulate a plan that aligns the recorded needs whilst naturally considering affordability.

Your agreement to this approach would ensure that urgent works proceed as required while not requiring the Canterbury DHB Management at this time to agree to a pathway forward that does not meet clinical requirements.

We note that we are preparing a more detailed review of the Tower 3 business case document and will forward this under a separate cover once completed however the material items are covered in this document.

Yours sincerely

9(2)(a) [redacted]

Dr Peter Bramley
Acting Chief Executive

Copy to: Sir John Hansen, Chair
Dr Rob Ojala, Clinical Lead Facilities

Canterbury DHB
PO Box 1600, Christchurch, New Zealand 8140

Kathleen Smitheram

From: Rob Ojala
Sent: Wednesday, 9 September 2020 12:19 PM
To: Mary Gordon (Executive Director of Nursing)
Subject: FW: AMENDED Letter re CDHB Business Cases - Tower 3 and Compliance Works[EXTERNAL SENDER]

From: Michelle Arrowsmith [mailto:Michelle.Arrowsmith@health.govt.nz]
Sent: Wednesday, 9 September 2020 11:52 a.m.
To: Peter Bramley <Peter.Bramley@cdhb.health.nz>
Cc: John Hansen <John.Hansen@cdhb.health.nz>; Rob Ojala <Rob.Ojala@cdhb.health.nz>; 9(2)(a) 9(2)(a) @health.govt.nz>; John Hazeldine <john.hazeldine@health.govt.nz>
Subject: RE: AMENDED Letter re CDHB Business Cases - Tower 3 and Compliance Works[EXTERNAL SENDER]

Thanks Peter, your letter is noted and will be part of the papers going to CIC next week.

We will now process the papers.

Many thanks

Ngā mihi
Michelle

Michelle Arrowsmith
Deputy Director General | DHB Performance, Support and Infrastructure | Ministry of Health
E: michelle.arrowsmith@health.govt.nz | 9(2)(a)
http://www.health.govt.nz

From: Susan Fitzmaurice <Susan.Fitzmaurice@cdhb.health.nz> **On Behalf Of** Peter Bramley
Sent: Wednesday, 9 September 2020 8:24 am
To: Michelle Arrowsmith <Michelle.Arrowsmith@health.govt.nz>
Cc: John Hansen <John.Hansen@cdhb.health.nz>; Rob Ojala <Rob.Ojala@cdhb.health.nz>; 9(2)(a) 9(2)(a) @health.govt.nz>; John Hazeldine <john.hazeldine@health.govt.nz>
Subject: AMENDED Letter re CDHB Business Cases - Tower 3 and Compliance Works[EXTERNAL SENDER]

Apologies but there was an error in the letter sent yesterday. Please find attached the correct copy

Regards

Susan Fitzmaurice | EA to Chief Executive
Canterbury District Health Board and West Coast District Health Board

03 364 4110 | susan.fitzmaurice@cdhb.health.nz
P O Box 1600, Christchurch
www.cdhb.health.nz | www.westcoastdhb.org.nz

Canterbury
District Health Board
Te Poari Hauora ō Waitaha

14th September 2020

Dear Peter,

As per the accepted CDHB facilities redevelopment process, CLG has reviewed the Tower 3 Business Case, DBC Addendum (MOH-T3 case) and Christchurch Campus Compliance Work Business Case.

It should be noted the review is not exhaustive given the very short time-frames.

We acknowledge the urgent need to secure the next redevelopment steps for the Christchurch Campus and associated funding for at least $154M plus $80M for compliance work [previously lodged with CIC by the Board].

The MOH-T3 Case

We are greatly concerned that the MOH-T3 Case describes a new option (1C) proposed without CDHB consultation. This option is described as CDHB 'preferred' – this is entirely inappropriate both in that the CDHB's views have not been sought, and more importantly could in no way be described as preferred by this organisation.

We note this Addendum document was developed by Destravis as agents of the Ministry of Health and as such it should not be seen as a CDHB document. The associated labelling should therefore indicate the Ministry of Health's commissioning and ownership.

The option in more detail includes

1. Full continuation of Parkside facility as the key strategy -
    a. With beds and theatres remaining completely clinically unaltered for at least 10-15 years and beds fully occupied [>300 patients]. This is completely unacceptable for the patient cohort involved.
    b. It inappropriately proposes housing 6 rather than 4 *medical* patients in ward rooms barely suitable the current surgical group– the lack of mobilisation and care space will almost certainly drive an increased length of stay (LOS).
    c. Proposes housing higher acuity patients in the newer Hagley facilities to mitigate this space issue – quite aside from the operational implausibility of this notion, it suggests the author has misunderstood both how specialty patients are managed and that the space issues are not about high acuity per se – they are about the avoidance of issues like sarcopenia ['pyjama paralysis' etc] in virtually all this medical patient group.
    d. Provides just 7% basic bathroom ensuite room capacity [ie toilet/shower] – this is completely inadequate especially with this patient group and more pertinent in the context of our current pandemic. It should be noted that MoH were deeply concerned that we reduced single rooms with ensuites in Hagley from 100% to 50%. Effectively this means that 11 patients share each shower and there are 7 patients per shared toilet in Parkside for 10-15 years [noting 4 patients per room would assist these ratios].

2. That theatre capacity constraints will be addressed by resuming outsourcing activity – a concerning strategy in the face of pressure to reduce our operational deficit. In addition, it imposes significant logistic limitations on case-mix and efficient use of staff. Outsourcing of the case-mix envisaged should be a temporary response to inadequate amenity or resource; not a strategy for a redevelopment proposal.
3. The Critical Success Factor Analysis used to justify the option – again without CDHB input – seems arbitrary and the explanatory notes suggest the tool to be poorly informed 'guesstimates' at best.
   By way of example when comparing option 1B with 1C -
   a. Weighting of Patient experience and quality of care 26% to 15% - how is this possibly justified?
   b. Population outcomes 21% to 35% - based on a capacity metric that has no clear science
   c. Compliance is adjusted to 0% - presumably this is based on the statutory work being in a separate business case. In reality there is no net change in overall CDHB capital.
   d. So, item 'c' above ultimately re-adjusts the matrix (below) to an incredible **50%** fiscal weighting
   e. Affordability, is also now heavily weighted with a five-fold increase in capital over operational weighting. In the context of deficit reduction this is a perplexing approach.

Critical Success Factors	Former Weight	New Weight	Subcategory	Former Weight	New Weight	Option 1b (scores as per DBC*)	Option 1c
CSF1: Compliance and Safety	23%	0%	Statutory Compliance	18%	0%	0	0
			Other Compliance	5%	0%	0	0
CSF 2: Patient experience and quality of care	26%	15%	Patient / Staff experience	7.5%	2.5%	2	1
			Quality of Care	7.5%	2.5%	3	2
			Minimised Disruption	10%	10%	2	2.5
CSF3: Population outcomes	21%	35%	Capacity	11%	24%	2	3
			Resilience	11%	11%	2	1.5
CSF4: Value for Money	15%	15%	Economy	5%	5%	3	2
			Effectiveness	5%	5%	3	2
			Efficiency	5%	5%	3	2
CSF5: Affordability	15%	35%	Capital	5%	25%	1	3
			OPEX	10%	10%	2	1
				Total - Unweighted		23	20
				Total - Weighted		1.93	2.36

The Christchurch Campus (statutory) Compliance Work Business case

The Compliance Work funds for this appear very tight, but noting the national capital constraints and, based on advice from experts, we believe this is a pragmatic approach to a challenging series of issues.

We note comments around degrading aspects of the Parkside facility from IL4 to IL3 – while this may have been a consideration for Building 'A' based on the original masterplan – the proposal to use Parkside *in toto* for inpatient care for a more extended period would preclude this. It should be emphasised that CDHB decisions on other facilities [such as Burwood, West Coast etc] were limited to IL3 construction based on the Main Christchurch Campus being the core IL4 post-disaster facility.

It should further be noted that this is statutory compliance work only. Any *clinical* compliance work entertained for Parkside etc would be operationally prohibitive unless staged simultaneously due to decant and disruption challenges. Given that this case contains no allocation for clinical

improvements [as per Board direction], it would appear this is another opportunity missed which cannot be pragmatically recaptured at a later date.

The Ministry, and we understand CIC, was very clear that a full DBC following the initial case was not required, but latterly indicated that more than a simple Addendum was necessary with 1-2 weeks' notice. The Ministry's attempts to commission this on behalf of the CDHB have resulted in a document that completely fails to understand the challenges of the campus, the amenity and the appropriate delivery of care.

The CDHB Board has taken the position that they needed to accept the circa $150M option to urgently secure the first part of Tower 3. There was however, no directive from the Capital Investment Committee (CIC) that this was contingent on the CDHB proposing a case that imposed further limitations on redevelopment.
We would be surprised if the Board would support such a further concession and would be grateful if you could clarify their position as a matter of urgency.

Further, we ask that CIC is made aware of the deficiencies of the MOH T3 case and that we do not support assumptions underpinning option 1C when they consider the urgent funding request for Tower 3 and compliance works. We need to ensure that this does not prejudice the CDHB's position in future requests for capital in the timely redevelopment of the masterplan

Yours sincerely,

9(2)(a) [redacted]

p.p. The CDHB Clinical Leaders Group

CC: Sir John Hansen, Chair, CDHB Board

Dr Sue Nightingale, CMO, CDHB

Mary Gordon, EDON and Executive Director, CDHB Facilities