MEMO

To:	Board Members
From:	Patrick Ng, GM IT & Infrastructure
Date:	16 March 2016
Subject:	**DECISION: NELSON HOSPITAL REDEVELOPMENT**

Status

This report contains:
✓ For decision
☐ Update
☐ Regular report
☐ For information

Executive Summary

This paper intends to provide background and a contextual understanding of the steps required to complete a business case for the re-development work at Nelson Hospital. It also includes an outline approach and a proposal for commencing with the business case.

Following the approach we are proposing, several months of pre-work activity would occur in the lead up to the start of the new financial year on the 1st of July 2016. From there a further 2.5 years of business case activity are required to complete the full range of cases that are required by the Ministry of Health and the Treasury Better Business Case (BBC) approach.

It should be noted that 2.5 years is a compressed timeframe and that a number of the cases that need to be made will overlap between stakeholder sign-off and the commencement of the next case. We have tested this with our proposed partner (who would lead our business case development work) and we have also tested this with independent contractors who have been involved in a number of the Canterbury business cases. Our conclusion is that 2.5 years is an achievable timeframe and the proposition in this paper has been developed according to this timeframe.

It should also be noted that our Chief Executive has signalled a desire to complete the full business case process within 2 years (excluding the pre-work). Assuming acceptance of the recommendations contained in this paper, upon confirmation of our business case partners we will work with our partners to re-baseline the proposal they have provided to us with the intention of further compressing the development timeframe for the business case to 2 years overall (excluding the pre-work). This will require management to apply strong oversight and commitment to the overall business case development cycle.

We have completed the initial stage of the business case – a risk profile assessment (RPA). The RPA suggests that our programme rates as high risk. This will result in close central government scrutiny, including the requirement to utilise the 4 stage Gateway assessment process.

We are proposing utilising the Hunter Group as our primary partner in the development of this business case. Sylvia Meakin from the Hunter Group is one of only 3-4 business case writers in New Zealand who have expertise in both the Treasury Better Business Case approach and the development of large scale, health specific business cases and has been recommended to us by the Treasury Gateway Monitoring Unit. Under our proposal Sylvia would project manage the development of all the required business cases to provide us with an overall package of cases that meet Ministry of Health and Treasury requirements.

The other advantage of utilising the Hunter Group is that their hourly charge is considerably less than a 'big 4' chartered accountancy organisation, who are arguably the only other potential partner who could cover the whole range of business case writing requirements.

We also propose to continue our relationship with Health Partners (now Ernst and Young), by asking them to complete discrete activities and provide specific expertise where it is required, under the direction of Sylvia. This is included in the costs that we have allowed for later in our proposal.

It should be noted that we may be required to undertake a procurement exercise to confirm the appointment of the Hunter Group and Ernst and Young for the work we are proposing that they undertake. We are working with the Procurement Manager to ensure appropriate procurement rules are adhered to.

We believe we can exempt ourselves from following a full procurement process. We would do so on the grounds that both the Hunter Group and Ernst & Young are on the All of Government (AoG) consultancy services contract, and on the grounds that limited options exist in the market for the skill set that we require (section 15.9(c) of the relevant procurement rules). However, we will test this carefully and if our overall recommendations are agreed to we will tender the work if we believe that this is necessary in order to adhere to the government rules of sourcing.

It is anticipated that the cost of developing the full suite of business cases (including pre-work) will amount to circa $1,200,000 inclusive of architectural and quality assurance activities. Of particular note is that the 4 stage Gateway review will cost $300,000. We have indicated the year by year financial impact of these costs later in this proposal.

Our overall proposal is that we commence business case development with the Hunter Group and Ernst and Young (subject to following an appropriate procurement or exemption process first) with a planned completion date for the business cases of June 2018 (once we have re-baselined the original proposal with our delivery partner from December 2018) and a planned budget of $1,200,000. Costs will be incurred and charged on a time and materials basis so will need to be managed carefully. The General Manager IT & Infrastructure would sponsor the programme and appropriate governance would be established to ensure the Chief Executive, Executive Team and Board were adequately represented and participated in all key decision making.

This paper is comprised of the following sections:

1. **Background**
   This section provides brief background information about the age of the main Nelson hospital structures and previous re-development work that has occurred on the site.

2. **Initial work Completed or Underway**
   This section clarifies work that has either been completed or is underway which will inform our business case.

3. **The Ministry of Health and the Better Business Case (BBC) Approach**
   This section clarifies the Ministry's approach to better business cases (there are some slight modifications to the standard Treasury Better Business Case process) and clarifies the steps we will need to follow to complete our case/s.

4. **Outline Plan**
   This section outlines our proposed approach for the completion of the required business cases, including proposed resources to be utilised for the construction of the cases.

5. **Estimated Costs**
   This section provides an estimate of the costs required to complete the cases.

6. **Other Considerations**
   This section includes some key insights gained from the Chief Medical Officer at Canterbury, who was instrumental in the development of the case for Burwood Hospital. It also includes a number of observations about digital hospital concepts that we will need to consider as part of our re-development.

7. **Recommendations**
   Our paper concludes with a number of recommendations about how we should proceed with the development of our Hospital Re-Development business case.

1 Background

Over the last 20 years the Nelson Hospital site has undergone several partial re-developments which have seen a number of services provided with more modern facilities. In particular, between 1996 and 2003 theatre facilities, in-patient facilities, emergency department facilities, day stay and radiology facilities and a number of supporting services were either re-built or refurbished, with their linkages into the main structures (George Manson and Percy Brunette buildings) improved at the same time.

More recently, plans for a full re-development were completed under the leadership of the former Chief Executive but challenges, primarily related to affordability, meant that these plans were not pursued.

Although previous re-developments modernised a number of facilities, the main structures are now very old. The George Mason building was built in the early 1960's and the Percy Brunette building was built in the early 1970s.

As well as improving the efficiency and the quality of service delivery, a re-developed hospital site would also address both existing demands on the site and future demands that are likely to arise as a result of an ageing population and population growth in general. A re-developed hospital would also comprehensively address the earthquake risk posed by the design and age of the main structures. The better business case process (BBC) is designed to crystallize the reasons for re-developing the hospital and the benefits that will result.

2 Initial Work Completed or Underway

Several pieces of work that have either been completed or are in progress have provided important contextual information which will inform our overall business case process.

2.1 The Health Services Planning, Health Needs Analysis and summary Facilities Implications Reports completed by Health Partners (now Ernst & Young) have provided initial indications for how our health services should be designed, clarified the existing pressures on our services and projected the future demand if a '*do nothing'* approach is adopted.

2.2 Detailed seismic assessments on our main structures - George Manson and Percy Brunette - have highlighted that these buildings, whilst likely to protect life after a major earthquake, are likely to be unusable after the event.

2.3 Initial work has commenced on business continuity planning and a resumption of services plan is due to be completed by the Emergency Management team in June.

2.4 Our Strategy, Planning & Alliance Support team have commenced work on a Primary and Community Strategy and this is due to be completed at the end of March.

2.1 Health Services Planning, Needs Analysis and Facilities Implications Reports:

A discussion with the Senior Advisor whom we work with at the Ministry of Health has clarified that the work completed by Health Partners provides us with sufficient information to inform the Health Plan (one of the key artefacts we must produce for our business case), but a final piece of work needs to be completed to project our future demands by service. We have allowed for this additional piece of work in our proposal.

The last piece of work completed by Health Partners was the Facilities Implications Report and this was completed after they had made their transition to Ernst & Young. The report built on the earlier health needs analysis and health services planning work.

The Facilities Implications Report made the following observations:

Demand projections indicate the need for capacity expansion (at both Nelson and Wairau hospitals) if current models of care and service configuration are maintained.
Inpatient and outpatient capacity is currently constrained and affects the services' ability to meet patient needs.
Outpatient clinics could be consolidated in a separate facility on the hospital campus. Some clinics could be held in community settings.
Acute theatre demand is impinging on the ability of the services to meet elective targets and patients needs.
Increased short stay capacity and establishment of an acute assessment unit would support management of acute demand.
Some demand for theatre time would be relieved by increasing theatre room capacity.
Some hospital based activity could be relocated into the community.
Use of alternative workforce mixes would enhance efficiency and enable all practitioners to work at the top of their scopes.
Increased use of telemedicine would decrease the travel burden on patients and specialists.
More support for travel and accommodation should be provided.
District-wide service planning should aim for greater consistency in models of care and patient access.
Enhanced IT would enable better flow of clinician information across practitioners and services.
General practice could play a greater role in the management of patients with complex conditions.
Process improvement initiatives would aid in reducing pressure on high demand areas such as the ED.
Obesity and diseases related to ageing (e.g. dementia) are having an increasing impact on service demand, facility configuration, capacity and equipment.
Opportunities have been identified for reducing outward IDFs through increased local capability.

These themes could be further summarised as:

- Demand for services is straining available capacity and projections suggest that demand will grow considerably in the years to come.

- Models of care need to be examined to determine where the care is provided, e.g. at the Nelson Hospital site, Wairau Hospital site or in the community.

- Technologies such as tele-medicine and digital hospitals have the potential to significantly increase the efficiency with which services are delivered.

The better business case process will crystallize the problem/s we are trying to solve and the manner in which these will be solved. However, these initial findings provide us with an early insight into the nature of the challenges that need to be addressed as part of the hospital re-development.

2.2 Detailed Seismic Assessments:

The work completed on the detailed seismic assessments of our main Nelson Hospital structures noted that:

- Both the George Manson and Percy Brunette building rate as 30% of national building standard at 'IL3' rating. Our engineers have translated this into a strong likelihood that the buildings would still be standing and would protect life after a 1/500 year earthquake. However, it is also likely that the buildings would be inoperable.

- The George Manson building has a number of critical services adjacent to it, including theatre, intensive care and recovery. Radiology and the Emergency Department are also in the vicinity. This is likely to impact on the ongoing operation of our services after a major earthquake.

- Earthquake strengthening George Manson and Percy Brunette is estimated to cost approximately $15m for each building. The likely approach (if completed in isolation of the proposed hospital re-development) would be to 'base isolate'. This approach involves adding flexibility between the building and its foundations.

2.3 Business Continuity Planning:

- The work on the business recovery plan which is expected in June is expected to detail what our plan would be for the resumption of services in the event of a major earthquake prior to the proposed hospital re-development being completed. It is likely that the services currently in the George Manson and Percy Brunette buildings would be re-established elsewhere in temporary facilities on campus and that these buildings would be abandoned until the hospital could be re-developed post earthquake.

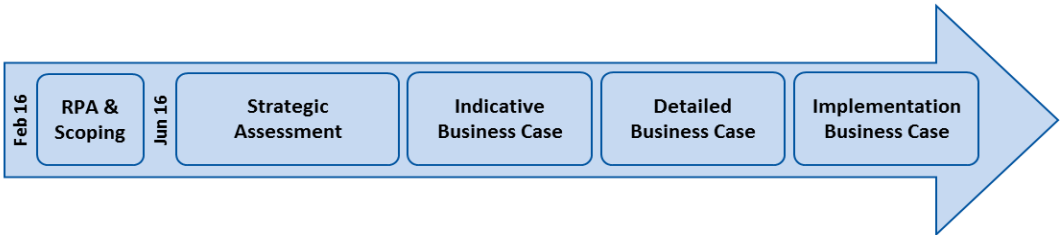
2.4 Primary and Community Strategy:

- Work on the primary and community strategy is expected to clarify which services will be delivered in the community in the future rather than in secondary care. The strategy will be an important input into the final design of the services that need to be built on the hospital campus. The Planning & Funding team plan to complete the strategy in March.

3 The Ministry of Health and the Treasury Better Business Case Approach:

The Ministry of Health uses the 'Health Business Case' (HBC) approach, which is an adaption of the New Zealand Treasury 'Better Business Case' (BBC) model. This provides a structured way to develop an investment case in an inclusive way.

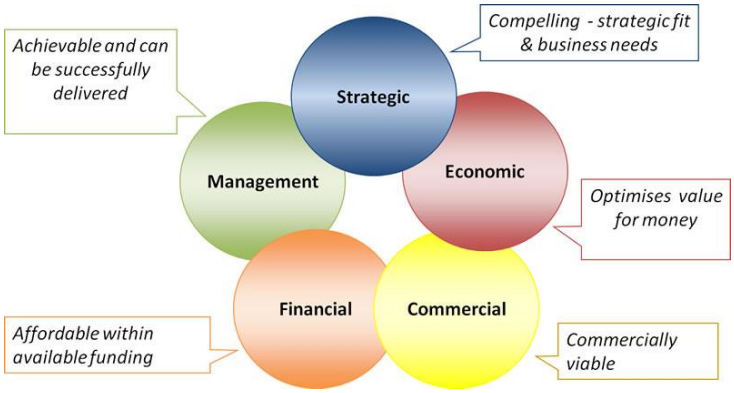
The HBC follows the principles of the Treasury BBC process. An initial risk profile assessment (RPA) is completed followed by four business cases, as follows:



We completed the initial RPA in February and submitted it to the Treasury Gateway Monitoring Unit. The Gateway Unit circulated our RPA to Central Agencies and confirmed agreement with our self assessment – that the risk rating for our programme is 'high'. As a consequence of our proposed programme's risk rating extra scrutiny, including the Gateway Review process, must be applied to our programme.

The indicative case, indicated after the strategic assessment on the above continuum, serves as an important gateway. At the point we have completed the indicative case we need to seek the permission of our key stakeholders to continue to the detailed and implementation phases.

Incorporated into the 4 cases are 5 case models, as follows:



Indicative timeframes for each case suggest that notionally four years would be required to complete the cases. However, we have consulted with those involved in the recent Canterbury cases, as well as our proposed partner, Hunter Group and with Ernst & Young, and we have concluded that by overlapping the cases and with careful management all cases could be completed within 2.5 years. This is what we have proposed in our implementation timeline.

3.1 Strategic Assessment:

The strategic phase involves the completion of the strategic case, also known as the *strategic assessment.* This phase is designed to provide stakeholders with a high degree of confidence that the investment they are considering aligns with the strategic

service plan and responds to true business needs. Stakeholders can use this document to consider the rationale for a proposed investment at an early stage of the BBC lifecycle, and determine whether the proposal warrants further business case development. The case is supported by investment logic mapping (ILM).

A key component of the strategic assessment under the Ministry of Health's adaptation of the BBC approach is the Strategic Services Plan. The plan reviews the whole of health service operations over the next 10 years, providing a foundation for strategic clinical service planning and site specific capital developments. It ensures the needs of the community are met by the DHB as an integrated and self-sufficient health service with clinical service streams across the DHB. The plan provides a strategic view of service configuration, models of care and key enablers to determine the needs going forward and to identify possible strategies for managing growth, service changes, whole of service alignment and financial viability. The initial Health Needs Analysis, Health Services Plan and Facilities Implications Report which have been completed will provide key information for this plan. The Primary and Community Strategy (due in March) is also likely to play a key role in informing the Strategic Services Plan. Based on feedback from our Ministry of Health colleagues we have allowed in our proposed plan for further work by Ernst & Young to project future health demands by service area.

3.2 Indicative Business Case:

The indicative business case (IBC) follows the strategic assessment business case and provides decision makers with an early indication of the pathway forward. It confirms the case for change and the need to invest. It identifies a range of options and recommends a preferred way forward for further development of the investment proposal, following analysis of the initial long list of options.

Key components of the IBC under the Ministry of Health's adaptation of the BBC approach are the Service Plan, Master Plan and Model of Care.

The Services Plan is an adaptation of the organisation's model of care and describes 'where' and 'how' work is to be carried out. It includes Service Delivery Models to suit the local environment and resources to best meet the overarching organisational requirements.

The purpose of the Master Plan Study is to identify and evaluate all the project planning options for the facility with consideration for the services provided, demographics, future trends, existing facilities, capital and recurrent costs and the implementation strategy.

A Model of Care outlines best practice patient care delivery through the application of a set of service principles across identified clinical streams and patient flow continuums.

The indicative business case also commences the development of the strategic and economic case models.

3.3 Detailed Business Case:

The purpose of the Detailed Business Case (DBC) is to work up the preferred solution that optimises value for money.

Again, using the Ministry of Health adaptation, a Feasibility Study is undertaken to complete a detailed analysis of the preferred option as determined in the Master Plan study.

A Functional Brief provides a description of the functions to be accommodated and the relationships between functions for a proposed capital project. It should identify how the project meets the objectives and policies of the organisation.

The detailed business case re-visits the strategic and economic cases and prepares the commercial, financial and management cases. The output of the DBC is a detailed, costed proposal which identifies commercial, procurement and funding approaches and outlines the proposed approach for implementation.

3.4 Implementation Business Case:

The Implementation Business Case (IBC) recommends a preferred supplier and seeks approval from decision-makers to enter into commercial contracts for the provision of the preferred option.

The Implementation Business Case:

- Revisits and confirms the strategic and economic cases.
- Identifies the supplier offer that optimises value for money.
- Sets out the negotiated commercial and contractual arrangements for any procurement.
- Confirms that the proposed arrangements are affordable, and;
- Puts in place detailed management arrangements for the successful delivery of the project or programme.

The implementation case revisits the strategic and economic cases and further elaborates the commercial, financial and management cases.

Once the Implementation Business Case is completed, it can be used as the basis for seeking formal approval to negotiate the deal, proceed to contract signing and to then implement the project.

4 Outline Plan

The overall delivery of the business cases would be *governed* as follows:

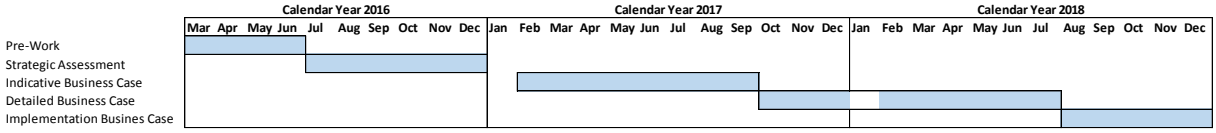
- A steering group would be established to monitor the project with membership to include the Chief Executive, Senior Responsible Owner (SRO), and Executive Leadership Team members nominated by the Chief Executive.
- Quarterly progress reporting would be supplied to the Nelson Marlborough Board with key decisions delivered to the Board as recommendations in regular Board Papers.

The overall delivery of the business cases would be *managed* as follows:

Sylvia Meakin from the Hunter Group would be appointed as the Project Manager and Business Case Writer for the project (subject to confirmation of the Hunter Group as our lead supplier following an appropriate procurement process). Sylvia would report to the SRO – the General Manager IT & Infrastructure. Sylvia would manage the resources

and inputs required to complete the business cases. The resources would vary depending on which case was under construction but would include external quality assurance, architectural, accountancy and Nelson Marlborough District Health Board resources as and when required.

The following diagram outlines the anticipated timeframe for the completion of all cases (noting per the Executive Summary that if our recommendations are approved we will re-baseline the delivery timeframe to bring the date back for the final delivery of the overall cases to June 2018).



Anticipated effort by stage is as follows:

Stage 1: Pre-work. This would include:

- Clarification of scope and requirements, including follow up following the completion of the NZ Treasury Risk Profile Assessment and Scoping Document.
- Convening the Better Business Case review meeting with Treasury, Ministry of Health, and other as required.
- Directing the delivery of detailed health service analysis from Health Partners (now Ernst & Young).
- Detailed delivery planning, including: identification and agreement on the allocation of resources; agreement on the responsibilities; agreement on deliverables/timeframes.
- Completion of the project plan and agreement on the milestones for the development of the Strategic Assessment.

Stage 2: Strategic Assessment. This would include:

- Facilitated workshops (including 2 x ILM workshops) and meetings with key stakeholders to develop the collateral for the business case ensure understanding of the process and gain buy-in to the proposal(s).
- Development of the business case document per the Better Business Case standard in consultation with the Ministry of Health to ensure their requirements are met.

Stage 3: Indicative Business Case. This would include:

- Confirmation of scope and requirements with Treasury, Ministry of Health, and other as required.
- Facilitated workshops and meetings with key stakeholders to develop the collateral for the business case, including options development and options short-listing.
- Development of the five cases (revisit of strategic case, focus on economic case, some high level development of commercial, financial and management cases) as per the Better Business Case standard.
- Production of the draft business case, management of the internal review process, coordination of responses and resolution of issues arising from feedback received.
- Writing of the final business case document.

- Writing of supporting/covering papers for internal approvals groups (if required and if agreed as being within scope).

Stage 4: Detailed Business Case. This would include:

- Confirmation of scope and requirements with Treasury, Ministry of Health, and other as required.
- Coordination of Feasibility Study and development of Functional Brief.
- Development of the five cases (revisit of strategic and economic cases, focus on the commercial, financial and management cases) as per the Better Business Case standard.
- Production of the draft, management of internal review, incorporation of feedback, development of final business case document and any supporting papers.

Stage 5: Implementation Business Case. This would include:

- Confirmation of scope and requirements with Treasury, Ministry of Health, and other as required.
- Development of the Implementation Case to reconfirm the strategic case for investment, finalise the expected costs, confirm the commercial/contractual arrangements, specify the management arrangements and detail the implementation approach and timeline, as per the Better Business Case standard.

Project Management. This would include:

- Project planning and management of the project progress and delivery;
- Management of the NMDHB resource and any specialist resource;
- Reporting to the SRO/Steering Group;
- Support for key stakeholder communications.

Under the proposed approach we would utilise Hunter Group as our lead Project Manager and Business Case writer, and Hunter Group would coordinate all activities, effort and resources required to complete the full set of business cases. We would also seek to continue our engagement with Ernst & Young. Ernst & Young would be tasked with completing the outstanding work required to project future health demands by service, would be tasked with quality assurance and would be engaged where the Hunter Group was unable to procure expert services required for the completion of our cases, e.g. for the completion of the commercial and financial cases.

We believe that this approach has a number of benefits, as follows:

- Enables us to engage a Business Case Writer who is experienced in the development of Health Business cases. Sylvia is one of 3-4 individuals who have this particular experience and was recommended to us by the Treasury Gateway Monitoring Unit.
- Lowers our costs considerably compared to an alternative model where a ‘big 4’ chartered accountancy firm was engaged to manage the overall development of our business cases.
- Enables us to continue to partner with Ernst & Young, who produced our initial health needs analysis and whom we have formed a collegial partnership with.

As noted earlier we will ensure an appropriate procurement or exemption process is completed before confirming the Hunter Group and Ernst & Young as our partners.

5 Estimated Costs

The following tables provide an indication of the overall cost of completing the business case requirements. The information was supplied by the Hunter Group but we have re-presented it to demonstrate the total cost of the business case development (both Hunter Group and non-Hunter Group resources), and to demonstrate the financial impacts by financial year.

This table summarises the cost by financial year by major category and shows 'low', 'likely' and 'high' sensitivities.

Likely Costs Summarised by Cost Category by Year

	FY '15-'16	FY '16-'17	FY '17-'18	FY '18-'19	Total
Lead Consultant	20,270	164,163	217,342	113,766	515,540
Sub-Contracted	36,050	61,731	160,185	29,233	287,200
Gateway Review		75,000	75,000	150,000	300,000
Grand Total:	**56,320**	**300,894**	**452,527**	**292,999**	**1,102,740**

Sensitivity (Low Estimate - High Estimate):

Low Estimate:	49,437	264,120	397,222	257,190	967,969
'Likely Estimate':	***56,320***	***300,894***	***452,527***	***292,999***	***1,102,740***
High Estimate:	63,203	337,667	507,833	328,808	1,237,511

As noted earlier, assuming the recommendations in this paper are agreed to, we will work with our proposed partner to further compress the delivery timeframe for all business cases to 2 years (excluding the pre-work). This will result in a re-phasing of when the costs will be incurred and the phasing above should be considered as for illustrative purposes only. However, we do anticipate that the overall costs will remain unchanged.

The table below demonstrates the cost by financial year by business case type.

Estimated Cost (likely) and Impact by Financial Year

	FY '15-'16	FY '16-'17	FY '17-'18	FY '18-'19	Total
Pre-Work:					
Lead Consultant					
- Project Manager	20,270				20,270
Sub-Contracted					
- Ernst & Young	36,050				36,050
Pre-Work Totals:	***56,320***				***56,320***
Strategic Assessment:					
Lead Consultant					
- Project Manager		63,600			63,600
Sub-Contracted					
- QA (EY or Other)		13,200			13,200
Gateway					
- Gateway Review		75,000			75,000
Strategic Assessment Totals:		***151,800***			***151,800***
Indicative Business Case:					
Lead Consultant					
- Project Manager		71,119	42,671		113,790
- Accountant		29,444	17,666		47,110
Sub-Contracted					
- Architect		40,281	24,169		64,450
- QA (EY or Other)		8,250	4,950		13,200
Gateway					
- Gateway Review			75,000		75,000
Indicative Business Case Totals:		***149,094***	***164,456***		***313,550***
Detailed Business Case:					
Lead Consultant					
- Project Manager			101,147	12,643	113,790
- Accountant			49,013	6,127	55,140
- Change Mgmt Planning			6,844	856	7,700
Sub-Contracted					
- Architect			112,356	14,044	126,400
- QA (EY or Other)			18,711	2,339	21,050
Gateway					
- Gateway Review				75,000	75,000
Detailed Business Case Totals:			***288,071***	***111,009***	***399,080***
Implementation Business Case:					
Lead Consultant					
- Project Manager				63,240	63,240
- Accountant				23,200	23,200
- Change Management planning				7,700	7,700
Sub-Contracted					
- QA (EY or Other)				12,850	12,850
Gateway					
- Gateway Review				75,000	75,000
Implementation Business Case:				***181,990***	***181,990***
Grand Total:	**56,320**	**300,894**	**452,527**	**292,999**	**1,102,740**

Following a discussion with our Chief Financial Officer, I have been advised that all costs up to the implementation business case should be considered operating cost and expensed. The implementation business case should be capitalised.

Following this approach our 'likely' cost scenario would amount to $920,750 of operational costs being incurred. Some of this cost would be incurred as pre-work activities in the current financial year. However, the majority of the cost would be incurred over 2 financial years (once we have re-baselined the plan to deliver all the business cases within 2 years).

A further $181,990 of *capitalisable* cost would also be incurred to develop the implementation business case to take our total costs to $1,102,740.

It should be noted that internal District Health Board (DHB) resource costs have not been allowed for within these estimates and DHB effort would need to be provided by prioritising the business case development effort above other organisational priorities. It is anticipated that the General Manager IT & Infrastructure, Planning & Projects Manager and Personal Assistant Support would need to free up regular capacity to assist the Project Manager to move the business case activities forward. In addition, at various stages in each case, clinical, management and facilities engagement will be required.

Finally, it should be noted that these costs are estimates only. They have been supplied to us by the Hunter Group and are based on previous experience with the development of similar business cases. Actual costs would be charged to us on a time and materials basis. We believe that the 'likely' scenario indicated by the Hunter Group would form the basis of a realistic budget that we could manage overall business case development costs to.

6 Other Considerations:

Late last year we had a discussion with the former Chief Medical Officer (CMO) at Canterbury, Dr. Nigel Miller. Nigel was instrumental in the planning for the Burwood Hospital Development. The following insights from Nigel will be useful as we progress our business case development:

- Asking the Clinicians to produce a list of requirements by service is likely to leave them disenfranchised, as we will inevitably be putting lines through some of the items in their wish list. Instead, we need to engage them in the whole vision and encourage them to solve the whole problem within the parameters available to us. Canterbury District Health Board (CDHB) engaged a 'Futurist' to lead a fairly intensive change management process to achieve this.

- Future thinking requires us to look beyond the hospital walls – The CDHB team took the Clinicians and other key people involved in the Burwood business case development to Air New Zealand, Logistics Companies and elsewhere to demonstrate how Corporations have solved similar challenges to those found in a secondary care setting.

- The focus is often on the capital cost of the re-build, but well designed services could produce a business case in their own right. For example (indicative numbers) if our capital investment is $120m, and our cost of delivering secondary care from Nelson Hospital is $120m per annum (mostly workforce cost), then an 8% reduction in the cost of running the hospital (e.g. because a leaner workforce is possible if we can achieve higher throughput) would offer a reasonable return on investment even if we only looked at the investment from a financial perspective. Although it would be challenging to realise workforce savings as a

consequence of the hospital re-development we need to try to quantify any efficiencies the hospital re-build could deliver.

- Starting with a blunt projection of future demand and how this translates into beds, as we have done and as they did, provides a good illustration of why we have to act (because we can't afford the cost of the projected growth in beds). However, it also highlights that we will struggle to increase our workforce in order to handle the additional demand (e.g. due to our ageing population and our ageing workforce). This highlights that we will have to consider other variables, such as reducing the intensive nature of care or improving our throughput if we are to manage projected growth in the demand for our services in the future.

- Canterbury found their design lab invaluable, as they were able to mock up hospital beds and wards and test these. For example, they discovered that the traditional design of having beds back to back (with a wall between) so that they could share services was sub optimal, because the Clinician had to walk into the visitors' space when visiting one of the rooms if 2 rooms were set-up back to back in this manner. They also found that traditional hospital designs often had the ensuite blocking part of the view through the door, so that a Clinician or a Nurse could not see the patient at a glance as they did their hospital rounds.

Another important consideration for us as we design our future hospital is how we will effectively incorporate our future Digital Hospital requirements. We currently operate in a paradigm of hybrid (paper-based and digital) processes, and in 2015 we developed a paper-lite and digital health system strategy that seeks to move us from a legacy, paper-intensive environment to a future which is 'paper-lite' within 5 years and then digital within 10 years. The National Health IT Board has also been tasked with progressing the health system towards digital hospitals, with the first digital hospital blueprint due out in mid 2016.

Our hospital re-development investment is likely to have a useful life of 20-60 years and it is important that we imagine, design and build future capabilities that are paperless and digitally focused whilst being realistic about how far forward we can afford to move given the overall funding available for the hospital re-development.

7 Recommendations:

It is recommended that the Board:

1 **Notes** the time intensive nature of preparing a set of business cases for the re-development of the Nelson Hospital site. We anticipated that the full set of requirements for all cases would be completed by December 2018 but in discussion with our Chief Executive we plan to bring this forward to June 2018. This assumes that we continue to focus on and prioritise the development of the business cases and allow the development of cases to overlap with the approval of the prior case.

2 **Notes** the cost intensive nature of preparing the cases. We estimate that $920,750 of operational costs will be incurred over the development of the business cases and a further $181,990 of capitalisable cost will be incurred – a total investment of $1,102,740 under a 'likely' cost scenario.

3 **Notes** that the indicated costs are time and materials estimates. However, they are based on our proposed partners' previous experience in developing Health business cases under the Treasury Better Business Case approach and we propose utilising their 'likely' scenario as a basis for budgeting the business case development work.

4 **Approves** management engaging the proposed partners, Hunter Group and Ernst & Young (subject to an appropriate procurement process), to commence with the development of the Nelson Hospital Re-Development business cases according to the plan indicated in this paper and with quarterly progress reporting supplied back to the Nelson Marlborough Board.