Waitematā
District Health Board

Best Care for Everyone

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22 April 2021

[redacted]

Dear [redacted]

Re: OIA request – Mental health facilities

Thank you for your Official Information Act request received on 16 March 2021 seeking information and documents from Waitematā District Health Board (DHB) relating to the condition and performance of mental health facilities.

We sought clarification of your request on 16 March and you provided the following clarification on 22 March:

"This provides a partial response to some of my request, but not all.

- *I don't need the Ombudsman's reports.*
- *However, if there have been recent documents (since 2019) such as briefings or reports that set out the DHB's plans to address any of the concerns raised by the Ombudsman and others, for example the staffing shortages and problems with low morale, then please include those.*
- *Please include business cases for any planned new facilities, including those referenced in the OIA you sent me.*
- *I don't need the engineering and building reports, unless there were any completed since that OIA response.*
- *The data on occupancy and available beds is partly what I was seeking, but I want a larger data set, going back five years until the latest month.*
- *Please also include data on unplanned readmissions, if you collect that information.*
- *Please also provide figures for the funding provided annually for specialist mental health services for the past five years."*

In response to your request, we can provide the following information:

Recent documents (since 2019) such as briefings or reports that set out the DHB's plans to address any of the concerns raised by the Ombudsman and others, for example the staffing shortages and problems with low morale.
We can confirm that the information provided in a 29 January 2021 OIA response, which you have been directed to on the Waitematā DHB website, under point 2 relating to the Ombudsman inspection reports for the past five years, remains unchanged. The report from the Ombudsman's visit to the Mason Clinic in December 2020 has not yet been received.

Business cases for any planned new facilities, including those referenced to in the OIA dated 29 January 2021
Attached are the business cases which have been approved for new mental health facilities. These include:

- Mason Clinic Redevelopment Programme Business Case - **Attachment 1**
- Mason Clinic Redevelopment Tranche 1 Business Case - **Attachment 2**
- E Tu Tanekaha Business Case - **Attachment 3**.

A further business case for Tranche 1B of the Mason Clinic Redevelopment has been submitted to, but not yet been formally received, by the Ministry of Health. We are, therefore, unable to provide this information until we have received an official response from the Capital Investment Committee and the Ministry of Health.

Therefore, we are withholding this business case under section 9(2)(g)(i) of the Official Information Act 1982 in order to maintain the effective conduct of public affairs through the free and frank expression of opinions between Waitematā District Health Board and the Ministry of Health and Cabinet. In our view, the public interest in making this business case available does not outweigh the importance of maintaining the effective conduct of public affairs through the free and frank expression of opinions between public sector agencies.

We will be happy to release the business case in the event that it is approved by Cabinet.

You have the right to seek an investigation and review of this decision by the Ombudsman. Information about how to seek a review is available at www.ombudsman.parliament.nz or Freephone 0800 802 602.

Engineering and building reports
We can confirm that no new engineering and building reports are available in addition to those previously supplied.

Data on occupancy and bed availability, dating back five years but to include the latest month
Please see enclosed occupancy data and bed availability by month - **Attachment 4**. This includes separate information for each of the following services:
- Forensic intellectual disability service at the Mason Clinic
- Forensic inpatient services (excluding intellectual disability beds) at the Mason Clinic
- The Kingsley Mortimer unit, North Shore Hospital (the acute inpatient mental health unit for older adults)
- Medical detoxification service
- Waiatarau (the adult acute mental health unit at Waitakere Hospital)
- He Puna Waiora (the adult acute mental health unit at North Shore Hospital).

Data on unplanned readmissions
Unplanned admissions are measured by the number of patients who are readmitted within 28 days of discharge (28-day readmission rate). Please see enclosed 28-day readmission data by service - **Attachment 5**. This includes:
- The Kingsley Mortimer unit medical detoxification service
- Waiatarau
- He Puna Waiora.

Please note, 28-day readmission information has not been provided for the Mason Clinic, due to the nature of the service provided for forensic psychiatry patients. Specifically, length-of-stay in the service can be a period of years and is determined under specific legislation (e.g. Criminal Procedure Mentally Impaired Persons Act 2003).

Provide figures for the funding provided annually for specialist mental health services for the past five years.
The DHB allocates funds through its budget process, so this budget data is presented below by financial year, as per the budgeting cycle.

Please note that Waitematā DHB operates regional addictions and forensic services, the funding for these services is included.

Funds allocated to Waitematā DHB mental health services					
	FY2016	FY2017	FY2018	FY2019	FY2020
Total	122,543,599	122,880,342	130,743,201	140,011,894	149,373,122

I trust that this information is helpful.

Waitematā DHB supports the open disclosure of information to assist community understanding of how we are delivering publicly funded healthcare. This includes the proactive publication of anonymised Official Information Act responses on our website from 10 working days after they have been released.

If you consider there are good reasons why this response should not be made publicly available, we will be happy to consider your views.

Yours sincerely

[redacted]

Director, Specialist Mental Health and Addiction Services
Waitematā District Health Board

Attachment 1

WAITEMATA DISTRICT HEALTH BOARD

Mason Clinic Redevelopment Programme

Programme Business Case

FINAL

August 2019

Waitemata District Health Board
Best Care for Everyone

Mason Clinic Redevelopment – Programme Business Case

Document Version:	Final v1.0 (1 August 2019)
Business Case Owner:	Roger Perkins – Director, Strategic Capital Programme Group
Input Provided By:	**Waitemata DHB** Roger Perkins – Director, Strategic Capital Programme Group Jeremy Skipworth – Clinical Director, Mason Clinic Nigel Ellis – Strategic Capital Programme Group Paul Stanbridge – Project Director **PwC** Mark Robinson Craig Rice **Other** Mungo Smith – MAAP Rachael Rush – Klein Stephen Davies-Howard – Davies Howard Group
Business Case endorsed by:	Waitemata DHB programme Steering Group Waitemata DHB programme Senior Responsible Owner Waitemata DHB Executive Leadership Team Waitemata DHB Board Regional Mental Health Clinical Network Regional Capital Group Regional Executives Forum Regional Governance Group
Next step:	Capital Investment Committee

Waitemata DHB has developed this business case with the assistance of PwC. It has been peer reviewed by Davies Howard Group.

Mason Clinic Redevelopment – Programme Business Case

Glossary

ARFPS	Auckland Regional Forensic Psychiatry Service
CEO	Chief Executive Officer
CIC	Capital Investment Committee
DBB	Design, Bid, Build
DHB	District Health Board
ECI	Early Contractor Involvement
ECIB	Elective Capacity and Inpatient Beds
ILM	Investment Logic Map
LTIP	Long Term Investment Plan
MBIE	Ministry of Business, Innovation and Employment
NRA	Northern Regional Alliance
NRLTIP	Northern Region Long Term Investment Plan
PBC	Programme Business Case
PMO	Programme Management Office
PSO	Portfolio Support Office
SCPG	Strategic Capital Programme Group
SRO	Senior Responsible Owner
TEC	Tertiary Education Commission

Mason Clinic Redevelopment – Programme Business Case

Contents

Mason Clinic Redevelopment – Programme Business Case

1. Executive Summary

Waitemata District Health Board (DHB) provides forensic mental health services to residents of the Northern Region, and forensic intellectual disability services for those north of Taupo, on behalf of the other regional DHBs, at the Mason Clinic in Point Chevalier, Auckland.

The Northern Region DHBs (Northland DHB, Waitemata DHB, Auckland DHB and Counties Manukau DHB) collectively serve a population of 1.9m, which is projected to grow significantly in the future.[1]

This is a Programme Business Case (PBC) for Waitemata DHB's Mason Clinic redevelopment programme. This programme is addressing both capacity and capability issues with the Mason Clinic's existing facilities.

Waitemata DHB is about to acquire 2.8ha of land adjacent to the existing campus, to better enable the redevelopment, and to provide the Mason Clinic with a land footprint which is big enough to cater for demand in the current location for the foreseeable future.

This land acquisition has created the opportunity to co-locate core forensic and related services, if that is deemed appropriate at some point in the future. This PBC accounts for that possibility, but does not provide any policy recommendations. For the purposes of the master plan and this PBC, we have assumed that policy discussions will lead to the Mason Clinic being directed to provide all additional and enhanced services within five years.

This PBC seeks approval to develop a series of tranche-based business cases, beginning with a first tranche for which $60m capital funding has been prioritised (although an investment in the order of $160m is necessary to meet our urgent needs).

The redevelopment of the existing facilities at the Mason Clinic, including the provision of additional capacity, is consistent with the Northern Region Long Term Investment Plan (NRLTIP), national and regional mental health service strategies, and site master planning. It also contributes to wellbeing under the Government's Living Standards Framework. This PBC has been fully consulted on within the Northern Region, and has been endorsed by the Regional Capital Group, Regional Executives Forum and Regional Governance Group.

1.1 Background

The capacity and capability issues at the Mason Clinic have been evident for many years. Planning for a redevelopment of the Mason Clinic, to provide both additional capacity and fit-for-purpose facilities, has been happening for some time.

But uncertainty over whether the Mason Clinic would be able to remain, and potentially expand, on its present site slowed down site master planning and the development of this PBC.

- In 2016 (when approving the Te Aka unit), the Ministers of Finance and Health recognised that any significant expansion of the Mason Clinic to meet predicated long-term demand would be dependent on acquiring land from Unitec.
- Negotiations between Waitemata DHB and Unitec in 2016 proved unsuccessful. Although Unitec was interested in divesting surplus land earmarked for residential housing and mixed use development, it was concerned about the Mason Clinic remaining on its current site due to the impact on land values. In response, the Ministers of Health, Finance and Tertiary Education, Skills

[1] Statistics New Zealand (2017), Subnational population projections.

and Employment directed officials to investigate the options for the future of the Mason Clinic from a whole of government perspective.

- An independent report commissioned by the Ministry of Business, Innovation and Employment (MBIE) and the Tertiary Education Commission (TEC), and completed in November 2016, considered a number of different site location options.[2] It found that, from a whole of government perspective, the Mason Clinic should remain at its current location, with the option to expand through acquisition of land from Unitec. The Ministers of Health and Tertiary Education, Skills and Employment agreed with this recommendation and, in May 2017, asked Waitemata DHB and Unitec to negotiate on suitable terms. While some progress was being made, in November 2017, Unitec switched its attention to discussions with MBIE for the sale of land for social housing purposes.
- In March 2018, Cabinet agreed in principle to the Ministers of Finance and Housing and Urban Development approving the acquisition of 29.3ha of land (adjacent to the Mason Clinic) from Unitec for State housing purposes. Cabinet noted that, following acquisition of the land, MBIE would seek to conclude as soon as possible an agreement with Waitemata DHB for the transfer of 2.8ha to allow for the expansion of the Mason Clinic, "*unless a suitable future alternative site for the functions of the Mason Clinic can be found*".

While these discussions took place, the urgent issues with the Mason Clinic facilities remained. In response, the Te Aka unit was constructed and the replacement for the Tanekaha unit was approved (and is now under construction), in advance of the formal preparation of a redevelopment programme.

The uncertainty was effectively resolved in April 2019 when Ministers approved the transfer of 2.8ha of land to Waitemata DHB. The land transfer is expected to be finalised in August 2019.

This history, and in particular the recent land transfer, effectively limits the scope of programme-level solutions in this PBC to those which involve provision of services on the current Mason Clinic site.

1.2 Strategic case

There are three key problems with the Mason Clinic's existing inpatient facilities.

1. Service capacity is insufficient to meet future demand

The Mason Clinic does not currently have the capacity to be able to cater for the forecast future demand for forensic mental health and intellectual disability services. Additional capacity is required for us to continue to provide these services to all patients in the region who require them. Furthermore, if it is deemed appropriate that the Mason Clinic should in the future provide additional services for high and complex needs patients or youth forensic services, this will require even more additional capacity.

The inpatient facilities are at capacity today, and the 15-bed unit currently under construction will be full upon opening. There is no alternative facility in the region to provide forensic mental health services, and inadequate capacity results in patients being inappropriately held in prison.

The demand for inpatient forensic mental health and intellectual disability services in the Northern Region is growing rapidly. By 2043, over 1.1m more people are projected to live in the Northern Region, with a consequent projected increase in the prison muster and court cases.

[2] Zusammen Limited (Nov 2016), Mason Clinic Land Options.

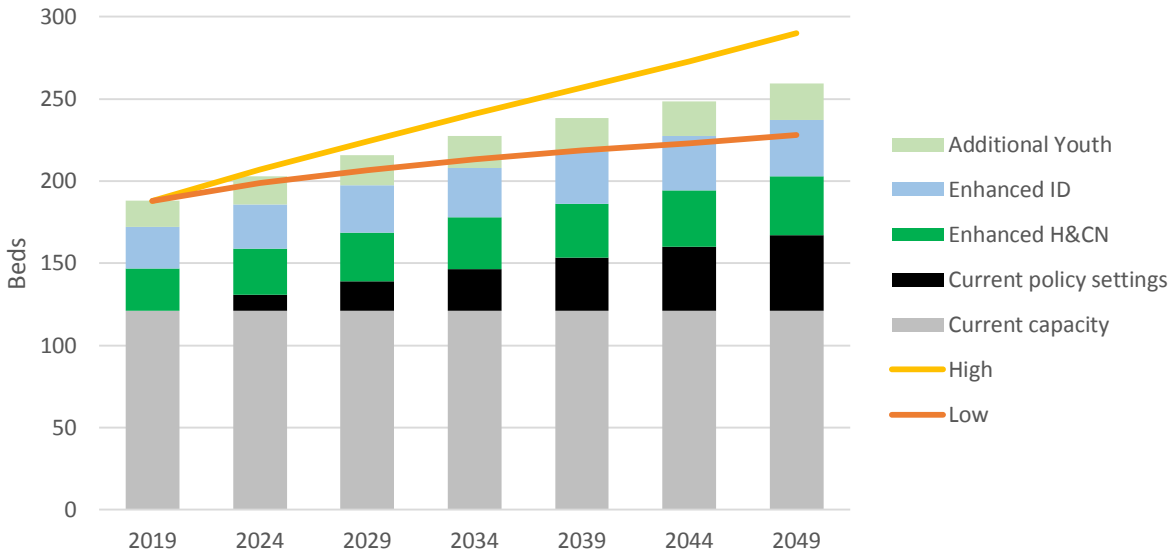
In addition to an increasing requirement for services generally, demand for dedicated forensic intellectual disability beds is already well in excess of the supply. This is leading to a need for additional separate specialist facilities for these patients.

Translating population, prisoner and court growth into demand for forensic mental health services indicates that by 2049, in addition to the unit currently under construction:[3]

- The continued provision of our current services, in line with current policy settings, would require 46 additional inpatient beds, on top of the existing 121 beds, for a total of 167 beds.
- Enhancing the service for adult high and complex needs patients would require up to 36 additional beds.
- Enhancing the service for forensic intellectual disability would require up to 34 additional beds.
- Adding a youth forensic service, which caters for all demand in the Northern Region, would require up to 22 additional beds.
- Providing all the additional and enhanced services noted above would require up to 117 additional beds, bringing the total bed requirement for the Mason Clinic to 259 beds.

Note: Some of the above elements are obviously dependent on policy decisions by the Ministry of Health. They are included here to describe what capacity *would* be required were such decisions to be taken.

Figure 1 Forecast bed demand, for different policy settings



2. Building fabric deficiencies are putting patient and staff safety and service continuity at risk

Four buildings at the Mason Clinic are failing significantly, suffering from weathertightness and leaky building issues – Kahikatea, Rata, Kauri and Totara. They need to be decommissioned as soon as possible.

Water ingress has been, and is, causing internal damage and compromising the integrity of the buildings. While this has been mitigated by ongoing repairs, the units have deteriorated to the point where they are

[3] PwC (June 2019), Mason Clinic demand forecasting.

at risk of developing Stachybotrys fungus in some wall cavities.[4] We have recently decommissioned and demolished the Tanekaha unit, but these four remain in operation.

Three monthly air testing continues. Recent tests confirmed that the presence of the fungus is currently at safe levels. However, this situation may not continue as the buildings are coming to the end of their design life and are not weathertight. Higher readings could require immediate decanting of one or more of the units.

This creates an unacceptable risk to the health of patients, their families and staff. This could render the buildings unfit for use, threatening the continued ability to provide forensic mental health services from the existing buildings.

The cost of maintaining or refurbishing the existing buildings is greater than the cost of replacement. Accordingly, a replacement programme is urgently needed.

There is no alternative provider of forensic mental health services in the region. Therefore, the potential for disruption to service provision at the Mason Clinic puts at risk the Northern Region's ability to provide this service to all patients in the region on a sustainable basis.

3. Facility design does not meet service requirements or support contemporary models of care

Most of the Mason Clinic facilities were designed to support a different model of care to that which we operate today. This is limiting our ability to safely and adequately provide forensic health services in line with best practice and our model of care.

The development of contemporary models of care for forensic mental health and intellectual disability services is changing the way those with mental needs or intellectual disabilities in the criminal justice system are assessed, treated and rehabilitated. This model of care requires different facilities to those we currently have – with a greater focus on rehabilitation and reintegration without the use of restrictive interventions, and where services are integrated across the care continuum of security needs.

With the exception of Te Aka and the unit currently under construction, the design and configuration of the existing facilities no longer meet the needs of patients. In particular:

- There are not enough rooms for assessment, treatment and rehabilitation activities.
- Communal ablution blocks adversely impact patient experience, increase staffing requirements, and will make it difficult to phase out the use of night safety procedures which the Ministry of Health has indicated must occur before 2022.
- Rooms are not big enough to adequately cater for long term residents, adversely impacting recovery and clinical outcomes.
- Some minimum secure units have seclusion areas, but these are not needed in those units.
- No unit has a sufficient security level to provide safe provision of care for high security patients.
- Units that provide complementary clinical services are not physically linked together. This limits the ability to provide an integrated service and promote continuity of care, and reduces the efficiency of staff work.
- In an environment where medium density residential housing is expected to soon occupy the land around the Mason Clinic, for privacy and safety reasons, Mason Clinic buildings would best be

[4] Stachybotrys is a toxic mould which is extremely dangerous to humans. It can cause serious health problems, including respiratory problems, skin inflammation, haemorrhage, damage to internal organs, mental impairment, irritation of mucous membranes, tiredness, nausea and immune system suppression.

sited around the periphery of the campus. This would provide a visual and physical barrier to the community, and create a shared community zone for service users with ground access.

1.3 Economic case

Proposed redevelopment

Our proposed redevelopment of the Mason Clinic involves:

- The construction of a number of modern single and multi-storey units, over the land under the units to be demolished and the newly acquired land, to provide capacity for up to 246 beds.
- Demolition of the existing units with serious weathertightness issues and which are no longer fit for purpose – Kahikatea, Rata, Kauri and Totara – and some aging support buildings such as Kowhai and the workshop.
- Retention, and potential upgrade, of the other existing inpatient units and buildings.
- The construction of a series of shared support facilities to accommodate front-of-house and security, judicial, therapeutic, wellness, administrative and non-clinical support functions.
- Provision of additional on-site carparking for staff and visitors, together with access for emergency and support traffic.
- An increase in total building footprint from 30% of the site to 34%, while at the same time almost doubling the inpatient capacity.
- The use of three main stages of work, each of which may have sub-stages, with redevelopment beginning from the Northern end of the campus.

Stage 1

The first stage will involve replacing the buildings with weathertightness issues with new facilities, with no change in overall capacity.

- Two new two-storey units will be built on the newly acquired land at the north end of the site. Each unit will have 30 beds, 15 on each level (60 beds in total), and will be a combination of minimum (T3), medium (T2) and high (T1) security levels.
- The Kahikatea, Rata, Kauri and Totara units will be decommissioned. This will remove 60 beds currently in use.[5]
- A three-storey shared activity and support building, including two-storey entry court, front of house, judicial activities, drop-off, access and carparking will be constructed on the newly acquired land, and the start of the central secure garden will be created.

This is a necessary first step before additional capacity can be contemplated.

Stage 2

The second stage will involve the demolition of the decommissioned units, the provision of urgently needed additional capacity, and the provision of specialist facilities for additional and enhanced services.

- The Kahikatea, Rata, Kauri and Totara units will be demolished.

[5] It is assumed that, when the unit under construction is commissioned, the operational capacity of Kahikatea will be reduced from 20 to 15 beds.

- Two new facilities for forensic mental health patients will be built:
    - A two-storey unit, with 30 beds and administration spaces, similar to those built in Stage 1. It is expected to cater for adult high and complex demand patients, in addition to forensic mental health patients, and be cited on the western side of the campus.
    - A single-storey unit, with nine specialist step-down beds, next to the existing Rimu unit.
- If deemed appropriate, two specialist units will be built to provide to provide additional and enhanced services:
    - A two-storey specialist unit for forensic intellectual disability patients, next to the Pohutukawa unit on the current site of the Kowhai and workshop buildings.
    - A two-storey specialist unit for youth forensic patients, on the newly acquired land at the southern end of the campus.
- The specific numbers of each type of unit, their specific location within the campus, and the order in which each unit is built, will be determined during the business case process for Stage 2. This will be based on updated demand forecasts for each service, and any further direction from central agencies regarding the provision of youth forensic services and additional services for high and complex needs patients.
- These facilities could be constructed all at one time, or they could be staged. At least one of the two forensic mental health units will be needed urgently, but timing for the specialist youth and intellectual disability units will depend on when (and if) they are deemed appropriate. As such, Stage 2 may be delivered in multiple sub-stages.

  For the purposes of the master plan and this PBC, we have assumed that policy discussions will lead to the Mason Clinic being directed to provide all additional and enhanced services within five years, and as such the provision of units for these services are included with Stage 2 (rather than delayed until Stage 3).
- If all such facilities set out above are constructed, this will involve the addition of 77 beds during this stage, increasing the total capacity of the Mason Clinic from 121 to 198 beds.
- Additional support buildings and carparking will be constructed, along with further development of the central secure garden. This will include the return of community facilities removed during Stage 1.

Stage 3

The third stage will involve adding further additional capacity over time, as required by regional demand.

- The types of units, the specific numbers of each, their specific location within the campus, and the order in which they are built, will be determined during the business case process for Stage 3. This will be based on updated demand forecasts for each service, the amount of further capacity which is ultimately provided during Stage 2, and any further direction from central agencies regarding the provision of youth forensic services and additional services for high and complex needs patients.
- The current master plan envisages the potential addition of 48 beds during this stage (over and above those added during Stage 2), increasing the total capacity of the Mason Clinic to 246 beds. The master plan envisages these units to comprise:
    - one additional 30-bed unit for forensic mental health patients, on the western side of the campus

- one 12-bed unit for forensic intellectual disability patients, on the western side of the campus (assuming this is required by the Ministry of Health)
- an expansion of the youth unit built in Stage 2.

- These units are envisaged to be constructed in multiple sub-stages, based on regional demand.
- Additional support buildings and carparking will be constructed, and the central secure garden area will be finished.

The four figures below show maps of the Mason Clinic at present, and after Stages 1, 2 and 3.

Figure 2 Mason Clinic at present (including unit under construction)

Figure 3 Future Mason Clinic after Stage 1

Figure 4 Potential future Mason Clinic after Stage 2

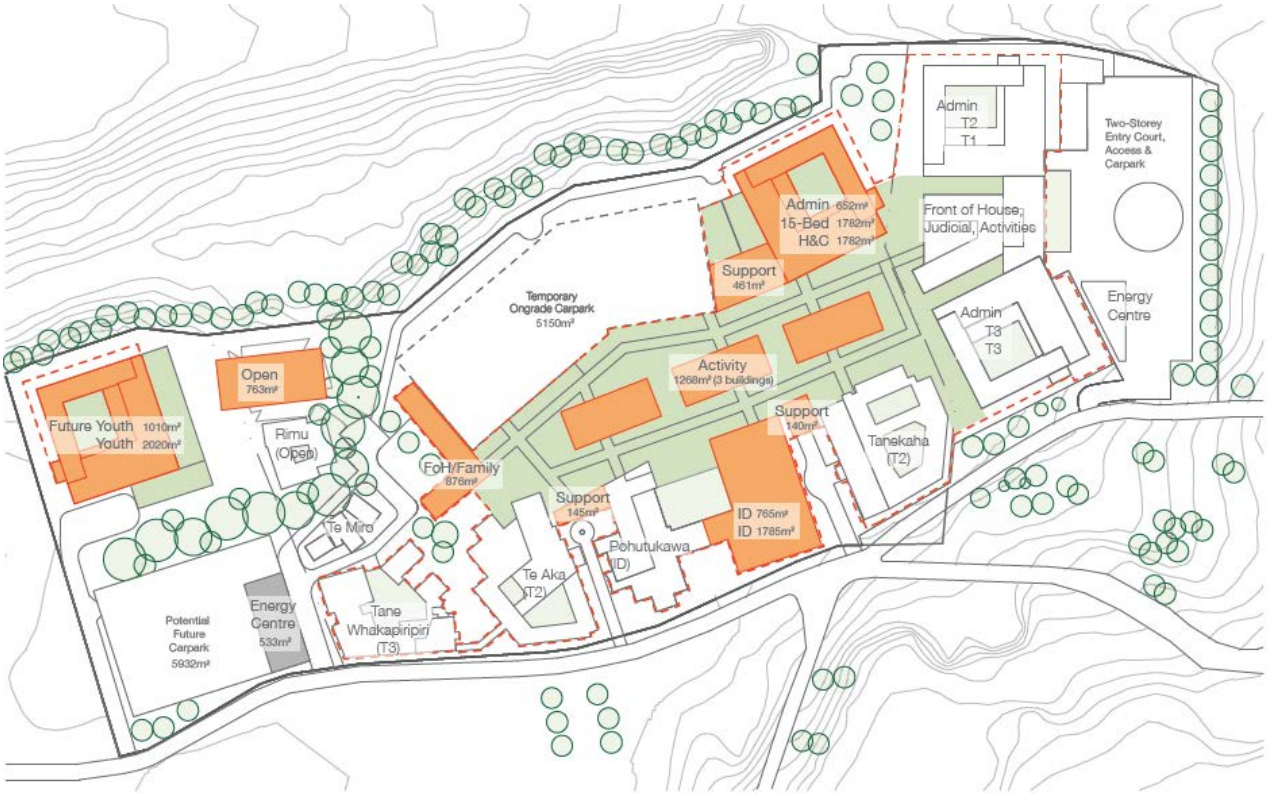


Figure 5 Potential future Mason Clinic after Stage 3

Funding tranches

The tranches developed for funding and business case purposes will be derived from the stages and sub-stages noted above. But they will also be contingent on funding availability.

Proposed Tranche 1

We propose that Tranche 1 includes all of Stage 1. This is expected to cost in the order of $160m in capex.

Alternative Tranche 1

We understand that only $60m in capital funding has currently been prioritised for Tranche 1 of the programme. This will be insufficient to complete Stage 1.

If only $60m (or a similar amount) is available for Tranche 1, then this tranche will necessarily only comprise a small part of Stage 1. Specific options for a smaller solution will be developed as part of the business case for Tranche 1, but a solution of this scale will inherently only be able to provide, at most, one of the two inpatient units and significantly reduced support, activity and carparking spaces.

While conceivable, we consider that attempting to deliver Stage 1 in multiple tranches (beginning with a first tranche in the order of $60m), is a significantly inferior solution. In particular:

- In order for the first new inpatient unit to be functional, Tranche 1 also needs to include the central buildings, site establishment, infrastructure works, and the main entry drop off area. This means that as much as 75% of the Stage 1 works may need to occur in a smaller solution. Our current analysis indicates that this will not be possible within a $60m capital envelope.
- It would require two of the failing units to remain in operation for a number of years longer than necessary. These four units are already exposed to a significant risk of patient and staff harm,

which threatens our ability to provide services on an ongoing basis, and we consider that further delay to their replacement to be an unacceptable solution.

- It delays the time when we are able to reconfigure the horizontal infrastructure on the western side of the campus.

Options analysis

This programme has been assessed against a range of other options.

Programme-level options

The preferred approach of facility replacement and redevelopment on the current site was considered against two other high-level options:

- Refurbishing the existing facilities, and adding capacity on the newly acquired land
- Relocating the Mason Clinic service to an alternative location.

There are a number of reasons why replacement and redevelopment is preferred to refurbishment. Firstly, the cost of maintaining and refurbishing the existing buildings is greater than the cost of replacement. Secondly, refurbishment would not be able to fully address the weathertightness, and hence these buildings would continue to carry an inherent risk of becoming a hazard. Thirdly, refurbishment would not allow us to increase capacity on the existing campus footprint (only on the newly acquired land), nor allow us to improve the design and configuration of the units.

The potential option of relocating the Mason Clinic service elsewhere has been considered in depth by Waitemata DHB and central agencies in recent years, and has been rejected. The recent acquisition of land adjacent to the existing campus allows us to focus future thinking on the current (and now expanded) Mason Clinic site.

New inpatient building typology

After much consideration – a separate Ministry of Health study has been carried out on the topic – we now propose the use of two multi-storey units to single-storey units, for the redevelopment of the Mason Clinic. This is for the following reasons:

- It enables a greater maximum bed capacity within the constrained footprint of the site. Unlike some other mental health facilities in New Zealand, land constraints are a critical consideration for the Mason Clinic.
- It allows easier decanting and better staging of the programme, with one new unit able to replace two existing units.
- It utilises the sloping topography of the newly acquired land at the north of the site, with two-storey units in this part of the campus effectively able to provide ground level access from both inpatient floors.
- It enables additional space to be used for a central secure garden area.
- It increases options for locating on-campus carparking in the short term.
- It enables support spaces to be used more efficiently.
- Multi-storey facilities have operated successfully in a number of international locations, and are able to support contemporary models of care.

The main disadvantage of a multi-storey solution is that residents of upper levels have reduced access to gardens – with smaller gardens and balconies on those floors. However, this can be offset by having a

larger common central garden, and designing the security levels such that those on the upper floors are also those who have the greatest allowed access to the central secure garden.

Staging

The programme will be completed in stages to ensure that there are no additional capacity constraints due to the temporary closure of buildings. Furthermore, a staged approach allows us to retain flexibility to adjust the programme if necessary.

Initial works

The only feasible option for Stage 1 is to build new inpatient units on the land which is shortly to be acquired at the north end of the site.

- We must continue to provide inpatient services during the redevelopment, and reducing capacity for a period is not a viable option. Hence it is not possible to decommission an existing building before a new one is built. Therefore, the first step in the redevelopment programme must involve constructing a new unit or units.
- There is no space of a sufficient size within the existing 3.9ha campus to construct a new unit. Therefore, the newly acquired land must be used.
- The Northern site is preferred to the South for two reasons:
    - Its natural sloping topography lends itself to the construction and placement of multi-storey inpatient units, being effectively able to provide ground-level access to both inpatient floors.
    - The Southern site is best suited to future rehabilitation units with lower security, due to its proximity to the Mahi Whenua sanctuary garden and a water stream partially running through from the existing site. This waterway divides the campus, and does not work well with the concept of a 'central secure garden' for core forensic services.

Staged demolition

The proposed programme replaces the existing failing units before adding capacity, and demolishing all the failing units at the same time.

However, an alternative approach could involve adding 30 beds as part of Stage 1, and then replacing the existing units while maintaining this higher capacity level. This would require an additional stage of demolition and decanting – for example, Kauri and Totara could be demolished and subsequently replaced on the same footprint, but Rata and Kahikatea only demolished once the new unit was built on the Kauri/Totara site. This approach is more complex and would require additional staging. It would only be warranted if the additional capacity was needed more urgently than it could be provided under the former option.

The former approach is preferred at this time, given the urgency with which the existing units need to be replaced, and the unit currently under construction is providing additional capacity in the short term. However, this will be reconsidered through the development of the tranche-based business cases.

1.4 Commercial case

It is currently expected that the individual projects within each tranche will be procured using a traditional design bid build (DBB) approach. This approach has been successfully used for the recent developments at the Mason Clinic, and is also being used for the ECIB project. There is no reason to use an alternative approach for this programme.

Each tranche will be procured separately. Within each tranche, some projects may be procured together (e.g. the two inpatient units in Stage 1) and others will be procured separately (e.g. the carpark in Stage 1).

Consideration will be given to methods of using contractor resource as early as possible. The two options considered for ECIB were a traditional early contractor involvement (ECI) method and splitting the procurement into an early works and main works package (with the latter approach preferred).

Procurement of operational requirements will be managed through existing DHB processes.

The procurement process will be designed such that it can contribute to increasing the size and skill level of the domestic construction sector workforce and provide employment opportunities to targeted groups, in accordance with direction from Government.

1.5 Financial case

Expected costs

A detailed costing has yet to be prepared for the programme as a whole. Cost estimates will be prepared for each of the programme tranches as they are developed.

The programme will begin with a first tranche, for which $60m in capital funding has been prioritised, although an investment in the order of $160m is necessary to meet our urgent needs. The business case for Tranche 1 of the programme will include an updated version of this estimate, with an accompanying breakdown.

Funding approach

Waitemata DHB has insufficient reserves to fund this programme in its entirety. While the DHB has used demand management initiatives to delay the need for this investment, we are not able to support the investment through a financial capital contribution, and accordingly Crown equity is required.

The funding of this programme has been discussed with the Ministry of Health and Treasury. We understand that the Government has prioritised $60m of capital funding for the first tranche of this programme, while funding for subsequent tranches is yet to be prioritised.

Funding for the direct operating costs associated with the new units is expected to be provided by the Crown as per the current method for funding forensic mental health and intellectual disability services, that is via the allocated revenue from the Ministry of Health.

Any increase in capital charge and depreciation that will accrue to the DHB's profit and loss account will not be affordable until national pricing reflects these indirect costs, a lag of at least two years under the current funding model. We understand that no capital charge will be levied on DHB capital projects for the foreseeable future, and we support this decision. Waitemata DHB also requests that a grant be given for the first two years to compensate for the additional depreciation charge incurred.

1.6 Management case

Programme timeline

Table 1 outlines the high-level indicative timetable for the programme.

Table 1 Indicative programme schedule

Task	Indicative date
Programme Business Case	Aug 2019
Tranche 1 (all of Stage 1)	
Business Case	Sept 2019
Design	Early 2020 – Mid 2021
Construction	Mid 2021 – Mid 2023
Tranche 2 (initial elements of Stage 2)	
Business Case	Late 2020
Design	Late 2020 – End 2021
Construction	Early 2022 – End 2023
Subsequent tranches	TBC

Programme governance

Waitemata DHB's Board and Chief Executive Officer (CEO) have overall responsibility and accountability for the programme. The Board and CEO are supported by the Deputy CEO, Senior Responsible Owner (SRO) and Programme Director by way of oversight across general operations.

- The Executive Leadership team, and in particular the Deputy CEO, provides oversight of all strategic capital programmes. The Deputy CEO sits on the Programme Steering Group.
- The SRO for the programme is the Director, Strategic Capital Programme Group (SCPG).
- A Programme Steering Group has governance responsibility for ensuring that the programme is developed and managed effectively to deliver the expected outcomes, on time and to budget. The Steering Group is chaired by the SRO, and reports directly to the CEO.
- A Programme Director will be appointed later this year. Project Managers will be appointed in due course for individual projects within each tranche.
- The SCPG is effectively the programme management office (PMO), and is the forum for the Programme Director to oversee progress and provide leadership and direction for the programme.
- The service change lead for the programme is the Clinical Director of the Mason Clinic.

The DHB has an established programme to build portfolio and project management capability implementing a structured Portfolio Management, Programme Management and Project Management (P3M3) methodology and has invested in a centralised Portfolio Support Office (PSO) and PMO to support the implementation of the programme. The PSO process uses existing organisational, quality and reporting structures to support project and change management.

Risks

The most notable programme risks are:

- Sufficient funding is not available to deliver the proposed investments, in the timeframe required to eliminate unacceptable risk of service disruption and ensure capacity is sufficient to maintain service levels.
- The projects cannot be delivered in the timeframe required, because of either difficulty accessing contractor resource (at reasonable costs) and/or a lack of internal DHB resources to manage the projects.
- Direction from central agencies regarding the provision of additional services for high and complex needs patients and/or youth forensic services is unclear, susceptible to change, or not provided in a timely way.

Each item reflects the overall risk of delay to the delivery of the programme. A significant delay will have the following impacts, both of which limit the programme's ability to achieve the investment objectives:

- Increased cost when the projects are eventually delivered (as a result of increased cost escalation)
- An unacceptable risk of major disruption to service delivery, until such time as the projects are delivered.

1.7 Recommendations

Waitemata DHB recommends that CIC:

1. **Notes** that the Mason Clinic has an urgent need to remediate some of its existing facilities, and that it will need additional capacity in order to continue to provide the same level of services in the future.
2. **Approves** the development of a programme of tranche-based business cases to support the long-term development of the Mason Clinic
3. **Supports** the development of a Single-Stage Business Case for Tranche 1 of the programme, for which $60m Crown capital funding has been prioritised, although an investment in the order of $160m is necessary to meet our urgent needs.

2. Introduction

Waitemata DHB provides forensic mental health services to residents of the Northern Region, and forensic intellectual disability mental health services for those north of Taupo, on behalf of the other regional DHBs, at the Mason Clinic in Point Chevalier, Auckland.

The Northern Region DHBs (Northland DHB, Waitemata DHB, Auckland DHB and Counties Manukau DHB) collectively serve a population of 1.9m, which is projected to grow significantly in the future.[6]

This is a PBC for Waitemata DHB's Mason Clinic redevelopment programme. This programme is addressing both capacity and capability issues with the Mason Clinic's existing facilities.

The existing Mason Clinic facilities are operating at capacity, and cannot accommodate any growth in demand. There is no alternative facility in the region to provide forensic mental health services. To support the forecast growth in population and prison muster, additional inpatient forensic mental health capacity is required.

In addition, the Mason Clinic facilities need replacing and reconfiguring. Most notably:

- Four buildings are failing significantly, suffering from weathertightness and leaky building issues which, left untreated, will lead to unacceptable health issues.
- The facilities which are failing were all designed for a different model of care to what we have today. The designs of the units, and their configuration within the campus, do not meet our service requirements or support contemporary models of care.

Waitemata DHB is shortly to acquire 2.8ha of land adjacent to the existing campus, to better enable the redevelopment, and to provide the Mason Clinic with a land footprint which is big enough to cater for demand in the current location for the foreseeable future.

This land acquisition has created the opportunity to co-locate core forensic and related services, if that is deemed appropriate at some point in the future. This PBC accounts for that possibility, but does not provide any policy recommendations. For the purposes of the master plan and this PBC, we have assumed that policy discussions will lead to the Mason Clinic being directed to provide all additional and enhanced services within five years.

This document sets out the strategic rationale for change, explores options at a programme level and establishes the preferred way forward. It identifies possible tranches and timeframes, as well as costs and funding sources for the programme.

This PBC seeks approval to develop a series of tranche-based business cases, beginning with a first tranche for which $60m capital funding has been prioritised (although an investment in the order of $160m is necessary to meet our urgent needs).

This document has been prepared in accordance with Treasury's Better Business Case guidelines. This PBC has been fully consulted on within the Northern Region, and has been endorsed by the Regional Capital Group, Regional Executives Forum and Regional Governance Group.

6 Statistics New Zealand (2017) Subnational population projections.

3. Strategic Case

3.1 Background

Waitemata DHB and the Mason Clinic

Waitemata DHB provides secondary hospital and community services, primarily for the communities of Auckland's North Shore, Waitakere and Rodney areas. It is one of four DHBs within the Northern Region. It has both the largest, and fastest growing, population of any DHB in NZ.

Waitemata DHB has three main clinical sites – North Shore and Waitakere Hospitals, and the Mason Clinic forensic psychiatric campus.

The Auckland Regional Forensic Psychiatry Service

The Auckland Regional Forensic Psychiatry Service (ARFPS) was established in 1989 following the Mason Inquiry into New Zealand's forensic mental health provision. It provides an integrated forensic mental health service to the Northern Region's courts, prisons and general mental health services. Waitemata DHB provides the ARFPS on behalf of the other Northern Region DHBs.

The key services the ARFPS provides are:

- Court liaison services
- Prison mental health services
- Community follow-up services
- Liaison services to other mental health services
- Inpatient service for people with mental illness
- Inpatient and community forensic intellectual disability services.

The inpatient services are provided at the Mason Clinic. The core role of the inpatient service is to assess, treat and rehabilitate people with a mental illness or intellectual disability who are in the criminal justice system or are at high risk in the community.

The Mason Clinic

The Mason Clinic is a secure inpatient campus, located in Point Chevalier, Auckland. From this location, the ARFPS provides inpatient forensic mental health services to residents of the Northern Region, as well as forensic intellectual disability services for those north of Taupo.

The campus covers 6.7 hectares, after a recent acquisition of 2.8 hectares of land previously owned by Unitec.

As shown in Table 3, there are currently eight clinical units with 106 inpatient beds, and another 15-bed unit currently under construction, taking the total to 121 beds. The units include acute and rehabilitation units, with a range of security levels, as well as the only hospital-level secure unit for people with intellectual disabilities in Auckland.

The Te Aka unit, which opened in 2017, allowed us to decommission and demolish the 10-bed Tanekaha unit which had severe weathertightness issues. The 15-bed unit currently under construction will provide much needed additional capacity.

Table 3 Mason Clinic inpatient facilities

Unit	Built	Capacity	Use	Security
Kauri	1992	15	Acute	Medium
Totara	1992	15	Acute & rehabilitation	Medium
Kahikatea	1993	15 [7]	Rehabilitation	Minimum
Rata	1999	15	Rehabilitation	Medium
Rimu	2006	9	Rehabilitation	Step down open hostel
Tane Whakapiripiri	2006	10	Kaupapa Maori rehabilitation	Minimum
Pohutukawa	2006	12	Intellectual disability	Medium
Te Aka	2017	15	Kaupapa Maori rehabilitation	Medium
Total – current		106		
Unit under construction	TBC	15	Rehabilitation	Medium
Total – after current construction		121		

In addition to its core forensic mental health and intellectual disability services, the Mason Clinic treats some adult patients with high and complex needs, and on occasion youth forensic patients. These patients are treated in the Mason Clinic's adult forensic units, rather than dedicated facilities.

- New Zealand has no dedicated facility for patients with high and complex needs who require secure care. At present, these patients are treated in a range of locations, including the Mason Clinic, prisons, hospitals, and community facilities.
- There is a National Youth Forensic facility in Wellington, but no similar facility in Auckland. The Northern Region's youth forensic patients are currently treated at either the Wellington facility, the Mason Clinic, or at Starship Hospital.

The campus also has an administration centre, cultural centre, community outpatient base (for staff working in community teams, courts and prison mental health teams), a swimming pool and other associated outbuildings. Figure 6 shows a map of the Mason Clinic, including the building under construction.

[7] Kahikatea has 20 physical beds, but it is assumed that, when the unit under construction is commissioned, its operational capacity will be reduced to 15 beds.

Figure 6 Mason Clinic at present (including unit under construction)

The Mason Clinic redevelopment programme

The Mason Clinic redevelopment programme is addressing three issues with the current facility:

- Service capacity is insufficient to meet future demand.
- Building fabric deficiencies are putting patient and staff safety and service continuity at risk.
- Facility design does not meet service requirements or support contemporary models of care.

The programme includes the replacement of existing facilities and the construction of new buildings. 2.8 hectares of land has recently been acquired to better enable the redevelopment.

We expect that, with redevelopment and utilisation of the acquired land, we can increase on-site capacity to 246 beds, so that we can accommodate the future growth in both core and related services for at least 30 years.

Infrastructure assets are currently excluded from the scope of the programme, and are instead being provided through a separate 'Infrastructure Services Programme' (ISP) – the PBC for which is being submitted alongside this PBC. However, the boundaries between the scopes of the two programmes will be reconsidered when the Tranche 1 business case is prepared.

Planning preceding this business case

This PBC is informed by a substantial amount of planning which has already been undertaken.

Mason Clinic Programme Business Case – Strategic Case

Redevelopment programme planning

The capacity and capability issues at the Mason Clinic have been evident for many years. Planning for a redevelopment of the Mason Clinic, to provide both additional capacity and fit-for-purpose facilities, has been happening for some time.

But uncertainty over whether the Mason Clinic would be able to remain, and potentially expand, on its present site slowed down site master planning and the development of this PBC.

- In 2016 (when approving the Te Aka unit), the Ministers of Finance and Health recognised that any significant expansion of the Mason Clinic to meet predicated long-term demand would be dependent on acquiring land from Unitec.
- Negotiations between Waitemata DHB and Unitec in 2016 proved unsuccessful. Although Unitec was interested in divesting surplus land earmarked for residential housing and mixed use development, it was concerned about the Mason Clinic remaining on its current site due to the impact on land values. In response, the Ministers of Health, Finance and Tertiary Education, Skills and Employment directed officials to investigate the options for the future of the Mason Clinic from a whole of government perspective.
- An independent report commissioned by the Ministry of Business, Innovation and Employment (MBIE) and the Tertiary Education Commission (TEC), and completed in November 2016, considered a number of different site location options.[8] It found that, from a whole of government perspective, the Mason Clinic should remain at its current location, with the option to expand through acquisition of land from Unitec. The Ministers of Health and Tertiary Education, Skills and Employment agreed with this recommendation and, in May 2017, asked Waitemata DHB and Unitec to negotiate on suitable terms. While some progress was being made, in November 2017, Unitec switched its attention to discussions with MBIE for the sale of land for social housing purposes.
- In March 2018, Cabinet agreed in principle to the Ministers of Finance and Housing and Urban Development approving the acquisition of 29.3ha of land (adjacent to the Mason Clinic) from Unitec for State housing purposes. Cabinet noted that, following acquisition of the land, MBIE would seek to conclude as soon as possible an agreement with Waitemata DHB for the transfer of 2.8ha to allow for the expansion of the Mason Clinic, "*unless a suitable future alternative site for the functions of the Mason Clinic can be found*".

While these discussions took place, the urgent issues with the Mason Clinic facilities remained. In response, the Te Aka unit was constructed and the replacement for the Tanekaha unit was approved (and is now under construction), in advance of the formal preparation of a redevelopment programme. Business cases for those two projects were prepared and approved as standalone investments.

The uncertainty was effectively resolved in 2018, when Cabinet approved the transfer of 2.8ha of land to Waitemata DHB. The land transfer was finalised in 2019.

This history, and in particular the recent land transfer, effectively limits the scope of programme-level solutions in this PBC to those which involve provision of services on the current Mason Clinic site.

[8] Zusammen Limited (Nov 2016), Mason Clinic Land Options.

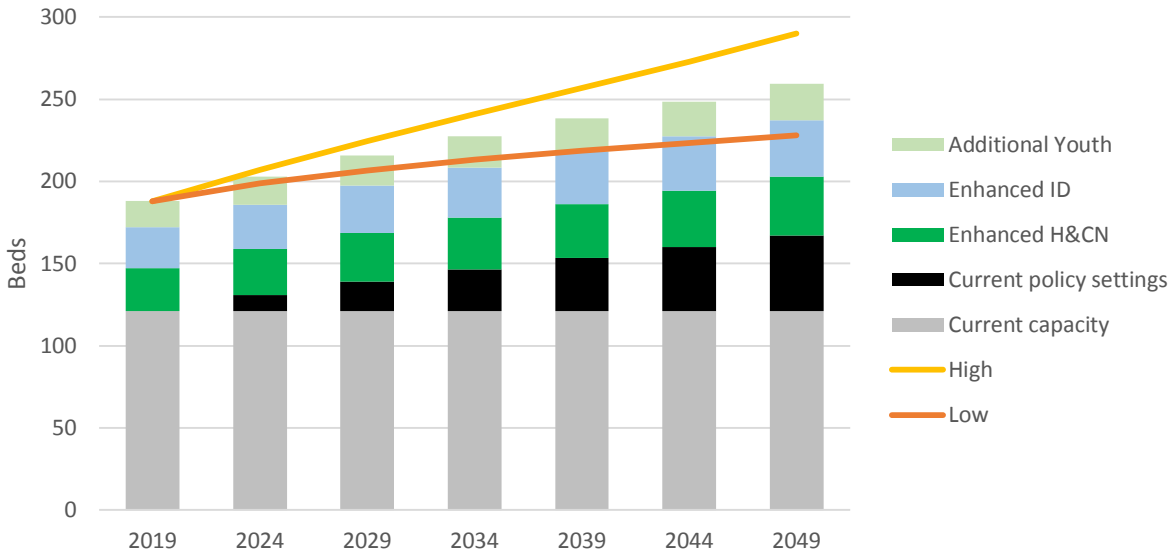
Future inpatient demand

The most recent analysis of future demand for forensic inpatient services was undertaken by PwC in 2019.[9] The analysis applied a number of different scenarios, including different services provided and levels of service delivery.

The analysis showed that the Mason Clinic needs significantly more capacity than it currently has if it is to meet future demand for its current services. If the services and/or levels of service delivery are expanded, then even more capacity will be required.

As illustrated in Figure 7, demand for inpatient beds will naturally increase over time due to population growth (the black bars). If it is deemed appropriate that the Mason Clinic provides additional and/or enhanced services, this will further increase the overall demand for inpatient beds (the dark green, light blue and light green bars). The chart also shows high and low sensitivities, based on high and low population projections.

Figure 7 Forecast bed demand, for different policy settings



Northern Region Long Term Investment Plan

The NRLTIP has been developed to articulate the strategic direction for the Northern Region and to identify the investments necessary to ensure the ongoing delivery of high quality healthcare. This plan takes a 10 to 15 year view within the context of a 25 year planning horizon.

The NRLTIP provides the basis for analysis of future capital investment requirements within the region, and is the first truly regional assessment of future capacity requirements. It has been developed with a high level of engagement across the four DHBs and with other key stakeholders from the regional health system. The plan is particularly focused on pressing capacity and remediation issues affecting the region's major hospital sites.

The NRLTIP sets out a package of future capital investments, including a redevelopment and expansion of the Mason Clinic.

[9] PwC: (June 2019), Mason Clinic demand forecasting.

Building condition assessments

The Mason Clinic buildings are of mixed material construction, comprising stucco plaster, fibre cement weatherboard and sheet panels, plywood, corrugated iron and concrete block.

An assessment of the campus in 2011 identified that several buildings were failing significantly, suffering from leaky roofs, guttering and exterior walls. An expert building survey was subsequently carried out by Cove Kinloch, to provide a report on what had by then become a 'leaky building' situation affecting nine different buildings to varying degrees.

Analysis was undertaken in 2019 by MaynardMarks to determine what life remains in the buildings, should no deferred maintenance / remediation to the buildings occur. MaynardMarks was unable to define a term for remaining life, as in its view, undertaking nothing is not a feasible option for any of the buildings.

The 2019 analysis found all the buildings have, to a varying degree, inherent risks to the users as a direct result of the potential for moisture ingress that can lead to both adverse indoor air quality and affect the structural capacity of certain building elements. MaynardMarks is of the view that this risk needs to be managed and the only way to address this is by way of incorporating a number of measures to mitigate service risks.

Development of contemporary models of care

The 'Mason Approach' document[10] sets out our current model of care for forensic mental health patients. This approach has been developed over a period of time. It represents an evolution from the previous model of care, and focuses on rehabilitation and reintegration with reduced use of restrictive interventions, and with integrated services across the care continuum of security needs.

We have introduced new ways of working and patient care initiatives to implement this approach. We have also commissioned new fit-for-purpose inpatient units (Te Aka and the unit under construction). However, the design of the majority of the facilities does not fully support the delivery of the new model of care.

Location of future forensic inpatient services

As described above, the potential option of relocating the Mason Clinic service elsewhere has been considered in depth by Waitemata DHB and central agencies in recent years. For example, in 2016 Zusammen Limited assessed options of remaining on the current site, moving to another central urban location, or moving to a location outside the urban boundary.

While a move to a greenfield site could allow for the construction of new facilities specifically tailored to our service requirements, it had a number of downsides including:

- No land was identified which could realistically contain a facility, of the necessary size, for forensic mental health and intellectual disability patients.
- If a site was able to be identified, the new campus would take between 7-10 years to be completed. Given the rate of deterioration of our buildings, as well as the anticipated demand growth in the short to mid-term, this timeline was deemed suboptimal.
- Relocation was estimated to be more expensive than a redevelopment solution, irrespective of whether the facility was within or beyond the urban boundary.
- Moving to a new site would risk causing material inconvenience to the 400 staff currently working at the Mason Clinic, as well as limiting the ability for patients' families to be able to visit.

[10] Auckland Regional Forensic Psychiatry Services (2012), The Mason Approach: The mission, vision, values and approach of the Mason Clinic.

- There are inherent risks associated with a relocation process, such as land consent delays and potential resistance from neighbouring residents.

As described above, in March 2018 Cabinet noted that MBIE would seek to agree a transfer of 2.8ha of adjacent land to the Mason Clinic to allow for its expansion. The land transfer was finalised in 2019.

As a result, the relocation option has now been firmly rejected. The acquisition of land adjacent to the existing campus allows us to focus future thinking on the current (and now expanded) Mason Clinic site.

Site master planning

The current site master plan was developed in 2019 by Medical Architecture Australasia Pacific Pty Ltd (MAAP). The master plan aims to realise the best and most efficient use of land, for the benefit of Waitemata DHB and the wider community.

The master plan envisages the demolition of a number of buildings – both inpatient and support facilities – as well as the new construction of a number of inpatient units, utilising the recently acquired land. It incorporates the use of multi-storey inpatient units, which will require the Clinic to transition from its current use of only single-storey units. It includes specialist facilities for forensic intellectual disability patients, high and complex needs patients, and youth forensic patients. The master plan also incorporates an improvement in the quality of the campus environment.

The current master plan was developed after a peer review of the previous master plan (which included two options, with and without additional land). The peer review identified the following issues, which the current master plan addresses:

- There is inadequate space, even with additional land, to fit a campus which only comprises single-storey units. This was partly because there was insufficient space left for garden areas.
- The previous master plan could not realistically be staged, and the master plan required a staging strategy.
- Research into optimising the land for inpatient accommodation was necessary.
- The master plan needed to apply the latest international best practice design principles and precedent studies.
- The location of the secure perimeter and access to common external space and shared facilities needed to be reconsidered.

3.2 The need for investment

There are three key problems with the Mason Clinic's current inpatient facilities:

1. Service capacity is insufficient to meet future demand.
2. Building fabric deficiencies are putting patient and staff safety and service continuity at risk.
3. Facility design does not meet service requirements or support contemporary models of care.

These problems are described below, and the Investment Logic Map (ILM) is included as Appendix A.

Service capacity is insufficient to meet future demand

The Mason Clinic does not currently have the capacity to be able to cater for the forecast future demand for forensic mental health and intellectual disability services. Additional capacity is required for us to continue to provide these services to all patients in the region who require them. Furthermore, if it is

deemed appropriate that the Mason Clinic should in the future provide additional services for high and complex needs patients or youth forensic services, this will require even more additional capacity.

Current facilities are at capacity

The inpatient facilities are at capacity today. The opening of the unit under construction will provide much-needed additional capacity, but it will be full upon opening with patients transferred from other locations (including the Kahikatea unit, a Wellington facility, and prisons).

As shown in Table 2, of the 121 beds (including the unit under construction), 12 cater for forensic intellectual disability patients (principally in the Pohutukawa unit) and the remainder cater for forensic mental health and adult high and complex needs patients.

Forensic mental health and adult high and complex needs patients share the same facilities, as we use the same model of care to treat them. Once the unit under construction is commissioned, we expect around 20 beds on average will be used by high and complex needs patients, with around 89 used by forensic mental health patients.

Table 2 Current number of inpatient beds, by type

	Number of beds
Forensic mental health & adult high and complex needs	109
Forensic mental health	*~89*
Adult high and complex needs	*~20*
Forensic intellectual disability	12
Total	**121**

The Mason Clinic operates with a waitlist, and there are a number of individuals housed elsewhere who would benefit from its services. In practice, it is the supply of beds that determines where the 'intervention threshold' is set. Therefore, the current level of capacity effectively represents 'demand, at the current policy settings'.

Demand for our current services is growing

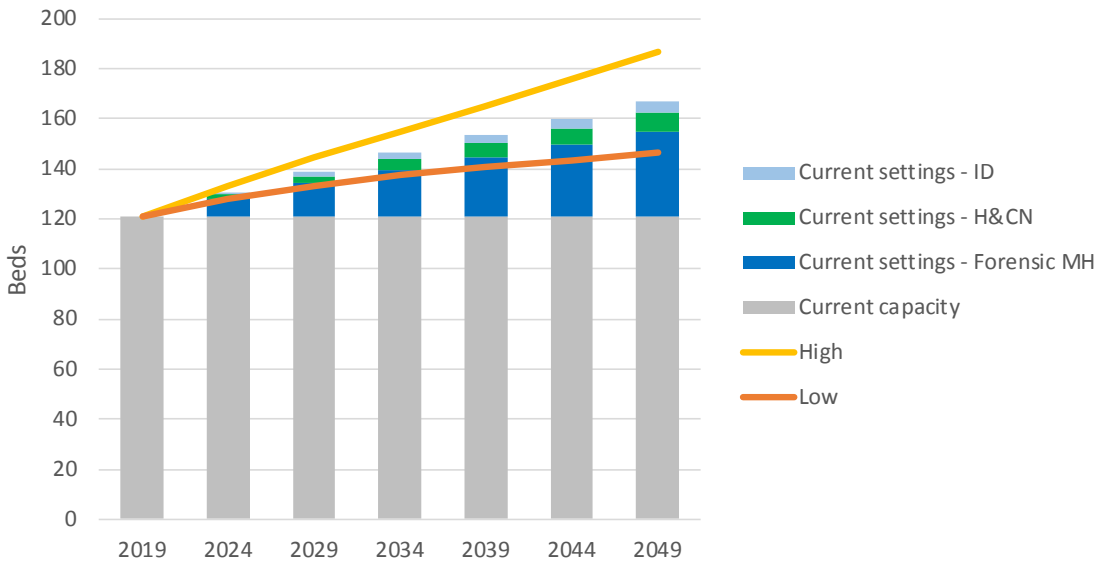
The key drivers of demand for forensic mental health and intellectual disability services are overall population, the prison muster, and court case numbers. The majority of the Mason Clinic's referrals are made by prisons and the courts, making prison and court numbers an important consideration, although population growth can helpfully exclude the impact of changes to criminal justice policies.

PwC's 2019 analysis of potential growth in bed demand[11] noted that, to keep pace with population growth, we would need an additional 46 beds by 2049, to continue to provide services in line with current policy settings. This is shown in Figure 8.

This is a forecast, and therefore the actual number of additional beds that will be required in 2049 is likely to be within a range of this central estimate. PwC's sensitivity analysis suggests that the number of additional beds required by 2049 is likely to be at least 26 beds, and possibly as much as 66. The high and low lines illustrate this in the chart below.

11 PwC: Waitemata DHB – Demand Forecasting for the Mason Clinic (2019)

Figure 8 Forecast growth in demand for current services



There is demand for specific intellectual disability beds

In addition to an increasing requirement for services generally, demand for dedicated forensic intellectual disability beds is already well in excess of the demand. The Pohutukawa unit is at capacity, and intellectually disabled patients cannot reasonably be accommodated in the other inpatient units. The Pohutukawa unit also only offers one security level.

This means that, when providing additional overall capacity, there is a need to include additional separate specialist facilities for intellectually disabled patients.

Furthermore, there is now a demand for step-down beds specifically for intellectually disabled patients, in order to make it easier to rehabilitate and safely discharge patients into community facilities. The Northern Region does not currently have any such beds, and our intellectual disability patients who would benefit from a step-down bed are currently retained in the Pohutukawa unit. This can be problematic as rehabilitation and longer-stay patients are co-located. The Ministry of Health signalled its desire to explore this development with Waitemata DHB during 2018.

It may be deemed appropriate that we provide additional and/or enhanced services

We are not currently catering for all forensic intellectual disability patients and adult high and complex needs patients who could benefit from the services provided at the Mason Clinic. We also do not have a youth forensic service, although we sometimes house such patients.

<u>Adult high and complex needs</u>

The Mason Clinic is the sole provider of mental health services in the Northern region for non-forensic patients who require a minimum secure environment. Patient numbers fluctuate throughout the year as these patients share the same facilities as forensic mental health patients.

There is a limited understanding of the true demand of this service, although previous reports have attempted to identify the demand in the Northern region. Based on the most recent such analysis (in 2014), it is estimated that 46 beds are needed for adult high and complex patients at the Mason Clinic.

<u>Forensic intellectual disability service</u>

A demand forecasting exercise undertaken by Synergia in 2015 found that between 0.5% and 1.5% of prisoners have a clinical intellectual disability diagnosis, according to international research.[12] Assuming a 1.0% value, that currently equates to around 37 people in the Northern Region, meaning that the Mason Clinic has a shortfall of around 25 beds for forensic intellectual disability patients. As set out in the PwC report, the Ministry of Health has also estimated current need based on multiple approaches, which produce a range of estimates, both above and below the 37 value we adopt for this business case.

We now provide specific models of care to different types of patient, rather than a more general model of care. However our facilities do not fully allow this.

Youth forensic service

Young people with forensic mental health issues have different needs from adults, and should be treated separately. Facilities built on the Mason Clinic campus were not designed to meet the needs of young people, and there is no fit-for-purpose facility for delivering care to that population within the Northern Region. As a result, children and young people with forensic mental health needs currently have to be transferred to other regions in the country (such as the National Youth Forensic facility in Wellington), displaced from whanau and family support units, against recommended models of care.

Recent discussions with the Ministry of Health (based on analysis originally undertaken in 2011) has determined that around 8 beds are required for Northern Region patients. We estimate that the Oranga Tamariki Legislation Act 2017 has effectively doubled this demand, meaning around 16 beds are currently required.

Table 3 shows the additional beds we would need today in order to provide additional and enhanced services ,to accommodate all patients in the Northern Region who would benefit from this service. It also shows how this bed requirement will grow by 2049.

Table 3 Additional beds needed to accommodate additional and enhanced services today

	Number of beds	
	today	by 2049
Adult high and complex needs – enhanced	26	36
Forensic intellectual disability – enhanced	25	34
Youth forensic services – additional	16	22
Total	**67**	**92**

Overall bed demand forecasts

As shown in Table 4 and Table 5, by 2049:

- The continued provision of our current services, in line with current policy settings, would require 46 additional inpatient beds, on top of the existing 121 beds, for a total of 167 beds.
- Enhancing the service for adult high and complex needs patients would require up to 36 additional beds.
- Enhancing the service for forensic intellectual disability would require up to 34 additional beds.

12 Citing, in particular: Fazel S, Xenitidis K, Powell J. (2008). The prevalence of intellectual disabilities among 12000 prisoners - A systematic review. International Journal of Law and Psychiatry, 31, 369-373. doi:10.1002/sdr.1525

- Adding a youth forensic service, which caters for all demand in the Northern Region, would require up to 22 additional beds.
- Providing all the additional and enhanced services noted above would require up to 138 additional beds, bringing the total bed requirement for the Mason Clinic to 259 beds.

Table 4 Forecast bed demand, for all services

Total beds	2019	2024	2029	2034	2039	2044	2049
Current policy settings	121	131	139	146	153	160	167
Additional and enhanced services	**188**	**203**	**216**	**228**	**238**	**249**	**259**

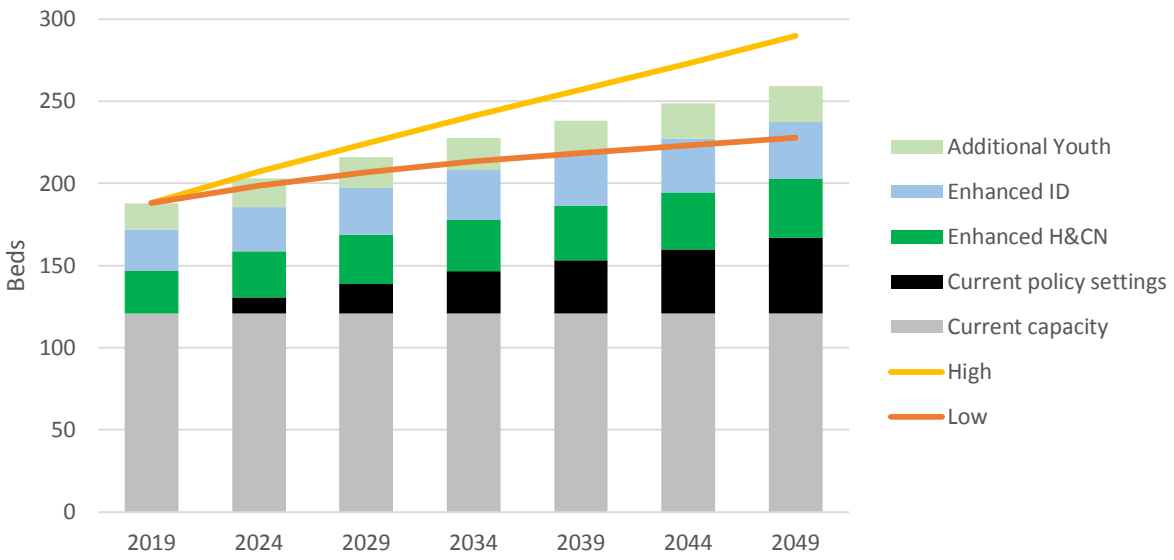
Table 5 Forecast additional bed requirement, for all services

Additional beds	2019	2024	2029	2034	2039	2044	2049
Current policy settings	0	10	18	25	32	39	46
+ Enhanced adult high and complex needs	26	28	30	31	33	34	36
+ Enhanced forensic intellectual disability	25	27	29	30	32	33	34
+ Additional youth forensic	16	17	18	19	20	21	22
TOTAL additional beds	**67**	**82**	**95**	**107**	**117**	**128**	**138**

This is a forecast, and therefore the actual number of additional beds that will be required in 2049 is likely to be within a range of this central estimate. Sensitivity analysis suggests that the number of additional beds required by 2049 is likely to be at least 107 beds, and possibly as much as 169.

Figure 9 shows that the demand for additional beds to continue to provide services at current policy settings are required progressively over time, while the demand for additional and enhanced services exists today and will also grow over time. The chart also shows high and low sensitivities, based on high and low population projections

Figure 9 Forecast bed demand, for different policy settings



Not meeting growth is not an option

It is essential that the campus expands to accommodate the forecast growth in service demand. There is no alternative facility in the region to provide forensic mental health services. Inadequate capacity results in offenders with mental health issues being held in prison, which is suboptimal in terms of patient care.

Buildings fabric deficiencies are putting patient and staff safety and service continuity at risk

Four buildings at the Mason Clinic are failing significantly, suffering from weathertightness and leaky building issues – Kahikatea, Rata, Kauri and Totara. These buildings need to be decommissioned as soon as possible, to eliminate significant risks to patient and staff safety.

Weathertightness issues

The Mason Clinic buildings are of mixed material construction, comprising stucco plaster, fibre cement weatherboard and sheet panels, plywood, corrugated iron and concrete block.

Water ingress has been, and is, causing internal damage and compromising the integrity of the buildings. This is partly due to a lack of flashings, damaged roof sheets, window penetrations, and cracks to fibre cement panels.

While this has been mitigated by ongoing repairs, these units have deteriorated to the point where they are at risk of developing Stachybotrys fungus in some wall cavities. Stachybotrys is a highly dangerous fungus with the potential to cause serious health problems.[13]

Table 6 illustrates the severity of the building fabric issues across the campus. It shows the condition ratings we have given the buildings for the purposes of our Asset Management Plan. The majority have ratings between four and five (out of five).

Table 6 Condition ratings of Mason Clinic buildings

Building	Condition Grade Index	Condition Grade Composition

[13] Stachybotrys is a toxic mould that can grow in houses and is extremely dangerous to humans. It can cause respiratory problems, skin inflammation, haemorrhage, damage to internal organs, mental impairment, irritation of mucous membranes, tiredness, nausea and immune system suppression.

		Very good	Good	Moderate	Poor	Very poor
Kauri Totara	4.63	0%	2%	2%	28%	68%
Kahikatea external	4.21	0%	9%	12%	28%	51%
Rata	4.02	0%	11%	15%	35%	39%
Rimu	3.99	0%	15%	6%	44%	35%
Tane Whakapiripiri	4.37	0%	5%	12%	24%	59%
Pohutukawa	4.51	0%	6%	5%	21%	68%
Kowhai	4.27	0%	10%	9%	25%	56%
Puriri	4.43	0%	6%	10%	19%	65%
Te Miro	4.39	0%	8%	2%	33%	57%
Generator house	4.00	0%	13%	13%	35%	39%
Swimming pool building	4.11	0%	10%	9%	41%	40%
Garage	4.15	0%	5%	13%	44%	38%
Parking	3.41	0%	32%	20%	23%	25%

Impacts on patient & staff safety

These issues pose risks to patients and staff. For example, prolonged exposure to the damp conditions and resulting mould spores can cause respiratory illnesses. The risk to patient and staff safety is considered significant and will increase as the buildings continue to deteriorate.

Three monthly testing continues. Recent tests confirmed that the presence of the fungus is currently at safe levels. However, this situation may not continue as the buildings are not weathertight, and higher readings could require immediate decanting of one or more of the units. This creates an unacceptable risk to the health of patients, their families and staff.

The issues with the Tanekaha unit were sufficiently urgent that a business case for replacement was submitted to CIC in 2016. The unit was decommissioned in 2017, and demolished in 2019, as the health risks were deemed too great to continue its use.

Threat of ongoing service provision

The weathertightness issues could render the buildings unfit for use in the near future. Without remediation, it is expected these buildings may have to close in the medium term as the associated health risks from toxic mould spores to patients and staff will be too high. This was the case with Tanekaha.

There is also genuine concern that one of the buildings will suffer catastrophic failure with a severe leak that cannot be contained. If this were the case, there are few options on the site to accommodate patients that would need to be evacuated from the building. Available space would only be found by transforming office or social spaces such as gyms into sleeping areas.

The Mason Clinic's Emergency Response Plan[14] sets out the process for what would happen in the event that one of the clinical units was unfit for use and patients had to be transferred off-site. Patients requiring high security levels would be returned to prison. Lower security patients would be transferred to other inpatient mental health facilities across the region, firstly within Waitemata DHB and then in facilities of the other DHBs. Auckland metro police station cells could also be used, but only for short time periods. This plan is simply not feasible over the medium to long term.

There is no alternative facility which provides forensic mental health services in the region. As such, the potential closure of units at the Mason Clinic puts at risk the ability to provide forensic mental health services to all patients in the region on a sustainable basis.

[14] Waitemata DHB; Regional Forensic Psychiatry Services (September 2015), Mason Clinic: Multi Agency Emergency Response Plan.

Waitemata DHB considers the risk that a building could become unfit for use is too great for services to continue to be provided without any resolution of this problem. The buildings require major refurbishment and remedial works to make them fit for purpose and eliminate risk to patient and staff health and safety.

Remedial works are required

MaynardMarks carried out an analysis on the Mason Clinic to determine what life remains in the buildings, should no maintenance / remediation is done to the buildings. It was determined that undertaking nothing is not a feasible option.

MaynardMarks determined the current reactive nature of addressing issues as they are identified is in itself a high risk process, as it does not proactively anticipate or mitigate against failures occurring. To date the Mason Clinic has been fortunate that none of the failures or deterioration of the buildings have caused serious health problems for the users of the buildings.

Waitemata DHB therefore considers that the risk that a building could become unfit for use is too great for services to continue to be provided without any resolution of this problem. These buildings need to be decommissioned as soon as possible, to eliminate significant risks to patient and staff safety.

Facility design does not meet service requirements or support contemporary models of care

Most of the Mason Clinic facilities were designed to support a different model of care to that which we operate today. This is limiting our ability to safely and adequately provide forensic health services in line with best practice and our model of care.

The development of contemporary models of care for forensic mental health and intellectual disability services is changing the way those with mental needs or intellectual disabilities in the criminal justice system are assessed, treated and rehabilitated. This model of care requires different facilities to those we currently have – with a greater focus on rehabilitation and reintegration without the use of restrictive interventions, and where services are integrated across the care continuum of security needs.

The introduction of contemporary models of care is changing the Mason Clinic inpatient population. More patients are able to be treated at the Mason Clinic, when they would previously have been held in prison. Furthermore, patients are reintegrated into community facilities earlier than they would previously have been. This means that the Mason Clinic's inpatient population today has, on average, higher acuity and/or security requirements.

The new Te Aka unit is allowing us to provide better care to the patients in that unit, as will the unit currently under construction. With the exception of those two units, the design and configuration of the existing facilities no longer meet the needs of patients. The key problems are as follows:

i. Not enough rooms for assessment, treatment and rehabilitation

Rehabilitation space is important for those with mental health issues to restore independence and promote activities of daily living for when patients can be discharged or supported back into the community. The absence of these facilities can impact patient outcomes of care, delaying reintegration to the community and prolonging length of stay.

Under our contemporary model of care, each unit should have a therapy room, interview rooms, medicine dispensary, lounge area, dining area, sensory modulation capability, access to occupational therapy space, and a family/whanau meeting room. Minimum secure units should have relatively more therapy spaces than other units. Dedicated treatment and assessment rooms are preferable so that patients can receive consultations or medical care in private.

Not all of the current units have each of these of these areas. Some minimum secure units have a very limited amount of therapy space. In most cases, there are no dedicated areas for therapy groups like sensory modulation.

ii. Communal ablution blocks adversely impact patient experience, and increase staffing requirements

The Australasian Health Facility Guidelines (AHFG) recommend that all beds have access to an ensuite bathroom and shower[15].

Apart from Te Aka and the unit under construction, the other Mason Clinic facilities all have communal bathroom facilities.

This increases the risk of cross-contamination or infection outbreak. It has a negative impact on patient experiences and satisfaction, affecting their overall experience of care due to a loss of privacy and dignity. It increases the staffing requirements within units. It will also make it difficult to phase out the use of night safety procedures, which the Ministry of Health has indicated must occur before 2022.

iii. Rooms are not big enough to adequately cater for long term residents, adversely impacting recovery and clinical outcomes

Many rooms within inpatient units are simply too small to promote the recovery and rehabilitation of patients who may spend years living inside these units. Many also have little natural light.

Insufficient space and light inhibits patient recovery, which can extend their length of stay and lead to poorer rehabilitative outcomes.

iv. Some minimum secure units have seclusion areas, but these are not needed in those units

Seclusion areas were provided in all units under the previous model of care. As a result, a number of our minimum secure units have these rooms.

However, seclusion areas are no longer required for this level of patient risk. They do not promote integration, and are not used under our contemporary model of care.

At present, these spaces are unused and wasted. In addition, their existence in these units does not facilitate a positive rehabilitative environment.

v. No unit has a sufficient security level to provide safe provision of care for high risk patients

A need has been identified for a high secure unit for those who pose greatest risk to the community, staff, other patients and themselves. Since the closure of Wai-o-hine at Lake Alice Hospital, no such facility exists and these patients are either held in prison or accommodated in high care areas of medium secure units.

With modern audio-visual and communications technology, such a facility would avoid the need for unnecessary patient transfers (including for court appearances), which are the point of greatest security and safety risk. It would also allow patients with complex mental health problems to be treated within a healthcare environment, rather than held in prison.

vi. Units that provide related services are not clustered together

15 Australasian Health Facility Guidelines: Part B – Health Facility Briefing and Planning HPU 131 Mental Health – Overarching Guideline (March 2018)

Our analysis of patient pathways has indicated that it would be optimal if the units were grouped in to 'clusters' of related units – acute and justice liaison, general rehabilitation, Kaupapa Maori rehabilitation, and intellectual disability.

While physical linking has not yet occurred, the clinical operation of clinical clusters has already improved the efficiency of patients' pathways. There is now a better opportunity to support the use of specialised staff in each cluster.

vii. Rehabilitation units are not grouped into 'streams'

Rehabilitation units would best be grouped into a three-unit stream with one medium secure, one minimum secure and one with open step down beds. In addition, ideally the medium and minimum secure units would be operationally connected.

The use of streams in this way would better facilitate patient flow between units on the campus. It would also promote efficient clinical care by staff, enhance staff and patient safety, and make it easier for the same staff to provide care for patients across the care continuum of security needs.

Clinical units have already been paired from an operation perspective, but they are not yet physically linked. At the moment, it can be difficult to ensure that the same clinical team cares for each patient throughout the different stages of their inpatient care.

viii. Buildings are not sited around the periphery of the campus

Buildings are currently dispersed across the campus, with some space in between each one. There are two main benefits from siting the units around the periphery of the campus instead.

Firstly, this would provide a shared secure community zone in the middle of campus. This would be a more efficient use of shared space, and better promote integration and rehabilitation for patients. This therefore better supports our contemporary model of care.

Secondly, it would provide a visual and physical barrier to the community. With the potential future redevelopment of Unitec's land, including the potential for medium density residential housing in areas adjacent to the Mason Clinic, such a barrier would make it easier to balance the needs of the different parties.

3.3 Objectives of the programme

The programme has three investment objectives, linked to its three problems, as set out in Table 7.

The urgency of this programme is driven by two factors:

- The lack of any capacity to cater for future demand growth and/or the provision of additional and enhanced services (Problem 1).
- The building fabric deficiencies at four inpatient units which have created an unacceptable risk to patients, their families, and staff (Problem 2).

But while addressing the above issues is critical, any solution also needs to improve the ability of the facilities to support contemporary models of care (Problem 3).

Table 7 Investment objectives

Objectives	Description

Additional capacity, sufficient to cater for demand growth and (if required) additional and enhanced services	• Sufficient capacity to cater for increasing future demand for 30 years, for current services in line with current policy settings. • Sufficient capacity to provide additional and/or enhanced services, if that is requested by the Ministry of Health.
Weathertight buildings	• Facilities which are weathertight, and which do not pose a health and safety risk to patients and staff.
Fit-for-purpose facility design and configuration	• Facilities which are designed to support contemporary models of care, to ensure good patient outcomes, patient experience and productivity. • Dedicated facilities for Intellectually disabled patients, adult high and complex needs patients, and youth forensic patients.

3.4 The benefits of investment

Addressing the issues identified above will provide a number of benefits to patients.

Sustainable provision of services

Additional capacity will enable the Mason Clinic to continue to cater for all patients who require our services. Without an expansion of capacity, we would need to move patients to other sites, and will need to waitlist an increasing number of prisoners who would benefit from hospital admission.

The addition of new capacity in specific areas – e.g. maximum security, units to cater for patients with high and complex needs, intellectual disabilities or youth (as deemed appropriate) – will ensure that those patients will continue to receive the specific support they need, in line with contemporary models of care.

Addressing weathertightness issues with the existing facilities will remove the risk that those units will need to close in the near term. This will ensure that the physical units will be able to continue to provide services into the future.

Support for contemporary models of care

The provision of facilities which focus on rehabilitation and reintegration will enable us to fully implement our contemporary model of care. Furthermore, the re-configuration of facilities into clusters of complementary services will facilitate patient flow, provide better continuity of care, and improve staff and patient safety, in line with contemporary best practice.

Facilities which incorporate some flexibility to make changes to room usage, security levels and similar will help ensure that they can remain fit for purpose into the future.

Better patient outcomes

Facilities designed for today's forensic mental health population and models of care will enable Waitemata DHB to provide higher quality and more effective care for its patients.

With modern facilities our patients will receive assessment, treatment and rehabilitation which is aligned to contemporary best practice. Waitemata DHB will have the ability to respond to changing patient needs and provide them within a positive environment for rehabilitative services that supports improved health outcomes.

The provision of dedicated facilities for high and complex needs patients and youth forensic patients (if deemed appropriate) will ensure that they receive appropriate care in a unit specifically designed for their needs.

Improved patient and staff experience

The addition of dedicated rooms for rehabilitation and therapy, whanau meetings and spaces for recovery and rehabilitation will improve patient experience.

Improved building layouts, including non-communal ablution blocks, greater natural light, larger rooms, and secure conditions more suitable for each type of patient, will improve patient experience, both in terms of therapy and living conditions.

Purpose built buildings, in line with contemporary models of care are also likely to improve staff satisfaction, reducing the need for unnecessary transfers of care, promote efficient delivery of care and provide a more clinically safe environment in which to work.

The provision of dedicated facilities for high and complex needs patients and youth forensic patients (if deemed appropriate) will improve patients' experience, ensuring that they receive care which is appropriate for them in a suitable environment.

Addressing weathertightness issues will provide a safer environment for both staff and patients, as there is less risk being exposed to the damp conditions and associated mould spores.

3.5 Strategic alignment

Northern Region LTIP

The redevelopment of the Mason Clinic, including the provision of additional capacity, is included in the NRLTIP as a key investment. The NRLTIP states that:

> "*The Mason Clinic will be expanded to meet future forensic mental health demand and may grow to include minimum secure services.*" (page 109)

It is a key response to "Problem #3" of the NRLTIP – demand growth. The programme is providing additional capacity for the benefit of the whole region.

It is provides a partial response to "Problem #2" – patient centricity and outcomes.

The other Northern Region DHBs are all supportive of this redevelopment programme, to ensure that the region can continue to provide forensic mental health services in the future.

National strategies and direction

Living Standards Framework

The Government and Treasury have developed a Living Standards Framework to consider the effects of policy choices on New Zealanders' living standards. This aligns the stewardship of the public finance system with an intergenerational wellbeing approach.

The programme contributes to improving the living standards of New Zealanders by improving the 'health' and 'human capital' elements of the Living Standards Framework. In turn, improved health outcomes contribute to the 'jobs and earnings', 'income and consumption' and 'social connections' elements, among others.

The provision of sufficient capacity to enable us to continue to meet demand and potentially to provide additional and/or enhanced services, in fit-for-purpose facilities supporting contemporary models of care and which are weathertight, will all improve overall patient outcomes and wellbeing.

Ministry of Health Statement of Strategic Intentions

The Ministry of Health 2017-21 Statement of Strategic Intentions (SOSI) sets out the Government's high-level objectives and priorities for the health system. Its strategic framework is focussed on New

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Zealanders living longer, healthier and more independent lives. It describes service provision which incorporates the different health circumstances of different groups and how this is changing, as well as improved access to services, and services being provided closer to home where possible.

This programme will help contribute to the aims of the Government by expanding capacity to meet rising demand ensuring that the ARFPS can continue to provide the same level of access and high quality patient care, as well as enabling the safe delivery of contemporary models of care. The provision of fit for purpose facilities, focused on rehabilitation and reintegration, will support better outcomes for patients.

New Zealand Health Strategy

The 2016 New Zealand Health Strategy (the Strategy) sets the framework for the New Zealand health system to address the pressures and demands on its services, and the direction for development for the next ten years.

The Strategy sets the framework for the health system to address the significant demands for its services within a constrained fiscal environment. It calls for an integrated approach to care and a focus on tailoring services to those groups who have poorer health and social outcomes than the population on average, specifically people with disabilities and people with mental health conditions, such as those the Mason Clinic provides services for.

This programme seeks to redevelop facilities at the Mason Clinic so that they better enable contemporary models of care, enhance continuity of care across the care continuum, and promote multidisciplinary working. It also aims to improve efficiency and maximise the benefit from fiscal contributions.

This calls for an integrated approach to care and a focus on tailoring services to those groups who have poorer health and social outcomes than the population on average, specifically people with disabilities and people with mental health conditions.

The Mason Clinic redevelopment programme supports the strategic direction of Government by providing safe facilities in which to provide necessary mental health services to offenders. Redesigned facilities and co-located services, outlined in this strategic case, are in line with the Government strategic priority to provide quality integrated mental health services for all New Zealanders.

Ministry of Health Letter of Expectations for DHBs

The Minister of Health's 2019/20 letter of expectations sets out the Minister's high-level expectations for DHBs. 'Mental health and addiction care' is set out as a priority area for the Government, and an expectation is stated that DHBs prioritise strengthening and improving mental health services.

This programme will help contribute to the Government's priority area of mental health by enabling the safe delivery of contemporary models of care and expanding capacity to ensure patients receive the proper treatment they need.

The letter of expectations also contains a number of items which this programme is aligned with. Most notably:

- We will support the ongoing development of the National Asset Management Plan, and envisage integrating the outcomes of that work with our subsequent business case processes.
- As part of the procurement of the programme, we will endeavour to develop construction skills and training as much as feasible.

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Waitemata DHB Strategic Priorities

This programme is well aligned to the DHB's values and priorities set out in the Health Services Plan.[16] As described above, the current facilities deliver suboptimal patient care and experience, and redeveloping them will help us achieve our two key priorities of enhancing patient experience and achieving better outcomes.

As set out in Table 6, this programme also supports the DHB's strategic themes, which the Board has determined that all projects and initiatives will align with.

Table 8 Alignment with Waitemata DHB Strategic Themes

Strategic theme	Alignment of Mason Clinic Redevelopment
Community, whanau and patient centred model of care	One of the key drivers of the programme is to enable Waitemata DHB to support its desired model of care with facilities that enable this.
Emphasis and investment on both treatment and keeping people healthy	Redeveloping the Mason Clinic will assist Waitemata DHB to maintain timely access to forensic mental health services for all patients that need them. Redeveloped facilities will ensure that Waitemata DHB meets increasing demand, without reducing access, and maintains or improves the clinical outcomes of its patients.
Service integration and/or consolidation	Expanding capacity will ensure that all core forensic services can continue to be provided from the Mason Clinic site. In addition, the programme incorporates an option to co-locate related services with core forensic services. A new configuration of buildings on the campus could facilitate better integration between units, and provide better continuity of care and staffing efficiency.
Intelligence and insight	The redevelopment will allow Waitemata DHB to make the best use of new technology, intelligent ways of working along with updated models of care for forensic mental health and intellectual disability patients.
Evidence informed decision making and practice	This PBC provides initial programme-level thinking about a preferred way forward. The proposed programme of works was determined based on criteria informed by evidence and current best practice.
Outward focus and flexible, service orientation	New fit-for-purpose facilities will enable Waitemata DHB to better deliver contemporary model of care, and allow it to improve the patient experience. Increased flexibility in the design of the environment will enable patient-centric model of care improvements, which is not possible with the current arrangement.
Operational and financial sustainability	An expansion of capacity at the Mason Clinic will ensure capacity for future demand growth. The redevelopment of existing facilities, and the potential co-location with related services, have a number of potential efficiency benefits.

16 Waitemata DHB, Health Services Plan 2015-2025

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Campus master planning

The programme of works described in this PBC is fully consistent with the latest master planning for the Mason Clinic. The master planning process has been an integrated part of the development of the PBC, and will continue to heavily inform subsequent business cases for the programme.

4. Economic Case

The purpose of the economic case is to explore the available options and identify a preferred way forward which represents the best value for money.

4.1 Evaluation approach

Critical success factors

The items set out in Table 9 are critical to the success of the programme.

Table 9 Critical success factors for the Mason Clinic redevelopment programme

Critical success factors	Description
Strategic fit and business need	• Meets the investment objectives of the programme • Is well aligned with our site master planning
Potential value for money	• Is preferable to a 'do nothing' option, in terms of meeting the objectives of the programme
Potential affordability	• Can be met through likely available funding sources
Potential achievability	• Can be delivered by Waitemata DHB in the timeframe required, given the capability requirements to manage delivery

Overview of evaluation process

A range potential approaches to addressing the problems identified at the Mason Clinic have been considered, across three dimensions:

- **Programme-level options** – Redevelopment, refurbishment or relocation.
- **The services and policy settings** – Current policy settings and/or additional and enhanced services
- **Inpatient building typology –** Single-storey vs multi-storey units.
- **Staging** – Staging of the different elements of the programme.

In each case, the merits of alternative options have been assessed with reference to the investment objectives and critical success factors set out above.

4.2 Options analysis

To determine the preferred programme, we considered a range of options.

Programme-level options

Three high-level approaches to addressing the problems identified with the Mason Clinic facilities were evaluated:

The preferred approach of facility replacement and redevelopment on the current site was considered against two other high-level options:

- Relocating the Mason Clinic service to an alternative location.

- Replacement of existing facilities, and redevelopment on the current site.
- Refurbishment of existing facilities, and the addition of capacity on the newly acquired land.

1. Relocation

As described in more detail in Section 3.1, the potential option of relocating the Mason Clinic service elsewhere has been considered in depth by Waitemata DHB and central agencies in recent years, and has been rejected for a number of reasons.

The recent acquisition of land adjacent to the existing campus allows us to focus future thinking on the current (and now expanded) Mason Clinic site.

2. Replacement and redevelopment on current site

This option involves the demolition of the four units which are failing (Kahikatea, Rata, Kauri and Totara), and the construction of new inpatient units on the land currently occupied by the failing units and the newly acquired land.

Table 10 sets out the extent to which this approach can achieve the investment objectives and critical success factors.

Table 10 Assessment of replacement and redevelopment

Objectives / critical success factors	Assessment
Additional capacity	• Additional capacity can be provided on the newly acquired land. • The replacement of existing units gives us an opportunity to also add capacity on the existing campus footprint.
Weathertight buildings	• New units will be designed to ensure that there would be no weathertightness issues.
Fit-for-purpose design and configuration	• All new facilities will be fit-for-purpose, supporting contemporary models of care and enabling good patient outcomes. • Dedicated units can be developed for forensic intellectual disability, high and complex needs, and youth forensic patients.
Potential value for money	• Cheaper solution than refurbishment or relocation. • Provides a long-term focused solution, which best utilises the newly acquired land.
Potential affordability	• Dependent on Crown capital funding availability.
Potential achievability	• The redevelopment will take several years to complete. However, the newly acquired land would allow for us to begin in the near term. • Initial construction on the newly acquired land allows for decanting from the failing units.

3. Refurbishment of existing facilities

The gradual deterioration of the premise is result of an inherent weather tightness issue which has previously been treated on an ad-hoc basis. The remedial works based solution, would involve continuing

to monitor the four main units (Kahikatea, Rata, Kauri and Totara) by way of six monthly tests for fungal growth and subsequently addressing the issues on an ad-hoc basis to prolong the useful lives of these buildings.

Table 11 sets out the extent to which this approach can achieve the investment objectives and critical success factors.

Table 11 Assessment of refurbishment

Objectives / critical success factors	Assessment
Additional capacity	• Additional capacity can be provided on the newly acquired land. • Minimal ability to add capacity on the existing campus footprint. • Should the deterioration of the units occur quicker than anticipated, one of the units could be prematurely closed without a temporary substitute.
Weathertight buildings	• Temporary relief from the symptoms of weathertightness will be provided, but the issue will not be able to be fully addressed. These buildings would continue to carry an inherent risk of becoming a hazard.
Fit-for-purpose design and configuration	• All new facilities will be fit-for-purpose, supporting contemporary models of care and enabling good patient outcomes. • The refurbished units will continue to have poor design and configuration. • Our ability to provide dedicated units for forensic intellectual disability, high and complex needs, and youth forensic patients is limited by the footprint constraints of the current inpatient units.
Potential value for money	• More expensive solution than replacement and redevelopment, without providing any substantial improvements to the status quo.
Potential affordability	• Dependent on Crown capital funding availability.
Potential achievability	• The redevelopment will take several years to complete. However, the newly acquired land would allow for us to begin in the near term. • Initial construction on the newly acquired land allows for decanting from the units being refurbished.

Conclusion

Replacement and redevelopment is the preferred approach, for the following reasons:

- The cost of maintaining and refurbishing the existing buildings is greater than the cost of replacement.
- Refurbishment would not be able to fully address the weathertightness, and hence these buildings would continue to carry an inherent risk of becoming a hazard.

- Refurbishment would not allow us to increase capacity on the existing campus footprint (only on the newly acquired land).
- Refurbishment would not allow us to improve the design and configuration of the existing units.
- Relocation has already been rejected as an option.

Services and policy settings

As described above, the Mason Clinic currently provides forensic mental health, adult high and complex needs and forensic intellectual disability services, at a level of service reflecting current policy settings. At a minimum, we need to continue to cater for our current services at current policy settings.

However, as also described above, it is possible that the Mason Clinic may be requested by the Ministry of Health to provide an additional youth forensic service and/or enhanced adult high and complex needs and forensic intellectual disability services. It is currently unclear whether, and if so when, such requests may be made.

The demand forecasts shown in Section 3.2 are based on an assumption that policy discussions will lead to the Mason Clinic being directed to provide all additional and enhanced services within five years. The proposed timing and staging described in this section is consistent with that assumption.

In practice, we will only provide new capacity at the time it is needed. If requests from the Ministry occur later than currently assumed, then the facilities to cater for those additional and enhanced services will be provided later. If such requests are never made, then the relevant facilities will not be constructed. This will mean the overall programme will focus more on core services, and the provision of additional capacity will occur more slowly.

The timing and staging presented below is a scenario, based on an assumption about future policy settings. The practical timing and staging (and the specific facilities themselves) will be driven by actual future policy settings.

New inpatient building typology

The Mason Clinic currently comprises only single-storey inpatient units. We evaluated the continuation of this typology against the use of multi-storey units.

We note that the Ministry of Health has carried out an extensive study on this topic, and our analysis and conclusions below are partly based on the results of that work.

Single-storey units

This building typology involves a single floor of inpatient rooms, although it may have a second floor comprising administrative or support rooms.

Table 12 sets out the extent to which this typology can achieve the investment objectives and critical success factors.

Table 12 Assessment of single-storey units

Objectives / critical success factors	Assessment
Additional capacity	• Difficult to provide sufficient capacity, within the Mason Clinic's constrained footprint, using only single-storey units. (This was a key finding from the peer review of our previous master plan.)
Weathertight buildings	n/a
Fit-for-purpose design and configuration	• Outdoor centric, and provides easy access to fresh air, sunlight, and basic exercise. Well-aligned to contemporary models of care, focusing on rehabilitation and re-integration. • Building set-up is less 'institutionalised', and is less custodial and more therapeutic. • Occupies more land per bed, inhibiting the use of land for therapeutic uses, which is counterproductive to the model of care. • More susceptible to disturbance, and overlooking from adjacent central spaces not associated with the Clinic.
Potential value for money	• No significant difference in per-bed cost, relative to multi-storey units.
Potential affordability	• Dependent on Crown capital funding availability.
Potential achievability	• Difficult to stage. • Would require greater staffing levels.

Multi-storey units

This building typology involves two or more floors of inpatient rooms, and potentially additional floors comprising administrative or support rooms.

We are currently only seriously considering the use of two-storey units as part of the redevelopment programme, although our analysis is consistent with higher units as well.

Table 13 sets out the extent to which this typology can achieve the investment objectives and critical success factors.

Table 13 Assessment of multi-storey units

Objectives / critical success factors	Assessment
Additional capacity	• Enables greater capacity than single-storey units. This is especially important for the Mason Clinic, given its constrained footprint. • Increases options for locating on-campus carparking in the short term.
Weathertight buildings	n/a
Fit-for-purpose design and configuration	• Residents of upper floors have reduced garden access, with smaller gardens and balconies on those floors. • Enables additional space to be used for a central garden area. • Enables support spaces to be used more efficiently.
Potential value for money	• No significant difference in per-bed cost, relative to single-storey units.
Potential affordability	• Dependent on Crown capital funding availability.
Potential achievability	• Allows easier decanting and better staging of the programme. • Can efficiently utilise the sloping topography of the newly acquired land at the north end of the site. • Would require lower staffing levels.

Conclusion

Two-storey units are the preferred building typology for the Mason Clinic, at least for 'standard' facilities, for the following reasons:

- It enables a greater maximum bed capacity within the constrained footprint of the site. Unlike some other mental health facilities in New Zealand, land constraints are a critical consideration for the Mason Clinic.
- It allows easier decanting and better staging of the programme, with one new unit able to replace two existing units.
- It utilises the sloping topography of the newly acquired land at the north of the site, with two-storey units in this part of the campus effectively able to provide ground level access from both inpatient floors.
- It enables additional space to be used for a central secure garden area.
- It increases options for locating on-campus carparking in the short term.
- It enables support spaces to be used more efficiently.

We note that multi-storey facilities have operated successfully in a number of international locations, and are able to support contemporary models of care.

The main disadvantage of a multi-storey solution is that residents of upper levels have reduced access to gardens – with smaller gardens and balconies on those floors. However, this can be offset by having a

larger common central garden, and designing the security levels such that those on the upper floors are also those who have the greatest allowed access to the central secure garden.

We note that some specialist facilities are likely to continue to be single-storey. For example, our master plan currently envisages that any dedicated unit for youth forensic patients, or a step-down unit for intellectually disabled patients, would be single-storey.

Staging

The programme will be completed in stages to ensure that there are no additional capacity constraints due to the temporary closure of buildings. Furthermore, a staged approach allows us to retain flexibility to adjust the programme if necessary.

Initial works

The only feasible option for the first stage of the programme is to build new inpatient units on the newly acquired land at the north end of the site.

- We must continue to provide inpatient services during the redevelopment, and reducing capacity for a period is not a viable option. Hence it is not possible to decommission an existing building before a new one is built. Therefore, the first step in the redevelopment programme must involve constructing a new unit or units.
- There is no space of a sufficient size within the existing 3.9ha campus to construct a new unit. Therefore, the newly acquired land must be used.
- The Northern site is preferred to the South for two reasons:
    - Its natural sloping topography lends itself to the construction and placement of multi-storey inpatient units, being effectively able to provide ground-level access to both inpatient floors.
    - The Southern site is best suited to future rehabilitation units with lower security, due to its proximity to the Mahi Whenua sanctuary garden and a water stream partially running through from the existing site. This waterway divides the campus, and does not work well with the concept of a 'central secure garden' for core forensic services.

There is space for two new inpatient units on the Northern land. Two two-storey units would provide 60 beds, which is the same total capacity as the four failing units. Constructing two new units therefore allows the demolition of the failing units without any loss of capacity.

Staged demolition

The construction of two new units on the Northern land allows for the demolition of the four failing units. There is then the ability to construct two new units (and associated garden space) on the land currently occupied by the failing units.

We have considered three options for staging the initial construction and demolition of units:

1. Replace all the failing units together, and decommission as soon as possible.
2. Only replace two of the failing units initially (replaced with one two-storey unit), and then replace the other two units later.
3. Construct the two new units together, but only decommission two of the four failing units initially, with the other two units remaining in operation for a period of time.

Each of the above three options involves the construction of around 120 beds on the northern and western areas of the campus, and the demolition of 60 beds in the failing units, but the different sequencing has some practical implications.

Option 1 replaces all four failing units at the same time, before adding capacity. This option involves the least sub-stages, and allows the quickest replacement of the failing units.

Option 2 replaces two units at a time (rather than all four together), before then adding capacity. This option may be preferred if funding constraints limit the initial construction to one unit. However, it has a number of practical disadvantages, which are described in more detail in Section 4.4.

Option 3 adds 30 beds of capacity initially, and then replaces the failing units while maintaining this higher capacity level. This approach is more complex and would require additional staging. It would only be warranted if the additional capacity was needed more urgently than it could be provided under the other options.

The preferred approach at this time is Option 1, given the urgency with which the existing units need to be replaced, and the unit currently under construction is providing additional capacity in the short term. However, this will be reconsidered through the development of the tranche-based business cases.

Addition of capacity

Following the replacement of the four failing units with two new 30-bed units, the remainder of the programme involves adding capacity through the construction of a series of new units.

These will include both 'standard' forensic mental health units, but also specialist units for intellectual disability services (including step-down beds), high and complex needs patients, and (if deemed appropriate) youth forensic services.

It is currently envisaged that these units will not be constructed all at one time, but over a period of time based on regional demand. As such, the addition of capacity is likely to occur through a number of sub-stages.

The specific numbers of each type of unit, their specific location within the campus, and the order in which each unit is built, will be determined during the business case process for Stage 2. This will be based on updated demand forecasts for each service, and any further direction from central agencies regarding the provision of youth forensic services and additional services for high and complex needs patients.

The current master plan envisages the potential addition of 45 forensic mental health beds, 15 high and complex needs beds, 32 intellectual disability beds, 9 step-down beds, and 15 youth forensic beds (116 additional beds in total). This is based on our current understanding of future demand requirements, and it also incorporates the possibility that central agencies may deem it appropriate for the Mason Clinic to increase its level of service for these dedicated services in the future. However the actual numbers will be determined during future business case processes.

A possible sequencing of construction of inpatient units is as follows. This will also be refined and confirmed during the future business case processes.

1. A 30-bed forensic mental health and adult high and complex needs facility, on the western side of the campus.
2. A 20-bed forensic intellectual disability unit, next to the existing Pohutukawa unit.
3. A 15-bed youth facility, on newly acquired land at the southern end of the site.
4. A 9-bed step-down unit for forensic mental health patients, next to the existing Rimu unit.
5. A 30-bed forensic mental health unit, on the western side of the campus (potentially developed in two stages).
6. An 12-bed intellectual disability unit, on the western side of the campus.

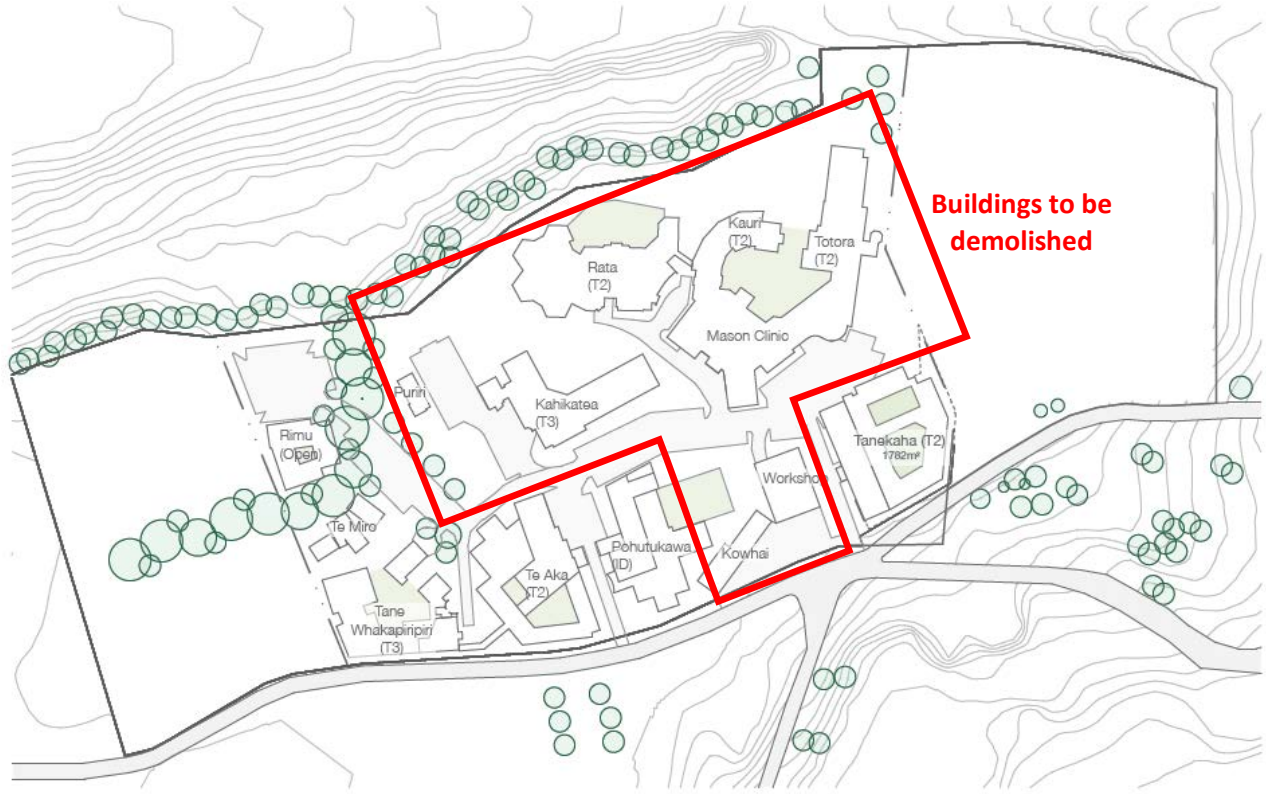
4.3 Proposed programme of works

Below we set out our proposed redevelopment programme, following the analysis of alternative options outlined above.

Overview

Figure 10 shows a map of the Mason Clinic at present, including the unit currently under construction.

Figure 10 Mason Clinic at present (including unit under construction)



Our proposed redevelopment of the Mason Clinic involves:

- The construction of a number of modern single and multi-storey units, over the land under the units to be demolished and the newly acquired land, to provide capacity for up to 246 beds.
- Demolition of the existing units with serious weathertightness issues and which are no longer fit for purpose – Kahikatea, Rata, Kauri and Totara – and some aging support buildings such as Kowhai and the workshop.
- Retention, and potential upgrade, of the other existing inpatient units and buildings.
- The construction of a series of shared support facilities to accommodate front-of-house and security, judicial, therapeutic, wellness, administrative and non-clinical support functions.
- Provision of additional on-site carparking for staff and visitors, together with access for emergency and support traffic.
- An increase in total building footprint from 30% of the site to 34%, while at the same time almost doubling the inpatient capacity.
- The use of three main stages of work, each of which may have sub-stages, with redevelopment beginning from the Northern end of the campus.

Mason Clinic Programme Business Case – Economic Case

Stage 1

The first stage will involve replacing the buildings with weathertightness issues with new facilities, with no change in overall capacity.

- Two new two-storey units will be built on the newly acquired land at the north end of the site. Each unit will have 30 beds, 15 on each level (60 beds in total), and will be a combination of minimum (T3), medium (T2) and high (T1) security levels.
- The Kahikatea, Rata, Kauri and Totara units will be decommissioned, along with the Puriri, Kowhai and workshop support buildings. This will remove 60 beds currently in use.[17]
- A three-storey shared activity and support building, including two-storey entry court, front of house, judicial activities, drop-off, access and carparking will be constructed on the newly acquired land, and the start of the central secure garden will be created.

This is a necessary first step before additional capacity can be contemplated.

Figure 11 shows what the Mason Clinic will look like after Stage 1 is complete.

Appendix B contains possible floor plans of the two new units constructed during Stage 1.

Figure 11 Future Mason Clinic after Stage 1

[17] It is assumed that, when the unit under construction is commissioned, the operational capacity of Kahikatea will be reduced from 20 to 15 beds.

Stage 2

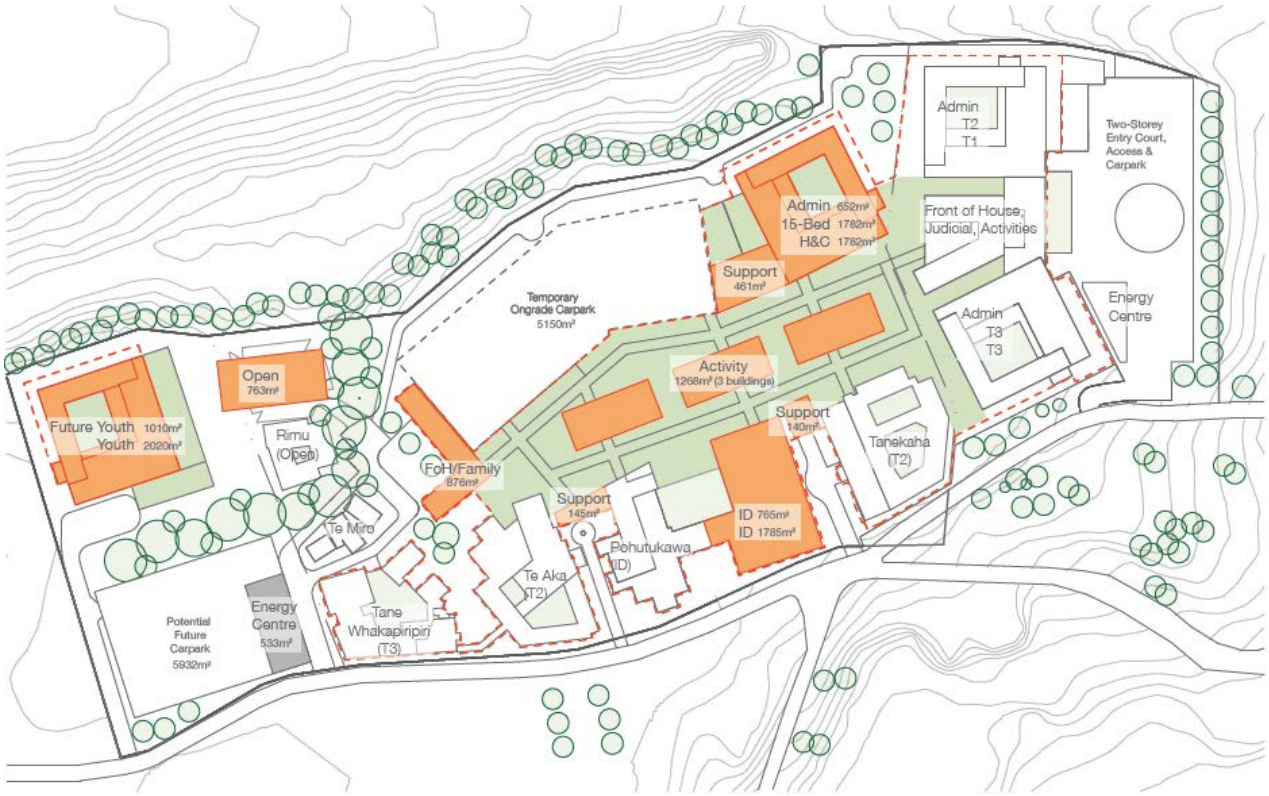
The second stage will involve the demolition of the decommissioned units, the provision of urgently needed additional capacity, and the provision of specialist facilities for additional and enhanced services.

- The Kahikatea, Rata, Kauri and Totara units, along with the Puriri, Kowhai and workshop support buildings, will be demolished.
- Two new facilities for forensic mental health patients will be built:
    - A two-storey unit, with 30 beds and administration spaces, similar to those built in Stage 1. It is expected to cater for adult high and complex demand patients, in addition to forensic mental health patients, and be cited on the western side of the campus.
    - A single-storey unit, with nine specialist step-down beds, next to the existing Rimu unit.
- If deemed appropriate, two specialist units will be built to provide to provide additional and enhanced services:
    - A two-storey specialist unit for forensic intellectual disability patients, next to the Pohutukawa unit on the current site of the Kowhai and workshop buildings.
    - A two-storey specialist unit for youth forensic patients, on the newly acquired land at the southern end of the campus.
- The specific numbers of each type of unit, their specific location within the campus, and the order in which each unit is built, will be determined during the business case process for Stage 2. This will be based on updated demand forecasts for each service, and any further direction from central agencies regarding the provision of youth forensic services and additional services for high and complex needs patients.
- These facilities could be constructed all at one time, or they could be staged. At least one of the two forensic mental health units will be needed urgently, but timing for the specialist youth and intellectual disability units will depend on when (and if) they are deemed appropriate. As such, Stage 2 may be delivered in multiple sub-stages.

  For the purposes of the master plan and this PBC, we have assumed that policy discussions will lead to the Mason Clinic being directed to provide all additional and enhanced services within five years, and as such the provision of units for these services are included with Stage 2 (rather than delayed until Stage 3).
- If all such facilities set out above are constructed, this will involve the addition of 77 beds during this stage, increasing the total capacity of the Mason Clinic from 121 to 198 beds.
- Additional support buildings and carparking will be constructed, along with further development of the central secure garden. This will include the return of community facilities removed during Stage 1.

Figure 12 shows what the Mason Clinic will look like after Stage 2 is complete, based on the current master plan, assuming the development of facilities for additional and enhanced services.

Figure 12 Potential future Mason Clinic after Stage 2



Stage 3

The third stage will involve adding further capacity over time, as required by demand.

- The types of units, the specific numbers of each, their specific location within the campus, and the order in which they are built, will be determined during the business case process for Stage 3. This will be based on updated demand forecasts for each service, the amount of further capacity which is ultimately provided during Stage 2, and any further direction from central agencies regarding the provision of youth forensic services and additional services for high and complex needs patients.
- The current master plan envisages the potential addition of 48 beds during this stage (over and above those added during Stage 2), increasing the total capacity of the Mason Clinic to 246 beds. The master plan envisages these units to comprise:
    - one additional 30-bed unit for forensic mental health patients, on the western side of the campus
    - one 12-bed unit for forensic intellectual disability patients, on the western side of the campus
    - an expansion of the youth unit built in Stage 2. .
- These units are envisaged to be constructed in multiple sub-stages, based on regional demand.
- Additional support buildings and carparking will be constructed, and the central secure garden area will be finished.

Mason Clinic Programme Business Case – Economic Case

Figure 13 shows what the Mason Clinic will look like after Stage 3 is complete, based on the current master plan.

Figure 13 Potential future Mason Clinic after Stage 3

Timing

Table 14 sets out indicative timing for each stage of the redevelopment, based on our current thinking regarding the demand requirements and sequencing.

Table 14 Indicative timing for each stage of development

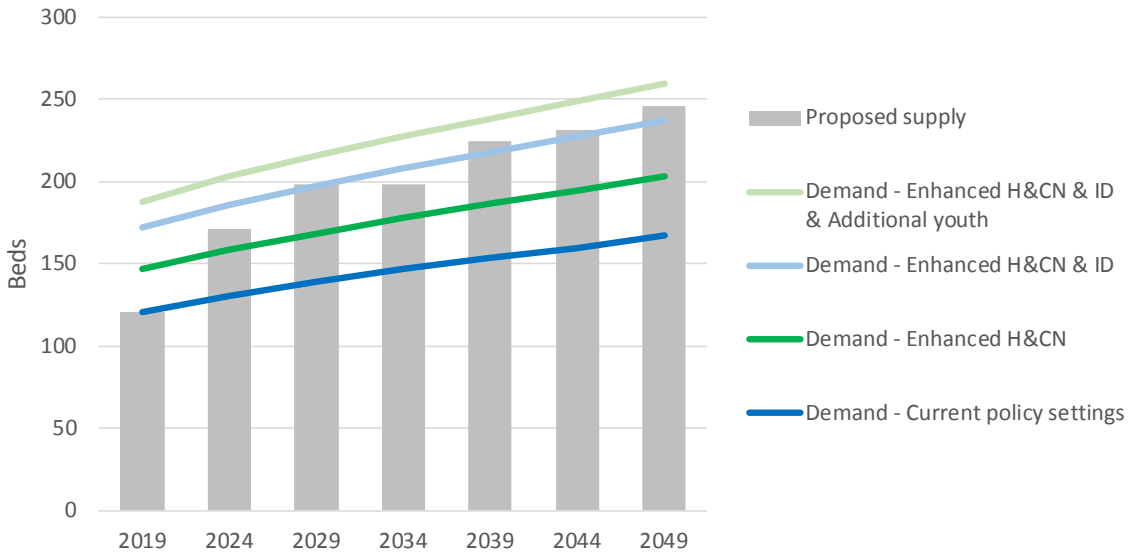
Redevelopment stage	Indicative completion date
Stage 1	
Construction of new units	2022
Stage 2	
Demolition of four existing units	2023
Forensic mental health and adult thigh and complex needs units	2024
Forensic intellectual disability unit	2024
Youth forensic unit	2027
Forensic mental health step-down unit	2027
Stage 3	
Forensic intellectual disability unit	2039
Forensic mental health unit	2045

This timing will be reconsidered during the development of each tranche-based business case. Among other things, as discussed below, the timing of the redevelopment will be constrained by capital funding availability.

Response of supply to demand growth

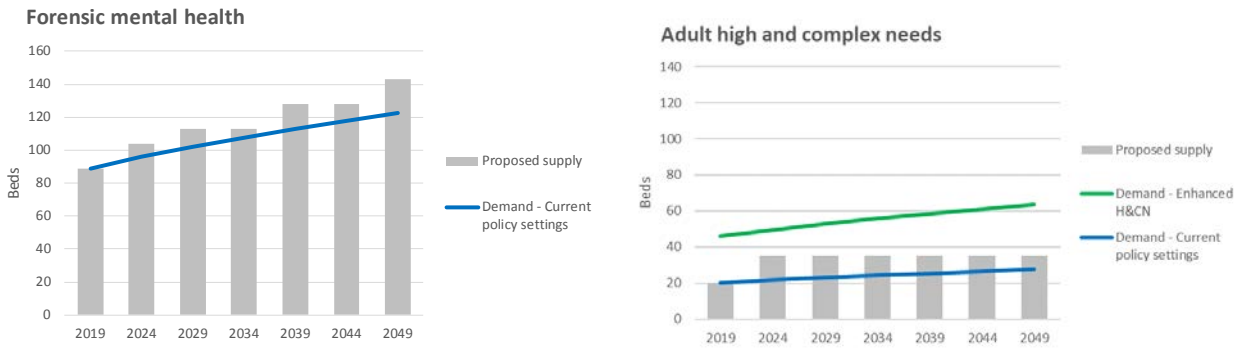
Figure 14 illustrates what the above timing means for the ability of future capacity to meet demand. The chart shows that during the 2020s, as part of Stage 2 of the redevelopment, we will add capacity to both cater for growth in existing services and accommodate additional and enhanced services. We will then add additional capacity over time to keep pace with increasing demand.

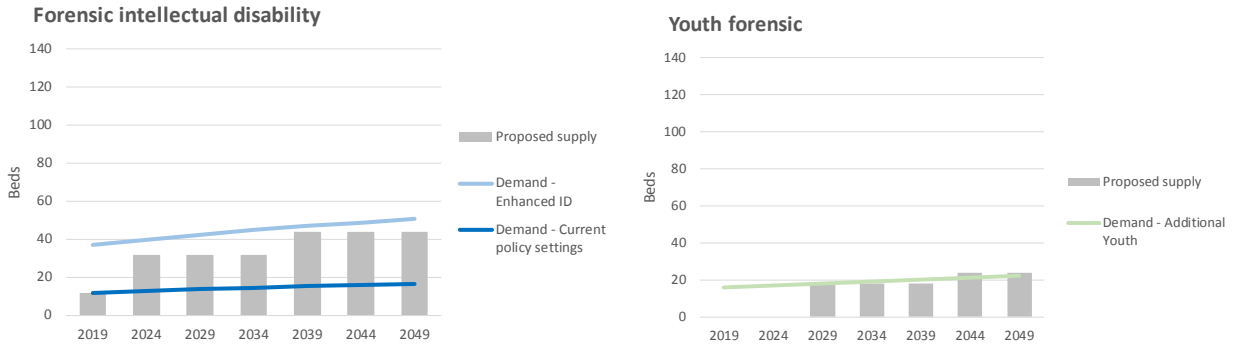
Figure 14 Indicative timing of capacity increases



A breakdown of the above chart into the four services is shown in Figure 15 below.

Figure 15 Indicative timing of capacity increases, by service





4.4 Proposed tranches

Overview

The tranches developed for funding and business case purposes will be derived from the stages, and sub-stages, noted above. But they will also be contingent on funding availability.

In effect, our ongoing master planning and business case processes will refine the sequence of sub-stages indicatively described above. Then when determining the content of a given tranche, we will include the next set of items in the sequence up to the total capital funding available at that time. Consideration will also be given to any interdependencies between programme elements that necessitate some sets of works being undertaken together.

The content of each tranche will therefore be determined each tranche at a time. The proposed content of Tranche 1 is described below, and subsequent tranches will be developed in due course.

Tranche 1

Proposed option

We propose that Tranche 1 includes all of Stage 1 (as described above). That is:

- The construction of two new two-storey 30-bed units, for forensic mental health patients, on the newly acquired land at the north end of the site.
- The construction of a two-storey carpark and support building, on the newly acquired land, and the start of the central secure garden.

This is a necessary first step before additional capacity can be contemplated. It is also best undertaken as one development project.

This is expected to cost in the order of $160m in capex.

Alternative option

We understand that only $60m in capital funding has currently been prioritised for Tranche 1 of the programme. This will be insufficient to complete Stage 1.

If only $60m (or a similar amount) is available for Tranche 1, then this tranche will necessarily only comprise a small part of Stage 1. Specific options for a smaller solution will be developed as part of the business case for Tranche 1, but a solution of this scale will inherently only be able to provide, at most, one of the two inpatient units and significantly reduced support, activity and carparking spaces.

While conceivable, we consider that attempting to deliver Stage 1 in multiple tranches (beginning with a first tranche in the order of $60m), is a significantly inferior solution. It would have a number of significant implications, including the following:

- In order for the first new inpatient unit to be functional, Tranche 1 also needs to include the central buildings, site establishment, infrastructure works, and the main entry drop off area. This means that as much as 75% of the Stage 1 works may need to occur in a smaller solution. Our current analysis indicates that this will not be possible within a $60m capital envelope.
- In addition to the 60 replacement beds, Stage 1 also includes many other functional spaces including the judicial suite, new front of house and outpatient area, the replacement swimming pool/activity area, centralised therapy functions, and back of house. It will not be possible to provide all of these to a sufficient level as part of a smaller Tranche 1 solution.
- It would require two of the failing units to remain in operation for a number of years longer than necessary. These four units are already exposed to a significant risk of patient and staff harm, which threatens our ability to provide services on an ongoing basis, and we consider that further delay to their replacement to be an unacceptable solution.
- Retaining two of the failing units for longer than necessary has some operational impacts:
    - Staff isolation with some units left 'orphaned'
    - Duplication of reception/ security and judicial areas with consequential safety and staff operational cost issues.
- Leaving two of the failing units in place defers the ability to prepare the site for Stage 2 works, further deferring our ability to provide the urgently needed additional capacity.
- It delays the time when we are able to reconfigure the horizontal infrastructure on the western side of the campus. The full Stage 1 unlocks the existing Mason Clinic site by allowing for unimpeded demolition of the failing buildings. If this occurs as planned in one stage, rather than piecemeal, ground remediation and relocation of significant redundant inground services can be done efficiently, safely and cost-effectively in one process. Sub-stages will add time, complexity and cost.
- It delays our ability to deliver the planned model of care:
    - Either the ‘front’ (east) unit, or the ‘back’ (west) unit, would be constructed first. The T1 high secure unit is designed to be at the back, but this is needed as soon as possible. The T2, which is intended to pair operationally with the unit under construction, is at the front. A smaller Tranche 1 would mean that these are not constructed at the same time.
    - Stage 1 is designed as an integrated solution, connecting with the unit under construction, creating 75 beds in a secure environment and a functional operational facility for core forensic services, with improved security and an identifiable 'front door’ when opened. A smaller Tranche 1 will defer this integrated solution.
- The balance of the site would be a construction zone for up to two years with the consequential disruption to operations, and service users.
- Construction costs for the second stage will incur a cost premium through additional and abortive work to create the stages; the requirement to interface with an operational building; and the requirement to manage disruption to the newly constructed first stage.

Tranche 2

We expect that Tranche 2 will include:

- Any elements of Stage 1 which were not included in Tranche 1 – Note that we propose that all of Stage 1 is included in Tranche 1.

- The most urgent elements of Stage 2 – Demolition of the four decommissioned units is necessary to enable an efficient reconfiguration of campus-wide infrastructure. Additional capacity for forensic mental health services is urgently needed. The required timing for specialist units for additional and/or enhanced units will depend on future direction from the Ministry of Health.

5. Commercial Case

The commercial case sets out the process to procure the proposed investment. This section outlines the options and shows it is commercially viable, and appropriately deals with risk.

5.1 Procurement scope

The key services to be procured are the design and construction of the proposed redevelopment projects.

In principle, the maintenance of future facilities may be within the scope of the procurement, depending on the overall approach selected. The procurement of staff, equipment and services to support ongoing patient care is also expected to be in scope.

Procurement of operational requirements will be managed through existing DHB processes.

5.2 Procurement approach

Range of approaches

There are a range of possible models for procuring the redevelopment projects. These vary across a spectrum of public and private sector participation, and according to the upfront specification of risk allocation between the DHB and its contractors. These models include:

- **Traditional models** – Waitemata DHB would individually enter into contracts with an expressly identified risk allocation, such as design bid build (DBB), design, construct and maintain (DCM), or design and construction (D&C). The effectiveness of these arrangements tends to rely on the ability of Waitemata DHB to define its performance requirements prior to tendering and to have a clear identification, understanding and quantification of risks.
- **Relationship based models** – Waitemata DHB would enter into a collaborative relationship agreement with appropriate parties to define requirements, understand risks and undertake the works. These approaches generally collectively share risk on a 'no fault, no blame' basis with incentives built in to equitably share additional or reduced value to Waitemata DHB by outcomes actually achieved, thereby encouraging enhanced performance. Such approaches include the Early Contractor Involvement (ECI) model and Alliance contracting.
- **Privately financed models** – Waitemata DHB would enter into contracts with a fixed risk allocation on a whole-of-life basis, such as public-private partnership (PPP) models.
- **Managing contractor procurement models** – Waitemata DHB would appoint a Managing Contractor as the head contractor who would engage subcontractors on behalf of Waitemata DHB to deliver the works and would typically be paid a management fee and incentive payments for achieving target price, schedule and other key parameters.

Many of these approaches have been used for major infrastructure projects in New Zealand. The applicability of each option largely depends on how well the risks and required performance of the projects can be defined.

Specific options

Table 15 describes specific procurement options, within the above models.

Table 15 Key features of different procurement approaches

Category	Procurement method	Description	Comment
Traditional models	**Design bid build (DBB)**	• Waitemata DHB individually contracts with separate entities for the D&C phases of the project for the segments they are responsible for.	• Commonly used for this type of project.
	Design and construct (D&C)	• Waitemata DHB seeks tenders to provide a (typically) fixed price for D&C.	• Commonly used for this type of project. • Less useful where significant design has already been completed, or where the DHB wishes to retain a high level of design involvement.
	Design, construct and maintain (DCM)	• Contractor retains responsibility for maintenance, but typically these models do not extend beyond the first major lifecycle phase.	• Less useful where significant design has already been completed, or where the DHB wishes to retain a high level of design involvement. • Waitemata DHB currently has in house delivery of maintenance services.
Relationship based models	**Early Contractor Involvement (ECI)**	• Typically, the preferred ECI contractor is selected under open competition for a whole of project contract (i.e. including design development, design and construction). Typically, agreements are staged, and either a D&C or bid/build contract is entered into with the ECI contractor following the detailed definition phase. A further contract could then be entered into to provide maintenance and (potentially) operations services.	• Generally suited to complex projects where the cost, risks and scope are difficult to define upfront, making a standard construction tender process difficult. • Would result in a larger portion of the contract being subject to a negotiated price. • Could be useful as part of an integrated strategy.
	Alliance	• A collaborative Alliance relationship is formed between key project participants, which include Waitemata DHB and non-owner participants (e.g. designer, constructor, other key stakeholders, etc). • Options are available to develop the Target Outturn	• Collaborative approach helps minimise technical risks and mis-alignment of incentives. • Most useful where the technical risks relate to the design. • Limited benefits over traditional models in this context.

		Cost (TOC) in a competitive environment. However, most alliances have tended to use a single party to • develop the TOC. This relies on the owner implementing approaches that create appropriate cost, quality and scope tensions, and the right level of expertise to critically validate the TOC, including risk quantification. • A further contract would likely then be entered into to provide maintenance and (potentially) operations services. • A key feature of Alliances is the gain share/pain share incentive mechanism.	
Privately financed models	**Public Private Partnership (PPP)**	• A private sector contractor (or consortium) is responsible for the design, construction, operation, maintenance and finance over an extended period (typically 25-30 years). This is a typical long term, whole-of-life approach to infrastructure delivery. • Risk allocation is determined upfront for the period of the contract, including maintaining the infrastructure and providing the services to a pre agreed condition for the duration of the concession. Risk transfer, bundling of whole-of-life costs and incentives from having private finance at risk can drive increased innovation.	• No local hospital facilities have been built under a PPP model, but there is experience internationally. • Limited benefits over traditional models in this context. • Minister of Finance has advised us that there is limited current appetite for PPP structures for an investment of this type.
Other	**Privatisation**	• Full transfer of rights to the private sector through sale, or a sale and lease back arrangement.	• Not appropriate for a project with these characteristics.

Indicative procurement approach

It is currently expected that the individual projects within each tranche will be procured using a traditional design bid build (DBB) approach. This approach has been successfully used for the recent developments at the Mason Clinic, and is also being used for the ECIB project. There is no reason to use an alternative approach for this programme.

Consideration will be given to methods of using contractor resource as early as possible. The two options considered for ECIB were a traditional early contractor involvement (ECI) method and splitting the procurement into an early works and main works package (with the latter approach preferred).

This will be considered in more detail during the development of the business cases for each tranche of works.

5.3 Other details

Managing competing demand for limited resources

There are other significant building works underway or planned locally and regionally, and the programme is operating in a competitive market. Market conditions are in a state of flux, with current demand and supply side pressures likely to increase as the demand for service design and construction build skills grows in the Auckland market.

With Auckland in the midst of a building boom expected to continue for at least the next 5 years, it is important the programme actively engages with the market in order to secure the appropriate construction resource for this programme of works.

Waitemata DHB is working with the other Northern Region DHBs and the NRA to establish a framework to coordinate timing of investment across the region.

The procurement process will be designed such that it can contribute to increasing the size and skill level of the domestic construction sector workforce and provide employment opportunities to targeted groups, in accordance with direction from Government.

Bundling

Each tranche will be procured separately. The potential timing gap between tranches makes this the most sensible option.

Within each tranche, some projects may be procured together (e.g. the two inpatient units in Stage 1) and others will be procured separately (e.g. the carpark in Stage 1). This will be determined during the business case process for each tranche.

Skills and training

The procurement process will be designed such that it can contribute to increasing the size and skill level of the domestic construction sector workforce and provide employment opportunities to targeted groups, in accordance with direction from the Ministry of Health through its letter of expectations for DHBs.

Health and safety and employment standards

We will follow the Government's guidelines for agencies to improve health and safety, and ensure employment standards are met, in the construction sector. We will work to the following principles:

- Ensure health and safety and employment standards are part of the DNA of every project.
- Take a lead role in improving workplace safety.
- Set clear expectations.

- Ensure importance of workplace safety is reflected in the criteria to select consultants and contractors.
- Collaborate across the supply chain to manage risks smartly.
- Stay engaged from early in the planning phase to project completion.

Governance of health and safety in projects will be established by utilising the DHB's established health and safety framework. The framework defines the roles and responsibilities of the project leaders to:

- Commit to take the lead role in health and safety standards for the project including safety in design and design reviews.
- Provide a framework to lead, plan, review and improve workplace safety.
- Create strong, effective lines of reporting and communication.
- Establish a collaborative culture that seeks to achieve 'best for project' results.
- Ensure effective monitoring of health and safety performance
- Carry out formal audits and reviews of performance against the expectations and set and follow up on improvement actions.
- Develop the project culture where everyone is responsible for improving workplace safety.

6. Financial Case

The purpose of the Financial Case is to consider the overall affordability of the project over the life of the investment, including the additional funding requirements.

6.1 Expected capital costs

A detailed capital costing has yet to be prepared for the programme as a whole. Cost estimates will be prepared for each of the programme tranches as they are developed.

The programme will begin with a first tranche, for which $60m in capital funding has been prioritised, although an investment in the order of $160m is necessary to meet our urgent needs. The business case for Tranche 1 of the programme will include an updated version of this estimate, with an accompanying breakdown.

6.2 Whole-of-life costs

Operating costs (excluding inflation) will broadly move in line with changes to total capacity.

- Stage 1 is not changing the capacity of the Clinic, and hence we do not expect there to be a material change to the ongoing operating costs of the Clinic. Stages 2 and 3 will involve additional capacity, and hence we expect operating costs to rise at that point.
- By the end of Stage 3, the master plan envisages around double the capacity that we have today, and hence we expect that operating costs would also be around double today's levels.
- Detailed operating cost forecasts will be developed as part of the business cases for each tranche.

Future increases to bed capacity will lead to increases in our operational funding. We currently expect that these funding increases will be sufficient to cover any increases in operating costs. Therefore, we do not foresee any issues with being able to sustainably afford to operate the new inpatient facilities following their commissioning.

The proposed programme reflects a staged approach to replacing the failing units and providing additional capacity. It is designed (and will continue to be refined) to provide additional capacity at certain periods over the next 30 years at the time it is needed. Deferring the proposed timing of each development stage would reduce short-term capital requirements, but at the expense of making the capital cost higher when it is ultimately undertaken.

6.3 Funding approach

Waitemata DHB has insufficient reserves to fund this programme in its entirety. While the DHB has used demand management initiatives to delay the need for this investment, we are not able to support the investment through a financial capital contribution, and accordingly Crown equity is required.

The funding of this programme has been discussed with the Ministry of Health and Treasury. We understand that the Government has prioritised $60m of capital funding for the first tranche of this programme, while funding for subsequent tranches is yet to be prioritised.

Funding for the direct operating costs associated with the new units is expected to be provided by the Crown as per the current method for funding forensic mental health and intellectual disability services, that is via the allocated revenue from the Ministry of Health.

Mason Clinic Programme Business Case – Financial Case

Any increase in capital charge and depreciation that will accrue to the DHB's profit and loss account will not be affordable until national pricing reflects these indirect costs, a lag of at least two years under the current funding model. We understand that no capital charge will be levied on DHB capital projects for the foreseeable future, and we support this decision. Waitemata DHB also requests that a grant be given for the first two years to compensate for the additional depreciation charge incurred.

7. Management Case

The management case sets out the planning arrangements required to both ensure successful delivery and to manage programme risks. It demonstrates that the proposed investment is achievable.

It outlines how the programme will be managed, setting out the programme team structure, and the different roles and responsibilities. It also discusses the key risks, constraints and dependencies for the programme.

7.1 Programme governance

Governance and programme management structures have been in place for some time preceding this PBC. Furthermore, work has already been undertaken to reflect clinical input regarding the redevelopment options and the design of the facilities.

Key roles and responsibilities

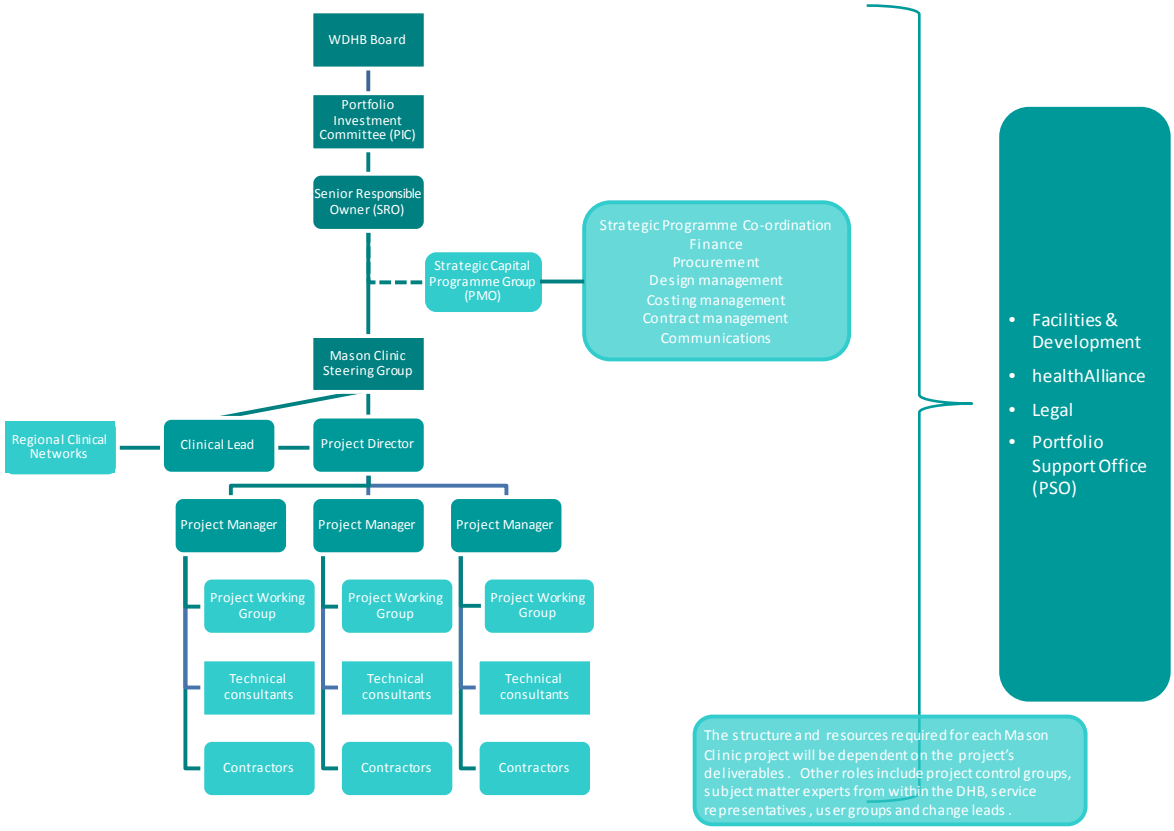
Waitemata DHB's Board and CEO have overall responsibility and accountability for the programme. The Board and CEO are supported by the Deputy CEO, SRO and Programme Director by way of oversight across general operations.

- The Executive Leadership team, and in particular the Deputy CEO, provides oversight of all strategic capital programmes. The Deputy CEO sits on the Programme Steering Group.
- The SRO for the programme is the Director, Strategic Capital Programme Group (SCPG). The SRO has ultimate responsibility for the benefits realisation and long-term sustainability of outputs to the business. They play a key role in communicating the strategic importance of the programme to stakeholders and the senior leadership team.
- A Programme Steering Group has governance responsibility for ensuring that the programme is developed and managed effectively to deliver the expected outcomes, on time and to budget. The Steering Group is chaired by the SRO, and reports directly to the CEO. This ensures that there is clear visibility on progress and issues, and enables direction to be received from the Board as required. It meets at least monthly.
- The SCPG is effectively the programme management office (PMO), and is the forum for the Programme Director to oversee progress and provide leadership and direction for the programme. It also oversees our other facility redevelopment programmes, and ensures consistency across all capital works. It meets monthly.
- A Programme Director will be appointed later this year. They will ensure that the programme's collected project workstreams and activities are properly coordinated, organised, reported on, and tracked in order to deliver the programme outcomes and benefits.
- Project Managers will be appointed in due course for individual projects within each tranche. They will be responsible for planning, managing and controlling the day-to-day work required to achieve designated workstream objectives. They will have delegated responsibility, from the SRO and Steering Group, for managing the development and delivery of the workstream outputs within the agreed time, budget and quality parameters.
- The service change lead for the programme is the Clinical Director of the Mason Clinic. They are responsible for managing the business/operational side of the organisational change that is being delivered, by preparing the organisation for the change, introducing the change through the

programme, determining and measuring outcomes/benefits, and monitoring the business/service environment through the transition and post-implementation.

The current governance structure for the programme is illustrated in Figure 16.

Figure 16 Mason Clinic redevelopment programme governance structure



Programme management approach

The DHB has an established programme to build portfolio and project management capability implementing a structured Portfolio Management, Programme Management and Project Management (P3M3) methodology and has invested in a centralised Portfolio Support Office (PSO) and PMO to support the implementation of the programme. The PSO process uses existing organisational, quality and reporting structures to support project and change management.

Waitemata DHB's change management framework underpins the work of the service change lead, who is responsible for developing a change management plan. The change management plan will identify the nature of change, areas resistant to change, impact of change and strategies to manage change. The plan will have an emphasis on early and ongoing engagement with key stakeholders. The SRO is responsible for ensuring that the change management plan is in place and is effective.

7.2 Programme timeline

Table 14 in the Economic Case set out the indicative timetable for the construction of each inpatient unit envisaged in the master plan, and covers a 30-year timeframe.

Table 16 below provides additional detail for the initial elements of the programme. This will be refined as the programme progresses, with updated timetables included in each tranche-based business case.

Table 16 Indicative programme schedule

Task	Indicative date
Programme Business Case	Aug 2019
Tranche 1 (all of Stage 1)	
Business Case	Dec 2019
Design	Early 2020 – Mid 2021
Construction	Mid 2021 – Mid 2023
Tranche 2 (initial elements of Stage 2)	
Business Case	Late 2020
Design	Late 2020 – End 2021
Construction	Early 2022 – End 2023
Subsequent tranches	TBC

7.3 Programme risks

Table 17 describes the main risks to the successful completion of the redevelopment programme. It also notes the likelihood, impact and mitigation measures.

The most notable programme risks are:

- Sufficient funding is not available to deliver the proposed investments, in the timeframe required to eliminate unacceptable risk of service disruption and ensure capacity is sufficient to maintain service levels.
- The projects cannot be delivered in the timeframe required, because of either difficulty accessing contractor resource (at reasonable costs) and/or a lack of internal DHB resources to manage the projects.
- Direction from central agencies regarding the provision of additional services for high and complex needs patients and/or youth forensic services is unclear, susceptible to change, or not provided in a timely way.

Each of the above three items reflects the overall risk of delay to the delivery of the programme. A significant delay will have the following impacts, both of which limit the programme's ability to achieve the investment objectives:

- Increased cost when the projects are eventually delivered (as a result of increased cost escalation)
- An unacceptable risk of major disruption to service delivery, until such time as the projects are delivered.

Table 17 Key programme risks

Risk	Likelihood	Impact	Mitigation approach
Funding – Sufficient funding is not available to deliver the proposed investments, in the timeframe required to eliminate unacceptable	Medium	High	• Provide compelling business case documentation, supported to robust master planning and other analysis, to CIC in a timely fashion.

Mason Clinic Programme Business Case – Management Case

risk of service disruption and ensure capacity is sufficient to maintain service levels.			• Engage with key officials and Ministers throughout the design and implementation process. • Ensure programme is aligned to local, regional and national planning.
Construction resource – Difficulty accessing contractor resource (at reasonable costs) means that the projects cannot be delivered in the timeframe required.	Medium	High	• Undertake early testing of market appetite and potential contracting approaches to make the programme more compelling.
Construction timeline – Contractors are unable to deliver the proposed works within the envisaged timeline.	Medium	Medium	• Have project plans quality assured by independent project management experts. • Undertake significant design work in advance. • Undertake early market testing with the construction sector.
DHB contractor management resource – A lack of DHB resources to manage contractors means the projects cannot be delivered in the timeframe required.	Medium	High	• Have robust programme governance and staffing plans in place at the outset of the programme. • Ensure key roles are staffed prior to procurement being finalised. • Use external project management consultants where appropriate.
Government policy – Direction from central agencies regarding the provision of additional services for high and complex needs patients and/or youth forensic services is unclear, susceptible to change, or not provided in a timely way.	High	High	• Engage with key officials and Ministers throughout the design and implementation process.
Design and fit-for-purpose – The facilities designed and constructed do not meet our investment objectives.	Low	High	• Engage clinicians throughout the design and procurement process. • Ensure design aligns with legislation, standards and best practice. • Ensure design is flexible and future proofed.
Capital costs – The capital costs prove higher than expected.	Medium	High	• Take a conservative approach to estimating capital costs. • Use learnings from recent DHB construction projects regarding actual capital costs and estimates.
Resource consents and future neighbours – Future inpatient	Medium	High	• Early engagement with MHUD.

facilities are not included on plans shown to buyers of MHUD land, creating difficulties with obtaining resource consents for those facilities in the future.		• Ensure that future inpatient facilities (as envisaged by the master plan) are included on any wider plans provided to buyers of MHUD land.

7.4 Workforce planning

Workforce planning for the Mason Clinic is undertaken in accordance with the ARFPS's service objectives and models of care, recognising the Mason Clinic's role as a regional facility. All workforce related planning and activity reflects Waitemata DHB's organisational values and strategic intent. We recognise that in order to reflect our promise of best care for everyone, patient and staff experience must play a central part in decision making around workforce planning and development.

Short-term impacts will be limited to a movement to new facilities. As capacity is increased during Stage 2 of the redevelopment, additional staffing will be required.

Key areas for further development include:

- The development and implementation of a detailed staffing plan (subject to linkages and key dependencies identified), which is sensitive to the downstream impact of the Mason Clinic recruitment on other mental health services in the region.
- A recruitment plan and schedule.
- The development of a plan to manage the change in day-to-day models of care from moving to new facilities.
- Provision for learning and development for all employees as appropriate by role type and professional group.
- The consideration of pathway development as well as succession planning within retention and workforce sustainability plans.

Longer term workforce planning for the Mason Clinic will incorporate known and predicted workforce shortages as well as any resulting issues around skill and experience mix that may arise. Planning will also provide sufficient time and resource to ensure staff are able to maintain current registration / practising certificates and meet the requirements of relevant professional bodies.

We will work closely with the NRLTIP 'deep dive' related to workforce planning, as that workstream progresses.

7.5 Engagement

Regional partners and Government

Our regional DHB partners have been thoroughly engaged during the ongoing development of the programme. The other Northern Region DHBs are all supportive of the redevelopment of the Mason Clinic, as a means of providing necessary additional mental health capacity and to enhance service capability.

The Ministry of Health, Treasury and CIC have been engaged at certain points in the development of the programme, and this process will continue.

Maori

As the Treaty partner, Maori will be engaged as appropriate in the progression of the redevelopment programme.

Programme planning will be informed by He Korowai Oranga, the Maori Health Strategy to establish which facility features, services and models of care can be incorporated to help achieve the best health outcomes for Maori. A consultative approach will be taken through the course of the programme to ensure Maori needs are identified and that engagement achieves the desired outcomes.

Waitemata DHB has a Memorandum of Understanding with Te Runanga o Ngati Whatua and Te Whānau o Waipareira Trust. We will seek advice from these partners on project design and implementation and involvement in programme/project planning.

Representatives of the Maori community will take part in a number of rounds of engagement, as the programme and solutions are further developed.

New Zealand has one of the highest imprisonment rates in the OECD of 220 per 100,000 population, which comprises a disproportionate number of Maori who are imprisoned at a rate of 680 per 100,000. Because of this, the service will continue to be a national and international leader in the way we include cultural dimensions into care planning and delivery, with kaupapa Maori streams of clinical care and cultural paradigms blended with the best that western medicine can offer being available across the service.

Housing and Urban Development Authority and future land owners

We expect to work closely with our neighbours as we all redevelop our sites. This will include being transparent about future plans, working together on boundary issues, and jointly creating an environment which can be enjoyed by both residents and the Mason Clinic patients and staff.

Stakeholders

There are a number of stakeholders that will have an interest in the expected outcomes and should influence the progression of this programme. These include patients and their families, Unitec, other local businesses and residents, Pasifika communities, and our wider community.

It is expected that some of these stakeholders will provide input into the subsequent business cases.

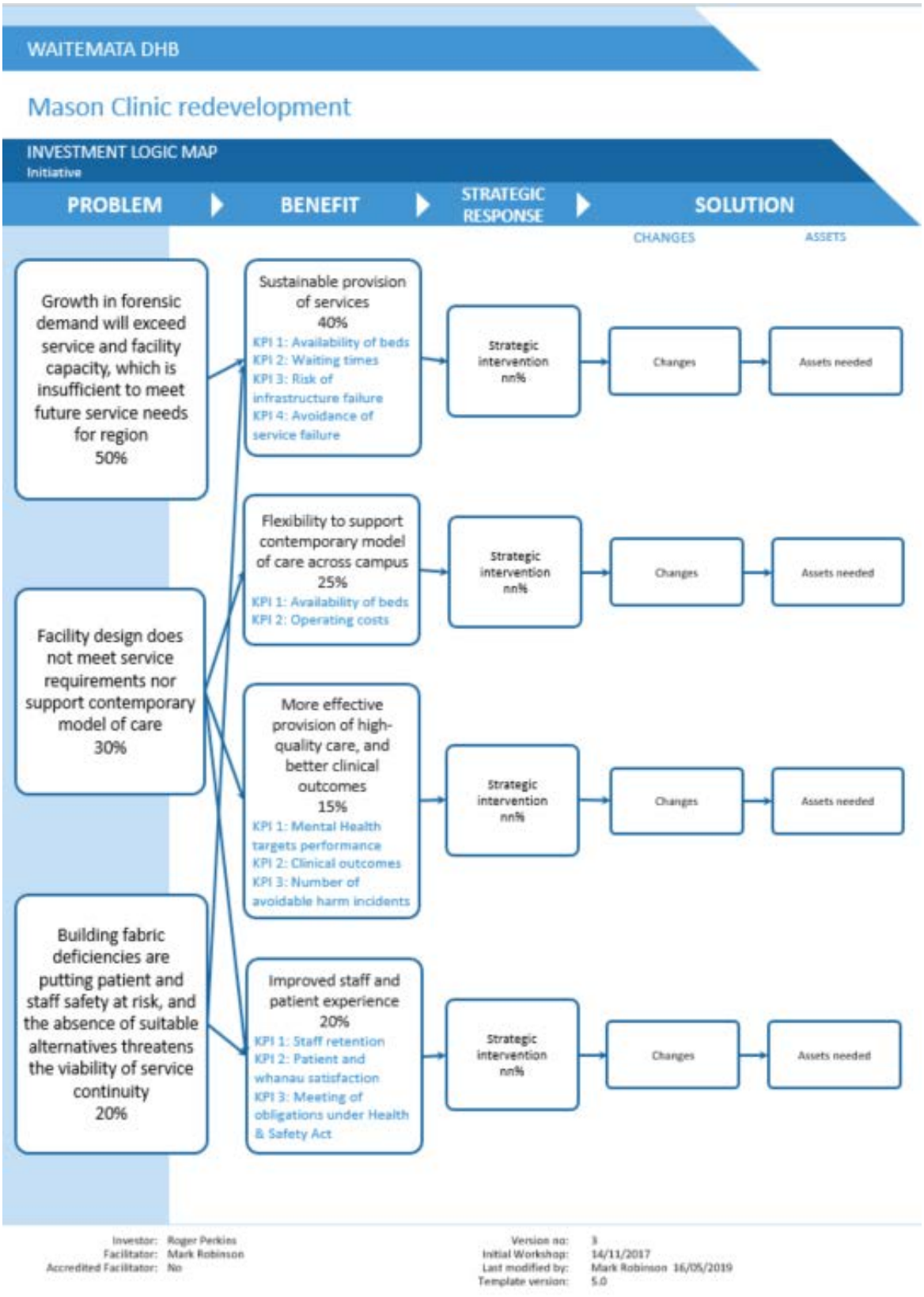
8. Recommendations

Waitemata DHB recommends that CIC:

1. **Notes** that the Mason Clinic has an urgent need to remediate some of its existing facilities, and that it will need additional capacity in order to continue to provide the same level of services in the future.
2. **Approves** this PBC.
3. **Supports** the development of a Single-Stage Business Case for Tranche 1 of the programme, for which $60m Crown capital funding has been prioritised, although an investment in the order of $160m is necessary to meet our urgent needs.

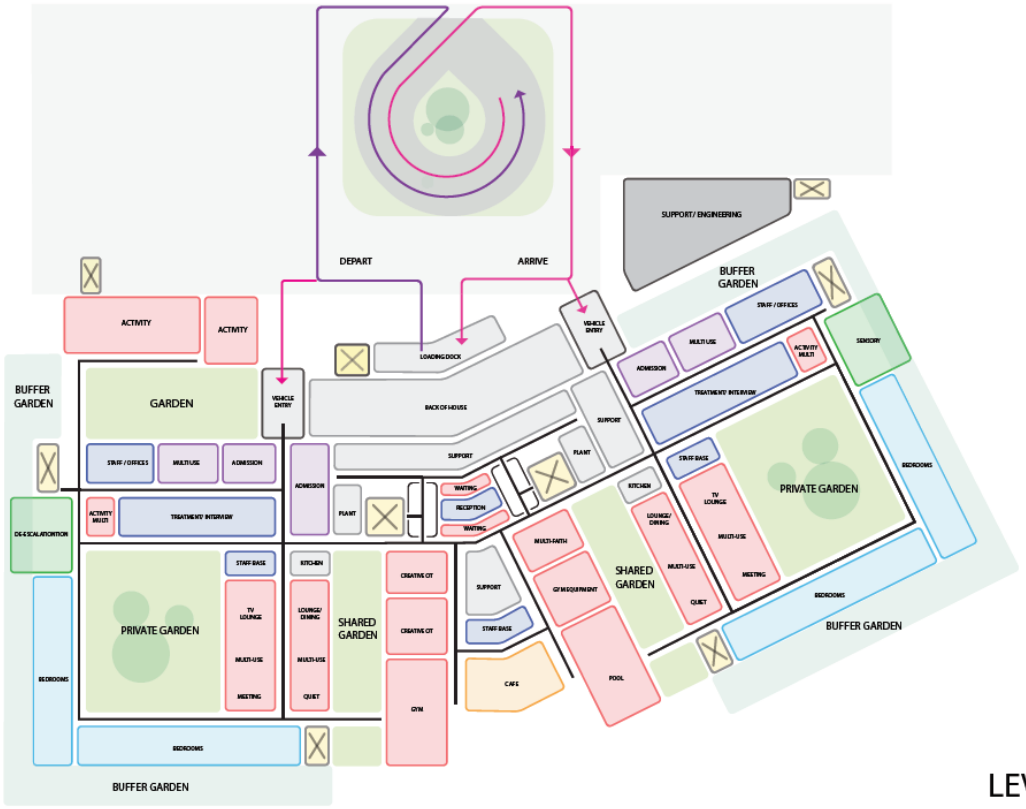
9. Appendices

Appendix A: Investment logic map

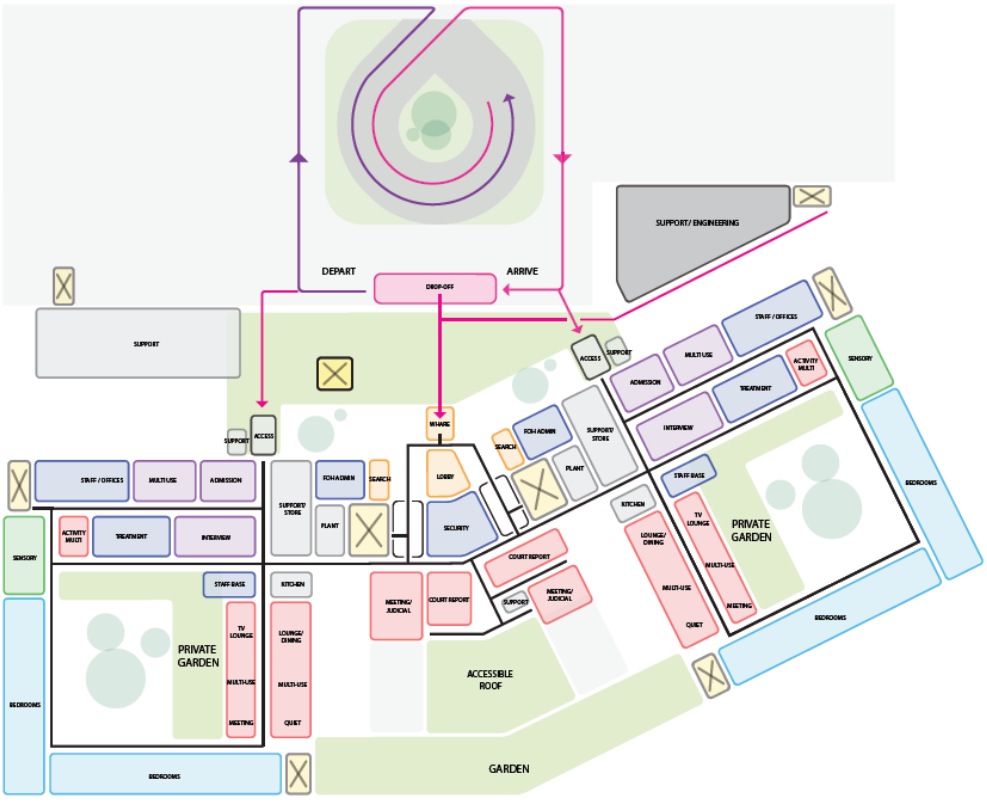


Mason Clinic Redevelopment – Programme Business Case

Appendix B: Draft floor plans for Stage 1 inpatient units



LEVEL 1



LEVEL 2

Appendix C: Other relevant documents

Below is a list of external documents which provide supporting information to that included in this PBC, some of which are explicitly referenced in this document. We can provide these documents upon request.

- NRA, NRLTIP (http://www.nra.health.nz/assets/Documents/NRLTIP-Full-Document/NRLTIP_FullDocwCover_Final.pdf)
- Waitemata DHB (2019), Mason Clinic Master plan
- MaynardMarks (2019), Mason Clinic building analysis
- PwC (2019), Mason Clinic demand forecasting
- WT Partnership (26 June 2019), Programme Masterplan Estimate for Mason Clinic.

Attachment 2

Waitemata District Health Board
Best Care for Everyone

NORTHLAND DISTRICT HEALTH BOARD
Te Poari Hauora A Rohe O Te Tai Tokerau

AUCKLAND DISTRICT HEALTH BOARD
Te Toka Tumai

COUNTIES MANUKAU HEALTH

Mason Clinic Redevelopment – Tranche 1 Business Case

WAITEMATA DISTRICT HEALTH BOARD

Mason Clinic Redevelopment Programme

Tranche 1 Business Case

FINAL

October 2019

Waitemata District Health Board
Best Care for Everyone

Mason Clinic Redevelopment – Tranche 1 Business Case

Document Version:	Draft v1.10 (2 October 2019)
Business Case Owner:	Roger Perkins – Director, Strategic Capital Programme Group
Input Provided By:	**Waitemata DHB** Roger Perkins – Director, Strategic Capital Programme Group Jeremy Skipworth – Clinical Director, Mason Clinic Nigel Ellis – Strategic Capital Programme Group Haitham Alrubayee – Programme Director Paul Stanbridge – Project Director **PwC** Mark Robinson Craig Rice **Other** Mungo Smith – MAAP Rachael Rush – Klein Stephen Davies-Howard – Davies Howard Group
Business Case endorsed by:	Waitemata DHB programme Steering Group Waitemata DHB programme Senior Responsible Owner Waitemata DHB Executive Leadership Team Regional Mental Health Clinical Network Regional Capital Group Regional Executives Forum Waitemata DHB Board
Next step:	Capital Investment Committee

Waitemata DHB has developed this business case with the assistance of PwC. It has been peer reviewed by Davies Howard Group.

Capital cost estimates have been provided by WT Partnership.

Mason Clinic Redevelopment – Tranche 1 Business Case

Glossary

ARFPS	Auckland Regional Forensic Psychiatry Service
CEO	Chief Executive Officer
CIC	Capital Investment Committee
DBB	Design, Bid, Build
DHB	District Health Board
ECI	Early Contractor Involvement
ECIB	Elective Capacity and Inpatient Beds
ILM	Investment Logic Map
ISP	Infrastructure Services Programme
LTIP	Long Term Investment Plan
MBIE	Ministry of Business, Innovation and Employment
NRA	Northern Regional Alliance
NRLTIP	Northern Region Long Term Investment Plan
PBC	Programme Business Case
PMO	Programme Management Office
PSO	Portfolio Support Office
SCPG	Strategic Capital Programme Group
SRO	Senior Responsible Owner

Mason Clinic Redevelopment – Tranche 1 Business Case

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Mason Clinic Redevelopment – Tranche 1 Business Case

1. Executive Summary

1.1 Introduction

Waitemata District Health Board (DHB) provides forensic mental health services to residents of the Northern Region, and forensic intellectual disability services for those north of Taupo, on behalf of the other regional DHBs, at the Mason Clinic in Point Chevalier, Auckland.

The Northern Region DHBs (Northland DHB, Waitemata DHB, Auckland DHB and Counties Manukau DHB) collectively serve a population of 1.9m, which is projected to grow significantly in the future.[1]

This is a business case for Tranche 1 of Waitemata DHB's Mason Clinic redevelopment programme. The programme is addressing both capacity and capability issues with the Mason Clinic's existing facilities.

Tranche 1 focusses on replacing four inpatient units (containing 60 beds) which are failing, suffering from significant weather tightness issues. The objective of the tranche is to address the significant current risks to service delivery and patient and staff safety. The sooner these four buildings are replaced, the better. Replacing these units is a necessary first step before additional capacity can be contemplated.

Waitemata DHB has recently acquired 2.8ha of land adjacent to the existing campus. This land better enables the redevelopment, and the Tranche 1 construction will occur on this new land.

This business case seeks Crown capital funding of $60m, consistent with the amount we understand has been prioritised for Tranche 1 of the programme, for the construction of:

- one 30-bed inpatient building, containing two 15-bed units, in a multi-storey build
- a temporary secure building entry and temporary internal road extension
- a small amount of shared activity and support spaces.

However, a $60m solution will not fully replace all of the failing units. It will also introduce inefficiencies which will increase the whole-of-life cost of replacing the units. If a higher level of funding is available, our preferred option is a capital investment of $205m, which would fully replace the failing units, for the construction of:

- two 30-bed inpatient buildings, each containing two 15-bed units, in multi-storey builds
- a three-storey shared activity and support building, including two-storey entry court, front of house, judicial activities, drop-off, access and car parking
- the start of the central secure garden.

The redevelopment of the existing facilities at the Mason Clinic is consistent with the Northern Region Long Term Investment Plan (NRLTIP), national and regional mental health service strategies, and site master planning. It also contributes to wellbeing under the Government's Living Standards Framework. [This business case has been fully consulted on within the Northern Region, and has the support of the region's DHB Chairs and Chief Executives.]

[1] Statistics New Zealand (2017), Subnational population projections.

1.2 Strategic case

Need for investment

There are three key problems with the Mason Clinic's current inpatient facilities:

1. Service capacity is insufficient to meet future demand.
2. Building fabric deficiencies are putting patient and staff safety and service continuity at risk.
3. Facility design does not meet service requirements or support contemporary models of care.

The key driver of Tranche 1 is fabric deficiencies (Problem 2), but Tranche 1 will also address facility design issues (Problem 3).

Problem 2: Buildings fabric deficiencies are putting patient and staff safety and service continuity at risk

Four buildings at the Mason Clinic are failing significantly, suffering from weather tightness and leaky building issues – Kahikatea, Rata, Kauri and Totara. They are exposing patients and staff to significant risk of harm, and need to be decommissioned as soon as possible.

Water ingress has been, and is, causing internal damage and compromising the integrity of the buildings. While this has been mitigated by ongoing repairs, these units have deteriorated to the point where they are at risk of developing Stachybotrys fungus in some wall cavities.[2] We have recently decommissioned and demolished the Tanekaha unit, but these four remain in operation.

Three monthly testing continues. Recent tests confirmed that the presence of the fungus is currently at safe levels. However, this situation may not continue as the buildings are coming to the end of their design life and are not weather tight. Higher readings could require immediate decanting of one or more of the units.

This creates an unacceptable risk to the health of patients, their families and staff. We are treating patients in buildings which have significant amounts of dangerous fungus, which could reach unsafe levels at any moment. This is a long way from the high-quality patient care and experience which we strive for.

This could also render the buildings unfit for use, resulting in forced transfer of patients at short notice. There is no alternative facility which provides forensic mental health services in the region. Many patients would be transferred back to prison, with others to hospitals, other mental health facilities and into the community. As such, the potential closure of units at the Mason Clinic puts at risk our continued ability to provide forensic mental health services to all patients in the region on a sustainable basis.

The cost of maintaining or refurbishing the existing buildings is greater than the cost of replacement. Accordingly, a replacement programme is urgently needed.

Problem 3: Facility design does not meet service requirements or support contemporary models of care

Most of the Mason Clinic facilities were designed to support a different model of care to that which we operate today. This is limiting our ability to safely and adequately provide forensic health services in line with best practice and our model of care.

The development of contemporary models of care for forensic mental health and intellectual disability services is changing the way those with mental needs or intellectual disabilities in the criminal justice system are assessed, treated and rehabilitated. This model of care requires different facilities to those we

[2] Stachybotrys is a toxic mould that can grow in houses and is extremely dangerous to humans. It can cause respiratory problems, skin inflammation, haemorrhage, damage to internal organs, mental impairment, irritation of mucous membranes, tiredness, nausea and immune system suppression.

currently have – with a greater focus on rehabilitation and reintegration without the use of restrictive interventions, and where services are integrated across the care continuum of security needs.

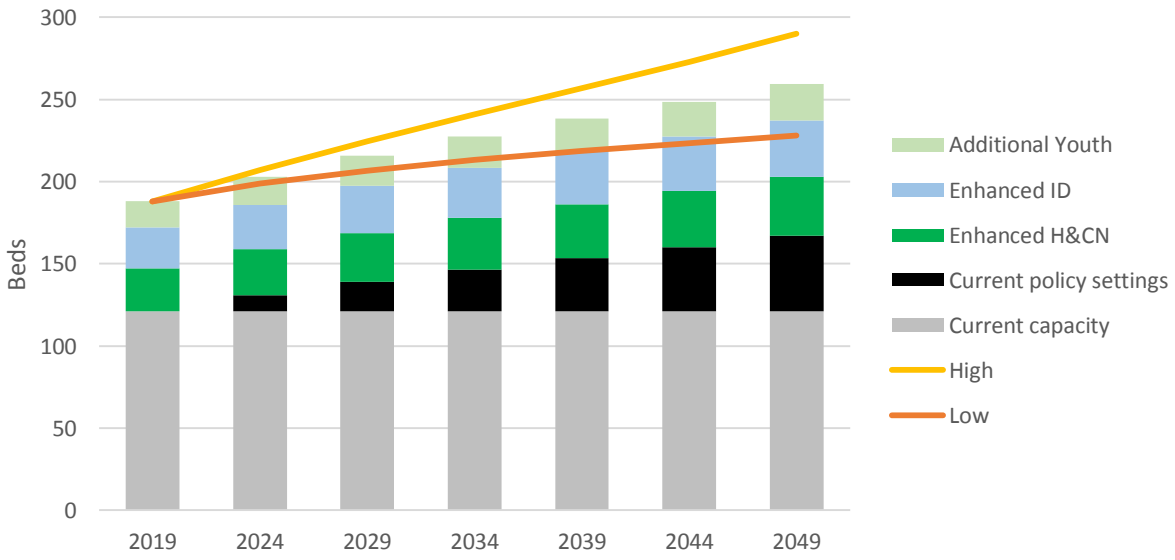
With the exception of Te Aka and the unit currently under construction, the design and configuration of the existing facilities no longer meet the needs of patients. In particular:

- There are not enough rooms for assessment, treatment and rehabilitation activities.
- Communal ablution blocks adversely impact patient experience, increase staffing requirements, and will make it difficult to phase out the use of night safety procedures which the Ministry of Health has indicated must occur before 2022.
- Rooms are not big enough to adequately cater for long term residents, adversely impacting recovery and clinical outcomes.
- Some minimum secure units have seclusion areas, but these are not needed in those units.
- No unit has a sufficient security level to provide safe provision of care for high security patients.
- Units that provide complementary clinical services are not physically linked together. This limits the ability to provide an integrated service and promote continuity of care, and reduces the efficiency of staff work.
- In an environment where medium density residential housing is expected to soon occupy the land around the Mason Clinic, for privacy and safety reasons, Mason Clinic buildings would best be sited around the periphery of the campus. This would provide a visual and physical barrier to the community, and create a shared community zone for service users with ground access.

Capacity to meet growth

While Tranche 1 is not attempting to address growth, as described in more detail in the PBC, a key feature of the wider programme is increasing the capacity of the Mason Clinic to cater for growth. Figure 1 shows the forecast bed demand for the Clinic over the next 30 years.

Figure 1 Forecast bed demand, for different policy settings



Scope of Tranche 1

The potential scope of solutions to the above objectives has been narrowed by analysis and decisions which have already been undertaken, to solutions which involve replacement of the failing units on the current campus. Relocating service provision elsewhere has been firmly rejected, while refurbishment of the failing units is not cost effective.

Tranche 1 will not add extra capacity. Therefore, the new units will continue to provide the same services as the units which they replace (although the quality of those services will improve with the new facilities).

1.3 Economic case

There is effectively only one feasible approach to replacing the four units which are currently failing:

- Construct new inpatient units containing 60 beds (the same total number as the failing units).
- Locate these units on the newly acquired land at the northern end of the campus.
- Use buildings with two inpatient floors (with additional storeys for support spaces if needed).

This is 'Stage 1' of the redevelopment, as described in the PBC.

The only realistic 'options' which can be considered for Stage 1 are whether it is delivered as one project or in two sub-stages. These two options represent the short-list for Tranche 1.

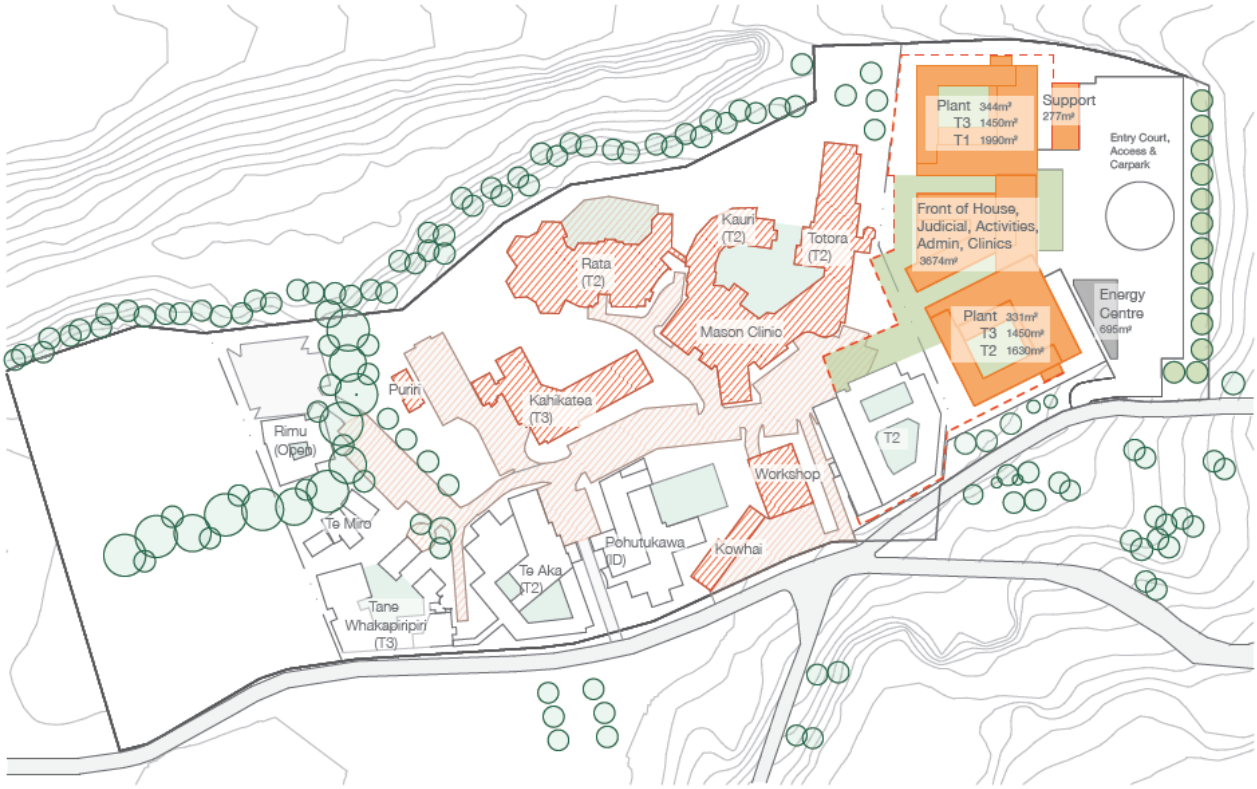
Option 1: Full Stage 1 solution

This option represents the full 'Stage 1' of the redevelopment. It will replace all four of the failing buildings with new facilities. It is expected to require a capital investment of $205m.

- Two new inpatient buildings will be built on the newly acquired land at the north end of the campus. Each building will have two 15-bed inpatient units, one on each of the first two floors (60 beds in total across the two buildings), and plant and administrative spaces on a third floor. The units will be a combination of minimum (T3, two units), medium (T2, one unit) and high (T1, one unit) security levels.
- A three-storey shared activity and support building, including two-storey entry court, front of house, judicial activities, drop-off, access and car parking will be constructed on the newly acquired land. The building will be between, and connected to, the two inpatient buildings, with the access and car parking to the north.
- The start of the central secure garden will be created, to the south of the inpatient buildings.
- The Kahikatea, Rata, Kauri and Totara units will be decommissioned, along with the Puriri, Kowhai and workshop support buildings. This will remove 60 beds currently in use.

Figure 2 shows what the Mason Clinic will look like after Stage 1 is complete.

Figure 2 Future Mason Clinic after Stage 1



Option 2: Solution consistent with prioritised funding

We understand that $60m in Crown capital funding has currently been prioritised for Tranche 1. This will be insufficient to complete Stage 1 of the redevelopment.

A $60m solution will enable the replacement of two of the four failing buildings with new facilities, and provide a reduced amount of complementary spaces. The remainder of Stage 1 will be deferred to Tranche 2 of the programme.

- One new inpatient building will be built on the newly acquired land at the north end of the campus – the eastern of the two buildings envisaged in the full solution described above. This building will have two 15-bed inpatient units, one on each of the first two floors (30 beds in total), and plant and administrative spaces on a third floor. One unit will be minimum security (T3) and the other medium security (T2).
- A temporary secure building entry will be constructed from the unit currently under construction.
- A temporary internal road extension will be constructed, linking the existing internal road to the western side of the new building. No new car parking will be created.
- A small amount of shared activity and support spaces will be created adjacent to the new building.

Figure 3 illustrates what the Mason Clinic will look like after this smaller solution is implemented.

Figure 3 Future Mason Clinic after Stage 1 is partly completed

Other solutions

Option 2 requires a $60m capital investment. This is the minimum investment that would enable the provision of new inpatient beds. If materially less than $60m in Crown funding is available for Tranche 1, this will not be sufficient to construct a new inpatient building. This not considered a feasible solution, and hence not part of the short-list.

A solution 'between' Options 1 and 2 is possible, but it would provide the same number of beds as Option 2. Option 1 will provide two 30-bed inpatient buildings, while Option 2 will only provide one such building. While possible, it is not practical or cost-efficient to provide one and a half inpatient buildings. An 'in-between' solution would provide 30 inpatient beds, but more shared activity, support spaces and/or access than Option 2. Such an option is not part of the short-list, because it is inferior to Option 1 and requires more funding than has been prioritised.

Analysis of short-listed options

Table 1 sets out a relative assessment of the two options.

Table 1 Assessment of short-listed options against critical success factors

Critical success factor		Option 1: Full Stage 1	Option 2: $60m solution	Comment
Strategic fit and business need	Weather tight facilities	🟢	🟡	Replacement of all failing units is delayed under Option 2. As a result, Option 2 only partly addresses the significant current risks to service delivery and patient and staff safety.
	Fit for purpose facilities	🟢	🔴	Under Option 2, the building has minimal activity and support spaces, while the new other new building is delayed. Option 2 risks failing to successfully create an integrated solution across Stage 1. The challenges of accommodating patients on upper levels requires careful design consideration, and is best undertaken as part of a comprehensive redevelopment where good access to shared therapy spaces is created. Under Option 2, existing reception, therapy and judicial areas will need to remain operational, resulting in a more distributed service, and exposing risk of building failure.
Potential value for money		🟢	🔴	Option 2 has a higher whole-of-life cost than Option 1, due to inefficiencies and duplication associated with splitting Stage 1.
Supplier capacity and capability		🟡	🟡	Option 2 would stagger supplier needs, but Option 1 would enable efficiency in delivery.
Potential affordability		🔴	🟡	Funding for Option 2 has already been prioritised, but total cost to replace failing units remains.
Potential implementability		🟢	🔴	Option 2 introduces numerous practical difficulties.

Because Option 2 defers part of Option1, the two solutions do not provide the same outcomes. Because of this deferral, Option 2 provides significantly fewer beneficial outcomes than Option 1.

The key benefit of Option 2 is that the funding has already been prioritised, whereas Option 1 requires additional Crown capital funding. We note, however, that Option 2 simply defers the remainder of the funding requirement.

Aside from funding, we consider that Option 2 (delivering Stage 1 in multiple sub-stages, beginning with a first tranche in the order of $60m) is a significantly inferior solution. It would have a number of significant implications, including the following:

- It would increase the whole-of-life cost of delivering Stage 1. Construction costs for the second sub-stage will incur a cost premium through additional and abortive work to create the stages; the requirement to interface with an operational building; and the requirement to manage disruption to the newly constructed first stage.
- To meet a $60m budget, the activity, support, access and car parking spaces will be significantly smaller than is appropriate for a 30-bed inpatient building. This option effectively defers the development of those spaces to Tranche 2.
- It would require two of the failing units to remain in operation for a number of years longer than necessary. These four units already expose patients and staff to a significant risk of harm, and the potential for building failure, which threatens our ability to provide services on an ongoing basis. We have been advised that "*extending the life of these buildings indefinitely is not feasible without carrying out significant and costly permanent repairs*."[3] We consider that further delay to their replacement to be an unacceptable solution.
- Retaining two of the failing units for longer than necessary has some operational impacts:
    - Staff isolation with some units left 'orphaned'
    - Duplication of reception/ security and judicial areas with consequential safety and staff operational cost issues.
- Leaving two of the failing units in place defers the ability to prepare the site for Stage 2 works, further deferring our ability to provide the urgently needed additional capacity.
- It delays the time when we are able to reconfigure the horizontal infrastructure on the western side of the campus. The full Stage 1 unlocks the existing Mason Clinic site by allowing for unimpeded demolition of the failing buildings. If this occurs as planned in one stage, rather than piecemeal, ground remediation and relocation of significant redundant in ground services can be done efficiently, safely and cost-effectively in one hit. Sub-stages will add time, complexity and cost.
- It delays the delivery of the high security (T1) beds, since these will be part of the western building (this is better at the 'back' of the campus for a number of reasons). The high security beds are a key part of delivering our planned model of care.
- Stage 1 is designed as an integrated solution, connecting with the unit under construction, creating 75 beds in a secure environment and a functional operational facility for core forensic services, with improved security and an identifiable 'front door' when opened. A smaller Tranche

[3] Maynard Marks (2019), Mitigation Works Plan, page 28.

1 will defer this integrated solution, while splitting the detailed design processes puts the integrated solution at risk.

- The challenges of accommodating patients on upper levels requires careful design consideration, and is best undertaken as part of a comprehensive redevelopment where good access to shared therapy spaces is created. It will be less successful if undertaken as a piecemeal approach.
- The balance of the site would be a construction zone for up to two years with the consequential disruption to operations, and service users.

Preferred solution

Waitemata DHB's preferred solution is Option 1 – undertaking all of Stage 1 as one project.

However, we understand that $60m in Crown equity funding has been prioritised for Tranche 1 of the programme. We therefore recommend Option 2, which can be delivered for that level of funding.

Option 2 simply defers part of the ultimate solution. This extends the period over which the Mason Clinic is exposed to significant risks to service delivery and patient and staff safety, and increases whole-of-life costs. The only reason why Option 2 would be chosen is if short-term funding constraints make Option 1 not possible from a funding perspective.

1.4 Commercial case

The individual projects within Tranche 1 will be procured using a traditional design bid build (DBB) approach. This approach has been successfully used for the recent developments at the Mason Clinic, and is also being used for the ECIB project. There is no reason to use an alternative approach for this tranche.

With traditional design bid build, early contractor involvement is not typically undertaken. For Option 2 however, assuming business case approval for Tranche 2 promptly follows Tranche 1 there will be potential for early contractor involvement and procurement of Tranche 2 as part of the Tranche 1 procurement process.

Under Option 2, there is significant benefit in engaging a full design team to complete concept design for the full Stage 1, to ensure that the first sub-stage (one 30-bed building) does not preclude the remainder of Stage 1 from being carried out efficiently in the future. For procurement, either the first sub-stage could be procured independently, or the contractor could also provide early pricing for the second sub-stage to procure the entire Stage 1.

Waitemata DHB is working with the other Northern Region DHBs and the NRA to establish a framework to coordinate timing of investment across the region.

The procurement process will be designed such that it can contribute to increasing the size and skill level of the domestic construction sector workforce and provide employment opportunities to targeted groups, in accordance with direction from the Ministry of Health through its letter of expectations for DHBs.

1.5 Financial case

Estimated capital costs

Table 2 sets out the estimated capital costs, including contingencies, of both short-listed options for Tranche 1 of the programme.

The total capital cost of the preferred solution is $205m, while a smaller solution can be delivered for $60m consistent with the prioritised funding for this tranche.

Table 2 Capital cost estimate for Tranche 1 (including contingencies)

$000	Option 1: Full Stage 1	Option 2: $60m solution
Enabling works	5,746	864
Infrastructure / energy centre / plant	12,059	1,815
Main buildings	87,055	32,537
Entry court / access / car parking	12,716	160
Landscaping and external work	3,393	1,040
FFE	9,261	3,446
Sub-total	**130,230**	**39,862**
Design and construction contingency	13,023	3,986
Escalation	10,419	2,790
Total construction cost	**153,672**	**46,638**
Professional fees	24,588	5,979
IT / healthAlliance	3,073	797
WDHB internal costs	4,610	1,196
Sub-total	**185,943**	**54,610**
Project contingency	18,594	5,461
TOTAL	**204,537**	**60,071**

Whole-of-life costs

Stage 1 is not changing the capacity of the Clinic, and hence there will not be a material change to the ongoing operating costs of the Clinic.

Option 2 has a higher whole-of-list cost than Option 1, due to:

- Inefficiencies and duplications, with items constructed during the first sub-stage which are only temporary. These are estimated to be at least $3m.
- Increased maintenance costs, due to the need to maintain the old failing buildings for longer, rather than having new buildings. These are estimated at around $3m per year.
- Increased probability of short-term emergency costs to address a building failure, including emergency remediation, rehousing costs, and patient impacts.

These costs outweigh the benefit of delaying capital expenditure (which is partly offset by cost escalation in any case).

Funding approach

This business case seeks Crown capital funding of at least $60m, and preferably $205m.

The funding of the programme has been discussed with the Ministry of Health and Treasury. We understand that the Government has prioritised $60m of capital funding for Tranche 1.

Waitemata DHB has insufficient reserves to fund Tranche 1 in its entirety. While the DHB has used remedial measures to delay the need for this investment, we are not able to support the investment through a financial capital contribution, and accordingly Crown equity is required.

This business case has no material operating cost impact.

The increase in capital charge and depreciation that will accrue to the DHB's profit and loss account will not be affordable until national pricing reflects these indirect costs, a lag of at least two years under the current funding model. We understand that no capital charge will be levied on DHB capital projects for the foreseeable future, and we support this decision. Waitemata DHB also requests that a grant be given for the first two years to compensate for the additional depreciation charge incurred.

1.6 Management case

Tranche 1 timeline

Table 3 shows the envisaged timetable for delivery of Tranche 1, for both of the short-listed options.

Table 3 Tranche 1 schedule

Task	Indicative date	
	Option 1: Full Stage 1	Option 2: $60m solution
Tranche 1		
Business Case	Dec 2019	Dec 2019
Design	Early 2020 – Mid 2021	Early 2020 – Early 2021
Construction	Mid 2021 – Mid 2023	Mid 2021 – Late 2022

Programme and Tranche 1 governance

Waitemata DHB's Board and Chief Executive Officer (CEO) have overall responsibility and accountability for the programme. The Board and CEO are supported by the Deputy CEO, Senior Responsible Owner (SRO) and Programme Director by way of oversight across general operations.

- The Executive Leadership team, and in particular the Deputy CEO, provides oversight of all strategic capital programmes. The Deputy CEO sits on the Programme Steering Group.
- The SRO for the programme is the Director, Strategic Capital Programme Group (SCPG).
- A Programme Steering Group has governance responsibility for ensuring that the tranche is developed and managed effectively to deliver the expected outcomes, on time and to budget. The Steering Group is chaired by the SRO, and reports directly to the CEO.
- A Programme Director will be appointed later this year. Project Manager(s) will be appointed in due course for individual project(s) within this tranche.

- The SCPG is effectively the programme management office (PMO), and is the forum for the Programme Director to oversee progress and provide leadership and direction for the programme.
- The service change lead for the programme is the Clinical Director of the Mason Clinic.

The DHB has an established programme to build portfolio and project management capability implementing a structured Portfolio Management, Programme Management and Project Management (P3M3) methodology and has invested in a centralised Portfolio Support Office (PSO) and PMO to support the implementation of the programme. The PSO process uses existing organisational, quality and reporting structures to support project and change management.

Risks

The most notable risks to Tranche 1 are:

- Sufficient funding is not available to deliver Stage 1 of the programme, in the timeframe required to eliminate unacceptable risk of service disruption.
- The projects cannot be delivered in the timeframe required, because of either difficulty accessing contractor resource (at reasonable costs) and/or a lack of internal DHB resources to manage the projects.

Each item reflects the overall risk of delay to the delivery of Stage 1 of the programme.

A significant delay will mean that the Mason Clinic remains exposed to an unacceptable risk of major disruption to service delivery, and harm to patients and staff. This is a material risk to our ability to provide patient care in line with Government objectives. A delay will also increase whole-of-life costs, as a result of increased maintenance costs and cost inefficiencies.

1.7 Recommendations

Waitemata DHB recommends that CIC:

1. **Notes** that the Mason Clinic has an urgent need to replace four inpatient units, which are suffering from significant weather tightness issues.
2. **Notes** that our preferred solution is a capital investment of $205m, to construct four 15-bed inpatient units within two multi-storey buildings (replacing all four of the failing units), a shared activity and support building with an entry court, front of house, judicial activities, drop-off, access and car parking, and the start of the central secure garden.
3. **Approves** Crown capital funding of $60m, to construct two 15-bed inpatient units within one multi-storey building (replacing two of the failing units) and a small amount of shared activity and support spaces, which we are recommending because that is the level of funding which has been indicated as available.
4. **Notes** that if the $60m solution is approved:
    a. A consequence is that two of the failing units will need to remain in operation for a number of years longer than necessary, increasing the risk of emergency costs in the event of a building failure, creating significant risk of patient and staff harm, and threatening our ability to provide services on an ongoing basis. It would also delay the delivery of high security beds, which are planned for the western unit and are a key part of delivering our planned model of care.

b. We will include the remainder of Stage 1 (replacing the other two units) in Tranche 2 of the programme, and will request Crown capital funding in due course.

2. Introduction

Waitemata DHB provides forensic mental health services to residents of the Northern Region, and forensic intellectual disability mental health services for those north of Taupo, on behalf of the other regional DHBs, at the Mason Clinic in Point Chevalier, Auckland.

The Northern Region DHBs (Northland DHB, Waitemata DHB, Auckland DHB and Counties Manukau DHB) collectively serve a population of 1.9m, which is projected to grow significantly in the future.[4]

This is a business case for Tranche 1 of Waitemata DHB's Mason Clinic redevelopment programme. The programme is addressing both capacity and capability issues with the Mason Clinic's existing facilities.

Tranche 1 focusses on replacing four inpatient units (containing 60 beds) which are failing. These units suffer from significant weather tightness and leaky building issues which, left untreated, will lead to unacceptable health issues. The objective of the tranche is to address the significant current risks to service delivery and patient and staff safety. The sooner these four buildings are replaced, the better. Replacing these units is a necessary first step before additional capacity can be contemplated.

Waitemata DHB has recently acquired 2.8ha of land adjacent to the existing campus. This land better enables the redevelopment, and the Tranche 1 construction will occur on this new land.

This business case seeks Crown capital funding of $60m, consistent with the amount we understand has been prioritised for Tranche 1 of the programme, for the construction of:

- one 30-bed inpatient building, containing two 15-bed units, in a multi-storey build
- a temporary secure building entry and temporary internal road extension
- a small amount of shared activity and support spaces.

However, a $60m solution will not fully replace all of the failing units. It will also introduce inefficiencies which will increase the whole-of-life cost of replacing the units. If a higher level of funding is available, our preferred solution is a capital investment of $205m, which would fully replace the failing units, for the construction of:

- two 30-bed inpatient buildings, each containing two 15-bed units (60 beds in total), in multi-storey builds
- a three-storey shared activity and support building, including two-storey entry court, front of house, judicial activities, drop-off, access and car parking
- the start of the central secure garden.

This document has been prepared in accordance with Treasury's Better Business Case guidelines.

4 Statistics New Zealand (2017) Subnational population projections.

3. Strategic Case

3.1 Background

Waitemata DHB and the Mason Clinic

Waitemata DHB provides secondary hospital and community services, primarily for the communities of Auckland's North Shore, Waitakere and Rodney areas. It is one of four DHBs within the Northern Region. It has both the largest, and fastest growing, population of any DHB in NZ.

Waitemata DHB has three main clinical sites – North Shore and Waitakere Hospitals, and the Mason Clinic forensic psychiatric campus.

The Auckland Regional Forensic Psychiatry Service

The Auckland Regional Forensic Psychiatry Service (ARFPS) was established in 1989 following the Mason Inquiry into New Zealand's forensic mental health provision. It provides an integrated forensic mental health service to the Northern Region's courts, prisons and general mental health services. Waitemata DHB provides the ARFPS on behalf of the other Northern Region DHBs.

The key services the ARFPS provides are:

- Court liaison services
- Prison mental health services
- Community follow-up services
- Liaison services to other mental health services
- Inpatient service for people with mental illness
- Inpatient and community forensic intellectual disability services.

The inpatient services are provided at the Mason Clinic. The core role of the inpatient service is to assess, treat and rehabilitate people with a mental illness or intellectual disability who are in the criminal justice system or are at high risk in the community.

The Mason Clinic

The Mason Clinic is a secure inpatient campus, located in Point Chevalier, Auckland. From this location, the ARFPS provides inpatient forensic mental health services to residents of the Northern Region, as well as forensic intellectual disability services for those north of Taupo.

The campus covers 6.7 hectares, after a recent acquisition of 2.8 hectares of land previously owned by Unitec.

As shown in Table 3, there are currently eight clinical units with 106 inpatient beds, and another 15-bed unit currently under construction, taking the total to 121 beds. The units include acute and rehabilitation units, with a range of security levels, as well as the only hospital-level secure unit for people with intellectual disabilities in Auckland.

The Te Aka unit, which opened in 2017, allowed us to decommission and demolish the 10-bed Tanekaha unit which had severe weather tightness issues. The 15-bed unit currently under construction will provide much needed additional capacity.

Table 3 Mason Clinic inpatient facilities

Unit	Built	Capacity	Use	Security
Kauri	1992	15	Acute	Medium
Totara	1992	15	Acute & rehabilitation	Medium
Kahikatea	1993	15 [5]	Rehabilitation	Minimum
Rata	1999	15	Rehabilitation	Medium
Rimu	2006	9	Rehabilitation	Step down open hostel
Tane Whakapiripiri	2006	10	Kaupapa Maori rehabilitation	Minimum
Pohutukawa	2006	12	Intellectual disability	Medium
Te Aka	2017	15	Rehabilitation	Medium
Total – current		106		
Unit under construction	TBC	15	Rehabilitation	Medium
Total – after current construction		121		

In addition to its core forensic mental health and intellectual disability services, the Mason Clinic treats some adult patients with high and complex needs, and on occasion youth forensic patients. These patients are treated in the Mason Clinic's adult forensic units, rather than dedicated facilities.

- The Northern Region has no dedicated facility for patients with high and complex needs who require secure care. At present, these patients are treated in a range of locations, including the Mason Clinic, prisons, hospitals, and community facilities.
- There is a National Youth Forensic facility in Wellington, but no similar facility in Auckland. The Northern Region's youth forensic patients are currently treated at either the Wellington facility, at Starship Hospital, or on rare occasions at the Mason Clinic.

The campus also has an administration centre, cultural centre, community outpatient base (for staff working in community teams, courts and prison mental health teams), a swimming pool and other associated outbuildings. Figure 4 shows a map of the Mason Clinic, including the building under construction.

[5] Kahikatea has 20 physical beds, but it is assumed that, when the unit under construction is commissioned, its operational capacity will be reduced to 15 beds.

Mason Clinic Tranche 1 Business Case – Strategic Case

Figure 4 Mason Clinic at present (including unit under construction)

Mason Clinic redevelopment programme

The Mason Clinic redevelopment programme is addressing three issues with the current facility:

- Service capacity is insufficient to meet future demand.
- Building fabric deficiencies are putting patient and staff safety and service continuity at risk.
- Facility design does not meet service requirements or support contemporary models of care.

The programme includes the replacement of existing facilities and the construction of new buildings. 2.8 hectares of land has recently been acquired to better enable the redevelopment.

We expect that, with redevelopment and utilisation of the acquired land, we can increase on-site capacity to 246 beds, so that we can accommodate the future growth in both core and related services for at least 30 years.

Tranche 1 focusses on replacing four inpatient units (containing 60 beds) which are failing. Replacing these units is a necessary first step before additional capacity can be contemplated.

Planning preceding this business case

This business case is informed by a substantial amount of planning which has already been undertaken.

Redevelopment programme business case documentation

The PBC for the programme was [approved by CIC in August 2019].

Future inpatient demand

The most recent analysis of future demand for forensic inpatient services was undertaken by PwC in 2019.[6] The analysis applied a number of different scenarios, including different services provided and levels of service delivery.

The analysis showed that the Mason Clinic needs significantly more capacity than it currently has if it is to meet future demand for its current services. If the services and/or levels of service delivery are expanded, then even more capacity will be required. This is described in more detail in the PBC.

Northern Region Long Term Investment Plan

The NRLTIP has been developed to articulate the strategic direction for the Northern Region and to identify the investments necessary to ensure the ongoing delivery of high quality healthcare. This plan takes a 10 to 15-year view within the context of a 25 year planning horizon.

The NRLTIP provides the basis for analysis of future capital investment requirements within the region, and is the first truly regional assessment of future capacity requirements. It has been developed with a high level of engagement across the four DHBs and with other key stakeholders from the regional health system. The plan is particularly focused on pressing capacity and remediation issues affecting the region's major hospital sites.

The NRLTIP sets out a package of future capital investments, including a redevelopment and expansion of the Mason Clinic.

Building condition assessments

The Mason Clinic buildings are of mixed material construction, comprising stucco plaster, fibre cement weatherboard and sheet panels, plywood, corrugated iron and concrete block.

An assessment of the campus in 2011 identified that several buildings were failing significantly, suffering from leaky roofs, guttering and exterior walls. An expert building survey was subsequently carried out by Cove Kinloch, to provide a report on what had by then become a 'leaky building' situation affecting nine different buildings to varying degrees.

Analysis was undertaken in 2019 by Maynard Marks to determine what life remains in the buildings, should no deferred maintenance / remediation to the buildings occur. Maynard Marks was unable to define a term for remaining life, as in its view, undertaking nothing is not a feasible option for any of the buildings.

The 2019 analysis found all the buildings have, to a varying degree, inherent risks to the users as a direct result of the potential for moisture ingress that can lead to both adverse indoor air quality and affect the structural capacity of certain building elements. Maynard Marks is of the view that this risk needs to be managed and the only way to address this is by way of incorporating a number of measures to mitigate service risks.

Development of contemporary models of care

The 'Mason Approach' document[7] sets out our current model of care for forensic mental health patients. This approach has been developed over a period of time. It represents an evolution from the previous model of care, and focuses on rehabilitation and reintegration with reduced use of restrictive interventions, and with integrated services across the care continuum of security needs.

[6] PwC: (June 2019), Mason Clinic demand forecasting.

[7] Auckland Regional Forensic Psychiatry Services (2012), The Mason Approach: The mission, vision, values and approach of the Mason Clinic.

We have introduced new ways of working and patient care initiatives to implement this approach. We have also commissioned new fit-for-purpose inpatient units (Te Aka and the unit under construction). However, the design of the majority of the facilities does not fully support the delivery of the new model of care.

Location of future forensic inpatient services

The potential option of relocating the Mason Clinic service elsewhere has been considered in depth by Waitemata DHB and central agencies in recent years.

For example, in 2016 the Ministry of Business, Innovation and Employment (MBIE), the Ministry of Health and the Tertiary Education Commission engaged Zusammen Limited to assess options for the location of inpatient facilities. The options canvassed were to remain on the current site, move to another central urban location, or move to a location outside the urban boundary. It also considered the impact of expanding the size of the campus to enable the co-location of related services. The report's preferred option was to remain on the current site, and to consider acquiring from Unitec land adjacent to its campus.

While a move to a greenfield site could allow for the construction of new facilities specifically tailored to our service requirements, it had a number of downsides including:

- No land was identified which could realistically contain a facility, of the necessary size, for forensic mental health and intellectual disability patients.
- If a site was able to be identified, the new campus would take between 7-10 years to be completed. Given the rate of deterioration of our buildings, as well as the anticipated demand growth in the short to mid-term, this timeline was deemed suboptimal.
- Relocation was estimated to be more expensive than a redevelopment solution, irrespective of whether the facility was within or beyond the urban boundary.
- Moving to a new site would risk causing material inconvenience to the 400 staff currently working at the Mason Clinic, as well as limiting the ability for patients' families to be able to visit.
- There are inherent risks associated with a relocation process, such as land consent delays and potential resistance from neighbouring residents.

The relocation option has now been firmly rejected. The recent acquisition of land adjacent to the existing campus allows us to focus future thinking on the current (and now expanded) Mason Clinic site.

Site master planning

The current site master plan was developed in 2019 by Medical Architecture Australasia Pacific Pty Ltd (MAAP) in conjunction with Klein Architects. The master plan aims to realise the best and most efficient use of land, for the benefit of Waitemata DHB and the wider community.

The master plan envisages the demolition of a number of buildings – both inpatient and support facilities – as well as the new construction of a number of inpatient units, utilising the recently acquired land. It incorporates the use of multi-storey inpatient buildings, which will require the Clinic to transition from its current use of only single-storey buildings. It includes specialist facilities for forensic intellectual disability patients, high and complex needs patients, and youth forensic patients. The master plan also incorporates an improvement in the quality of the campus environment.

The current master plan was developed after a peer review of the previous 'test fit' exercise (which included two options, with and without additional land). The peer review identified the following issues with the 'test fit', which the current master plan addresses:

- There is inadequate space, even with additional land, to fit a campus which only comprises single-storey buildings. This was partly because there was insufficient space left for garden areas.
- The previous master plan could not realistically be staged, and the master plan required a staging strategy.
- Research into optimising the land for inpatient accommodation was necessary.
- The master plan needed to apply the latest international best practice design principles and precedent studies.
- The location of the secure perimeter and access to common external space and shared facilities needed to be reconsidered.

3.2 The need for investment

How Tranche 1 fits into the programme-level problems

As described in the PBC, there are three key problems with the Mason Clinic's current inpatient facilities:

1. Service capacity is insufficient to meet future demand.
2. Building fabric deficiencies are putting patient and staff safety and service continuity at risk.
3. Facility design does not meet service requirements or support contemporary models of care.

The key driver of Tranche 1 is fabric deficiencies (Problem 2), but Tranche 1 will also address facility design issues (Problem 3). A separate investment logic map (ILM) exercise was not undertaken for Tranche 1. The programme ILM map is contained in the PBC.

Problem 2: Buildings fabric deficiencies are putting patient and staff safety and service continuity at risk

Four buildings at the Mason Clinic are failing significantly, suffering from weather tightness and leaky building issues – Kahikatea, Rata, Kauri and Totara. They are exposing patients and staff to significant risk of harm, and need to be decommissioned as soon as possible.

Weather tightness issues

The Mason Clinic buildings are of mixed material construction, comprising stucco plaster, fibre cement weatherboard and sheet panels, plywood, corrugated iron and concrete block.

Water ingress has been, and is, causing internal damage and compromising the integrity of the buildings. This is partly due to a lack of flashings, damaged roof sheets, window penetrations, and cracks to fibre cement panels.

While this has been mitigated by ongoing repairs, these units have deteriorated to the point where they are at risk of developing Stachybotrys fungus in some wall cavities. Stachybotrys is a highly dangerous fungus with the potential to cause serious health problems.[8]

A report by Maynard Marks (see Appendix C) details the specific situation within each of the four buildings.

[8] Stachybotrys is a toxic mould that can grow in houses and is extremely dangerous to humans. It can cause respiratory problems, skin inflammation, haemorrhage, damage to internal organs, mental impairment, irritation of mucous membranes, tiredness, nausea and immune system suppression.

Impacts on patient & staff safety

These issues pose risks to patients and staff. For example, prolonged exposure to the damp conditions and resulting mould spores can cause respiratory illnesses. The risk to patient and staff safety is considered significant and will increase as the buildings continue to deteriorate.

Three monthly testing continues. Recent tests confirmed that the presence of the fungus is currently at safe levels. However, this situation may not continue as the buildings are not weather tight, and higher readings could require immediate decanting of one or more of the units.

This creates an unacceptable risk to the health of patients, their families and staff. We are treating patients in buildings which have significant amounts of dangerous fungus, which could reach unsafe levels at any moment. This is a long way from the high-quality patient care and experience which we strive for.

The issues with the Tanekaha unit were sufficiently urgent that a business case for replacement was submitted to CIC in 2016. The unit was decommissioned in 2017, and demolished in 2019, as the health risks were deemed too great to continue its use.

Threat of ongoing service provision

The weather tightness issues could render the buildings unfit for use in the near future. Without remediation, it is expected these buildings may have to close in the medium term as the associated health risks from toxic mould spores to patients and staff will be too high. This was the case with Tanekaha.

There is also genuine concern that one of the buildings will suffer catastrophic failure with a severe leak that cannot be contained. If this were the case, there are few options on the site to accommodate patients that would need to be evacuated from the building. Available space would only be found by transforming office or social spaces such as gyms into sleeping areas.

The Mason Clinic's Emergency Response Plan[9] sets out the process for what would happen in the event that one of the clinical units was unfit for use and patients had to be transferred off-site. Patients requiring high security levels would be returned to prison. Lower security patients would be transferred to other inpatient mental health facilities across the region, firstly within Waitemata DHB and then in facilities of the other DHBs. Auckland metro police station cells could also be used for forensic patients, but only for short time periods. This plan is simply not feasible over the medium to long term.

There is no alternative facility which provides forensic mental health services in the region. As such, the potential closure of units at the Mason Clinic puts at risk the ability to provide forensic mental health services to all patients in the region on a sustainable basis.

Waitemata DHB considers the risk that a building could become unfit for use is too great for services to continue to be provided without any resolution of this problem. The buildings require major refurbishment and remedial works to make them fit for purpose and eliminate risk to patient and staff health and safety.

Remedial works are required

Maynard Marks carried out an analysis on the Mason Clinic to determine what life remains in the buildings, should no maintenance / remediation be done to the buildings. It was determined that undertaking nothing is not a feasible option.

Maynard Marks determined the current reactive nature of addressing issues as they are identified is in itself a high risk process, as it does not proactively anticipate or mitigate against failures occurring. To

[9] Waitemata DHB; Regional Forensic Psychiatry Services (September 2015), Mason Clinic: Multi Agency Emergency Response Plan.

date the Mason Clinic has been fortunate that none of the failures or deterioration of the buildings have caused serious health problems for the users of the buildings.

Waitemata DHB therefore considers that the risk that a building could become unfit for use is too great for services to continue to be provided without any resolution of this problem. As such, addressing the weather tightness is the most urgent issue, and is needed before additional capacity can be contemplated. These buildings need to be decommissioned as soon as possible, to eliminate significant risks to patient and staff safety.

Problem 3: Facility design does not meet service requirements or support contemporary models of care

Most of the Mason Clinic facilities were designed to support a different model of care to that which we operate today. This is limiting our ability to safely and adequately provide forensic health services in line with best practice and our model of care.

The development of contemporary models of care for forensic mental health and intellectual disability services is changing the way those with mental needs or intellectual disabilities in the criminal justice system are assessed, treated and rehabilitated. This model of care requires different facilities to those we currently have – with a greater focus on rehabilitation and reintegration without the use of restrictive interventions, and where services are integrated across the care continuum of security needs.

The introduction of contemporary models of care is changing the Mason Clinic inpatient population. More patients are able to be treated at the Mason Clinic, when they would previously have been held in prison. Furthermore, patients are reintegrated into community facilities earlier than they would previously have been. This means that the Mason Clinic's inpatient population today has, on average, higher acuity and/or security requirements.

The new Te Aka unit is allowing us to provide better care to the patients in that unit, as will the unit currently under construction. With the exception of those two units, the design and configuration of the existing facilities no longer meet the needs of patients. The key problems are as follows:

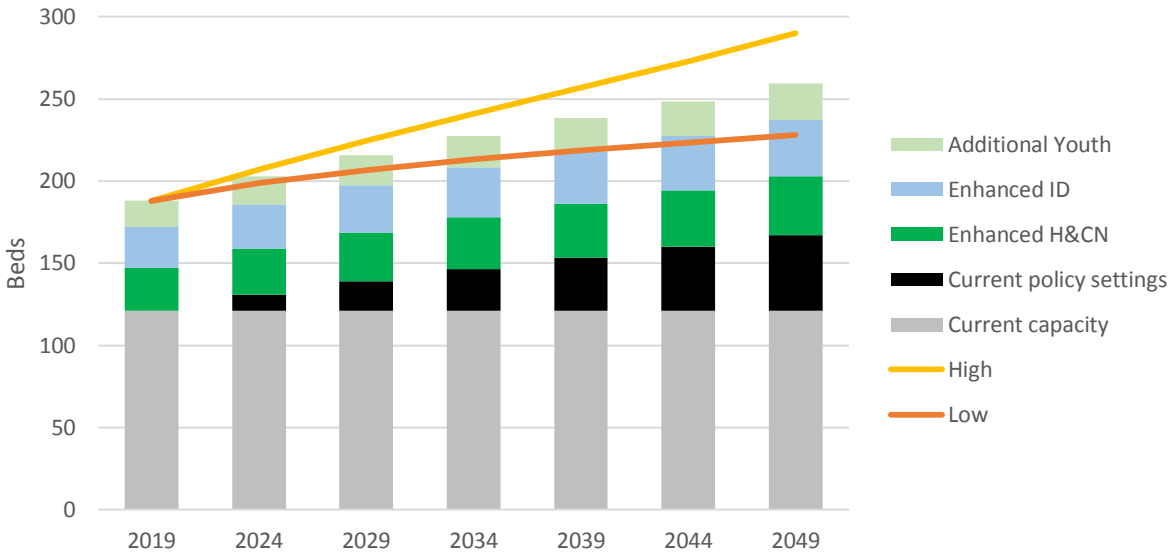
- Not enough rooms for assessment, treatment and rehabilitation
- Communal ablution blocks adversely impact patient experience, and increase staffing requirements
- Rooms are not big enough to adequately cater for long term residents, adversely impacting recovery and clinical outcomes
- Some minimum secure units have seclusion areas, but these are not needed in those units
- No unit has a sufficient security level to provide safe provision of care for high risk patients
- Units that provide related services are not clustered together
- Rehabilitation units are not grouped into 'streams'
- Buildings are not sited around the periphery of the campus.

The PBC contains additional detail regarding each of these issues.

Capacity to meet growth

While Tranche 1 is not attempting to address growth, as described in more detail in the PBC, a key feature of the wider programme is increasing the capacity of the Mason Clinic to cater for growth. Figure 5 shows the forecast bed demand for the Clinic over the next 30 years.

Figure 5 Forecast bed demand, for different policy settings



3.3 Objectives and scope of Tranche 1

Objectives of Tranche 1

Tranche 1 has two objectives:

1. Provide facilities which are weather tight, which do not pose a health and safety risk to patients and staff.
2. Provide fit-for-purpose facilities, which are designed to support contemporary models of care, to ensure good patient outcomes, patient experience and productivity.

The former is the key driver of the investment, and the reason why it is needed now. The latter is a secondary objective which, while not an urgent need, will provide a meaningful improvement to patient outcomes.

Note that the provision of extra capacity is not an objective of Tranche 1. Replacement of the failing units is a necessary first step before additional capacity can be contemplated.

Scope of Tranche 1

As described in the PBC, the potential scope of solutions to the above objectives has been narrowed by analysis and decisions which have already been undertaken, to solutions which involve replacement of the failing units on the current campus. Relocating service provision elsewhere has been firmly rejected, while refurbishment of the failing units is not cost effective.

Tranche 1 will not add extra capacity. Therefore, the new units will continue to provide the same services as the units which they replace (although the quality of those services will improve with the new facilities).

3.4 The benefits of investment

How Tranche 1 fits into the programme-level benefits

The programme is expected to realise four key benefits for Waitemata DHB:

1. Sustainable provision of services
2. Support for contemporary models of care
3. Better patient outcomes
4. Improved patient and staff experience.

As described above, the focus of Tranche 1 is replacement of the failing units. The primary benefit from this initial stage of the programme is reduced risk of service disruption (Benefits 1 and 3). A secondary benefit is improved facilities from which to provide better services (Benefits 2, 3 and 4).

Sustainable provision of services

Addressing weather tightness issues with the existing facilities will remove the risk that those units will close in the near term without alternative facilities. Construction of the new units ensures that we will be able to continue to operate at the current service level into the future.

Support for contemporary models of care

The provision of facilities which focus on rehabilitation and reintegration will enable us to fully implement our contemporary model of care. Furthermore, the re-configuration of facilities into clusters of complementary services will facilitate patient flow, and provide better continuity of care, in line with contemporary best practice.

Facilities which incorporate some flexibility to make changes to room usage, security levels and similar will help ensure that they can remain fit for purpose into the future.

Better patient outcomes

Facilities designed for today's forensic mental health population and models of care will enable Waitemata DHB to provide higher quality and more effective care for its patients.

With modern facilities our patients will receive assessment, treatment and rehabilitation which is aligned to contemporary best practice. Waitemata DHB will have the ability to respond to changing patient needs and provide them within a positive environment for rehabilitative services that supports improved health outcomes.

Improved patient and staff experience

The addition of dedicated rooms for rehabilitation and therapy, whanau meetings and spaces for recovery and rehabilitation will improve patient experience.

Improved building layouts, including non-communal ablution blocks, greater natural light, larger rooms, and secure conditions more suitable for each type of patient, will improve patient experience, both in terms of therapy and living conditions.

Purpose built buildings, in line with contemporary models of care are also likely to improve staff satisfaction, reducing the need for unnecessary transfers of care, promote efficient delivery of care and provide a more clinically safe environment in which to work.

The provision of dedicated facilities for high and complex needs patients and youth forensic patients (if deemed appropriate) will improve patients' experience, ensuring that they receive care which is appropriate for them in a suitable environment.

Addressing weather tightness issues will provide a safer environment for both staff and patients, as there is less risk being exposed to the damp conditions and associated mould spores.

3.5 Strategic alignment

Northern Region LTIP

The redevelopment of the Mason Clinic, including the provision of additional capacity, is included in the NRLTIP as a key investment. The NRLTIP states that:

> "*The Mason Clinic will be expanded to meet future forensic mental health demand and may grow to include minimum secure services.*" (page 109)

It is a key response to "Problem #3" of the NRLTIP – demand growth – and also provides a partial response to "Problem #2" – patient centricity and outcomes.

Tranche 1 focuses on replacing failing units, rather than adding capacity, and hence primarily addresses patient outcomes and experience (problem #3).

The other Northern Region DHBs are all supportive of this redevelopment programme, to ensure that the region can continue to provide forensic mental health services in the future.

National strategies and direction

Living Standards Framework

The Government and Treasury have developed a Living Standards Framework to consider the effects of policy choices on New Zealanders' living standards. This aligns the stewardship of the public finance system with an intergenerational wellbeing approach.

Tranche 1 contributes to improving the living standards of New Zealanders by improving the 'health' and 'human capital' elements of the Living Standards Framework. In turn, improved health outcomes contribute to the 'jobs and earnings', 'income and consumption' and 'social connections' elements, among others.

The provision of weather tight fit-for-purpose facilities, supporting contemporary models of care, will improve overall patient outcomes and wellbeing.

Ministry of Health Statement of Strategic Intentions and New Zealand Health Strategy

The Ministry of Health 2017-21 Statement of Strategic Intentions (SOSI) sets out the Government's high-level objectives and priorities for the health system. Its strategic framework is focused on New Zealanders living longer, healthier and more independent lives. It describes service provision which incorporates the different health circumstances of different groups and how this is changing, as well as improved access to services, and services being provided closer to home where possible.

The 2016 New Zealand Health Strategy (the Strategy) adopts the same strategic framework as the SOSI. In addition, the Strategy states that the current health service provision model is unsustainable in the long term, based on increasing government health spending as a proportion of GDP, and notes that new and sustainable ways to deliver services must be found.

The Strategy calls for an integrated approach to care and a focus on tailoring services to those groups who have poorer health and social outcomes than the population on average, specifically people with disabilities and people with mental health conditions, such as those the Mason Clinic provides services for.

Mason Clinic Tranche 1 Business Case – Strategic Case

Tranche 1 will help contribute to the aims of the Government by ensuring that the ARFPS can continue to provide the same level of access and high quality patient care, as well as enabling the safe delivery of contemporary models of care. The provision of fit for purpose facilities, focused on rehabilitation and reintegration, will support better outcomes for patients.

Ministry of Health Letter of Expectations for DHBs

The Minister of Health's 2019/20 letter of expectations sets out the Minister's high-level expectations for DHBs. 'Mental health and addiction care' is set out as a priority area for the Government, and an expectation is stated that DHBs prioritise strengthening and improving mental health services.

Tranche 1 will help contribute to the Government's priority area of mental health by enabling the safe delivery of contemporary models of care to ensure patients receive the proper treatment they need.

The letter of expectations also contains a number of items which this programme is aligned with. Most notably:

- We will support the ongoing development of the National Asset Management Plan, and envisage integrating the outcomes of that work with our subsequent business case processes.
- As part of the procurement of the Tranche 1, we will endeavour to develop construction skills and training as much as feasible.

Waitemata DHB Strategic Priorities

As set out in Table 6, Tranche 1 supports the DHB's strategic themes, which the Board has determined that all projects and initiatives will align with.

Table 4 Alignment with Waitemata DHB Strategic Themes

Strategic theme	Alignment of Mason Clinic Redevelopment
Community, whanau and patient centred model of care	One of the key drivers of the programme is to enable Waitemata DHB to support its desired model of care with facilities that enable this.
Emphasis and investment on both treatment and keeping people healthy	Redeveloping the Mason Clinic will assist Waitemata DHB to maintain timely access to forensic mental health services for all patients that need them. Redeveloped facilities will ensure that Waitemata DHB meets increasing demand, without reducing access, and maintains or improves the clinical outcomes of its patients.
Service integration and/or consolidation	Expanding capacity will ensure that all core forensic services can continue to be provided from the Mason Clinic site. In addition, the programme incorporates an option to co-locate related services with core forensic services. A new configuration of buildings on the campus could facilitate better integration between units, and provide better continuity of care and staffing efficiency.
Intelligence and insight	The redevelopment will allow Waitemata DHB to make the best use of new technology, intelligent ways of working along with updated models of care for forensic mental health and intellectual disability patients.
Evidence informed decision making and practice	The economic case describes the option analysis undertaken to develop the preferred solutions.

Outward focus and flexible, service orientation	New fit-for-purpose facilities will enable Waitemata DHB to better deliver contemporary models of care, and allow it to improve the patient experience. Increased flexibility in the design of the environment will enable patient-centric model of care improvements, which is not possible with the current arrangement.
Operational and financial sustainability	An expansion of capacity at the Mason Clinic will ensure capacity for future demand growth. The redevelopment of existing facilities, and the potential co-location with related services, have a number of potential efficiency benefits.

Campus master planning

The programme of works described in this business case is fully consistent with the latest master planning for the Mason Clinic. The master planning process has been an integrated part of the development of the PBC and Tranche 1 business case, and will continue to heavily inform subsequent business cases for the programme.

4. Economic Case

4.1 Evaluation approach

Critical success factors

The items set out in Table 5 are critical to the success of Tranche 1.

In addition to meeting the objectives of the tranche and ensuring value for money, key requirements of the solutions are the ability for both the market and Waitemata DHB to deliver the projects in the timeframe envisaged. These items are discussed in more detail in the relevant sections of this business case.

Table 5 Critical success factors for Tranche 1

Service requirements	Description

Strategic fit and business need	• Meets the objectives of Tranche 1:
	  ○ Weather tight facilities
	  ○ Fit for purpose facilities

Potential value for money	• Is preferable to a 'do nothing' option, in terms of meeting the objectives of Tranche 1 • Optimises value for money
Supplier capacity and capability	• Can be delivered by external suppliers in the timeframe required, without incurring costs which materially reduce value for money
Potential affordability	• Can be met through likely available funding sources
Potential implementability	• Can be delivered by Waitemata DHB in the timeframe required, given the capability requirements to manage delivery

Evaluation process

The options considered for Tranche 1 have been limited by analysis already undertaken, the scope of Tranche 1, and logistical considerations:

- As discussed above, the PBC has limited the potential solutions to those which develop replacement facilities on the current Mason Clinic campus.
- We have not been asked to provide additional and/or enhanced services at this time, and hence Tranche 1 is limited to the provision of current services at current policy settings.
- The focus of Tranche 1 is on replacing the failing units, rather than adding capacity. The former is a necessary first step before the latter can be contemplated.
- The PBC determined that 'do nothing' is not a feasible option (for the reasons described in the Strategic Case). The PBC also determined that ongoing remediation of the existing buildings is not viable – it would cost more than replacement, would continue to be required for the remainder of the buildings' lives, may not sufficiently address the safety and service provision risks, and would not enable us to implement new models of care.

The potential approaches to addressing the problems and objectives of Tranche 1 have been considered across the following dimensions:

- The number of beds provided
- The inpatient building typology
- Location of the new units
- Staging.

4.2 Long list options

Size of new units

The four failing units contain 60 inpatient beds.[10]

Given our capacity constraints, we do not consider that reducing capacity is a feasible option. Therefore, the replacement units must contain at least 60 beds. If they contain less than 60 beds, we will be forced to keep one or more of the failing units operational until such time as 60 new beds are constructed.

It is potentially feasible to provide more than 60 new beds as part of the replacement of the failing units. Given our capacity constraints, this would be very beneficial. However, this option has been disregarded for the following reasons:

- Two-storey buildings are preferred to buildings with three or more inpatient floors (as explained in detail in the Master Plan report). This means that additional beds require additional inpatient buildings.
- The location identified for the replacement units at the northern end of the campus (see below) effectively only has space for two inpatient buildings. So the provision of additional capacity would require the use of additional land.
- Additional buildings could be constructed at the southern end of the campus, but doing that at this point in the programme would introduce significant complexities regarding the provision of infrastructure.
- Additional buildings could be constructed on the land currently occupied by the failing units, but this would introduce a complex decanting process, and require the demolition (rather than just decommissioning) of the failing units as part of Stage 1.

In effect, the satisfactory replacement of the 60 beds in the failing units is a necessary first step before additional capacity can be contemplated.

New inpatient building typology

The Mason Clinic currently comprises only single-storey inpatient buildings. We evaluated the continuation of this typology against the use of multi-storey buildings.

The PBC contains our assessment for the programme as a whole. The conclusion was that facilities with two inpatient floors (at least for 'standard' units) is the preferred building typology for the Mason Clinic. A key reason for that conclusion is multi-storey buildings enable a greater maximum bed capacity within the constrained footprint of the site. Unlike some other mental health facilities in New Zealand, land constraints are a critical consideration for the Mason Clinic.

Below we consider the merits of multi-storey buildings for Stage 1 of the programme specifically.

[10] Or at least, they will once the unit under construction is operational.

We note that the Ministry of Health has carried out an extensive study on this topic, and our analysis and conclusions below and in the PBC are partly based on the results of that work.

Different building typologies

Single-storey buildings involve a single floor of inpatient rooms, and in some cases a second floor comprising administrative or support rooms.

Multi-storey buildings involve two or more floors of inpatient rooms, and potentially additional floors comprising administrative or support rooms. We are currently only seriously considering the use of two-storey buildings as part of the redevelopment programme, due to the additional difficulties with more than two inpatient floors.

Assessment

Table 6 sets out a relative assessment of the two options against the critical success factors.

Table 6 Assessment of inpatient unit typologies against critical success factors

Critical success factor		Single-storey units	Two-storey units	Comment
Strategic fit and business need	Weather tight facilities	🟢	🟢	Both typologies enable new weather tight facilities.
	Fit for purpose facilities	🟡	🟡	Multi-storey buildings mean residents of upper floors have reduced garden access. However, single-storey buildings take up more land, reducing the land available for a central secure garden and other therapeutic spaces.
Potential value for money		🟢	🟢	No significant difference in per-bed cost.
Supplier capacity and capability		🟡	🟡	No significant difference between options.
Potential affordability		🟡	🟡	Dependent on Crown capital funding. No significant difference between options.
Potential implementability		🔴	🟢	The replacement of the failing units with single-storey buildings would mean four new buildings are required, which would take up much more land than two new buildings. This would require either the use of the new land at both the north and south ends of the campus, or a complex decanting process using the land on which the failing units currently sit.

Conclusion

Two-storey buildings are the preferred building typology for Stage 1 of the programme, to replace the four failing units, for the following reasons:

- Two-story buildings enable a greater maximum bed capacity within the constrained footprint of the site. Unlike some other mental health facilities in New Zealand, land constraints are a critical consideration for the Mason Clinic. Using single-storey buildings for Stage 1 of the redevelopment would limit the overall capacity we can provide.
- It allows easier decanting and better staging of Stage 1, with one new building able to replace two existing buildings. If single-storey buildings were used, significant additional land would be required – likely to be either at the southern end of the campus (which would introduce significant complexities with the provision of infrastructure), or the land on which the failing units currently sit (which would require a complex decanting process).
- It enables additional space to be used for a central secure garden area, increases options for locating on-campus car parking in the short term, and enables support spaces to be used more efficiently.

This conclusion for Stage 1 is consistent with the overall conclusion for the programme as a whole.

We note that multi-storey facilities have operated successfully in a number of international locations, and are able to support contemporary models of care.

The main disadvantage of a multi-storey solution is that residents of upper levels have reduced access to gardens – with smaller gardens and balconies on those floors. However, this can be offset by having a larger common central garden, and designing the security levels such that those on the upper floors are also those who have the greatest allowed access to the central secure garden.

Location of the new units

There is no space of a sufficient size within the existing 3.9ha campus to construct a new unit. This means that, at least in principle, there are four potential options for where to locate the new buildings:

1. The newly acquired land at the northern end of the campus
2. The newly acquired land at the southern end of the campus
3. The land on which the failing units currently sit.

However, the first of these options (building on the land at the northern end) is the only feasible option for the first stage of the programme.

- We must continue to provide inpatient services during the redevelopment, and reducing capacity for a period is not a viable option. Hence it is not possible to decommission an existing building before a new one is built (so Option 4 is not possible). Therefore, the newly acquired land must be used.
- The Northern site is preferred to the South for two reasons:
    - Its natural sloping topography lends itself to the construction and placement of multi-storey inpatient buildings, being effectively able to provide ground-level access to both inpatient floors.
    - The Southern site is best suited to future rehabilitation units with lower security, due to its proximity to the Mahi Whenua sanctuary garden and a water stream partially running through from the existing site. This waterway divides the campus, and does not work well with the concept of a ‘central secure garden’ for core forensic services.

There is space for two new inpatient buildings on the Northern land. Two two-storey buildings would provide 60 beds, which will restore the current capacity of the four failing units. Constructing two new buildings therefore allows the demolition of the failing units without any loss of capacity.

Timing and staging

The condition of the failing units means that their replacement must begin as soon as possible.

But there are two options for the staging of this initial element of the programme:

- Replace all four of the failing units, by providing 60 beds in new inpatient units – that is, complete Stage 1 of the programme – as one project.
- Split Stage 1 into two sub-stages, with one inpatient building constructed in each sub-stage.

We understand that $60m in Crown capital funding has currently been prioritised for Tranche 1. This will be insufficient to complete Stage 1 of the redevelopment, and will necessitate the delivery of Stage 1 in two sub-stages.

Both options are possible. These two options comprise the 'short-list', and a relative assessment of each option is set out below.

$60m is the minimum capital investment that would enable the provision of new inpatient beds. If materially less than $60m in Crown funding is available for Tranche 1, this will not be sufficient to construct a new inpatient building. This not considered a feasible solution, and hence not part of the short-list.

4.3 Short list options and preferred solution

The primary conclusion of the previous section is that there is effectively only one feasible approach to replacing the four units which are currently failing:

- Construct new inpatient units containing 60 beds (replacing all the failing units).
- Locate these units on the newly acquired land at the northern end of the campus.
- Use buildings with two inpatient floors (with additional storeys for support spaces if needed).

This is 'Stage 1' of the redevelopment, as described in the PBC.

The only realistic 'options' which can be considered for Stage 1 are whether it is delivered as one project or in two sub-stages. These two options represent the short-list for Tranche 1.

Option 1: Full Stage 1 solution

This option represents the full 'Stage 1' of the redevelopment. It will replace all four of the failing buildings with new facilities. It is expected to require a capital investment of $205m.

- Two new inpatient buildings will be built on the newly acquired land at the north end of the campus. Each building will have two inpatient floors, with a 15-bed unit on each of the first two floors (60 beds in total across the two buildings), and plant and administrative spaces on a third floor. The units will be a combination of minimum (T3, two units), medium (T2, one unit) and high (T1, one unit) security levels.
- A three-storey shared activity and support building, including two-storey entry court, front of house, judicial activities, drop-off, access and car parking will be constructed on the newly acquired land. The building will be between, and connected to, the two inpatient buildings, with the access and car parking to the north.

- The start of the central secure garden will be created, to the south of the inpatient buildings.
- The Kahikatea, Rata, Kauri and Totara units will be decommissioned, along with the Puriri, Kowhai and workshop support buildings. This will remove 60 beds currently in use.

Figure 6 shows what the Mason Clinic will look like after Stage 1 is complete. Figure 7 provides indicative floor plans.

Figure 6 Future Mason Clinic after Stage 1

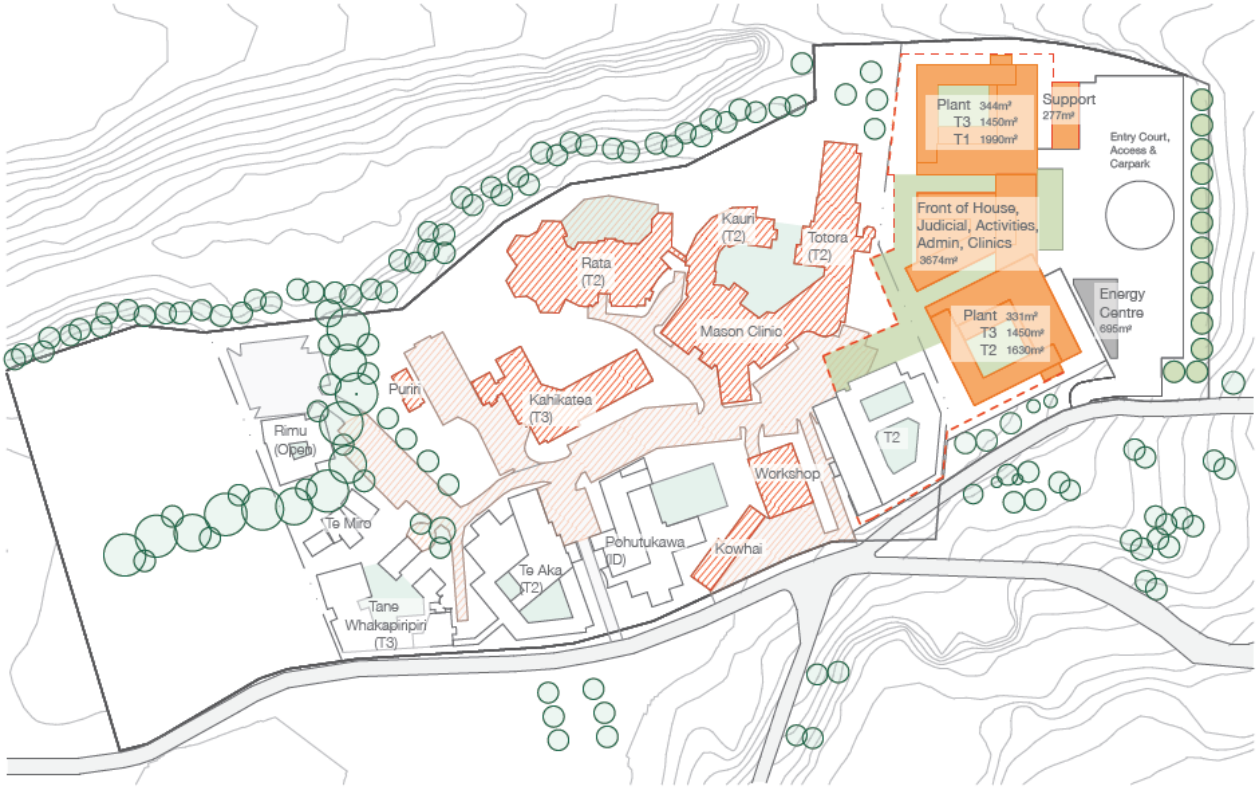
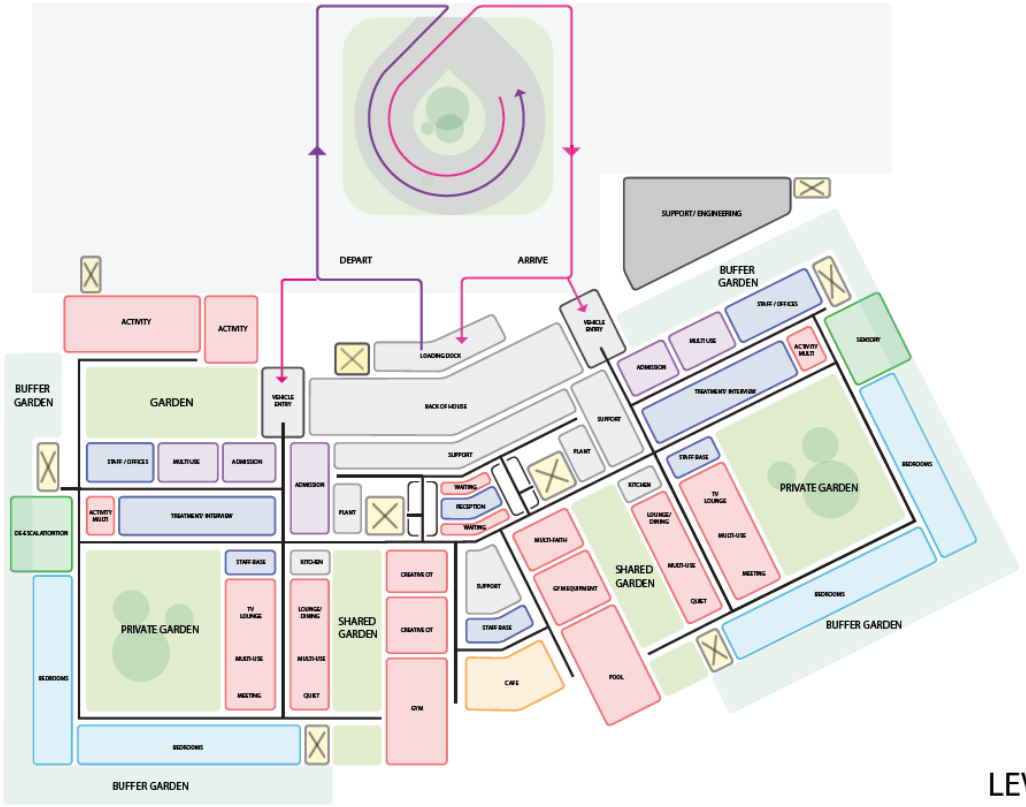
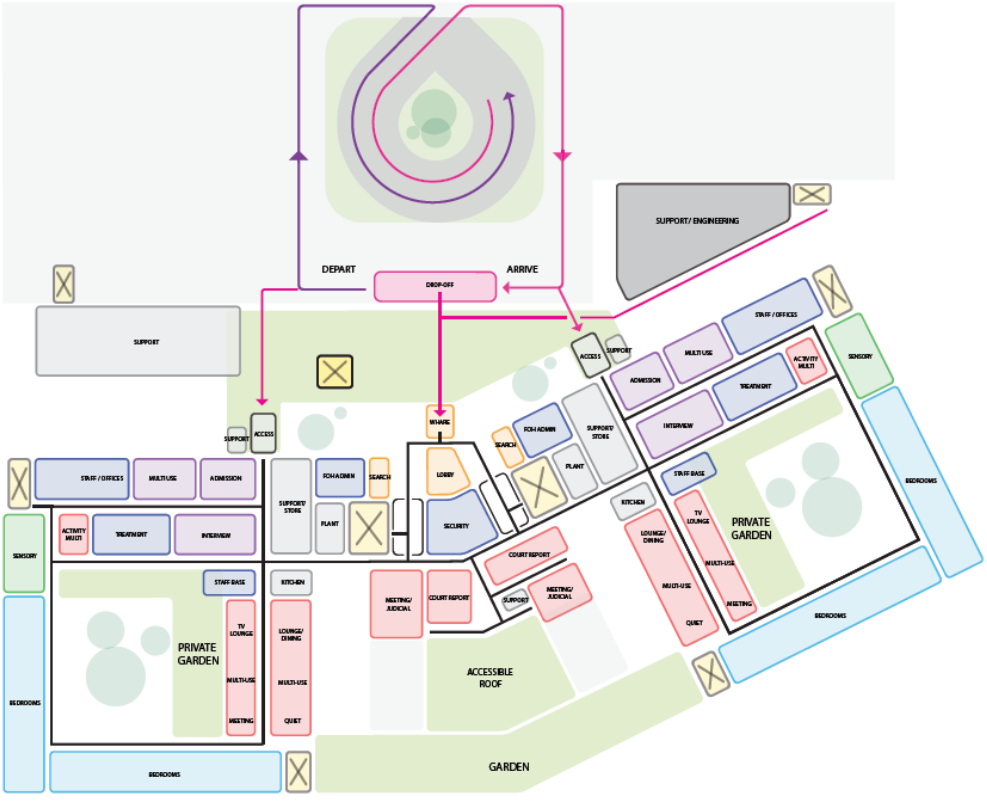


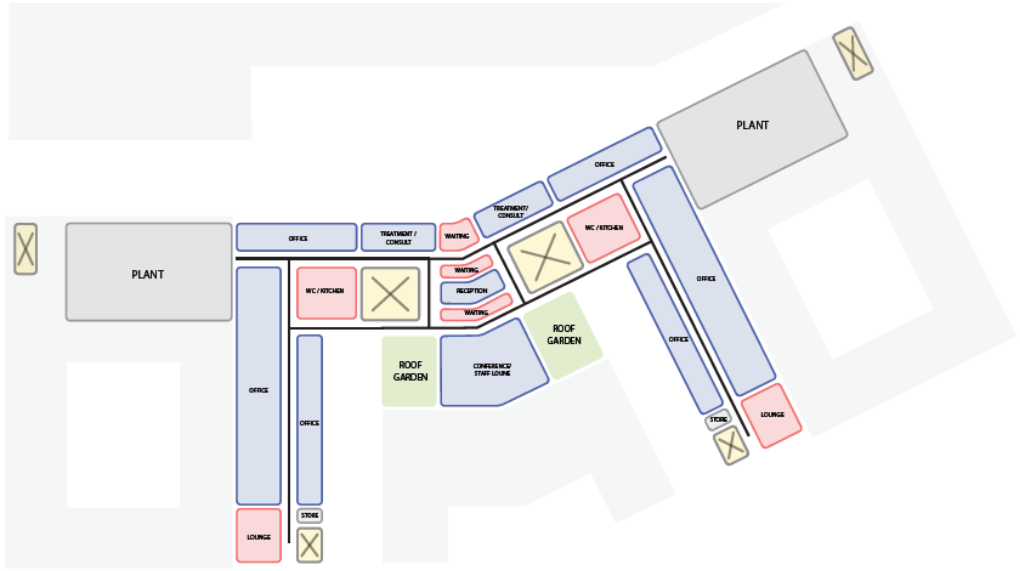
Figure 7 Stage 1 indicative floor plans



LEVEL 1



LEVEL 2



LEVEL 3

Option 2: Solution consistent with prioritised funding

We understand that $60m in Crown capital funding has currently been prioritised for Tranche 1. This will be insufficient to complete Stage 1 of the redevelopment.

A $60m solution will enable the replacement of two of the four failing buildings with new facilities, and provide a reduced amount of complementary spaces.

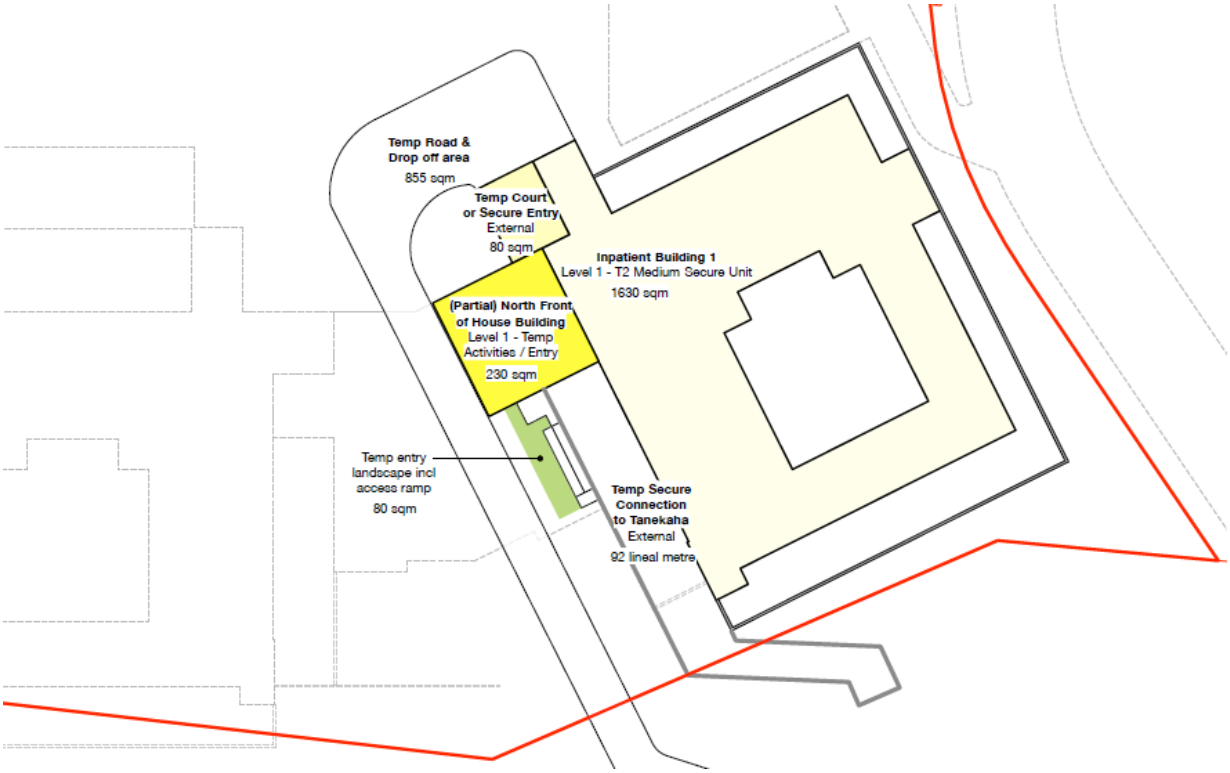
- One new inpatient building will be built on the newly acquired land at the north end of the campus – the eastern of the two buildings envisaged in the full solution described above. This building will have two inpatient floors, with a 15-bed unit on each of the first two floors (30 beds in total), and plant and administrative spaces on a third floor. One unit will be minimum security (T3) and the other medium security (T2).
- A temporary secure building entry will be constructed from the unit currently under construction.
- A temporary internal road extension will be constructed, linking the existing internal road to the western side of the new building. No new car parking will be created.
- A small amount of shared activity and support spaces will be created adjacent to the new building.

The remainder of Stage 1 will be deferred to Tranche 2 of the programme.

Figure 8 illustrates what the Mason Clinic will look like after this smaller solution is implemented.

Figure 8 Future Mason Clinic after Stage 1 is partly completed (Option 2)

Figure 9 Indicative floor plan of Level 1 for Option 2



Mason Clinic Tranche 1 Business Case – Economic Case

Smaller solution

Option 2 requires a $60m capital investment. This is the minimum investment that would enable the provision of new inpatient beds.

If materially less than $60m in Crown funding is available for Tranche 1, this will not be sufficient to construct a new inpatient building. This not considered a feasible solution, and hence not part of the short-list.

'In-between' solution

A solution 'between' Options 1 and 2 is possible, but it would provide the same number of beds as Option 2.

Option 1 will provide two 30-bed inpatient buildings, while Option 2 will only provide one such building. While possible, it is not practical or cost-efficient to provide one and a half inpatient buildings.

An 'in-between' solution would provide 30 inpatient beds, but more shared activity, support spaces and/or access than Option 2. Such an option is not part of the short-list, because it is inferior to Option 1 and requires more funding than has been prioritised.

Analysis of short-listed options

Table 7 sets out a relative assessment of the two options against the critical success factors.

Table 7 Assessment of short-listed options against critical success factors

Critical success factor		Option 1: Full Stage 1	Option 2: $60m solution	Comment
Strategic fit and business need	Weather tight facilities			Replacement of all failing units is delayed under Option 2. As a result, Option 2 only partly addresses the significant current risks to service delivery and patient and staff safety.
	Fit for purpose facilities			Under Option 2, the building has minimal activity and support spaces, while the new other new building is delayed. Option 2 risks failing to successfully create an integrated solution across Stage 1. The challenges of accommodating patients on upper levels requires careful design consideration, and is best undertaken as part of a comprehensive redevelopment where good access to shared therapy spaces is created. Under Option 2, existing reception, therapy and judicial areas will need to remain operational, resulting in a more

			distributed service, and exposing risk of building failure.
Potential value for money			Option 2 has a higher whole-of-life cost than Option 1, due to inefficiencies and duplication associated with splitting Stage 1.
Supplier capacity and capability			Option 2 would stagger supplier needs, but Option 1 would enable efficiency in delivery.
Potential affordability			Funding for Option 2 has already been prioritised, but total cost to replace failing units remains.
Potential implementability			Option 2 introduces numerous practical difficulties.

Because Option 2 defers part of Option1, the two solutions do not provide the same outcomes. Because of this deferral, Option 2 provides significantly fewer beneficial outcomes than Option 1.

The key benefit of Option 2 is that the funding has already been prioritised, whereas Option 1 requires additional Crown capital funding. We note, however, that Option 2 simply defers the remainder of the funding requirement.

Aside from funding, we consider that Option 2 (delivering Stage 1 in multiple sub-stages, beginning with a first tranche in the order of $60m) is a significantly inferior solution. It would have a number of significant implications, including the following:

- It would increase the whole-of-life cost of delivering Stage 1. Construction costs for the second sub-stage will incur a cost premium through additional and abortive work to create the stages; the requirement to interface with an operational building; and the requirement to manage disruption to the newly constructed first stage.
- To meet a $60m budget, the activity, support, access and car parking spaces will be significantly smaller than is appropriate for a 30-bed inpatient building. This option effectively defers the development of those spaces to Tranche 2.
- It would require two of the failing units to remain in operation for a number of years longer than necessary. These four units already expose patients and staff to a significant risk of harm, and the potential for building failure, which threatens our ability to provide services on an ongoing basis. We have been advised that "*extending the life of these buildings indefinitely is not feasible without carrying out significant and costly permanent repairs*."[11] We consider that further delay to their replacement to be an unacceptable solution.
- Retaining two of the failing units for longer than necessary has some operational impacts:
    - Staff isolation with some units left 'orphaned'
    - Duplication of reception/ security and judicial areas with consequential safety and staff operational cost issues.

[11] Maynard Marks (2019), Mitigation Works Plan, page 28.

- Leaving two of the failing units in place defers the ability to prepare the site for Stage 2 works, further deferring our ability to provide the urgently needed additional capacity.
- It delays the time when we are able to reconfigure the horizontal infrastructure on the western side of the campus. The full Stage 1 unlocks the existing Mason Clinic site by allowing for unimpeded demolition of the failing buildings. If this occurs as planned in one stage, rather than piecemeal, ground remediation and relocation of significant redundant in ground services can be done efficiently, safely and cost-effectively in one process. Sub-stages will add time, complexity and cost.
- It delays the delivery of the high security (T1) beds, since these will be part of the western building (this is better at the 'back' of the campus for a number of reasons). The high security beds are a key part of delivering our planned model of care.
- Stage 1 is designed as an integrated solution, connecting with the unit under construction, creating 75 beds in a secure environment and a functional operational facility for core forensic services, with improved security and an identifiable 'front door' when opened. A smaller Tranche 1 will defer this integrated solution, while splitting the detailed design processes puts the integrated solution at risk.
- The challenges of accommodating patients on upper levels requires careful design consideration, and is best undertaken as part of a comprehensive redevelopment where good access to shared therapy spaces is created. It will be less successful if undertaken as a piecemeal approach.
- The balance of the site would be a construction zone for up to two years with the consequential disruption to operations, and service users.

Preferred solution

Waitemata DHB's preferred solution is Option 1 – undertaking all of Stage 1 as one project.

However, we understand that $60m in Crown equity funding has been prioritised for Tranche 1 of the programme. We therefore recommend Option 2, which can be delivered for that level of funding.

Option 2 simply defers part of the ultimate solution. It requires two of the failing units to remain operational for longer than necessary. This extends the period over which the Mason Clinic is exposed to significant risks to service delivery and patient and staff safety, and increases whole-of-life costs. The only reason why Option 2 would be chosen is if short-term funding constraints make Option 1 not possible from a funding perspective.

5. Commercial Case

The commercial case sets out the process to procure the proposed investment. This section outlines the options and shows it is commercially viable, and appropriately deals with risk.

5.1 Procurement scope

The key services to be procured are the design and construction of the new facilities.

In principle, the maintenance of future facilities may be within the scope of the procurement, depending on the overall approach selected. The procurement of staff, equipment and services to support ongoing patient care is also in scope.

Procurement of operational requirements will be managed through existing DHB processes.

5.2 Procurement approach

Range of approaches

Given the size Tranche 1, a single procurement approach will be applied.

There are a range of possible models for procuring the redevelopment projects. These vary across a spectrum of public and private sector participation, and according to the upfront specification of risk allocation between the DHB and its contractors. These models include:

- **Traditional models** – Waitemata DHB would individually enter into contracts with an expressly identified risk allocation, such as design bid build (DBB), design, construct and maintain (DCM), or design and construction (D&C). The effectiveness of these arrangements tends to rely on the ability of Waitemata DHB to define its performance requirements prior to tendering and to have a clear identification, understanding and quantification of risks.
- **Relationship based models** – Waitemata DHB would enter into a collaborative relationship agreement with appropriate parties to define requirements, understand risks and undertake the works. These approaches generally collectively share risk on a 'no fault, no blame' basis with incentives built in to equitably share additional or reduced value to Waitemata DHB by outcomes actually achieved, thereby encouraging enhanced performance. Such approaches include the Early Contractor Involvement (ECI) model and Alliance contracting.
- **Privately financed models** – Waitemata DHB would enter into contracts with a fixed risk allocation on a whole-of-life basis, such as public-private partnership (PPP) models.
- **Managing contractor procurement models** – Waitemata DHB would appoint a Managing Contractor as the head contractor who would engage subcontractors on behalf of Waitemata DHB to deliver the works and would typically be paid a management fee and incentive payments for achieving target price, schedule and other key parameters.

Many of these approaches have been used for major infrastructure projects in New Zealand. The applicability of each option largely depends on how well the risks and required performance of the projects can be defined.

Specific options

Table 8 describes specific procurement options, within the above models.

Table 8 Key features of different procurement approaches

Category	Procurement method	Description	Comment
Traditional models	**Design bid build (DBB)**	• Waitemata DHB individually contracts with separate entities for the D&C phases of the project for the segments they are responsible for.	• Commonly used for this type of project.
	Design and construct (D&C)	• Waitemata DHB seeks tenders to provide a (typically) fixed price for D&C.	• Commonly used for this type of project. • Less useful where significant design has already been completed, or where the DHB wishes to retain a high level of design involvement.
	Design, construct and maintain (DCM)	• Contractor retains responsibility for maintenance, but typically these models do not extend beyond the first major lifecycle phase.	• Less useful where significant design has already been completed, or where the DHB wishes to retain a high level of design involvement. • Waitemata DHB currently has in house delivery of maintenance services.
Relationship based models	**Early Contractor Involvement (ECI)**	• Typically, the preferred ECI contractor is selected under open competition for a whole of project contract (i.e. including design development, design and construction). Typically, agreements are staged, and either a D&C or bid/build contract is entered into with the ECI contractor following the detailed definition phase. A further contract could then be entered into to provide maintenance and (potentially) operations services.	• Generally suited to complex projects where the cost, risks and scope are difficult to define upfront, making a standard construction tender process difficult. • Would result in a larger portion of the contract being subject to a negotiated price. • Could be useful as part of an integrated strategy.
	Alliance	• A collaborative Alliance relationship is formed between key project participants, which include Waitemata DHB and non-owner participants (e.g.	• Collaborative approach helps minimise technical risks and mis-alignment of incentives. • Most useful where the technical risks relate to the design.

		designer, constructor, other key stakeholders). • Options are available to develop the Target Outturn Cost (TOC) in a competitive environment. However, most alliances have tended to use a single party to develop the TOC. This relies on the owner implementing approaches that create appropriate cost, quality and scope tensions, and the right level of expertise to critically validate the TOC, including risk quantification. • A further contract would likely then be entered into to provide maintenance and (potentially) operations services. • A key feature of Alliances is the gain share/pain share incentive mechanism.	• Limited benefits over traditional models in this context.
Privately financed models	**Public Private Partnership (PPP)**	• A private sector contractor (or consortium) is responsible for the design, construction, operation, maintenance and finance over an extended period (typically 25-30 years). This is a typical long term, whole-of-life approach to infrastructure delivery. • Risk allocation is determined upfront for the period of the contract, including maintaining the infrastructure and providing the services to a pre agreed condition for the duration of the concession. Risk transfer, bundling of whole-of-life costs and incentives from having private finance at risk can drive increased innovation.	• No local hospital facilities have been built under a PPP model, but there is experience internationally. • Limited benefits over traditional models in this context.
Other	**Privatisation**	• Full transfer of rights to the private sector through sale, or a sale and lease back arrangement.	• Not appropriate for a project with these characteristics.

Preferred procurement approach

The individual projects within Tranche 1 will be procured using a traditional design bid build (DBB) approach. This approach has been successfully used for the recent developments at the Mason Clinic, and is also being used for the ECIB project. There is no reason to use an alternative approach for this tranche.

With traditional design bid build, early contractor involvement is not typically undertaken. For Option 2 however, assuming business case approval for Tranche 2 promptly follows Tranche 1 there will be potential for early contractor involvement and procurement of Tranche 2 as part of the Tranche 1 procurement process.

Under Option 2:

- There is significant benefit in engaging a full design team to complete concept design for the full Stage 1, to ensure that the first sub-stage (one 30-bed building) does not preclude the remainder of Stage 1 from being carried out efficiently in the future. After this the design will be progressed for the first sub-stage only from preliminary design to construction documentation.
- There are then two procurement options. The first sub-stage could be procured independently. Alternatively, the contractor could also provide early pricing for the second sub-stage (which will be in preliminary design stage at that point) to procure the entire Stage 1.

Contract provisions and procurement risk management

A standard suite of contracts will be used for the delivery of the Tranche 1 works. Appendix A includes details about the procurement risks and their management.

5.3 Procurement timetable

The team will commence preliminary design in mid to late 2020.

5.4 Other details

Managing competing demand for limited resources

There are other significant building works underway or planned locally and regionally, and the programme is operating in a competitive market. Market conditions are in a state of flux, with current demand and supply side pressures likely to increase as the demand for service design and construction build skills grows in the Auckland market.

With Auckland in the midst of a building boom expected to continue for at least the next 5 years, it is important the programme actively engages with the market in order to secure the appropriate construction resource for this programme of works.

Waitemata DHB is working with the other Northern Region DHBs and the NRA to establish a framework to coordinate timing of investment across the region.

Skills and training

The procurement process will be designed such that it can contribute to increasing the size and skill level of the domestic construction sector workforce and provide employment opportunities to targeted groups, in accordance with direction from the Ministry of Health through its letter of expectations for DHBs.

Health and safety and employment standards

We will follow the Government's guidelines for agencies to improve health and safety, and ensure employment standards are met, in the construction sector. We will work to the following principles:

- Ensure health and safety and employment standards are part of the DNA of every project.
- Take a lead role in improving workplace safety.
- Set clear expectations.
- Ensure importance of workplace safety is reflected in the criteria to select consultants and contractors.
- Collaborate across the supply chain to manage risks smartly.
- Stay engaged from early in the planning phase to project completion.

Governance of health and safety in projects will be established by utilising the DHB's established health and safety framework. The framework defines the roles and responsibilities of the project leaders to:

- Commit to take the lead role in health and safety standards for the project including safety in design and design reviews.
- Provide a framework to lead, plan, review and improve workplace safety.
- Create strong, effective lines of reporting and communication.
- Establish a collaborative culture that seeks to achieve 'best for project' results.
- Ensure effective monitoring of health and safety performance.
- Carry out formal audits and reviews of performance against the expectations and set and follow up on improvement actions.
- Develop the project culture where everyone is responsible for improving workplace safety.

6. Financial Case

The purpose of the Financial Case is to consider the overall affordability of the projects over the life of the investment, including the additional funding requirements.

6.1 Capital costs

Total estimated costs

Table 9 sets out the estimated capital costs, including contingencies, of both short-listed options for Tranche 1 of the programme.

The total capital cost of the preferred solution is $205m, while a smaller solution can be delivered for $60m consistent with the prioritised funding for this tranche.

Table 9 Capital cost estimate for Tranche 1 (including contingencies)

$000	Option 1: Full Stage 1	Option 2: $60m solution
Enabling works	5,746	864
Infrastructure / energy centre / plant	12,059	1,815
Main buildings	87,055	32,537
Entry court / access / car parking	12,716	160
Landscaping and external work	3,393	1,040
FFE	9,261	3,446
Sub-total	**130,230**	**39,862**
Design and construction contingency	13,023	3,986
Escalation	10,419	2,790
Total construction cost	**153,672**	**46,638**
Professional fees	24,588	5,979
IT / healthAlliance	3,073	797
WDHB internal costs	4,610	1,196
Sub-total	**185,943**	**54,610**
Project contingency	18,594	5,461
TOTAL	**204,537**	**60,071**

Cost source and contingencies

The capital cost estimates are based on the scope of works detailed in the economic case. They include escalation from Q2 2019. The cost estimates have been peer reviewed.

Base cost estimates are subject to material uncertainty, which means that we are requesting more capital funding than the base estimate. Our funding request includes:

- a construction contingency of 10%, to reflect unforeseen construction circumstances
- a project contingency of 10%, to ensure additional, unforeseen but required scope is able to be funded by the programme should it be deemed necessary.

6.2 Whole-of-life costs

Stage 1 is not changing the capacity of the Clinic, and hence there will not be a material change to the ongoing operating costs of the Clinic.

The Mason Clinic's current operating costs are high because of the need to maintain an ongoing remediation programme. On completion of Stage 1, these costs would be significantly reduced. In addition, new buildings can be expected to be more energy efficient than those being replaced, further reducing operating costs.

While neither option will result in additional capacity at the Mason Clinic (both options are concerned with the replacement of existing beds), Option 2 would have a higher whole-of-list cost than Option 1, due to the following factors:

- Inefficiencies and duplications, with items constructed during the first sub-stage which are only temporary. These are estimated to be at least $3m.
- Increased maintenance costs, due to the need to maintain the old failing buildings for longer, rather than having new buildings. These are estimated at around $3m per year.
- Increased probability of short-term emergency costs to address a building failure, including emergency remediation, rehousing costs, and patient impacts.

These costs would outweigh the benefit of delaying capital expenditure (which in any case is partly offset by cost escalation).

6.3 Funding approach

This business case seeks Crown capital funding of at least $60m, and preferably $205m.

The funding of the programme has been discussed with the Ministry of Health and Treasury. We understand that the Government has prioritised $60m of capital funding for Tranche 1.

Waitemata DHB has insufficient reserves to fund Tranche 1 in its entirety. While the DHB has used remedial measures to delay the need for this investment, we are not able to support the investment through a financial capital contribution, and accordingly Crown equity is required.

This business case has no material operating cost impact.

The increase in capital charge and depreciation that will accrue to the DHB's profit and loss account will not be affordable until national pricing reflects these indirect costs, a lag of at least two years under the current funding model. We understand that no capital charge will be levied on DHB capital projects for the foreseeable future, and we support this decision. Waitemata DHB also requests that a grant be given for the first two years to compensate for the additional depreciation charge incurred.

7. Management Case

The management case sets out the planning arrangements required to both ensure successful delivery and to manage programme risks. It demonstrates that the proposed investment is achievable.

It outlines how the programme will be managed, setting out the programme team structure, and the different roles and responsibilities. It also discusses the key risks, constraints and dependencies for the programme.

7.1 Programme and Tranche 1 governance

Governance and programme management structures have been in place for some time preceding this business case. Furthermore, work has already been undertaken to reflect clinical input regarding the redevelopment options and the design of the facilities.

Key roles and responsibilities

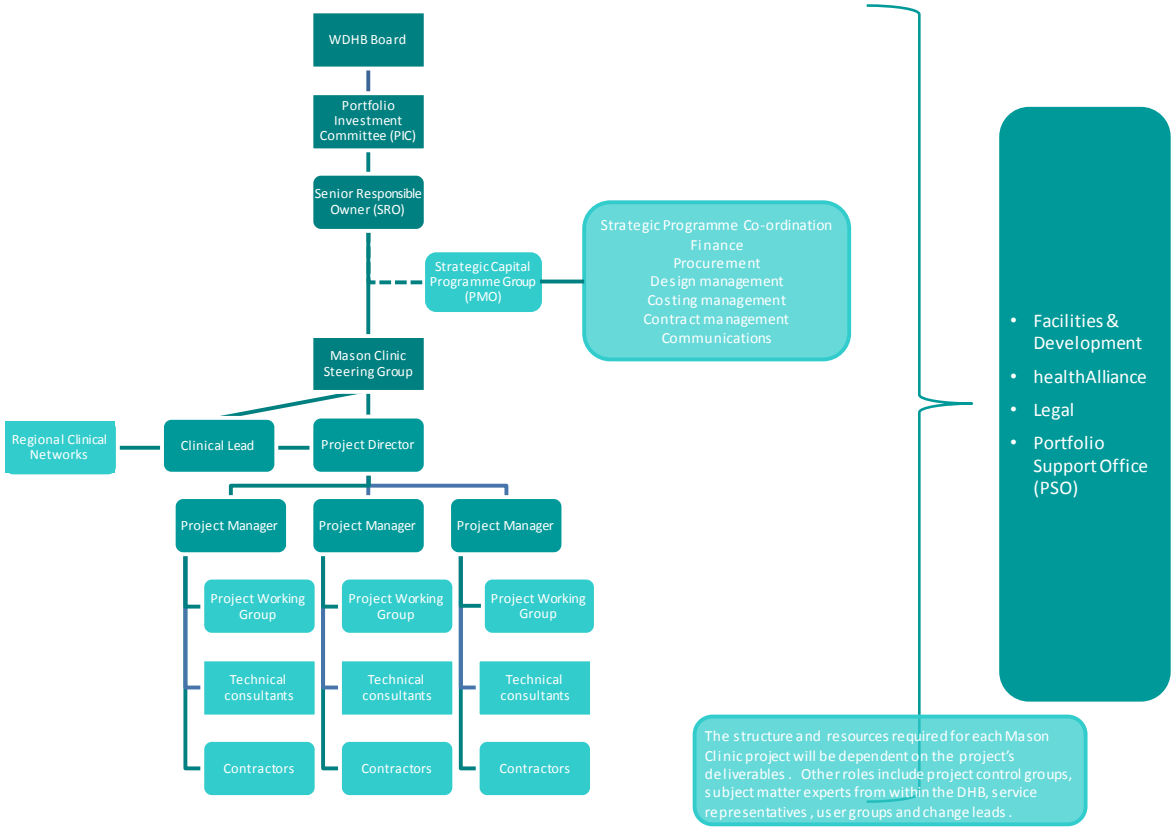
Waitemata DHB's Board and CEO have overall responsibility and accountability for the programme. The Board and CEO are supported by the Deputy CEO, SRO and Programme Director by way of oversight across general operations.

- The Executive Leadership team, and in particular the Deputy CEO, provides oversight of all strategic capital programmes. The Deputy CEO sits on the Programme Steering Group.
- The SRO for the programme is the Director, Strategic Capital Programme Group (SCPG). The SRO has ultimate responsibility for the benefits realisation and long-term sustainability of outputs to the business. They play a key role in communicating the strategic importance of the programme to stakeholders and the senior leadership team.
- A Programme Steering Group has governance responsibility for ensuring that the programme is developed and managed effectively to deliver the expected outcomes, on time and to budget. The Steering Group is chaired by the SRO, and reports directly to the CEO. This ensures that there is clear visibility on progress and issues, and enables direction to be received from the Board as required. It meets at least monthly.
- The SCPG is effectively the programme management office (PMO), and is the forum for the Programme Director to oversee progress and provide leadership and direction for the programme. It also oversees our other facility redevelopment programmes, and ensures consistency across all capital works. It meets monthly.
- A Programme Director has been appointed. They will ensure that the programme's collected project work streams and activities are properly coordinated, organised, reported on, and tracked in order to deliver the programme outcomes and benefits.
- Project Manager(s) will be appointed in due course for individual project(s) within this tranche. They will be responsible for planning, managing and controlling the day-to-day work required to achieve designated work stream objectives. They will have delegated responsibility, from the SRO and Steering Group, for managing the development and delivery of the work stream outputs within the agreed time, budget and quality parameters.
- The service change lead for the programme is the Clinical Director of the Mason Clinic. They are responsible for managing the business/operational side of the organisational change that is being delivered, by preparing the organisation for the change, introducing the change through the

programme, determining and measuring outcomes/benefits, and monitoring the business/service environment through the transition and post-implementation.

The current governance structure for the programme is illustrated in Figure 10.

Figure 10 Mason Clinic redevelopment programme governance structure



Programme management approach

The DHB has an established programme to build portfolio and project management capability implementing a structured Portfolio Management, Programme Management and Project Management (P3M3) methodology and has invested in a centralised Portfolio Support Office (PSO) and PMO to support the implementation of the programme. The PSO process uses existing organisational, quality and reporting structures to support project and change management.

Waitemata DHB's change management framework underpins the work of the service change lead, who is responsible for developing a change management plan. The change management plan will identify the nature of change, areas resistant to change, impact of change and strategies to manage change. The plan will have an emphasis on early and ongoing engagement with key stakeholders. The SRO is responsible for ensuring that the change management plan is in place and is effective.

Project management approach

Waitemata DHB is committed to ensuring best practice project management and governance practice for the management of projects and programmes. Waitemata DHB's facilities projects use a governance approach where business change management is separated from the facilities project management.

This ensures that the ownership of change management and realisation of the benefits resides with the provider arm. Within this structure reporting structures, accountability, leadership and delineation of roles and accountabilities are defined. Although there is clear role delineation, the facilities project managers and the operations change leads work closely together to ensure coordination of the projects.

Mason Clinic Tranche 1 Business Case – Management Case

Facilities project managers and operational change leads are trained in PRINCE2 project management to ensure a consistent, approved project management approach.

Existing organisational, quality and reporting structures support this approach.

7.2 Tranche 1 timeline

Table 10 below shows the envisaged timetable for delivery of Tranche 1, for both of the short-listed options.

Table 10 Tranche 1 schedule

Task	Indicative date	
	Option 1: Full Stage 1	Option 2: $60m solution
Tranche 1		
Business Case	Dec 2019	Dec 2019
Design	Early 2020 – Mid 2021	Early 2020 – Early 2021
Construction	Mid 2021 – Mid 2023	Mid 2021 – Late 2022

7.3 Tranche 1 risks

Table 11 describes the main risks to the successful completion of Tranche 1. It also notes the likelihood, impact and mitigation measures.

The most notable risks are:

- Sufficient funding is not available to deliver Stage 1 of the programme, in the timeframe required to eliminate unacceptable risk of service disruption.
- The projects cannot be delivered in the timeframe required, because of either difficulty accessing contractor resource (at reasonable costs) and/or a lack of internal DHB resources to manage the projects.

Each of the above two items reflects the overall risk of delay to the delivery of Stage 1 of the programme. A significant delay will have the following impacts, both of which limit the programme's ability to achieve the investment objectives:

- Increased cost when the projects are eventually delivered (as a result of increased cost escalation), and/or cost inefficiencies which increase the whole-of-life cost.
- An unacceptable risk of major disruption to service delivery, until such time as the projects are delivered.

Table 11 Key Tranche 1 risks

Risk	Likelihood	Impact	Mitigation approach
Funding – Sufficient funding is not available to deliver Stage 1, in the timeframe required to eliminate unacceptable risk of service disruption.	Medium	High	• Provide compelling business case documentation, supported to robust master planning and other analysis, to CIC in a timely fashion.

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			• Engage with key officials and Ministers throughout the design and implementation process. • Ensure programme is aligned to local, regional and national planning.
Construction resource – Difficulty accessing contractor resource (at reasonable costs) means that the projects cannot be delivered in the timeframe required.	Medium	High	• Undertake early testing of market appetite and potential contracting approaches to make the programme more compelling.
Construction timeline – Contractors are unable to deliver the proposed works within the envisaged timeline.	Medium	Medium	• Have project plans quality assured by independent project management experts. • Undertake significant design work in advance. • Undertake early market testing with the construction sector.
DHB contractor management resource – A lack of DHB resources to manage contractors means the projects cannot be delivered in the timeframe required.	Medium	High	• Have robust programme governance and staffing plans in place at the outset of the programme. • Ensure key roles are staffed prior to procurement being finalised. • Use external project management consultants where appropriate.
Design and fit-for-purpose – The facilities designed and constructed do not meet our investment objectives.	Low	High	• This issue is more likely under Option 2 than Option 2. • Engage clinicians throughout the design and procurement process. • Ensure design aligns with legislation, standards and best practice. • Ensure design is flexible and future proofed.
Capital costs – The capital costs prove higher than expected.	Medium	High	• Take a conservative approach to estimating capital costs. • Use learnings from recent DHB construction projects regarding actual capital costs and estimates.
Resource consents and future neighbours – Future inpatient facilities are not included on plans shown to buyers of MHUD land, creating difficulties with obtaining resource consents for those facilities in the future.	Medium	High	• Early engagement with MHUD. • Ensure that future inpatient facilities (as envisaged by the master plan) are included on any wider plans provided to buyers of MHUD land.

7.4 Workforce planning

Workforce planning for the Mason Clinic is undertaken in accordance with the ARFPS's service objectives and models of care, recognising the Mason Clinic's role as a regional facility. All workforce related planning and activity reflects Waitemata DHB's organisational values and strategic intent. We recognise that in order to reflect our promise of best care for everyone, patient and staff experience must play a central part in decision making around workforce planning and development.

Tranche 1 impacts will be limited to a movement to new facilities. No new staffing will be required. This limits the extent of workforce planning required for this tranche.

However, we will continue to progress the following areas:

- The development and implementation of a detailed staffing plan (subject to linkages and key dependencies identified), which is sensitive to the downstream impact of the Mason Clinic recruitment on other mental health services in the region.
- The development of a plan to manage the change in day-to-day models of care from moving to new facilities.
- Provision for learning and development for all employees as appropriate by role type and professional group.
- The consideration of pathway development as well as succession planning within retention and workforce sustainability plans.

We will work closely with the NRLTIP 'deep dive' related to workforce planning, as that work stream progresses.

7.5 Eengagement

Regional partners and Government

Our regional DHB partners have been thoroughly engaged during the ongoing development of the programme and this tranche. The other Northern Region DHBs are all supportive of the redevelopment of the Mason Clinic, as a means of providing necessary additional mental health capacity and to enhance service capability.

The Ministry of Health, Treasury and CIC have been engaged at certain points in the development of the programme, and this process will continue.

Maori

As the Treaty partner, Maori will be engaged as appropriate in the progression of the first stage of the redevelopment programme.

Programme planning will be informed by He Korowai Oranga, the Maori Health Strategy to establish which facility features, services and models of care can be incorporated to help achieve the best health outcomes for Maori. A consultative approach will be taken through the course of the programme to ensure Maori needs are identified and that engagement achieves the desired outcomes.

Waitemata DHB has a Memorandum of Understanding with Te Runanga o Ngati Whatua and Te Whānau o Waipareira Trust. We will seek advice from these partners on project design and implementation and involvement in programme/project planning.

Representatives of the Maori community will take part in a number of rounds of engagement, as the programme and solutions are further developed.

New Zealand has one of the highest imprisonment rates in the OECD of 220 per 100,000 of population, which comprises a disproportionate number of Maori who are imprisoned at a rate of 680 per 100,000. Because of this, the service will continue to be a national and international leader in the way we include cultural dimensions into care planning and delivery, with kaupapa Maori streams of clinical care and cultural paradigms blended with the best that western medicine can offer being available across the service.

We are actively consulting with the Mason Clinic Taumata group. The Tamaki Collective is also being consulted on matters that affect the wider precinct, including opportunities to align the objectives for the developments of the Mason Clinic and wider precinct.

Housing and Urban Development Authority and future land owners

We expect to work closely with our neighbours as we all redevelop our sites. This will include being transparent about future plans, working together on boundary issues, and jointly creating an environment which can be enjoyed by both residents and the Mason Clinic patients and staff.

[Add more detail if possible]

Stakeholders

There are a number of stakeholders that will have an interest in the expected outcomes and should influence the progression of this programme. These include patients and their families, Unitec, other local businesses and residents, Pasifika communities, and our wider community.

An external stakeholder plan has been developed, and is progressively being implemented.

7.6 Benefits realisation

The proposed investment will deliver a number of benefits, as described in Section 3.4. These benefits, and how they will be monitored, are outlined in the table below.

[Add benefits realisation table]

7.7 Post implementation evaluation

Project evaluation: This will take place within one month of completion of the tranche. It will confirm the extent to which deliverables have been completed, and will reconcile the tranche budget and timelines to plan. This review will also consider lessons learned and will identify the extent to which the expected benefits have been realised at that point.

Post-project review: This will take place within 12 months of completion of the tranche. It will assess the benefits realised compared to the business case, identify new benefits realised but not previously claimed, and including planning for ongoing improvements in performance. This review will provide assurance to the DHB that the project has delivered the anticipated benefits, or is on track to do so.

The project evaluation and post-project review will be undertaken by an external reviewer.

8. Recommendations

Waitemata DHB recommends that CIC:

1. **Notes** that the Mason Clinic has an urgent need to replace four inpatient units, which are suffering from significant weather tightness issues.
2. **Notes** that our preferred solution is a capital investment of $205m, to construct four 15-bed inpatient units within two multi-storey buildings (replacing all four of the failing units), a shared activity and support building with an entry court, front of house, judicial activities, drop-off, access and car parking, and the start of the central secure garden.
3. **Approves** Crown capital funding of $60m, to construct two 15-bed inpatient units within one multi-storey building (replacing two of the failing units) and a small amount of shared activity and support spaces, which we are recommending because that is the level of funding which has been indicated as available.
4. **Notes** that if the $60m solution is approved:
    a. A consequence is that two of the failing units will need to remain in operation for a number of years longer than necessary, increasing the risk of emergency costs in the event of a building failure, creating significant risk of patient and staff harm, and threatening our ability to provide services on an ongoing basis. It would also delay the delivery of high security beds, which are planned for the western unit and are a key part of delivering our planned model of care.
    b. We will include the remainder of Stage 1 (replacing the other two units) in Tranche 2 of the programme, and will request Crown capital funding in due course.

9. Appendices

Appendix A: Procurement risk management

Construction projects such as Tranche 1 of the Mason Clinic redevelopment need specific risk management strategies. The DHB has identified a number of procurement risks and mitigations which allows for success delivery of this tranche of work.

Table 12 Procurement risks

Risks	Mitigation Strategies
The procurement method creates delays to programme (risks associated with ECI/letting of partial packages)	• Award an early works contract for site works and piling • Appoint a main contractor for construction and fit out
The complexity and time-consuming nature of the procurement process and lack of available experience in NZ causes delays to deployment milestones and programme	• Assess the availability and resource capacity of external consultants and engage early with contractors who have the required experience • Provide the contractors with confidence in this project by providing them with consistent messages and not deferring or changing decisions
High activity in the Auckland and New Zealand construction market has a high demand on consultant capability and experience creating the risk of second tier resource being used on the project	• Work with the DHB consultant panels to develop a long term panel member partnership approach to support the DHB in its long term plans including this project. • Develop a short list of suitable contractors early in the procurement process and develop their interest in the project by inclusion in development of risk reduction strategies and commitment to the long term programme of the WDHB
Reducing real and perceived commercial risk by consultant and contractor by implementing a high quality, high performance project team with good design and works quality management practices.	• The DHB will work with its consultant and project management panels to develop clear scopes of work, clear expectations of deliverables, and clear assignment of accountabilities. • Through the above ensure that each contributing member of the design and management team understands their part in the process to produce high quality output with good detailing and quality checks • Establish project team culture of expectation of high quality collaboration and performance across the project team and holding each other to account for achievement of the above. • Engage early with a short list of contractors to establish buy-in to the project, the project

Risks	Mitigation Strategies
	management and design approach and where possible inclusion of contractor advice.
Reducing pass-through project risk. Recent market activity has highlighted that the main contractors are being caught with unmanaged risk resulting in commercial failure of the contract and in some cases large losses by the contractors.	• The DHB will pursue an approach of establishing a fair contractor engagement for construction by: ○ ensuring that the project design management and quality management practices minimise risk pass through ○ ensuring that the design output is checked for completeness and accuracy to minimise pass through of risk ○ ensure that construction clarifications and variations are quickly and fairly processed ○ ensure that a culture of quality management and attention to detail is in place with the main contractor and the same culture is in place with the sub-contractors. ○ adequate time and clarifications are provided to tenderers during the tender process
Financial stability of contractors - market conditions has place considerable financial pressure on main contractors and has resulted in some high profile failures.	• Ensure that robust financial and legal checks are carried out as part of the procurement processes to ensure that the contractors are in a stable and robust condition at time of engagement • Application of an appropriate bond regime • Continue to monitor contractor financial health

Clear risk allocation is critical and the DHB will address this through a number of workshops with the DHB and its consultants and contractors to identify, mitigate and allocate and monitor project risks.

Management and De-risking of Professional Engagements

The DHB will utilise the Construction Industry Council Guidelines (CICG's) as the basis for defining engagement scope and accountabilities and establishing an environment of clear assignment of expectation and performance between project team members. In addition, the DHB will employ a design manager and a quality manager to implement quality expectations and checks throughout the D&C process.

The Construction Industry Council commenced development of the original CICG's in 2003 following growing concerns of the impact (and limited understanding) of poor documentation on the building industry in New Zealand.

The CICG's are recommended for use in building projects and are considered important in the overall development of a quality build environment. They are part of a suite of guidelines and evolving good practice in use in the construction industry, as well as for clients and decision-makers.

The CICG's seek among other things, earlier collaboration between engineers and architects, introduction of the Health and Safety at Work Act 2015, which creates 'safety in design' obligations and requirements

on designers and an increasing use of BIM on projects. Other matters include new requirements in Safety in Design assessments/reports, Environmentally Sustainable Design, Building Information Modelling, along with other updated delivery modes for building processes.

They are a well-recognised as a comprehensive interdisciplinary guideline in New Zealand.

By undertaking these steps above and committing to a culture of clear expectation, clear assignment of accountability together with strong quality and design management practices the DHB aims to minimise the pass through of risk to the main contractors.

Further the DHB will work with the project managers and main contractors to ensure that the contractor has strong practices in place to manage its own risk by working closely with the DHB, utilising skilled and appropriately experienced construction planners and managers to interpret and implement designs and to monitor and manage construction quality.

Mason Clinic Redevelopment – Tranche 1 Business Case

Appendix B: Stakeholder consultation plan

Below is the current external consultation plan.

External Party	Decision/ Approval Required	Timeframe
Neighbouring Landowners		
MHUD	**Plan Change – Zoning** • Support for expansion of healthcare Sub-Precinct to reflect new site boundaries **Shared path (North):** • Location of path compromises the extension of the activity to the north as this would bisect the security of the site • Extension of Mason Clinic to the north will require an alternate location for the path to be secured and serve the same function – either within the northern extent of the proposed Northern site or on neighbouring land (further north) • The relocation onto neighbouring land will require the approval of that land owner and other landowners within the precinct **Open Space (South):** • The extension of Mason Clinic to the south will require this open space to be abandoned or an alternate location to be secured to serve the same function – either partially within southern extent of proposed southern site or elsewhere in the precinct (on neighbouring land) • Relocation on neighbouring land will require the approval of that landowner, other landowners and stakeholders such as iwi within the precinct **Final Agreement of Cadastral Survey Boundaries** **Negotiation on other interface matters:** • Road widening improvements • Future of road to North • Landscape buffers/ existing tree retention on MHUD land **Discussion required regarding the water supply needs and physical arrangement** **Discussion required regarding the management of stormwater overland flow paths through the entire site**	Plan Change Process. Commence June 2019 – target completion end 2019 ahead of design phases for Stage 1 (Tranche 1) design phase
Iwi (Tamaki Collective)	Consultation and request for support as for MHUD above	Plan Change as above
Taylors Laundry	Consultation and request for support as for MHUD above	Plan Change as above
Statutory Authority		
Auckland Council	**Plan Change – Approval of New Precinct Plan** • Expansion of healthcare Sub-Precinct to reflect new site boundaries Shared Path • Updates to roading network intentions – dependent on MHUD masterplan • Relocation of shared path (North): • Private Open Space (South) • Other matters • Transport & parking • Infrastructure **Stormwater Management on site** • Discussion required regarding primary drainage, treatment, lack of on-sie retention and/or detention and conveyance of overland flows	Plan Change as above
Regional and Central Government		
Northern Regional MH Governance Group	Support for PBC and T1BC	Prior to RCG and CIC PBC dates
Ministry of Health	Advance Input to Programme Business Case and T1BC Dir General MH Dr John Crawshaw – support for PBC and T1BC	Prior to RCG and CIC PBC dates 3 Jul Meeting
Infrastructure		
Vector	Relocations required. NE to manage interface.	Concept Design Stage
Northpower	Relocations required. NE to manage interface.	Concept Design Stage
Watercare	Relocations required. NE to manage interface.	Concept Design Stage
Health Alliance	Consultation required. NE will progress.	Concept Design Stage
Auckland Transport	TBC – Planner / Traffic to advise	Plan Change TBC

Appendix C: Other relevant documents

Below is a list of external documents which provide supporting information to that included in this PBC, some of which are explicitly referenced in this document. We can provide these documents upon request.

- NRA, NRLTIP (http://www.nra.health.nz/assets/Documents/NRLTIP-Full-Document/NRLTIP_FullDocwCover_Final.pdf)
- Waitemata DHB (2019), Mason Clinic Master plan
- Maynard Marks (2019), Mitigation works plan
- PwC (2019), Mason Clinic demand forecasting
- WT Partnership (2019), Draft Masterplan Estimate R1 for Mason Clinic redevelopment.
- [Davies Howard Group (2019), Mason Clinic Redevelopment Programme Business Case peer review report]

Mason Clinic
Tanekaha Unit Not Fit For Purpose Replacement Project

Tanekaha Unit Not fit for Purpose Replacement Project

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	Waitemata DHB Board
	Regional Governance Group
	Capital Investment Committee

[1] An extract from the meeting minutes is attached in Appendix 8

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1. Executive summary

1.1 Key points

The Tanekaha unit at the Mason Clinic is one of many units on the campus failing, suffering from weather tightness and "leaky building" issues. Without remediation, it is expected that the Tanekaha unit will have to close in the near term as the associated health risks from toxic mould spores to patients and staff will be too high. As such, there is also a risk to the ability to continue to provide regional forensic psychiatry services to patients in the Northern Region of New Zealand.

This single stage business case sets out the proposed solution to address the problems identified with the Tanekaha unit. This business case has been prepared in the wider context of the forthcoming master plan for the Mason Clinic campus, the long term planning for the neighbouring Unitec Campus and a broader remedial programme for all the "leaky buildings" in the Mason Clinic campus. Tanekaha is in the worst condition, and is the unit with the most pressing need for a solution. The continued deterioration of the Tanekaha unit means that a solution is required before the master planning processes are completed. The proposed investment requires a relatively low-level of capital investment and is considered low risk as the investment represents no material change in the scale or scope of services provided at the Mason Clinic. As such a single stage business case is considered appropriate.

The proposed solution is to build a new 15 bed medium secure unit on the Mason Clinic campus, but not on the existing Tanekaha site. Tanekaha is currently a minimum secure 10 bed unit, but alignment to long term planning processes and the recommended model of care means that a new 15 bed unit is considered the preferred option to start the wider remedial process for the site. Significant planning has taken place and this supports the rationale for replacing Tanekaha due to the efficiency of the use of the site, the ability to cluster acuity of services and the significant improvements to model of care that can be achieved in the new design facilities.

The proposal to build a medium secure unit is supported by the master plan. Firstly, the proposed location for the new building is in the medium / high secure zone on campus and supports the development of non-core forensic services at the Mason Clinic. Secondly, the next building requiring remediation after Tanekaha is Rata which is a medium secure unit. If Tanekaha is built as a minimum secure unit and Rata is decanted into the decant 15 bed secure unit then there is no on-site capability to rehouse patients to facilities above minimum secure levels which does not mitigate the risk to the continuity of service at Mason Clinic. This means that a medium secure unit provides some insurance for the scenario in which Rata deteriorates more rapidly than expected, so that patients from Rata can be accommodated on-site, reducing the incidence of patients being decanted multiple times during the remediation process. This approach provides alignment with the master plan as well as a risk mitigation for the remediation program. Thirdly, this option supports delivery of the correct number of beds at each security level in line projections under the proposed master plan.

Investigation of the cost of remedial works found that the cost of a new building was not significantly higher than remediation, and it provided a range of wider clinical benefits.

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This business case seeks approval for the proposed capital investment of $18.4m, and the purchase of any available adjacent land to be funded by Crown equity, since the DHB does not have sufficient funds to pay for the investment directly.

It is expected that after the campus redevelopment is completed, the number of beds and units at each security level will not change, and overall operating costs will be no higher. For example, the Kahikatea unit is currently a 20 bed minimum secure unit, but as part of the wider redevelopment of the campus, it will be scaled back to a 15 bed minimum secure unit, with a net change of zero beds at each security level. No additional operating expenditure is being sought, as Waitemata DHB expects that no new staff will be needed. The staff required to operate the new unit will be re-allocated from existing units at the Mason Clinic.

The financial statements in this business case excludes the purchase of any additional land since it is uncertain if additional land is available at this time, and what cost such additional land maybe. An independent review of the various options of land use of the Carrington site is underway. It is the preference of the DHB to acquire additional land adjacent to the existing campus. If such land were available, the sighting of the new facility would change, although at no additional capital cost.

If further land is available to be purchased, the DHB would require additional Crown equity to fund that purchase, and this case seeks approval from the Ministers for Crown funding both for the facility and any additional land acquisition.

1.2 How we got here

1.2.1 History – Mason Clinic, 2011-16

Introduction

The Mason Clinic Campus is comprised of eleven buildings, a review of the Mason Clinic buildings was initiated as a result of reported wet weather ingress issues, the review was completed 2011; it identified nine of eleven Mason Clinic buildings as “leaky buildings”.

This posed health risks to patients and to staff. For example, prolonged exposure to the damp conditions and resulting mould spores can cause respiratory illnesses. The risk to patient and staff health is considered significant, and will increase as the buildings continue to deteriorate.

A programme of works to remediate the leaky buildings was approved in 2012, the programme of works to be progressed in two stages plus a New Build for decant purposes:

- Stage 1 – Remediation of buildings that did not require “Services User” decant (Four Buildings)
- Stage 2 – Remediation of buildings that would require “Service Users” decant. (Five Buildings)
- Provision of a decant facility to support a decant programme for the Stage 2 Works Programme.

Stage 1 Remediation - Works commenced in 2015 with remediation completed as follows:

- Pohutukawa and Tane Whakapiripiri Buildings were remediated - Completed in June 2016
- TeMiro Rebuild and Kowhai Remediation – Completed in April 2016.

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Decant Building

In 2014, the Waitemata DHB Board approved a new permanent 15 Bed Medium Secure unit at Mason Clinic; the new building would initially function as a "Decant Building" to support the Remediation of Stage 2 Remediation Programme. The new Building needed to be completed and commissioned by May 2017.

A design was commissioned and completed in April 2015. Contractor Procurement was undertaken and a Contractor was engaged in May 2016.

Stage 2 – Remediation Programme of Works

A review of the Stage 2 Works Programme was assessed in March 2014 whereby a full Building intrusive survey was commissioned on Stage 2 Remediation Buildings.

- Mason
- Totora
- Kauri
- Rata
- Kahikatea
- Tanekaha.

The Scope of the intrusive Surveys required that the surveyors provided details of deterioration, the source/ reason for deterioration and remediation options to support a programme of works for pricing. The survey report was also to include the level of priority required for remediation, the order of priority was determined as follows:

- Tanekaha
- Rata
- Kauri
- Totora
- Kahikatea.

Service as Usual:

In order to ensure service as usual within deteriorating Mason Clinic Buildings the following actions have been initiated:

- Facility Air Tests at regular intervals including change of season
- Repairs and Maintenance to areas where water ingress is identified
- Regular inspection of facilities.

Service as Usual – Tanekaha & Rata

During service as usual reviews, it became apparent that the Tanekaha unit's water ingress impacts were becoming substantial, subsequent to two winter seasons of roof repairs, and continued water ingress as a result of inclement weather, a decision was made the wrap the building to provide protects. Weather protection wrap to Tanekaha was undertaken in July 2015 and remains in place to date (see photo below).

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Tanekaha and Rata were designed at the same time with construction being completed in October 1999. Observations in the past 12 months identify similar water ingress within Rata as previously identified in Tanekaha therefore a similar approach taken to protect Tanekaha may be required to Rata.

Mason Clinic Site Wide Security Review

In August 2016 A Mason Clinic Campus wide Security review was undertaken, a number of items were identified, these are to be included in any Remediation Works Programme and have been captured and included in the scope of work for Stage 1 remediation.

Maintaining Operations – Services as Usual

In September 2016, the board approved funding to support temporary remediation to roof, gutters and cladding on the five Stage 2 Buildings thus providing 3 – 5 year solution for the protection of the Stage 2 buildings. These works are currently underway and due completion by February 2017.

Contingency planning for building failure

If a building's condition deteriorates to the point where it is not considered habitable before a solution is in place, then Waitemata DHB has a contingency plan which involves moving patients to other locations. Patients across the Mason Clinic would be moved between units, with some moved to hospitals, prisons or other regions, dependent on the requirements (security level and needs) of the patient.

This is not considered optimal. There is likely to be a delay in sourcing beds at hospitals or prisons, and this could also trigger a wider reshuffle of patients within hospital wards and prisoners in prisons. An application to the courts to move patients would also be required in some cases.

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1.2.2 This project

Waitemata DHB commissioned expert quantity surveyors to investigate remedial work (e.g. re-cladding) for the Tanekaha building. Waitemata DHB discovered that the cost of construction of a new unit was not significantly higher than remedial work and there are a range of inherent construction risks involved with remedial work compared to construction of a new building. This included issues like underlying deficiencies in the structural timber, which would only be known after the remedial work had begun, imposing new costs. Meanwhile, a new building provides a range of additional benefits, for example, configuring the unit to meet the recommended model of care. Waitemata DHB considered that the clinical benefits from providing services using the recommended model of care are significant.

Waitemata DHB's proposed investment in the Mason Clinic campus has been complicated by the realisation that this is in conflict with Unitec's vision for the redevelopment of their campus. To resolve this conflict, an all of government review was recently completed by the Ministry of Business, Innovation and Employment (MBIE) to advise ministers. A preferred direction from Government is anticipated which will have a major impact on the future master plan for the Mason Clinic campus.

The master planning process underway for the Mason Clinic site has therefore included the three potential outcomes from the MBIE review:

- The Mason Clinic campus must provide its services from its current campus, without any additional land.
- Waitemata DHB procures an additional 2.2ha of neighbouring Unitec campus (buildable) land to enlarge the Mason Clinic campus.
- The Mason Clinic is relocated to land on a new greenfield site.

The current indications from the MBIE review suggest that the Mason Clinic will stay in its current location, and WDHB will be given the opportunity to purchase an additional 2.2ha of buildable land (Option B). On this basis, Waitemata DHB has progressed with its plan for a solution for the Tanekaha unit, the unit which most urgently requires remedial attention. If a new build is approved, it is expected to be located on the Mason Clinic campus where the swimming pool is currently situated, consistent with master planning to date. However, if the master plan for the Mason Clinic concludes with no additional land, the new build will likely be in that same location, but a reconfiguration of carparking is likely to be required.

This business case seeks approval for fully funding the preferred option from Crown equity. This business case has been developed in conjunction with the development of master plans for the current, or an expanded campus. A programme business case will be prepared in 2017 to consider the options for the campus in the master plan, including a campus-wide solution for the units suffering from leaky building issues.

This business case excludes the purchase of any additional land. It is assumed that the preferred solution can be implemented on existing Waitemata DHB-owned land. If further land is ultimately required to be purchased, it is assumed that it will be funded using Crown equity.

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1.3 The case for change

There are three key drivers for the proposed investment. First, the Mason Clinic campus suffers from weather tightness and leaky building issues. Several buildings have been identified as failing significantly, with severe and significant risks to the health of patients and staff. The Tanekaha unit has been identified as the building that has the most severe issues and poses the greatest risk to human health. Remedial works for the other units will follow in succession. A programme business case will be completed in 2017 to address the series of remedial works which will be required.

Without remediation to the Tanekaha unit, it is expected that the level of risk will be too great and the unit will have to close in the near term. This creates a risk to the continuity of regional forensic psychiatry services at the Mason Clinic which is unacceptable. The demand for mental health services is expected to increase, due to a growing prison muster – mental health disorders and illnesses are up to five times more prevalent among prisoners than in the general population – so the risk and consequential adverse outcomes of doing nothing is likely to increase over time.

The Tanekaha unit is the next unit in a sequence of remedial works, which has been prioritised based on the condition of the buildings and expected time to failure. Delaying a solution for Tanekaha will jeopardise the whole programme for remediation, with the risk that all future solutions will be a further 3 years away.

Second, the Mason Clinic facilities have been developed in a piecemeal way over the last 22 years and the units are dated. They no longer meet the recommended model of care (consistent with current best practice). Third, there is a broader plan to redevelop the campus (the master planning process), which is due to be completed in the first quarter of 2017. An overall review of the units and their configuration (e.g. the number of beds per unit, the availability of ensuite facilities, seclusions rooms in minimum secure units are no longer required) will ensure that the units support the recommended model of care.

The master plan for the Mason Clinic site is expected to be completed and agreed by Waitemata District Health Board (DHB), Treasury and the Ministry of Health (MoH) in 2017, after Unitec finalises its land use plans for its campus. The Unitec Institute of Technology (Unitec) redevelopment will strongly influence the master plan for the Mason Clinic. If residential housing is developed at the southern part of Unitec's campus, the layout of the Mason Clinic campus will need to be configured to provide a natural perimeter and progression between the campus and the residential development. This is to support the privacy of both the Mason Clinic patients and the residents.

There are three broader options for the Mason Clinic's location, which the Ministry of Business, Innovation and Employment (MBIE) has a role in determining, given that the Crown owns the land which Unitec is situated on and it has an interest in delivering more housing in Auckland. A ministerial decision will determine which of the following options will proceed for the Mason Clinic:

- Option A – Remain on Mason Clinic campus with no additional land
- Option B – Remain on Mason Clinic campus with 2.2 ha of additional buildable land
- Option C – Move to a greenfield site local to the Mason Clinic campus

Regardless of the outcome of the ministerial decision, the case for change and need to construct a new unit remains. The design and cost estimates are not likely to materially change due to the

location decision. The design instructions for the Tanekaha solution have been, and will continue to progress at the preliminary design stage (and future design stages), independent of the ultimate location for the new unit. The unit has been designed with the flexibility to ensure it can be either paired with another unit on the eastern or northern side of the campus (dependent on the outcome of the master planning process).

The outcome of the ministerial decision for which of the three options will proceed, will significantly impact the master plan for the Mason Clinic. One of the critical outcomes is for the land use around the campus. If the area around the campus is developed for residential housing, then the layout of the Mason Clinic campus will be configured so that there is a sense of security without a physical barrier, and units will be oriented such that the privacy of patients and neighbouring residents is protected as much as is practical.

The availability of land also determines the service range, and associated building type, to be constructed. If additional land is available for the Mason Clinic, it is expected that the campus will be developed for core forensic and non-core forensic services on the same site. This also influences the layout of the campus, for example adult forensic units need to be separated from youth units, and minimum secure services for and high and complex needs patients may also need separation from other forensic units.

The planning process for the Unitec redevelopment and the master planning for the Mason Clinic site is on-going. However, there is an urgent need to find a solution for the Tanekaha unit, because of its condition, ahead of the completion of the master planning process. This business case, and the development of a solution for the Tanekaha unit, is being undertaken in conjunction with and in alignment to the wider master planning process. While the master planning process is on-going, the fundamental drivers for this business case are well established and will not change. Further refinement of the master planning will not compromise the proposed options.

1.4 Options analysis

1.4.1 The long list of options

The project working group developed a long list of options to resolve the failing Tanekaha unit. The working group considered service solutions as well as who was best placed to provide the solution and the implementation timeframe for the solution.

There were 17 service solutions identified, which covered a range of features including:

- the level of permanency (e.g. temporary repairs, permanent repairs)
- the use of the Tanekaha unit (e.g. repair, remediate or a new building)
- the size of a new unit (e.g. same size or expanded size)
- the location of a new unit (e.g. on existing Tanekaha site, different location on campus, different location)
- utilisation of existing resources (e.g. repurposing an existing building).

The long list of options did not specify the security level in the 17 service options.
A multi-criteria analysis was conducted by the project working group to identify an initial preferred set of options.

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The working group's preferred service solution was for a new building at the Mason Clinic (but not on the existing Tanekaha site), with an expanded number of beds. The working group also preferred that Waitemata DHB would be the organisation responsible for delivering the solution.

One notable element of this assessment is that a larger solution to the existing Tanekaha unit was preferred to a same-size solution. A 15 bed unit is consistent with the current recommended model of care, as opposed to the current 10 bed. This will also allow the reduction of the Kahikatea unit from 20 beds to 15 as part of the wider campus redevelopment, which is also consistent with moving toward the current recommended model of care.

1.4.2 The short list of options

The project group refined its understanding of the options in the context of the master planning and knowledge of the state of Tanekaha, as well as better understanding of the broader remedial programme.

A previous business case for a new 15 bed medium secure unit was approved by the Capital Investment Committee (CIC) in 2015, which was to support forecast growth in demand for mental health services at the Mason Clinic and to support the remedial programme.

It was initially envisaged that the new unit would support sequential decanting. Patients would move into the new unit, while their home unit was being remediated. However, as the project group gained further insight on the remediation works, it was discovered that the cost of remediation was not much less than construction of a new building, while the new building provided additional clinical benefits to patients, such as providing services in line with the recommended model of care.

As a result the following options are included in the short-list for this business case:

- Remediation of Tanekaha unit, including re-cladding and like-for-like remedial works. This is option 0.
- A new 15 bed unit on the same site as the current Tanekaha unit. This is option 1.
- A new 15 bed unit on a different site to Tanekaha but at the Mason Clinic. This is option 2.
- A new 15 bed unit on a new greenfield site (not on the Mason Clinic site). This is option 3.

The long list options for a new unit did not specify a level of security. The project group determined that if a new unit were to be built, the unit should be a medium security level. A medium secure unit provides the greatest flexibility for the provision of care at the Mason Clinic, as services can be provided to minimum secure patients in a medium secure facility, but the reverse is not true.

The proposal to build a medium secure unit is supported by the master plan. Firstly, the proposed location for the new building is in the medium / high secure zone on campus and supports the development of non-core forensic services at the Mason Clinic. Secondly, the next building requiring remediation after Tanekaha is Rata which is a medium secure unit. If Tanekaha is built as a minimum secure unit and Rata is decanted into the decant 15 bed secure unit then there is no on-site capability to rehouse patients to facilities above minimum secure levels which does not mitigate the risk to the continuity of service at Mason Clinic. This means that a medium secure unit provides some insurance for the scenario in which Rata deteriorates more rapidly than expected, so that patients from Rata can be accommodated on-site, reducing the incidence of patients being decanted multiple times during the remediation process. This approach provides alignment with the master plan as well as a risk mitigation for the remediation program. Thirdly, this option supports delivery of

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the correct number of beds at each security level in line projections under the proposed master plan.

The patients in a number of the worst affected buildings need to be housed in medium security buildings due to their legal status and assessed risk, and they cannot be moved from the Mason Clinic without an application to the Courts. In addition, the prospect of medium security clients detained under the Mental Health Act being transferred to other properties during the remediation works runs the almost certain risk of intense public scrutiny and possible reputational risk. Therefore, construction of a medium secure unit provides insurance in the situation where a medium secure unit fails and patients can be moved to the new unit without delay or major reallocation of patients between medium and minimum secure units. In this regard, short-listed options for a new unit specify a medium security level to ensure the continuity of service at the Mason Clinic.

The use of a medium security solution does not involve any higher costs in total over the broader campus redevelopment than would be the case if a minimum security solution was adopted in this case.

The project group also agreed to retain a do-minimum option as a comparator. A do-nothing option is not appropriate due to the risk to continuity of services. Tanekaha is failing and requires remedial work to enable it to be available for clinical purposes in the future. We consider the remediate option is a do-minimum option, doing only what is necessary to keep Tanekaha operational.

A multi-criteria analysis of the shorted listed options was completed, with the assessment based on a set of critical success factors for the project. This is outlined in Table 1 below.

Table 1 *Multi criteria assessment of the short listed options against critical success factors*

Description of critical success factors	Options			
Strategic fit and business needs	*Option 0 Remediate*	*Option 1 New build replacing Tanekaha*	*Option 2 New build elsewhere on Mason Clinic campus*	*Option 3 New build on greenfield land*
Safe and efficient care delivered via recommended model of care	✓	✓✓✓	✓✓✓	✓✓✓
Enables emergency care options	×××	×××	✓✓✓	×××
Avoids disruption to current services	✓✓	✓✓	✓	✓✓
Provides all forensic services in one location, consistent with recommended model of care and Master Planning for the site	✓✓	✓✓	✓✓✓	×
Security level for the unit provides flexibility to meet Master Plan and long term provision of services	×	✓	✓✓✓	✓✓✓
Staff satisfaction	✓	✓✓	✓✓	××

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Potential affordability (including potential value for money)				
Affordability (excluding cost of land)	✓✓	✓✓	✓✓	×××
Potential achievability				
Consenting process	✓	✓✓	✓✓	×××
Time to completion	×	✓	✓✓	×××
Supplier capacity	✓	✓	✓	✓

1.4.3 The preferred option

The preferred option (option 2) is to construct a new 15 bed medium secure unit at the Mason Clinic campus (but not on the existing Tanekaha site). It is the preferred option because on balance and in comparison to the other options, it:

- delivers services in line with the recommended model of care
- enables emergency care options in the short term
- keeps all forensic services in one location
- provides flexibility in order to align with the master planning for the campus and supports the long term provision of services
- provides flexibility in the security level to act as a back-up in the scenario a medium secure unit fails (minimum services can be provided in a medium secure environment, but not vice versa)
- is expected to be achievable and implementable.

1.5 Benefits and costs

1.5.1 Benefits of the proposed investment

The main benefits of the proposed investment relate to the improved quality of the regional forensic psychiatry services by being fit for purpose facilities aligning to the recommended model of care. The construction of a new unit reduces the risk of a break in the continuity of services at the Mason Clinic, ensuring that the services are sustainable in the long run.

The proposed investment also provides a safe environment for the clinical services. The current risks to human health (to patients and staff) as a result of weather tightness and leaky building issues will be resolved.

There are additional benefits with a new build on Mason Clinic campus (but not on the Tanekaha site). It allows the location to be flexible to meet the long term plan for the Mason Clinic campus, and Tanekaha could also be used in the short term as an emergency space under extreme circumstances.

1.5.2 Costs of the proposed investment

The capital investment required for the options is outlined in Table 2 below, with the preferred option (option 2) requiring an estimated $18.4m investment (including contingencies). The remediate option requires less capital investment and on-going operation costs, but it is not expected to provide the same level of benefits as new build options. Option 2 is expected to cost

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more than a new build on the Tanekaha site but does not provide the same flexibility for Tanekaha to be consistent with the long term plan for the Mason Clinic campus. Option 2 is expected to be financially viable within current operational funding envelopes.

As all operational expenditure is being funded from within existing allocations, no new operation cost expenditure is being sought. The investment proposal is for the capital costs only. The building maintenance cost for each of the options is expected to be funded by using the existing maintenance costs for Tanekaha. The building maintenance costs are expected to be lower than the existing maintenance costs for Tanekaha, so they represent cost savings. In addition, the cost of operating the Tanekaha unit as emergency space is expected to be nominal, and will be funded from existing allocations.

For the purposes of illustrating the costs, Option 0 is shown as two variants. Option 0a is for remediation of the existing building, but excludes the costs of providing an additional five beds. Option 0b includes the costs of the additional five beds. The new build options comprise 15 beds, and this allows a reduction of five beds from Kahikatea as part of the wider campus redevelopment. The remediation option will either prohibit Kahikatea from reducing its size or will require an additional five beds somewhere else on the campus. Therefore, Option 0 includes the costs of these five beds, but Table 2 shows the costs with and without these costs to aid understanding.

A key assumption for Option 3 is that the cost of the land is not included in this assessment. If a new greenfield site is selected, Waitemata DHB will purchase land and the cost of the acquisition will be included in the programme business case for the Mason Clinic master plan. The land cost will be determined once the site is identified. It is also assumed that if Option 3 were selected, there would be additional costs to remediate Tanekaha in the short term. It is expected that due to the long length of time which is expected before Option 3 is operational, Tanekaha will be forced to close during that timeframe without remedial work.

Table 2 *Cost summary*

	Option 0a Remediate (excl five additional beds)	Option 0b Remediate	Option 1 New build replacing Tanekaha	Option 2 New build elsewhere on Mason Clinic campus	Option 3 New build on greenfield land
Construction capital investment (without contingencies)	N/A	$5.2m	$16.0m	$16.0m	$17.1m
Short term remediation cost (without contingencies)	$7.8m	$7.8m	N/A	N/A	$7.8m
Total capital investment (without contingencies)	$7.8m	$13.0m	$16.0m	$16.0m	$24.9m

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	Option 0a Remediate (excl five additional beds)	Option 0b Remediate	Option 1 New build replacing Tanekaha	Option 2 New build elsewhere on Mason Clinic campus	Option 3 New build on greenfield land
Total capital investment (including contingencies at 15%)	**$9.0m**	**$15.0m**	**$18.4m**	**$18.4m**	**$28.7m**
Annual operating costs	$3.3m	$4.9m	$5.4m	$5.4m	$5.4m
Annual building maintenance costs (average)	$0.08m	$0.12m	$0.09m	$0.09m	$0.08m
Present value of costs (over 40 year evaluation period) (Whole-of-life costs)	**$47.4m**	**$72.2m**	**$80.7m**	**$80.6m**	**$78.3m**

Source: RLB and Consult QS

Due to the delay in site identification and gaining appropriate consents for Option 3, over a 40 year evaluation period, the building is only operational for 34 years, meanwhile for the other new build options, Options 1 and 2 the new unit is operational for 39 years. This difference drives the change in opex and thus the whole of life costs.

1.6 Key risks and constraints

There are a number of risks which threaten the success of the proposed investment, as outlined in Table 3. The risks which have been identified are routine for construction projects, and as such the risk management strategies are also well established.

Table 3 *Risks and risk management strategies*

Risk	Risk management approach
Consenting delays for the new building	Comprehensive planning and designing that consider the potential impacts on stakeholders. Obtaining input from stakeholders throughout the design/build process.
Scope change	Strong project manager control. Escalation process for change requests, requiring cost and project impact assessment prior to approval

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Risk	Risk management approach
Delays in approvals (to construction design)	Strong project manager control. Escalation process for change requests, requiring cost and project impact assessment prior to approval.
Construction delays	Planning and design is underway, prior to receiving approvals. Strong project management and penalties for the builders for delays in completion.
Delay in site identification	Effective engagement with stakeholders to manage impacts/appeals during consenting process.
Delay in master planning	Frequent and continual engagement with the project steering group which will have oversight of the master planning process for the Mason Clinic.

The outcome of the master planning process is a key dependency for the project. There is uncertainty around whether the Mason Clinic will be allocated additional land (and the location of that land) which impacts the land use of the Mason Clinic. If the Mason Clinic is not given any additional land, and services must be contained within the existing site, there may be a requirement to re-configure the site. For example, Waitemata DHB will have to reconsider the location of planned car parking if it must stay within its current campus boundaries with no additional land.

1.7 Implementation strategy

1.7.1 Procurement strategy

Six procurement options were assessed to identify the most appropriate method, given the current market conditions and context of this project.

It was considered important for Waitemata DHB to retain design control in the context of the build of health facilities, as the clinical perspective is imperative for the new unit. It is also recognised that the construction of a new 15 bed medium secure unit is in the context of the master planning process, which is expected to provide a standard design for each of the units, with some minor configuration to the design as necessary.

The units are expected to be completed sequentially, and as such, a design bid build (DBB) approach would typically be appropriate for construction of a new unit. However, given the current resource constraints of the construction market, an Early Contractor Involvement (ECI) arrangement is considered appropriate as part of a wider strategy for the redevelopment. Strong demand for construction means it is more difficult to source materials and secure subcontractors, early identification of these is essential. As such, it is assessed that an appropriate procurement strategy will include ECI contractors involved in pre-construction and design, with a routine competitive bid/build phase following.

1.7.2 Timeframe

It is expected that the facility will be operational from September 2018, in line with the timeline below.

Table 4 *Timeframe for construction of a new 15 bed medium secure unit*

Key Milestones	End Date
Business Case approval	March 2017
Design	July 2017
Tender	August 2017
Building consent	August 2017
Construction period	August 2017 to September 2018
Commissioning	September 2018
Facility operational	September 2018

1.8 Conclusion and recommendation

1.8.1 Conclusion

The Tanekaha unit is failing as it suffers from weather tightness and "leaky building" issues, posing severe risks to the health of patients and staff. It is expected that without remedial works, Tanekaha will have to be closed in the future, which poses a risk to providing services to current patients and a risk of a break in the continuity of providing services at the Mason Clinic in the future. A growing prison muster means that the outcome of a break in the continuity of regional forensic psychiatry services is expected to be more pronounced in the future. Waitemata DHB considers that this risk is unacceptable.

The proposed investment involves constructing a new 15 bed medium secure unit on the Mason Clinic campus (but not on the Tanekaha site). It is considered that this would provide an immediate solution to the failing Tanekaha unit, meet the recommended model of care, provide sufficient flexibility to be consistent with the long term master planning for the Mason Clinic campus, and provide for continuity of services.

1.8.2 Recommendation

It is recommended that the Ministry of Health's Capital Investment Committee approves total capital costs of $18.4m to construct a new 15 bed medium secure unit.

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2. Introduction

Waitemata District Health Board (DHB) has prepared this business case for a solution to remedy a failing unit (Tanekaha) at the Mason Clinic. A plan is currently being prepared for a wider redevelopment of the Mason Clinic campus (the master plan for the campus) but it not due to be completed until 2017. However, due to the risk to the continuity of service provision, it is considered that a solution must be found for Tanekaha now.

This single stage business case is prepared in accordance with Treasury's Better Business Case Guidelines.

A Single Stage Business Case is appropriate for the proposed investment, because:

- The capital expenditure for the preferred solution is relatively small. The capital investment is expected to be around $18.4m, fully funded from Crown equity. Existing operational expenditure is expected to be diverted to the solution. New operational expenditure is expected to be small relative to the up-front investment required.

- The project is low risk. The proposed investment enables the services to continue to be provided – the proposed investment does not materially change in the scope of services at the Mason Clinic.

The rest of this business case follows the standard business case structure, with the following five cases:

- strategic,
- economic,
- commercial,
- financial, and
- management case.

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3. Strategic Case

This section provides background information on the business case, setting out the context for change and the drivers for the proposed investment. This section also outlines the key benefits, risks, constraints and dependencies for the proposed investment.

3.1 Background

3.1.1 Purpose of Waitemata DHB

Waitemata DHB primarily serves the communities of Rodney, North Shore and Waitakere. It has the largest and fastest growing population among DHBs in NZ with 580,000 residents and expecting population growth of 18% by 2025[2].

Waitemata DHB provides secondary hospital and community services from North Shore and Waitakere hospitals, and an additional 30 community centres throughout the district, including the Mason Clinic. It provides specialist services in child disability, forensic psychiatry, alcohol & drug and dental and oral health for pre-school and school students (years 1 – 8), sometimes on behalf of other DHBs across New Zealand.

The purpose of Waitemata DHB is to[3]:

- Prevent, ameliorate and cure ill health
- Promote wellness
- Relieve suffering of those entrusted to Waitemata DHB's care

In undertaking these activities, Waitemata DHB must balance efficient and effective care to meet local, regional and national needs.

3.1.2 Purpose of the Mason Clinic

Waitemata DHB provides forensic psychiatric services for the Auckland Region, from the Mason Clinic campus located on Carrington Road in Point Chevalier, Auckland. Forensic psychiatric services are provided to Waitemata DHB residents as well as residents of other Northern Region DHBs. The Forensic Intellectual Disability Service on the Mason Clinic campus serves a larger region from Taupo to the top of the North Island.

The Mason Clinic campus comprises ten low rise purpose designed and built clinical buildings. The latest new build opened in 2006, and one new 15 bed medium secure unit is currently under construction. Two buildings have a floor area of approximately 1,500m^2, three buildings are approximately 1,000m^2, and the remaining five range in size from 300m^2 to 500m^2. Several buildings are of two storeys. The buildings are of mixed material construction, comprising stucco plaster, fibre cement weatherboard and sheet panels, plywood, corrugated iron and concrete block.

It includes eight inpatient units and an intellectual disability unit that assesses, treats and assists in the recovery of people with mental illness or intellectual disability who have committed (or are alleged to have committed) a criminal offence or are at high risk in the community. The inpatient units include open hostel accommodation, minimum security and medium security, with a current capacity of 108 beds.

[2] Page 6, Waitemata DHB Annual Report 2014/2015
[3] Page 12, Waitemata DHB Statement of Intent 2014/2015

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The campus also has non-inpatient units including an Administration Centre (Puriri pod), a Cultural Centre, a Community Outpatient Base (for staff working in Community teams, Courts and Prison Mental health teams), a swimming pool and associated outbuildings all within a single campus of 3.9 hectares. The Mason Clinic facilities are summarised in the Table 5 below.

Table 5 *Mason Clinic Facilities*

Unit Name	Description
Pohutukawa	12 bed medium secure unit made up of: 10 bed medium secure care and rehabilitation beds 2 medium secure assessment beds Second floor office space for Intellectual Disability Offenders Liaison Service (IDOLS)/ Service Management/ Medical / Quality and Administration team
Tane Whakapiripiri	10 bed minimum secure Kaupapa Maori rehabilitation unit (current capacity is 11 beds)
Tanekaha	10 bed minimum secure rehabilitation unit (current capacity is 12 beds)
Rata	15 bed long term medium secure rehabilitation unit
Kahikatea	20 bed minimum secure rehabilitation unit
Kauri	15 bed medium secure admission units
Totara	15 bed medium secure admission units
Rimu	9 step down bed hostel
Kowhai Building	Office space for Court Liaison and Community Forensic Teams. Also Chaplains and Consumer Advisors.
Puriri Pod	Administration block with Medical Records and Medical Staff
Te Miro	Maori and Pacific Nations Resource Centre, office space for some cultural advisors
New unit currently under construction	15 bed medium secure rehabilitation unit

The key service provided at the Mason Clinic is inpatient assessment and treatment of mentally disordered offenders. The clinic provides integrated forensic mental health services, including assessment and treatment of mentally disordered offenders or alleged offenders as identified in the Northern region's courts, prisons and general mental health services.

Funding for inpatient beds is determined at a national level and allocated regionally in accordance with historical demand forecast by the Ministry of Health (MoH). Demand is so high in the Northern region that the admission of patients from out of region to the Mason Clinic seldom occurs. The length of stay of patients or service users receiving assessment, treatment and rehabilitation ranges from a few days to several years.

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Other Regional Forensic Mental Health Services provided by Waitemata DHB include:

- **Community Forensic Services:** Forensic Consultation Liaison Services are provided to local Mental Health Services regionally and assistance is given in developing and implementing effective plans for risk assessment management. The Forensic Community Team provides clinical care for clients in the "step down" beds; case manages high risk forensic clients in the community and ensures that there is an appropriate transition of clients from the forensic inpatient units to local Mental Health Services.

  Twenty step-down beds are provided in the community, in partnership with Non-Governmental Organisations (NGOs):

  - 5 Pacific Nations Beds
  - 5 Kaupapa Maori Beds and
  - 10 Mainstream Beds

- **Intellectual Disability Offenders Liaison Service:** This team provides care under the *Intellectual Disability Compulsory Care and Rehabilitation Act 2003*, for people who are referred by the Regional Intellectual Disability Community Care Agency (RIDCA). There is a 12 bed intellectual disability secure unit at the Mason Clinic, one of the two National Intellectual Disability Support Service (NIDSS) units in the country, serving the upper half of the North Island for intellectually disabled offenders. There is also a community Intellectual Disability (ID) liaison team.
- **Court Liaison Team:** This team has a presence in every major Court in the Auckland and Northland regions. Its primary functions are to provide psychiatric assessment and informal advice to the Court on the appropriateness of formal psychiatric reports and/or diversion to Mental Health Services.
- **Forensic Prison Team:** This multi-disciplinary team provides tertiary clinical services into prisons. The team manages an inmate caseload, receives referrals from Prison Health Services and facilitates the transfer of mentally unwell inmates to hospital for care and treatment.

3.2 How we got here

3.2.1 History – Mason Clinic, 2011-16

Introduction

The Mason Clinic Campus is comprised of eleven buildings, a review of the Mason Clinic buildings was initiated as a result of reported wet weather ingress issues, the review was completed 2011; it identified nine of eleven Mason Clinic buildings as "leaky buildings".

This posed health risks to patients and to staff. For example, prolonged exposure to the damp conditions and resulting mould spores can cause respiratory illnesses. The risk to patient and staff health is considered significant, and will increase as the buildings continue to deteriorate.

A programme of works to remediate the leaky buildings was approved in 2012, the programme of works to be progressed in two stages plus a New Build for decant purposes:

- Stage 1 – Remediation of buildings that did not require "Services User" decant (Four Buildings)
- Stage 2 – Remediation of buildings that would require "Service Users" decant. (Five Buildings)
- Provision of a decant facility to support a decant programme for the Stage 2 Works Programme.

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Stage 1 Remediation - Works commenced in 2015 with remediation completed as follows:

- Pohutukawa and Tane Whakapiripiri Buildings were remediated - Completed in June 2016
- TeMiro Rebuild and Kowhai Remediation – Completed in April 2016.

Decant Building

In 2014, the Waitemata DHB Board approved a new permanent 15 Bed Medium Secure unit at Mason Clinic; the new building would initially function as a "Decant Building" to support the Remediation of Stage 2 Remediation Programme. The new Building needed to be completed and commissioned by May 2017.

A design was commissioned and completed in April 2015. Contractor Procurement was undertaken and a Contractor was engaged in May 2016.

Stage 2 – Remediation Programme of Works

A review of the Stage 2 Works Programme was assessed in March 2014 whereby a full Building intrusive survey was commissioned on Stage 2 Remediation Buildings.

- Mason
- Totora
- Kauri
- Rata
- Kahikatea
- Tanekaha.

The Scope of the intrusive Surveys required that the surveyors provided details of deterioration, the source/ reason for deterioration and remediation options to support a programme of works for pricing. The survey report was also to include the level of priority required for remediation, the order of priority was determined as follows:

- Tanekaha
- Rata
- Kauri
- Totora
- Kahikatea.

Service as Usual:

In order to ensure service as usual within deteriorating Mason Clinic Buildings the following actions have been initiated:

- Facility Air Tests at regular intervals including change of season
- Repairs and Maintenance to areas where water ingress is identified
- Regular inspection of facilities.

Service as Usual – Tanekaha & Rata

During service as usual reviews, it became apparent that the Tanekaha unit's water ingress impacts were becoming substantial, subsequent to two winter seasons of roof repairs, and continued water ingress as a result of inclement weather, a decision was made the wrap the building to provide

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protects. Weather protection wrap to Tanekaha was undertaken in July 2015 and remains in place to date (see photo below).

Tanekaha and Rata were designed at the same time with construction being completed in October 1999. Observations in the past 12 months identify similar water ingress within Rata as previously identified in Tanekaha therefore a similar approach taken to protect Tanekaha may be required to Rata.

Mason Clinic Site Wide Security Review

In August 2016 A Mason Clinic Campus wide Security review was undertaken, a number of items were identified, these are to be included in any Remediation Works Programme and have been captured and included in the scope of work for Stage 1 remediation.

Maintaining Operations – Services as Usual

In September 2016, the board approved funding to support temporary remediation to roof, gutters and cladding on the five Stage 2 Buildings thus providing 3 – 5 year solution for the protection of the Stage 2 buildings. These works are currently underway and due completion by February 2017.

Contingency planning for building failure

If a building's condition deteriorates to the point where it is not considered habitable before a solution is in place, then Waitemata DHB has a contingency plan which involves moving patients to other locations. Patients across the Mason Clinic would be moved between units, with some moved to hospitals, prisons or other regions, dependent on the requirements (security level and needs) of the patient.

This is not considered optimal as there may be a delay in waiting for a bed at the hospital or a prison, and this could also trigger a wider reshuffle of patients within hospital wards and prisoners in prisons. An application to the courts to move patients would also be required.

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3.2.2 This project

Waitemata DHB commissioned expert quantity surveyors to investigate remedial work (e.g. re-cladding) for the Tanekaha building. Waitemata DHB discovered that the cost of construction of a new unit was not significantly higher than remedial work and there are a range of inherent construction risks involved with remedial work compared to construction of a new building. This included issues like underlying deficiencies in the structural timber, which would only be known after the remedial work had begun, imposing new costs. Meanwhile, a new building provides a range of additional benefits, for example, configuring the unit to meet the recommended model of care. Waitemata DHB considered that the clinical benefits from providing services using the recommended model of care are significant.

Waitemata DHB's proposed investment in the Mason Clinic campus has been complicated by the realisation that this is in conflict with Unitec's vision for the redevelopment of their campus. To resolve this conflict, an all of government review was recently completed by the Ministry of Business, Innovation and Employment (MBIE) to advise ministers. A preferred direction from Government is anticipated which will have a major impact on the future master plan for the Mason Clinic campus.

The master planning process underway for the Mason Clinic site has therefore included the three potential outcomes from the MBIE review:

- The Mason Clinic campus must provide its services from its current campus, without any additional land.
- Waitemata DHB procures an additional 2.2ha of neighbouring Unitec campus (buildable) land to enlarge the Mason Clinic campus.
- The Mason Clinic is relocated to land on a new greenfield site.

The current indications from the MBIE review suggest that the Mason Clinic will stay in its current location, and WDHB will be given the opportunity to purchase an additional 2.2ha of buildable land (Option B). On this basis, Waitemata DHB has progressed with its plan for a solution for the Tanekaha unit, the unit which most urgently requires remedial attention. If a new build is approved, it is expected to be located on the Mason Clinic campus where the swimming pool is currently situated, consistent with master planning to date. However, if the master plan for the Mason Clinic concludes with no additional land, the new build will likely be in that same location, but a reconfiguration of carparking is likely to be required.

This business case seeks approval for funding the preferred option using Crown equity. This business case has been developed in conjunction with the development of master plans for the current, or an expanded campus. A programme business case will be prepared in 2017 to consider the options for the campus in the master plan, including a campus-wide solution for the units suffering from leaky building issues.

This business case excludes the purchase of any additional land. It is assumed that the preferred solution can be implemented on existing Waitemata DHB-owned land. If further land is available to be purchased, it is assumed that it will be funded using Crown equity.

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3.3 Case for change

3.3.1 Problems with the current Mason Clinic campus

There are two issues that need to be addressed to ensure that the Mason Clinic can deliver services efficiently and effectively. First, the majority of buildings suffer from weather tightness and "leaky building" issues. Second, the configuration of the campus and the units on the campus is no longer consistent with the recommended model of care.

Weather tightness and leaking building issues

As stated above, the Mason Clinic buildings are of mixed material construction, comprising stucco plaster, fibre cement weatherboard and sheet panels, plywood, corrugated iron and concrete block. An assessment of the campus in early 2011 identified that several buildings were failing significantly, suffering from leaking roofs, guttering and exterior walls. An expert building survey was carried out by Cove Kinloch to provide a report on what has now become a "leaking building" situation affecting almost all the buildings to varying degrees.

Water ingress had been, and is, causing internal damage and compromising the integrity of the buildings. Three units have deteriorated to the point where they are at risk of developing *Stachybotrys*[4] fungus in some wall cavities. *Stachybotrys* is a highly dangerous fungus with the potential to cause serious health problems.

Six monthly testing continues. Recent tests confirmed that the presence of the fungus is minimal and currently at safe levels. However, due to the lack of weather tightness of the buildings this situation may not continue, and higher readings could require immediate decanting of one or more of the units.

The weather tightness issues create an unacceptable risk to clients, clients' families and staff health. This could render the buildings unfit for use, threatening the continued ability to provide forensic mental health services. Waitemata DHB considers that the risk that a building could become unfit for use is too great for services to continue to be provided without any resolution of this problem. The buildings require major refurbishment and remedial works to make them fit for purpose and eliminate risk to patient and staff health and safety.

Waitemata DHB determined that a programme of remedial works was required. To support that, a new 15 bed unit under construction will assist with a sequential decanting process while the leaky and weather tightness issues for each unit are addressed.

Model of care

The Mason Clinic's current campus covers approximately 3.9 hectares and sits between the Unitec campus and Oakley Creek in Auckland. The Mason Clinic has a long history at its current campus, with Mental Health services having been provided at Point Chevalier for about 150 years.[5] The

[4] *Stachybotrys* is one of the most infamous toxic mould that can grow in houses and is extremely dangerous to humans. It can cause respiratory problems, skin inflammation, haemorrhage, damage to internal organs, mental impairment, irritation of mucous membranes, tiredness, nausea and immune system suppression.

[5] http://www.waitematadhb.govt.nz/dhb-planning/waitemata-2025/upcoming-projects/mason-clinic/

services and supporting infrastructure have evolved over time – the current suite of buildings on the campus are between 8 and 22 years old.

The Mason campus has evolved and grown in a piecemeal way over the last 22 years and it is considered that the campus no longer meets the recommended model of care. Waitemata DHB has developed a future state model of care for the Mason Clinic, which is consistent with current best practice, and which builds on the existing model of care[6] and improvements in the streaming of patient pathways.[7] This recommended model of care is different to the existing Mason Clinic provision of care in a number of ways.

Firstly, the existing layout of the campus is not optimally configured. Units would be best clustered into an acute/justice liaison cluster and a rehabilitation cluster, with the rehabilitation units being in a three-unit stream of medium security, minimum security and open beds. The medium and minimum secure units would best be adjacent on the site and operationally connected, with physical connection between units in a stream. This will facilitate better patient flow through to the community, and also helps the efficiency of staff work across a stream of clinical activity.

Furthermore, the physical location of the units is suboptimal in the event of residential housing replacing the parklands surrounding the Mason Clinic's current environs. Buildings would be best sited around the periphery of the campus, to provide a visual and physical barrier to the community. Internally this will create a shared internal community zone for service users with ground access.

Secondly, the internal configuration of the units no longer meet recommended models of care, as follows:

- The number of beds in each unit at the Mason Clinic is currently a mixture of 10, 15 and 20 bed units, while the recommended model of care is for 15 bed units.
- The units do not have en-suites which are also a component of the modern recommended model of care.
- Seclusion areas in minimum secure units are no longer needed.
- Minimum secure units require more generous allocation of therapy spaces.
- All units require a therapy room, interview rooms, medicine dispensary, lounge area, dining area, dormitory area, sensory modulation capability, access to OT space, and family/whanau room.
- Some units have manifestly inadequate space to facilitate the recovery of service users who may spend years living inside these units.
- All future units will have patient space on the ground floor and administrative space on the first floor.
- A high secure unit should be made available for those with the highest need for security. This unit will be an all-male unit for acute admissions from Court/prisons. This unit will need to have a Judges room allocated for judicial hearings, which can be easily accessed by patients from other units. There will also need to be a room fitted out with AVL capacity to facilitate court appearances at distant courts.

[6] Waitemata DHB, The Mason Approach, 2011.

[7] Waitemata DHB, Te Aranga Hou: Mason Clinic Service User Pathways Future State Map, November 2014.

3.3.2 Campus-wide redevelopment of the Mason Clinic

Waitemata DHB is preparing a long term master plan for the Mason Clinic campus. Driven by an expected increase in the demand for forensic mental health services, remediation works for the existing buildings, and broader consideration of the site vis-à-vis the redevelopment of the Unitec campus, Waitemata DHB in conjunction with the MoH and Treasury are revisiting the overall plans for the site. Waitemata DHB, MoH and Treasury are considering options to meet changing needs and failing infrastructure to deliver health services.

The master plan is under development, and is expected to be completed and agreed with project stakeholders by February 2017. At the same time, the Crown through MBIE is also embarking on a long term plan for the Unitec campus, which will influence the master plan for the Mason Clinic (discussed in further detail below).

The master plan for the Mason Clinic site will be broad and includes the location of Regional Forensic Psychiatry Services. There are three location options for the Mason Clinic master plan:

- Option A) Remain on Carrington Road site with no additional land
- Option B) Remain on Carrington Road site with 2.2 ha of additional buildable land
- Option C) Move to a green field site local to the Mason Clinic site area.

Appendix 7 of the Master Planning Design Report (October 2016 version) outlines the current master plan for the Mason Clinic campus including the specifications for Options A, B and C above.

The master plan for the Mason Clinic campus also involves a wide range of planning activities to ensure that the services provided deliver positive health outcomes for patients, maximise possible resources and are delivered in safe buildings. In this regard, the master plan encompasses:

- Remediation works on existing buildings, to address weather tightness issues (three to five year programme)
- Ensuring capacity to meet expanding demand for services over time
- Upgrading facilities in line with current recommendations for the model of care (e.g. 15 beds per unit, ensuites to bedrooms, sufficient gross floor area (GFA) to enable the delivery of rehabilitative programmes while generally providing safe and appropriate care to service users, no seclusion rooms for minimum secure units).

In addition to meeting the immediate need for remediation works due to weather tightness issues in the current buildings and expansion of forensic psychiatric services, redevelopment of the campus provides Waitemata DHB, MoH and Treasury the opportunity to reconfigure the site, in line with the redevelopment plans for the Unitec campus.

Unitec is considering its long term plans for the Carrington Road campus, the outcome of which will have an impact on the master planning process for the Mason Clinic. Unitec is considering redeveloping its campus, focusing on concentrating learning areas in the southern end of the campus and surrounding them with green space, public parks and residential housing. MBIE is also a stakeholder for the Unitec redevelopment, as the Crown owns the land on which the campus currently sits and there is a need to increase housing supply in Auckland.

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The plans for the Unitec campus strongly influence the master plan for the Mason Clinic. For example, the land use around the Unitec campus will determine the design requirements for the Mason Clinic master plan. If the land adjacent to the Mason Clinic were redeveloped for housing, the Mason Clinic campus master plan would specify a layout that provides a sense of security without a physical barrier around the campus' perimeter and protects the privacy of both the Mason Clinic's patients and residents.
The master plan will influence the Tanekaha solution through a number of mechanisms, as outlined in Table 6.

Table 6 *How the master plan influences the Tanekaha solution*

Factor	Description
Land use around the campus determines design requirements	If Unitec develops the surrounding area for housing, the campus layout needs to be made in a manner that provides a sense of a security barrier without actual perimeter security fencing, and which limits the view into the units whilst maximising the unit open spaces. In this regard, unit orientation and layout is important.
Land availability determines building type to be built	If additional land is available for the Mason Clinic, the site will be developed for core forensic and non-core forensic services on the same site. Separation of the services and access to the services is critical, e.g. high security adults should be separated from low security adults and both separated from youth services and high and complex needs patients.
Master Plan determines bed numbers in Tanekaha unit	Based on Mason Clinic service experience and national feedback the recommended number of beds per unit for the most efficient operation and best model of care is 15 beds per unit. Tanekaha has 10 beds and Kahikatea has 20 beds. A solution as part of the Mason Clinic master plan would support rationalisation of the bed numbers to 15 beds per unit (including Tanekaha) resulting in the same overall number of beds but better alignment to the recommended model of care.
Master Plan determines the security level for the proposed Tanekaha replacement	Based on the development of co-located core and non-core forensic services at Mason Clinic campus, the master plan calls for medium and high secure adult units to be located in the northern part of the campus and low secure and youth services to be located in the southern part of the campus to keep the services separate. The available location for a new unit on the existing Mason Clinic campus land is in the north side of the campus which determines that a medium or high secure unit should be built for the Tanekaha solution if a new build is preferred. The final low security replacement would be built in the southern side of the campus as part of the master plan program.
MBIE option determines most	If MBIE's recommendation is for Waitemata DHB to move

Factor	Description
appropriate remediation approach, minimal remediation or rebuild	the Mason Clinic to a new site then the most appropriate solution for Tanekaha would be a minimal remediation to hold the building over for another 5 years while a new offsite facility is developed.

In addition to meeting immediate needs to remediate failing buildings and clinical benefits associated with employing the recommended model of care, the master planning process can optimise the location of administrative and communal areas, providing administrative benefits to Waitemata DHB.

Despite the uncertainty around the master planning for the campus, the design of the proposed solution will be independent of the location decision. The design has been developed with a high degree of flexibility to future-proof the outcome of the master planning process.

3.3.3 The problem now - the Tanekaha unit is failing

The Tanekaha unit is a priority unit for remediation. Without remedial works, the Tanekaha unit is not expected to be habitable in the near future, posing risks to patient and staff health. As such, addressing the failing unit is deemed as urgent and action cannot wait until after the master planning for the site is complete.

The Tanekaha unit sits in the Stage 2 work programme for the Mason Clinic's remediation and repair works and is the next unit to be prioritised for a solution, based on the condition of the building and their rate of deterioration. A solution for the Tanekaha unit found urgently, otherwise the whole programme (containing five units as part of the Stage 2 work programme) is at risk of lengthy delays.

In September 2016, an Investment Logic Mapping (ILM) process was undertaken to help stakeholders define the key problems faced by providing forensic psychiatric services at the Mason Clinic, and specifically providing services in the Tanekaha unit. The ILM was subsequently revised in November 2016, to reflect the common understanding of the problem, and feedback from MoH and Treasury. These problems are summarised in Table 7 below and the ILM is attached as Appendix 1.

Table 7 *Tanekaha unit problem definition*

Urgent problems with Tanekaha	
Increasing exposure to environmental hazards is heightening the risk of serious harm to patients and staff	As discussed in 3.2.1, the Tanekaha unit is failing and the level of toxic mould is expected increase to an unacceptable level, posing a risk of harm to patients and staff.
Inability of Tanekaha building to optimally deliver recommended model of care, due to building being not fit-for-purpose and an inefficient configuration	As discussed in 3.2.1, the Tanekaha unit is not optimally configured to provide the recommended model of care for patients.
Ongoing deterioration of Tanekaha threatens viability of campus service continuity	The level of toxic mould is expected to increase if no remedial work is undertaken, which may lead to the

	building being closed as it will be hazardous to human health. This will adversely impact the continuity of forensic mental health services for patients in the Auckland and Northern regions.

3.4 Strategic alignment

The proposed investment is aligned with national and local objectives for health care in New Zealand and the Northern region, as outlined by level below.

3.4.1 National alignment

The Government, through the Department of Corrections, has the legislative responsibility to keep offenders in prison safe while in the Department's care. The Government recently announced a new $14million mental health package to better support offenders by providing increased access to mental health services.

A growing prison muster in the Northern Region will flow through to an in increase in the number of prisoners with serious mental health needs who require treatment at the Mason Clinic. Mental health disorders and illnesses are up to five times more prevalent among prisoners than the general population.[8] However, it is hoped that the investment by the Government to improve access to mental health services will reduce the demand for treatment at the Mason Clinic, to some extent.

The proposed investment is aligned to national standards documents, such as the New Zealand Standard Health and Disability Services (Core) Standards.[9] The requirement to provide a safe and appropriate environment (NZS 8134.1.4) outlines the need for services to be provided in a physical environment which minimises the risk of harm, among other requirements. The proposed investment would meet the New Zealand Building Code standards, which also promote safety.

In addition, the proposed investment considers the quality of life and the ability for the physical environment to influence quality of life. This is consistent with removing an institutional barrier to transforming the mental health system framework for the benefit of service users, as identified in the Destination: Recovery discussion paper.[10]

3.4.2 Regional alignment

The proposed investment is aligned with expectations that Waitemata DHB will continue to be capable of providing regional forensic services from clinically safe and fit-for-purpose facilities. There are limited facilities around New Zealand from which forensic psychiatry services can be provided with Waitemata DHB holding the northern region contract for such services.

[8] http://www.corrections.govt.nz/working_with_offenders/prison_sentences/being_in_prison/health_care.html

[9] https://www.health.govt.nz/system/files/documents/pages/81341-2008-nzs-health-and-disability-services-core.pdf

[10] https://www.mentalhealth.org.nz/assets/Our-Work/Destination-Recovery-FINAL-low-res.pdf

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The Northern Region, covering the Northland, Waitemata, Auckland and Counties Manukau DHBs has a coordinated approach for delivering services to patients in these areas. This enables the DHBs to strategically provide services to patients while optimising resources in the Northern Region, with consideration given to factors such as:

- Models of care
- Workforce
- Affordability
- Capacity.

The Northern Region Health Plan 2015/16, an integrated plan by the Northern Region DHBs, includes goals for mental health and addiction. One of the objectives includes improving the responsiveness of mental health and addiction services for people with high and/or complex needs, many of whom are receiving treatment at the Mason Clinic.

The proposed investment is directly aligned to improving responsiveness of forensic services. As noted in section 3.1, the Mason Clinic provides forensic mental health services to patients in the Auckland region. A solution to remedy the failing Tanekaha unit is required to reduce the risk of a break in the continuity of services to patients across the Region.

3.4.3 Local alignment

Waitemata DHB is planning for the longer term, to ensure the services provided meet the needs of a growing population. The core design principles which flow through to the design of services today and in the future include:

- Inclusive planning and universal design
- Flexible and future-focused design
- Enhanced patient and whānau experiences of services
- Health promoting environments
- Low impact, high efficiency design.

The proposed investment is strongly aligned to the principles of enhanced patient and whānau experiences of services; health promoting environments; and low impact, high efficiency design. The Tanekaha unit is currently in a poor condition and is failing. A solution to remedy the issue will enhance the patient experience, which will be provided in a health promoting environment (or reverse the status quo's negative impacts on health).

Waitemata DHB provides specialist regional forensic psychiatry services to meet the health needs of people with significant mental health needs, who are before the Courts or who are in the criminal justice system. The proposed new build would increase the Mason Clinic's ability to provide high-quality services in an environment which is secure and safe.

As explained in section 3.3.1, a new fit-for-purpose facility will be able to deliver the currently recommended model of care for forensic psychiatric services, which the current Tanekaha unit (and the Mason Clinic more broadly) cannot. This will help the Mason Clinic contribute to a number of Waitemata DHB's strategic priorities, including:

- Our promise of "Best care for everyone"
- Our purpose of "Relieve suffering"
- Our priorities of "Enhance patient experience" and "Better outcomes"
- Our strategic theme of "Community, whanau and patient centred model of care".

A proposed solution for the failing Tanekaha unit, and wider remediation programme, has been signalled in Waitemata DHB's Long Term Investment Plan (LTIP). The investment for the remediation programme, included in Waitemata DHB's LTIP was based on initial estimates for the remediation works, which have been revised and updated as a better understanding of the proposed solution is agreed and refined.

Waitemata DHB's Annual Plan 2016/17 outlines goals to reduce morbidity and mortality for people with mental illness[11], which the proposed investment will support by ensuring high quality services in a safe environment.

3.5 The proposed investment

The proposed investment is a solution to address the urgent weather tightness issues of the Tanekaha unit. It is also consistent with the master planning for the Mason Clinic which is currently underway. The proposed solution also needs to be flexible enough to ensure that long term planning for the site can be accommodated once the plans are agreed by Waitemata DHB, MoH and Treasury.

3.5.1 Investment objectives

The investment objectives (in Table 8) of the proposed investment are aligned to the most pressing business needs. These include weather tightness issues and the ability of the accommodation to provide the recommended model of care.

Table 8 *Investment Objectives*

To support the improvement in overall regional forensic psychiatry services building quality	
Existing arrangements	• Urgent remediation is required to buildings with weather tightness issues • Patients are accommodated in poor quality residential units, creating health and safety risks • Staff are providing services in poor quality units, creating Health and Safety risks
Business needs	• Service provision in facilities without health and safety concerns • Medium secure facility with sufficient capacity to accommodate 15 patients • Building that enables the provision of the recommended model of care • Provide flexibility in the remedial works for Tanekaha to ensure that long term planning (master planning for the campus) can be accommodated • Ensure remedial construction work is not duplicated over the short to medium term (i.e. minimise costs of remedial works on Tanekaha now and further construction on Tanekaha in the future)

[1111] http://www.waitematadhb.govt.nz/assets/Documents/annual-plan/Waitemata-DHB-Annual-Plan-2016-17.pdf

3.5.2 Key benefits

The key benefits from the proposed investment relate to providing services in a safe environment, and following the recommended model of care across campus:

- Safe environment for patients and staff
- Provision of safe and effective care, reducing the risk of avoidable harm
- Sustainable, resilient, high quality services which meet the needs of patients
- Flexibility to support the recommended model of care across campus.

Waitemata DHB has legal obligations as an employer to comply with the Health and Safety at Work Act 2015, ensuring that workers should be given a high level of protection against harm to their health, safety, and welfare from work risks as is reasonably practicable. It is also essential to ensure that services are provided to patients in, and staff work in, a safe environment which does not pose unreasonable risks to their health.

An indicative benefits map is included in Appendix 2.

3.6 Key risks

The key risks for the proposed investment are outlined in Table 9. Some risks have outcomes which are more significant than others. An assessment of the significant level of each risk is provided in Table 9.

Table 9 *Key risks*

Risk	Description	Significance level	Significance level description
Consenting delays	Consenting process for building a new unit not at the Mason Clinic site may pose a risk to the design/build timeline, cost or both. This could potentially delay the availability of new facilities.	**Medium**	These are routine risks, often observed in construction projects. They are assessed as being manageable (see table below for risk management strategies). Clinical services will still be provided in the short term from Tanekaha. In the medium term, clinical services will be provided from refurbished or new facilities.
Scope change	Waitemata DHB initiated scope changes post contract award increases design/build timeline, cost or both. This would delay decanting, impacting the project timeline.		
Delays in approvals (to changes in construction design or investment approval)	Delay in receiving approvals results in an extended timeline, impacting ability to remediate Tanekaha.		

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Construction delays	Time to build exceeds expected timeline, impacting ability to commence and complete decanting from Tanekaha.		
Delay in site identification	Delays in finding an appropriate site for the proposed investment.	**High**	These risks are specific to the Mason Clinic and remediation of Tanekaha. The level of complexity for these two risks is high, given the multi-party involvement. Therefore, the risk of a delay is much higher than other risks, potentially posing a threat to the long term provision of services in suitable accommodation. .
Delay in master planning	Uncertainty around the long term planning and use of the Mason Clinic site could lead to duplication of effort and duplication of resources invested into remediation of Tanekaha.		

The following risk management strategies in Table 10 can be employed.

Table 10 *Risk mitigations*

Risk	Risk management approach
Consenting delays	Comprehensive planning and designing that consider the potential impacts on stakeholders. Obtaining input from stakeholders throughout the design/build process
Scope change	Strong project manager control. Process to determine the requirements prior to awarding the contract. Escalation process for change requests, requiring cost and project impact assessment prior to approval
Delays in approvals (to construction design or investment approval)	Strong project manager control. Escalation process for change requests, requiring cost and project impact assessment prior to approval
Construction delays	Planning and design is underway, prior to receiving approvals. Strong project management and penalties for the builders for delays in completion (although this depends on the nature of the contract ultimately used)
Delay in site identification	Effective engagement with stakeholders to manage impacts/appeals during consenting process
Delay in master planning	Frequent and continual contact with the project steering group which will

	have oversight of the master planning process for the Mason Clinic. Master planning process cognisant of dependencies regarding this project.

3.7 Key constraints and dependencies

The project faces a number of constraints and dependencies that have the potential to impact multiple aspects of the project including overall cost and completion time. The main project dependencies are included in Table 11.

Table 11 *Project dependencies*

Project Dependencies	Description
Master planning	The overall location of the Mason Clinic may change which could impact the range of services and where the services are provided e.g. the location of car parking will be dependent on which option is provided for the site (stay within current site, expansion by 2.2ha of buildable land or a new greenfield site)
Resolution of car parking requirements	The parking requirements in the Proposed Auckland Unitary Plan may require more car parking than desired by Waitemata DHB, which influences the overall cost of the project
Identification of site at Carrington or greenfield site	The complexity and scale of this project, as well as the consenting process can also be impacted by the site selection results
Consenting process	Implementation of the master plan may also be impacted by the consenting process, contingent on the support of residents in the area as well as the potential environmental impacts
Budget/cost	The project is dependent on gaining approval for funding before it can proceed
Staff input	Working environment and safety arrangements will directly impact staff satisfaction and retention, therefore it is important to consider staff preferences
Patient input	Project selection directly impacts quality of care and facilities enjoyed by patients. Thus it is important to consider patient requests and feedback
Level of care required/achievable	Of the options considered in the Economic Case, different options may provide different levels of care and patient benefit.

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4. Economic case

This section outlines the process to identify options to meet the project and investment needs. It sets out the analysis which has been completed to identify a preferred solution.

4.1 Critical success factors

The critical success factors (CSFs) agreed by the project working group for the proposed investment are summarised in Table 12. The proposed investment should align with these CSFs.

Table 12 *Critical success factors*

Critical success factor	Sub-factor	Considerations
Strategic fit and business needs	Safe and efficient care delivered via recommended model of care	• Increased flexibility in design of the environment to enable patient-centric model of care improvements
	Enables emergency care options in the short term (before campus redevelopment) under extreme circumstances	• Meets wider regional mental health needs • Meets wider forensic mental health needs • Provide option for emergency care[12]
	Avoids disruption to current services	• Maintaining minimum service and quality levels • Key staff available and capable of implementing the solution
	Provides all forensic services in one location, in line with recommended model of care and Master Planning for the site	• Flexibility for future use and contributes to long-term Waitemata DHB and regional capacity plans • Meets wider regional mental health needs • Meets wider forensic mental health needs
	Security level for the unit provides flexibility to meet Master Plan and long term provision of services	• Alignment with longer term service and site planning
	Staff satisfaction	• Increase service delivery productivity due to fit for purpose clinical space
Affordability (including value for money)	Affordability (excluding cost of land)	• Total upfront capital cost, and whole of life cost, is within approved levels • In line with (able to be

[12] It is expected that a nominal amount of expenditure will be allocated to enable Tanekaha to be used as emergency space in the short term under extreme circumstances. However, it is expected to be immaterial and no additional funding is being sought for this and it is expected to be a cost effective solution when compared with finding alternative beds off-campus (i.e. somewhere other than the Mason Clinic).

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Critical success factor	Sub-factor	Considerations
		accommodated in) the Long Term Investment Plan • Whole of life cost is minimised
Achievability	Supplier capacity and capability	• Architects, builders/other professionals are available to implement the solution • Staff capability and capacity to deliver service
	Consenting process	• The risk involved in delivering the solution is manageable • Land is available • Consentable and acceptable to the community
	Time to completion	• Delivers solution in time to meet demand • Minimise congestion and disruption to campus during implementation • Minimise impact and disruption to service provision

4.2 Long listed options

A long list of options were developed for addressing the issues with the Tanekaha unit. When developing the options, the four themes were considered as stated in Table 13.

Table 13 *Options assessed in the long list*

Category / Theme	Description	Number of options considered within each theme
Scale & Scope (What)	Options for what the solution could look like	3
Implementation (Timing & Staging)	Options for the timeframe for a solution	2
Service solution (How)	Options for how to resolve the problem	17
Service Delivery (Who)	Options for who could deliver the solution	4

The 17 options for the service solutions covered a range of features, including:

- The level of permanency (e.g. temporary repairs, permanent repairs)
- The type of physical solution (e.g. repair, remediate or a new building)
- The size of a new unit (e.g. same size or expanded capacity)
- The location of a new unit (e.g. same site at Tanekaha, different location on-site, different site)
- Utilisation of existing resources (e.g. repurposing an existing building).

The service solution options did not specify a security level for any of the new builds.

4.2.1 Long list options analysis

A high level multi-criteria analysis of the long list of options for remediating Tanekaha was undertaken. The options were assessed against a set of criteria, as outlined in Table 14, with equal weighting for each criteria.

Table 14 *Criteria used for the long list assessment*

Criteria
Solution must be in place urgently
Meets overall capacity requirements
Solution must be the end solution, or must be able to be sustained until the end solution is in place
Value for money, minimises sunk costs
Strategic Fit & business needs
Supplier capacity and capability
Affordability
Achievability
Summary

The details of the assessment is included in Appendix 3.

The working group's preferred service solution was for a new building at the Mason Clinic (but not on the existing Tanekaha site), with an expanded number of beds.

One notable element of this assessment is that a larger solution to the existing Tanekaha unit was preferred to a same-size solution. A 15 bed unit is consistent with the current recommended model of care, as opposed to the current 10 bed. This will also allow the reduction of the Kahikatea unit from 20 beds to 15 as part of the wider campus redevelopment, which will be consistent with moving toward the current recommended model of care.

4.3 Short listed options

Waitemata DHB refined its understanding of the options to find a solution for Tanekaha in the context of the master planning and knowledge of Tanekaha, as well as better understanding of the broader remedial programme.

A previous business case for a new 15 bed medium secure unit was approved by the Capital Investment Committee (CIC) in 2015, which was to support forecast growth in demand for mental health services at the Mason Clinic and to support the remedial programme. It was initially envisaged that the new unit would support sequential decanting. Patients would move into the new unit, while their home unit was being remediated.

However, as Waitemata DHB gained further insight on the remediation works, it was discovered that the cost of remediation was not much less than construction of a new building, while the new building provided additional clinical benefits to patients, such as providing services in line with the

recommended model of care. As a consequence, the previous plan to sequentially remediate the failing units was no longer deemed appropriate given the opportunities provided by a new unit.

The master planning for the Mason Clinic is not yet finalised, so the location of the unit is uncertain. For the purposes of this business case, the project group agreed to have three location variants for the new unit's:

- the same site as the current Tanekaha unit
- a different site to Tanekaha but at the Mason Clinic
- a new greenfield site (not on the Mason Clinic site)

While the master planning process is on-going, the fundamental drivers for this business case are well established and will not change. Further refinement of the master planning will not compromise the proposed options. As the planning process has progressed, a site for a new unit (if the Mason Clinic is not able to acquire new land) has been identified.

The long list options for a new unit did not specify a level of security. The project group determined that if a new unit were to be built, the unit should be a medium security level. A medium secure unit provides the greatest flexibility for the provision of care at the Mason Clinic, as services can be provided to minimum secure patients in a medium secure facility, but the reverse is not true. In addition, due to the nature of the crimes patients in medium secure units have committed, or are alleged to have committed, they cannot be moved from the Mason Clinic without an application to the Courts. The public perception and reputation risk involved in having medium security patients transferred to other properties during the remediation process, supports having an additional medium secure unit on site. As such, construction of a medium secure unit provides insurance in the situation where a medium secure unit fails, as patients can be moved to the new unit without delay or major reallocation of patients between medium and minimum units. Therefore the project group agreed that the short-listed options for a new unit specify a medium security level.

The project group also agreed to retain a do minimum comparator. A do-nothing option is not appropriate due to the risk to continuity of services. Tanekaha is failing and requires remedial work to enable it to be available for clinical purposes in the future. As such, the do-nothing option is amended to a do-minimum option, which involves refurbishment (e.g. re-cladding) and like-for-like remedial works.

The short listed options are set out in Table 15.

Table 15 *Description and key features of the options*

Option	Description	Features
0	Remediation of the existing Tanekaha unit	• This is the do-minimum • A remediation of the existing unit, to a like-for-like state • This will either not allow Kahikatea to be reduced to 15 beds (as expected under the wider campus redevelopment), or if Kahikatea is reduced to 15 beds then it will require an additional 5 beds to be included

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Option	Description	Features
		somewhere else on the campus.
1	New build on the existing Tanekaha site	• Existing Tanekaha building is demolished • A new 15 bed, medium security, unit is developed on the same site • GFA of 1700m^2
2	New build at Carrington but not on the existing Tanekaha site	• A new 15 bed, medium security, unit is developed elsewhere on the Mason campus • GFA of 1700m^2 • Existing Tanekaha building is only used for emergency purposes under extreme circumstances in the short term
3	New build on greenfield land (not on existing Carrington site)	• A new 15 bed, medium security, unit is developed on a new greenfield site (not at Mason clinic campus) • GFA of 1700m^2 • Existing Tanekaha building is only used for emergency purposes in the future. • Due to the long timeframe for this option, it is expected that remedial work on Tanekaha would still be required.

Further planning has occurred since the options were originally identified. There has now been a site identified for the new building, which will be the same regardless of if the plan is to stay on the existing Mason Clinic site footprint, or to expand onto additional land, and a location for car parking has been identified. The revised Options 1 and 2 are included as Appendix 6. We note that this Option 2 is slightly different to that shown in the latest Master Plan document in Appendix 7.

4.4 Assessment of short listed options

4.4.1 Short list options analysis

The project group undertook a multi-criteria analysis of each short listed option, scoring each of the options against each of the criteria a value between (-3) and (+3). Each of the above options are assessed against a range of critical success factors, the results are shown in Table 16.

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Table 16 *Multi criteria assessment of the short listed options*

Description	Options			
Strategic fit and business needs	*Option 0*	*Option 1*	*Option 2*	*Option 3*
Safe and efficient care delivered via recommended model of care	✓	✓✓✓	✓✓✓	✓✓✓
Enables emergency care options	×××	×××	✓✓✓	×××
Avoids disruption to current services	✓✓	✓✓	✓	✓✓
Provides all forensic services in one location, consistent with recommended model of care and Master Planning for the site	✓✓	✓✓	✓✓✓	×
Security level for the unit provides flexibility to meet Master Plan and long term provision of services	×	✓	✓✓✓	✓✓✓
Staff satisfaction	✓	✓✓	✓✓	××
Potential affordability (including potential value for money)				
Affordability (excluding cost of land)	✓✓	✓✓	✓✓	×××
Potential achievability				
Consenting process	✓	✓✓	✓✓	×××
Time to completion	×	✓	✓✓	×××
Supplier capacity	✓	✓	✓	✓

The multi-criteria analysis of the short listed options shows that option 0, remediating Tanekaha, is inferior to new build options, as it will not provide the flexibility to meet the Master Plan and long term provision of services. The remediate option will not provide services in accordance with the recommended model of care, which is expected to be detrimental to the quality of service provided.

The remediate option is also expected to take longer than option 1 or 2 to complete. It does not provide the flexibility to support the long term campus plan, and does not provide emergency care options under extreme circumstances in the short term (unlike option 2).

Of options for a new build, while option 3 (a new build on a new site) provides services in line with the recommended model of care, it has severe disadvantages compared to options 1 and 2. It is expected to take much longer to implement – identification of a site and the consenting process is expected to be a lengthy process. Due to the long timeframe for completion of option 3, it is expected that Tanekaha will fail and require remedial work in the short term to enable services to be provided from the unit.

In addition, option 3 does not keep all forensic services in one location, which is detrimental to patients and staff and reduces administrative and infrastructure efficiencies.

Option 2 provides similar advantages to option 1, but it provides for emergency care options in the short term, and is expected to be completed sooner than option 1, as option 1 requires the

demolition of Tanekaha before construction can begin. Due to the need for demolition, the site preparation costs are expected to be greater for option 1 than option 2.

It is clear that option 2 is best aligned with the critical success factors. A new build on the Mason Clinic site enables safe and efficient care delivered throughout the process, as well as enabling emergency care options, for patients in the short term. Using Tanekaha as emergency space does not fit with the recommended model of care, but it is expected that patients are only in Tanekaha under extreme circumstances for short periods until permanent accommodation is identified.

This option also keeps disruption to current services to a minimum while providing 15 additional beds after completion of construction. Furthermore, option 2 keeps all forensic services together and is in line with recommended model of care. Additionally, constructing a new building will increase the security level, allowing for more flexibility to meet the Master Plan and long term provision of services.

Option 2 is also superior for staff satisfaction compared to the alternatives as a new and modern building will provide staff with an improved working environment compared to the remediation option.

It is currently anticipated that the proposed new Type 2 (T2) 15 bed medium secure unit is located to the north east corner of the existing Mason Clinic site. It will occupy the area currently used by the pool and associated buildings. The costs associated with re-developing the site have been included in the financial analysis in section 6. We note that the new unit could be built in an alternative location on the Mason Clinic site, if the master planning process changes the preferred location.

The Mason Clinic Masterplan Rev C dated 18.10.2016 used a generic model for most of the proposed units containing 15 beds and these are approximately 1700sqm GFA. The new proposed T2 unit largely follows the location and size of one of the units indicated in the Masterplan Option 2 - 2.2Ha Expansion on drawing MP011d. It has been designed within the existing Mason Clinic site boundaries to suit the timing of the development ahead of any acquisition of additional land.

The proposed T2 unit has been designed to allow for a future unit to be joined to it at a later date should the northern site be acquired.

A revised concept plan and schedule of accommodation with updated areas are included in Appendix 4.

4.4.2 Main benefits

The preferred option can provide a range of benefits and include:

- Enable decanting for essential remediation works on existing buildings in line with master planning
- Improved service quality
- Safe environment for patients and staff
- Sustainable, high quality service that meets the needs of the population
- Better value from investment

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These benefits will allow Waitemata DHB to enhance the service provided to its patients and will enable current issues to be fully addressed. The benefits will contribute to the sustainability of the level of care achievable, thus creating ongoing rewards for the community and stakeholders. Table 17 summarises the project benefits.

Table 17 *Main benefits of the proposed investment*

Benefit	Description	Estimated Value
Safe environment for patients and staff	• Support Waitemata DHB's ability to continue to provide regional forensic mental health services from safe and secure premises; • Obligations are met with respect to the Health and Disability Services Act. • Obligations are met with respect to the Health and Safety Act	Not financially quantified
Sustainable, high quality service that meets the needs of the population	• Ensure delivery of sustainable, high quality services that meet the needs of the population. • Services are provided according to recommended models of care	
Provision of safe and effective care, reducing the risk of avoidable harm	• Services are provided in a modern fit for purpose building providing improved service quality and potentially improved clinical benefits from the improved environment	
Flexibility to support the recommended model of care across campus	• Flexibility to support long term plans for the Mason Clinic and the provision of forensic mental health services (master planning) • Existing Tanekaha can be used as emergency space, if it is required in extreme situations, noting that it is a sub-optimal solution but it is more cost effective than an off-campus solution.	

4.4.3 Main costs

The preferred option is expected to cost $18.4m to build, with the majority of the costs due to base building costs. The cost of the preferred option is slightly higher than the 2015 business case to expand the regional forensic psychiatric capacity due to a slightly larger floor area for the preferred option. The increase in size is due to future proofing the unit, reserving gross floor area for a living area.

The capital cost for the preferred option is set out in Table 18 below. Sensitivity analysis is undertaken in section 6.4.

Table 18 *Major cost items for the preferred option*[13]

Cost item	Estimate
Infrastructure work	$385,000
Base building costs	$12,376,000
External works	$189,000

[13] Total may not add due to rounding

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Cost item	Estimate
On costs	$0
Fees	$1,400,000
Cost escalation	$580,000
Furniture, fixtures and equipment	$600,000
Information technology costs	$450,000
Total project contingency @15%	$2,397,000
Total project cost	**$18,400,000**

Source: RLB

4.5 Summary of preferred option

A new build at the Mason Clinic but not on the existing Tanekaha site is the preferred option after considering the benefits and costs involved.

This option will construct a new building on the current Mason Clinic site and retaining the existing Tanekaha unit as short-term, emergency space. The new building is expected to provide a safe environment for high quality care for patients, and a safe environment for staff. Keeping all forensic services together at the Mason Clinic campus is expected to be in line with the master plan for the campus and the in line with the recommended model of care. An additional benefit is that it allows the existing Tanekaha unit to be available as emergency space in the short term, until after the full redevelopment programme commences (and an alternative use for the Tanekaha unit's site is agreed). Using Tanekaha as emergency space is sub-optimal from a model of care perspective, but it is expected that patients are only housed in Tanekaha in extreme circumstances for short periods. It is also expected that there are cost savings from using Tanekaha as emergency space, rather than the higher cost of housing patients off site.

Additionally, constructing a new building will allow for an increased security level, allowing for more flexibility to meet the Master Plan and long term provision of services. It is also superior for staff satisfaction compared to the alternatives as a new and modern building will provide staff with an improved working environment compared to remediation.

The preferred option is implementable within acceptable timeframes, and is expected to have fewer consenting issues. Due to the cost of demolition, it is expected to be more affordable than construction of the new unit on the existing Tanekaha site.

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5. The Commercial Case

The commercial case sets out the process to procure the proposed investment. This section outlines the options and shows it is commercially viable, and appropriately deals with risk.

5.1 Procurement strategy

Below we outline possible strategies for the procurement of the design, construction, ongoing maintenance and operations of the units.

There is a range of possible procurement models across a spectrum of public and private sector participation with associated risk transfer. These models include:

- **Traditional models**: Waitemata DHB would individually enter into contracts with an expressly identified risk allocation, such as design bid build (DBB), design, construct and maintain (DCM), or design and construction (D&C). The effectiveness of these arrangements tends to rely on the ability of the Waitemata DHB to define its performance requirements prior to tendering and to have a clear identification, understanding and quantification of risks.
- **Relationship based models**: Waitemata DHB would enter into a collaborative relationship agreement with appropriate parties to define requirements, understand risks and undertake the works. These approaches generally collectively share risk on a 'no fault, no blame' basis with incentives built in to equitably share additional or reduced value to Waitemata DHB by outcomes actually achieved, thereby encouraging enhanced performance. Such approaches include the Early Contractor Involvement (ECI) model and Alliance contracting.
- **Privately financed models**: Waitemata DHB would enter into contracts with a fixed risk allocation on a whole-of-life basis, such as public-private partnership (PPP) models.
- **Managing contractor procurement models**: Waitemata DHB would appoint a Managing Contractor as the head contractor who would engage subcontractors on behalf of Waitemata DHB to deliver the works and would typically be paid a management fee and incentive payments for achieving target price, schedule and other key parameters.

Appendix 5 provides a high level summary of the key characteristics of different examples of these models and how they could be applied context of building a new unit.

Table 19 *Procurement methods in construction*

Procurement method	Description
Design bid build (DBB)	Waitemata DHB individually contract with separate entities for the design and construction phases of the project for the segments they are responsible for.
Design and construct (D&C)	Waitemata DHB seeks tenders to provide a (typically) fixed price for design and construction.
Design, construct and maintain (DCM)	Contractor retains responsibility for maintenance, but typically these models do not extend beyond the first major lifecycle phase.
Early Contractor Involvement (ECI)	Typically, the preferred ECI contractor is selected under open competition for a whole of project contract (i.e. including design development, design and construction). Typically, agreements are staged, and either a D&C or bid/build contract is entered into with the ECI contractor following the detailed definition phase. A further contract could then be entered into to provide maintenance and (potentially) operations services.
Alliance	An Alliance relationship is formed between key project participants, which include Waitemata DHB and non-owner participants (e.g. designer, constructor, other key stakeholders, etc). The relationship must be collaborative for the Alliance to be effective. Options are available to develop the Target Outturn Cost (TOC) in a competitive environment. However, most alliances have tended to use a single party to develop the TOC. This relies on the owner implementing approaches that create appropriate cost, quality and scope tensions, and the right level of expertise to critically validate the TOC, including risk quantification. A further contract would likely then be entered into to provide maintenance and (potentially) operations services. A key feature of Alliances is the gain share pain share incentive mechanism.
Public Private Partnership (PPP)	Generally, a private sector contractor (or contractor consortium) is responsible for the design, construction, operation, maintenance and finance over an extended period (typically 25-30 years). This is a typical long-term, whole-of-life approach to infrastructure delivery. Risk allocation is determined up front for the period of the contract, including maintaining the infrastructure and providing the services to a pre agreed condition for the duration of the concession. Risk transfer, bundling of whole-of-life costs and incentives from having private finance at risk can drive increased innovation.
Privatisation	Full transfer of rights to the private sector through sale, or a sale and lease back arrangement.

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5.2 Assessment

Waitemata DHB has not conducted market sounding with regards to this project, but it has recently completed a procurement process for the construction of a new 15 bed medium secure unit, which is currently under construction. The assessment has been completed with this recent experience in mind, as well as in the context of the construction required to redevelop the campus in line with the master planning.

The design bid build (DBB) option appears to be most suited for the project after careful consideration of the complexity, size, risks, costs and scope of the project. Construction of a new unit is routine and the level of complexity is low, meaning the more novel procurement models are not necessary. Table 20 summarises the suitability of each of the procurement options considered above.

Table 20 *Feasibility and suitability of different procurement options*

Option	Comment	Feasibility / suitability
Design bid build (DBB)	Traditional procurement model. Widely recognised and understood. Commonly used for this type of project.	Yes
Design and construct (D&C)	Traditional procurement model. Widely recognised and understood. Commonly used for this type of project.	Unlikely
Design, construct and maintain (DCM)	Less common than above models, but still well understood and applicable to this type of construction project.	Unlikely
Early contractor involvement (ECI)	Generally suited to complex projects where the cost, risks and scope are difficult to define upfront, making a standard construction tender process difficult. This is a reasonably standard construction project, meaning ECI is unlikely to be suitable for the construction components of this proposal.	Possible, as part of an integrated strategy
Alliance	Not appropriate for a project of this size.	No
Public private partnership (PPP)	Not appropriate for a project of this size.	No

The construction of a new 15 bed medium secure unit somewhere on the Mason Clinic campus is expected to be a standard process, and of a relatively small size and low complexity. Therefore a traditional procurement model is most likely to be suitable.

The master planning for the site is expected to provide a standard design for each of the units, where a new unit is required, with some minor configuration to the design as necessary (to meet the needs of the individual units). As such, the design component is already accounted for in the master planning. The units are expected to be completed sequentially, and as such, a DBB approach would typically be appropriate for construction of a new unit.

However, the current construction market is resource constrained due to the strong construction demand. New Zealand is experiencing significantly above average demand for construction including residential

developments in Auckland, rebuilding following natural disasters and significant planned infrastructure investment. As a result, it is currently more difficult to source materials and secure subcontractors.[14]

In the current marketplace, an ECI arrangement is considered appropriate as part of a wider strategy for the redevelopment. An ECI contractor would be involved in pre-construction and design, with a routine competitive bid/build phase following.

[14] PwC, Valuing the role of construction in the New Zealand economy, September 2016

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6. The Financial Case

The financial case sets out the analysis to show the proposed investment is affordable. The analysis shows the whole-of-life costs, to understand the total cost implications of the options and the impact of their timing. The different options have different capital investment and annual operational costs. We use a discounted cash flow analysis to compare the cost implications of the different options.

6.1 Capital costs

The capital cost estimates for the options are based on information provided by quantity surveyors and construction experts Rider Levett Bucknall (RLB) and Consult QS. The capital costs are outlined in Table 21 below.

For the purposes of illustrating the costs, the do-minimum is shown as two variants. Option 0a is for remediation of the existing building on a like-for-like basis, but excludes the costs of providing an additional five beds. Option 0b includes the costs of the additional five beds. The new build options comprise 15 beds, and this allows a reduction of five beds from Kahikatea as part of the wider campus redevelopment. The remediation option will either prohibit Kahikatea from reducing its size or will require an additional five beds somewhere else on the campus. Therefore, Option 0 includes the costs of these five beds, but Table 21 shows the costs with and without these costs to aid understanding.

The basis for the capital cost of the options are:

- Option 0a – remediation only
- Option 0b – remediation option plus an extension to Tanekaha of five beds
- Option 1 – construction of a new unit (as per Option 2) plus demolition costs[15]
- Option 2 – construction of a new unit
- Option 3 – construction of a new unit (as per Option 2) plus pro-rated infrastructure costs plus the remediation costs (excluding extension)

Table 21 *Capital costs for the options*

	Option 0a Remediate (excl five additional beds)	Option 0b Remediate	Option 1 New build replacing Tanekaha	Option 2 New build elsewhere on Mason Clinic campus	Option 3 New build on greenfield land
Construction capital investment required (without contingencies)	N/A	$5.2m	$16.0m	$16.0m	$17.1m

[15] The demolition costs have been derived using early information from QS Consult and added to the updated build costs from RLB.

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	Option 0a Remediate (excl five additional beds)	Option 0b Remediate	Option 1 New build replacing Tanekaha	Option 2 New build elsewhere on Mason Clinic campus	Option 3 New build on greenfield land
Short term remediation cost (without contingencies)	$7.8m	$7.8m	N/A	N/A	$7.8m
Total capital investment (without contingencies)	$7.8m	$13.0m	$16.0m	$16.0m	$24.9m
Total capital investment (including contingencies at 15%)	**$9.0m**	**$15.0m**	**$18.4m**	**$18.4m**	**$28.7m**

Source: RLB and Consult QS

Note that the cost of demolition is estimated as $40,000. This has been included in the cost of Option 1 but it is not significant relative to the overall capital investment required.

Option 3 includes a value for short term remediation costs. These have been included because it is expected that the time taken before Option 3 becomes operational will exceed the period when Tanekaha is habitable. Waitemata DHB expects that the process to identify a site, obtain the relevant building and resource consent, and then the construction process could take several years and Waitemata DHB expects that Tanekaha will need remedial work in the short term in order for it to be operational.

6.2 On-going costs

Table 22 summarises the on-going operational expenditure expected to be required to operate the building, under each of the options. Options 1-3 have higher operating costs than Option 0 because a medium security unit typically costs more to run than a minimum security unit. In particular, the Registered Nurse staff requirements are greater for medium security patients, along with marginal changes in other expenditure categories.

Table 22 *Cost summary*

	Option 0a Remediate (excl five additional beds)	Option 0b Remediate	Option 1 New build replacing Tanekaha	Option 2 New build elsewhere on Mason Clinic campus	Option 3 New build on greenfield land
Annual operating costs	$3.3m	$4.9m	$5.4m	$5.4m	$5.4m
Annual building	$0.08m	$0.12m	$0.09m	$0.09m	$0.08m

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	Option 0a Remediate (excl five additional beds)	Option 0b Remediate	Option 1 New build replacing Tanekaha	Option 2 New build elsewhere on Mason Clinic campus	Option 3 New build on greenfield land
maintenance costs (average), made up of:					
Annual interior maintenance (average)	$0.03m	$0.03m	N/A	Not material	Not material
Annual exterior maintenance (average)	$0.05m	$0.09m	$0.09m	$0.09m	$0.08m

Source: RLB and Consult QS

The building maintenance costs are highest for Option 0b due to the need to spend money to remediate the exterior of the building and maintain the existing interior of the building. It is not a new building, so the interior requires significant work to maintain it for on-going clinical use.

However, the proposed investment (regardless of option chosen) is expected to be cost neutral in terms of operating expenditure. Staff salaries, which make up the majority of the overall operating costs, are not expected to change as a result of implementing any one of the options. It is expected that the staff will be re-allocated from existing units at the Mason Clinic. The patients who will reside in the proposed new unit already have staff allocated to them and their wages are already funded. The change in other operational expenditure e.g. electricity is not expected to be material.

The building maintenance costs for each of the options is expected to be funded using the existing maintenance costs for Tanekaha. In particular, there will be a small amount of maintenance costs to maintain Tanekaha to enable it to be used as emergency space (for Options 2 and 3) The amount is not expected to be material and no additional funding is being sought for these costs. We note these are short term costs only for the period before the Tanekaha building is demolished (or alternative) as identified in the master plan, once agreed. The building maintenance costs are expected to be lower than the existing maintenance costs for Tanekaha, so they represent cost savings.

6.3 Whole of life costs

6.3.1 Assumptions

Our key assumptions for the discounted cash flow analysis are outlined in the table below. These assumptions are used for the analysis of all options.

Table 23 *Key assumptions for the financial analysis*

Assumption	Value
Starting date for the analysis	1 April 2017
Evaluation period	40 years
Inflation assumption	N/A[16]
Discount rate (real)	7%

We have made additional timing assumptions for the construction work involved in the different options. The additional timing assumptions are outlined in the table below. Option 3 is expected to take significantly longer to become operational, due to delays in identifying a site and obtaining the appropriate consents.

Assumption	Option 0a and 0b	Option 1	Option 2	Option 3
Construction duration	13 months	13 months	13 months	13 months
Construction begins	August 2017	August 2017	August 2017	Remedial works begin in August 2017, new construction begins in August 2022 (five year delay)
Construction ends	September 2018	September 2018	September 2018	September 2023
Facility operational	September 2018	September 2018	September 2018	September 2023

As the construction costs are expected to fall over multiple financial years for Waitemata DHB, we have assumed that the costs fall equally per month over the expected construction period. This assumption may not be realised in practice when construction begins, however for consistency we have assumed this cost profile across all the options.

6.3.2 Results

The analysis of the cost analysis over a 40 year period are shown in Table 24 below. This includes both operational and maintenance costs, but as explained above we are not seeking additional funding for those items, and therefore the one-off capital costs are more relevant in this case.

Table 24 *Cost analysis over a 40 year period*

Costs	Option 0a	Option 0b	Option 1	Option 2	Option 3

[16] We have completed the discounted cash flow analysis with real (non-inflated) figures and a real discount rate.

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Costs	Option 0a	Option 0b	Option 1	Option 2	Option 3
Total cost (undiscounted)	$137.8m	$207.9m	$229.4m	$229.3m	$235.5m
Total cost (present value)	$47.4m	$72.2m	$80.7m	$80.6m	$78.3m

The do-minimum options have the lowest cost, while the cost of Options 1, 2 and 3 require slightly more expenditure than Option 0b. Waitemata DHB expects that the clinical benefits of a new building to more than exceed the additional investment required. Options 1, 2 and 3 are similar in terms of the expected cost.

Under Option 3, the new build is delivered later than Options 1 and 2, but remedial work is required in addition to the new building. We also note that it excludes the cost of the land for the new site.

6.4 Sensitivity testing

The project group, upon the advice of construction experts, considered that there are additional risks for the refurbishment option, above routine risks for new buildings. The risks are likely to result in additional costs to be incurred which are not factored into the cost estimates and modelling above.

The additional risks and costs for refurbishment projects can include:

- Collation of additional documentation as evidence that the design intent meets both code requirements and self-imposed standards. This can be difficult and time consuming to collect particularly if the evidence needs to be collected retrospectively, which may pose additional costs.
- Degradation of materials (e.g. timber) which is only known after construction begins and an associated cost (and timing issue) for testing and replacement of degraded materials.
- Quality of materials where this may no longer meet required standards, which take time and cost to identify and remedy (design and implement) the solution.
- Refurbishments have a higher rate of minor variations, which need consenting authority approval before construction continues, which imposes additional time and costs to the project.
- Structural deficiencies and passive fire projection deficiencies which are identified after a re-clad begins and require uncosted upgrades.

In addition to the construction related costs, it is becoming harder to occupy remediation projects during their re-clad.

As such, the project group considered that sensitivity testing for the construction costs for the refurbishment option should be higher than the new build options. The project group agreed to apply the sensitivity tests in Table 25 on the construction costs.

We note that risks around the foundation requirements for the building have not been specifically included in this analysis, although they are implicitly part of the overall sensitivity. The foundation cost estimates are based on typical costs, as evidenced by the 15-bed new built currently under construction. Foundation

requirements are dependent on the specific site geology and the connections to other buildings, but are not expected to be significantly different for other sites on the campus.

Table 25 *Sensitivity testing on the construction cost estimates*

Option number	Option 0a and 0b	Option 1	Option 2	Option 3
High sensitivity test	Capex plus 30%	Capex plus 25%	Capex plus 25%	Capex plus 25%
Low sensitivity test	Capex minus 0%	Capex minus 25%	Capex minus 25%	Capex minus 25%

Table 26 *Sensitivity testing cost analysis over a 40 year period*

Option number	Option 0a	Option 0b	Option 1	Option 2	Option 3
High sensitivity test	$49.5m	$75.8m	$84.3m	$84.3m	$83.1m
Low sensitivity test	$47.4m	$72.2m	$77.0m	$77.0m	$73.6m

The sensitivity testing on the costs reflects the higher risk of the remediation option. For this reason, the difference in the cost when the high-side risks are considered is reduced. There is some degree of possibility that the actual construction costs are lower than expected for the new build options, which is not expected in the remediate option.

6.5 Outcome

Waitemata DHB considers that the additional clinical benefits for patients, in terms of implementing the recommended model of care, merits the additional investment in a new building, compared to the remediation option. Options 1 and 2 have the lowest cost out of the three new build options, with Option 2 slightly less than Option 1 (which includes the demolition costs).

The preferred option, Option 2, is expected to involve a capital investment of $18.4m. The preferred option is expected to be cost-neutral in terms of its operational expenditure. This is the case with all the options, as staff are expected to be re-allocated to the new unit from an existing Mason Clinic unit. Building maintenance costs are expected to be funded from the existing Tanekaha maintenance costs. There is a cost-saving expected due to the smaller building maintenance costs for a new building, compared to the current Tanekaha unit.

The initial investment allocated in the Waitemata DHB's LTIP was based on initial estimates of the remediation programme. However, the proposed solution developed and defined in greater detail, it is recognised that the proposed investment will be unable to be covered within Waitemata DHB's existing funding without impacting the delivery of smaller value but high priority investments, for example replacement of existing assets and infrastructure to maintain the delivery of current service levels. Waitemata DHB is seeking approval from the CIC to use Crown equity to fund the proposed investment.

Waitemata DHB is not seeking additional funding for operating costs. It is expected that all operating costs to run the facility, including any costs to maintain Tanekaha in the short term, will be funded from within Waitemata DHB's existing funding allocation. As such, there will be no material impact on Waitemata DHB's operating surplus.

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7. The Management Case

7.1 Implementation plan

Waitemata DHB has a successful track record in delivering health facility projects and would use established processes and procedures to guide the project team. This would ensure appropriate oversight of key decisions, including approval to proceed. These procedures include:

1. Change Control Procedures
2. Document Control
3. Monthly Reporting Processes
4. Issues Resolution
5. Construction Management Plan
6. Information & Communications Management
7. Quality Management Plan
8. Cost Management
9. Time Scheduling

A draft project execution plan has been developed to support the above processes and will be further developed and implemented in the next phase.

The project sponsor will determine the tolerances for project manager and implementation team. This would enable the project sufficient leeway to make local decisions without referring upwards for minor variances. If the agreed project tolerances are agreed, or are forecast to be exceeded, an exception report would be produced. Variances would be escalated to the Project Sponsor, and further to the Chief Executive if required, to ensure that control was maintained over the project as it progresses.

The build elements of the project will be managed by an experienced facilities manager. The overall project and change management would be managed by a dedicated project manager and will follow the Prince2 methodology.

Project risks will be managed in accordance with the processes set out in section 3.5, to help deliver this project on time and budget.

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7.2 Implementation timeline

The key project milestones and indicative dates are shown in Table 27.

Table 27 *Key Project Milestones and Indicative Dates*

Key Milestones	End Date
Business Case approval	March 2017
Design	July 2017
Tender	August 2017
Building consent	August 2017
Construction period	August 2017 to September 2018
Commissioning	September 2018
Facility operational	September 2018

The facility would be operational from August 2018, to accommodate a transfer of patients from Tanekaha.

7.3 Stakeholder engagement

The key internal and external stakeholders have been identified and are summarised in Figure 1. Approaches to communications and engagement throughout the development of this business case, and planned for the implementation phase, have been determined based on the degree of impact the project would have on each stakeholder/stakeholder group.

Stakeholder engagement has been a key component of the project to date including the broader campus redevelopment. Engagement has varied between stakeholder groups to meet the needs of that specific group.

Users have participated through focus groups on design and have been kept updated through the Mason Magazine. Cultural staff have been engaged in ensuring that the requirements meet cultural needs through engagement in design and planning meetings. Administrative staff have been kept informed through meetings and newsletters, clinical staff have been consulted on the design process and staff facility requirements and the design has been completed to retain flexibility to ensure it is fit for purpose regardless of any location decision for the campus. There have been meetings with the Unions, who receive monthly updates and newsletters. Unitec has been engaged, primarily regarding the sale or lease of land. Regional partners (the other three Northern Region DHBs) have been engaged through regional services planning. The Waitemata DHB Board, Treasury and MoH have received updates and briefings as the planning has progressed.

Communication and engagement will be a critical element of the project planning and execution. The communications plan will be refined during the detailed planning and implementation phase. For the key players there will be a continued focus on forums and meetings, supported by written materials (newsletters etc.). For the Active Consultation Group, it is intended that some engagement would be through meetings, but with a stronger emphasis on other communication methods, e.g. newsletters. Limited resource would mean that communication with the less impacted/influential stakeholders would be primarily through written means, e.g. newsletters and updates. The detailed communications plan for this project is available on request from the Project team.

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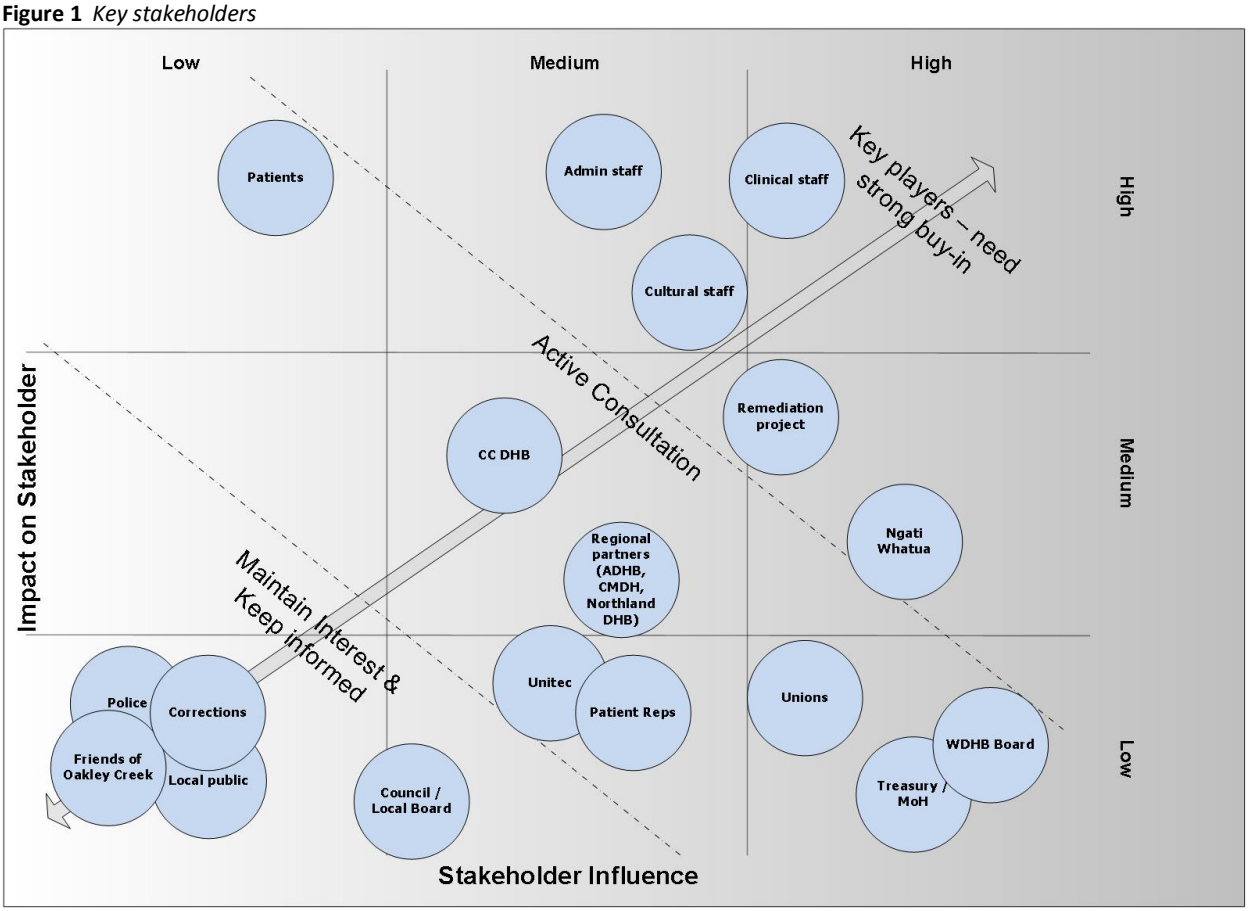
Figure 1 *Key stakeholders*



7.4 Change management

Limited change management would be required for the proposed investment in additional capacity. The most impacted stakeholders (staff and patients) would continue to provide, and receive, fundamentally the same service and care as under current arrangements, but in a different setting.

The wider remedial works project involves significant change management requirements. Change management planning will be undertaken, and will be utilised where required when the projects overlap. All relevant stakeholders (e.g. patients from Tanekaha and Rata units and their representatives, administrative and clinical staff) will be informed of the proposed migration to the new units. Initial discussions have occurred with affected staff on the indicative timeline and impact of the proposed moves.

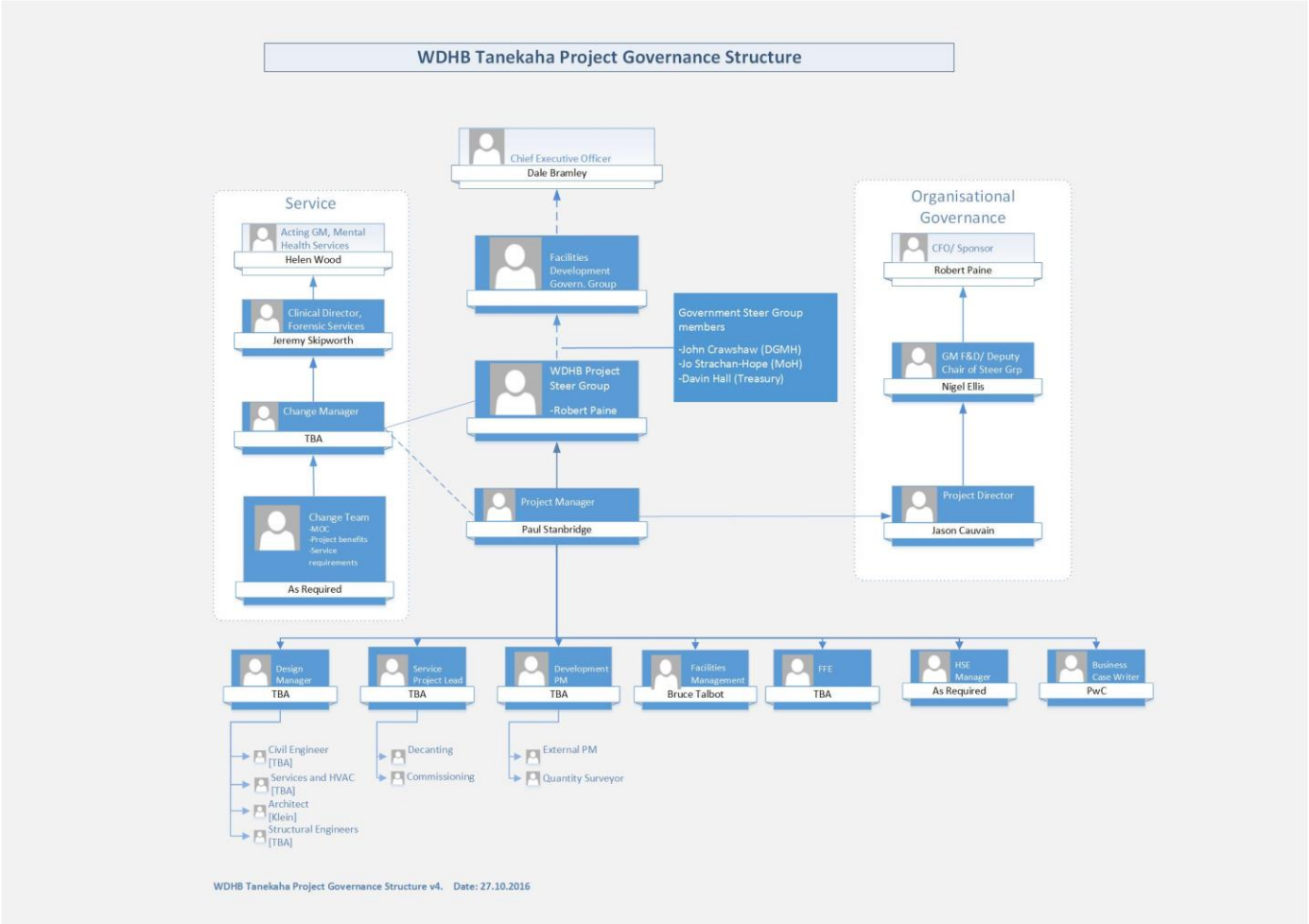
7.5 Project Structure, Monitoring and Reporting

7.5.1 Project Structure

The Mason Clinic Project governance structure follows similar approaches to other major redevelopment projects undertaken by Waitemata DHB. This includes a project steering group that is already in place and comprises Forensic Services clinical staff, management staff, finance, facilities and a Waitemata DHB Executive Leadership member, the Chief Financial Officer (CFO) and Mental Health General Manager as the

sponsor of the project. The proposed project structure showing the reporting arrangements is depicted in Figure 2. It is expected that the structure will be materially the same as those used in the past and is similar to the structure employed for the construction and operation of the new unit which is under construction.

Figure 2 *Project Governance Chart*



The Project Group governance structure is:

- Chief Executive Officer – Dave Bramley
- (Acting) General Manager, Mental Health Services – Helen Wood
- Clinical Director, Forensic Services – Jeremy Skipworth
- Change Manager – TBC
- Change team – TBC/As required
- Facilities Development Govern, Group – TBC
- WDHB Project Steer Group – Robert Paine
- Government Steer Group members – John Crawshaw, Jo Strachan-Hope, Davin Hall
- Project Manager – Paul Stanbridge
- Chief Financial Officer – Robert Paine
- GM F&D/ Deputy Chair of Steer Group – Nigel Ellis

- Project Director – Jason Cauvain

7.5.2 Monitoring

The project will be subject to standard Waitemata DHB internal monitoring and review. This project is materially similar to the business case to expand the capacity of regional forensic psychiatry services which was assessed as "Medium" on the NZ Treasury Risk Profile Assessment, and hence there is no requirement for Major Project Assurance or Gateway review.

The identification, measurement and tracking of benefits would be undertaken to ensure that the expected outcomes are realised. The Project Sponsor will have overall responsibility for the realisation of benefits. Monitoring and delivery of benefits would be the responsibility of the Service Manager.

A detailed benefits register will be created and maintained by the project manager for the duration of the project, with post-project responsibility reverting to the Service Manager.

7.5.3 Reporting

A monthly update report will be provided by the Project Sponsor to the Chief Executive on project progress, i.e. if the project is on time, on budget and able to achieve the objectives of the business case. Progress reporting would also be made to the National Health Board, at agreed key milestone points.

7.6 Benefits realisation

The proposed investment is expected to deliver a wide range of benefits. For some of these they are either achieved or not, such as compliance with legislation. For others, the magnitude can be measured directly, such as air quality meeting acceptable limits. Some of the benefits are financial benefits, in terms of avoided cost and cost savings, in terms of a reduction in expenditure for building maintenance costs, while others are non-financial.

The expected benefits, and how these will be monitored are outlined in the table below.

Table 28 ***Benefits management approach***

Benefit	How will it be measured	Current performance	Successful result and tolerance level	When this will be measured	By whom
Safe environment for patients and staff					
Compliance with the Health and Disability Services Act	Compliance audit based on percentage compliance to national standards or pass-fail rates	• At risk of non-compliant	• 100% compliant (pass) No tolerance level. New building must be compliant.	At project completion	External auditor engaged by Waitemata DHB's Facilities Manager
Compliance with the Health	Compliance audit	• At risk of non-	• 100% compliant	At project completion	External auditor

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Benefit	How will it be measured	Current performance	Successful result and tolerance level	When this will be measured	By whom
and Safety Act	based on percentage compliance to national standards or pass-fail rates	compliant • Complaints about the working environment for the Tanekaha unit	(pass) No tolerance level. New building must be compliant. • Zero complaints relating to the moisture or air quality (relating to moisture) for the Tanekaha unit No tolerance level.		engaged by Waitemata DHB's Facilities Manager
Air quality that meets acceptable limits	Air quality testing of mould	• 0/m3 Stachybotrys spore count • ~9000/m3 'Other spore type' spore count • Unacceptable fungal spore count	3 consecutive indoor readings of: • 0/m3 Stachybotrys spore count • Less than ~500/m3 'Other spore type' spore count Tolerance is based on having three consecutive indoor readings.	Monthly over the first 12 months of commissioning. Testing will be stopped once three consecutive results are achieved	External laboratory engaged by Waitemata DHB's Facilities Manager
Provision of safe and effective care, reducing the risk of avoidable harm					
	Compliance audit	• At risk of non-compliant	• 100% compliant • Compliant (pass) No tolerance		

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Benefit	How will it be measured	Current performance	Successful result and tolerance level	When this will be measured	By whom
			level.		
Sustainable, resilient, high quality services which meet the needs of the population					
Reduction in annual unplanned maintenance costs or cost savings in planned maintenance costs	Comparison against previous year costs for planned and unplanned maintenance	• $100k p.a.	Reduction of at least $25k p.a. Tolerance level of +/- 20%.	End of financial year (pro rata) if project starts mid-year.	Waitemata DHB's Facilities Manager
Improved clinical outcomes with the new model of care	A series of KPIs are being developed nationally. These will be tracked over time, and reported to the Director of Mental Health.	KPIs will include: • Length of stay • Waiting time for admission	• Reduction in length of stay • Reduction in non-compliant admissions, over the status quo. No tolerance level.	Before and after commissioning	Mason Clinic Clinical Director
Flexibility to support the recommended model of care across campus					
Facilities fully meet the new model of care requirements supporting improved delivery of care to patients	Fitness for purpose audit against new model of care requirements	• Non-compliant	100% Compliant No tolerance level.	Three months after commissioning	Mason Clinic Manager

7.7 Post Implementation Evaluation

Project Evaluation: This would take place within one month of project completion. It would confirm the extent to which deliverables have been completed and would reconcile the project budget and timelines to plan. This review would also consider lessons learned and would identify the extent to which the expected benefits have been realised at that point.

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Post Project Review: This would take place within 12 months of project start. The review would assess the benefits realised compared to the business case, identify new benefits realised but not claimed in the business case, and include planning for ongoing improvements in performance. This review would provide assurance to the DHB that the project has delivered the anticipated benefits, or is on track to do so.

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8. Conclusion/ recommendation

8.1.1 Conclusion

The Tanekaha unit is failing as it suffers from weather tightness and "leaky building" issues, posing severe risks to the health of patients and staff. It is expected that without remedial works, Tanekaha will have to be closed in the future, which poses a risk to providing services to current patients and a risk of a break in the continuity of providing services at the Mason Clinic in the future. A growing prison muster means that the outcome of a break in the continuity of regional forensic psychiatry services is expected to be more pronounced in the future. The risk is deemed unacceptable.

The proposed investment is to construct a new 15 bed medium secure unit on the Mason Clinic campus (but not on the Tanekaha site). It is considered that this would provide the immediate solution to the failing Tanekaha unit, meet the recommended model of care, provide sufficient flexibility to be consistent with the long term master planning for the Mason Clinic campus, and provide for continuity of services.

8.1.2 Recommendation

It is recommended that MoH's Capital Investment Committee approves total capital costs of $18.4m to construct a new 15 bed medium secure unit.

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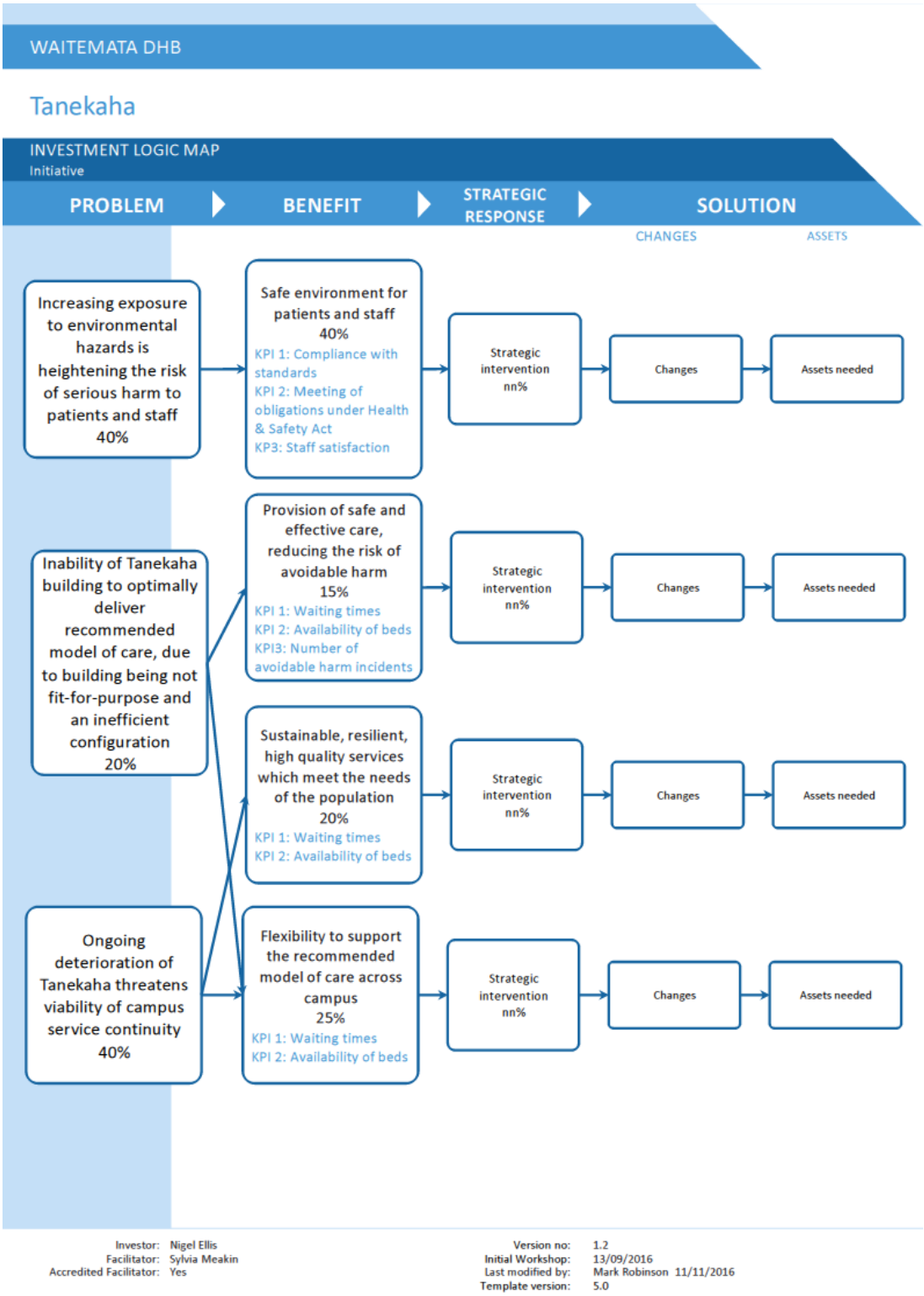
9. Appendices

Appendix 1 – Investment logic map



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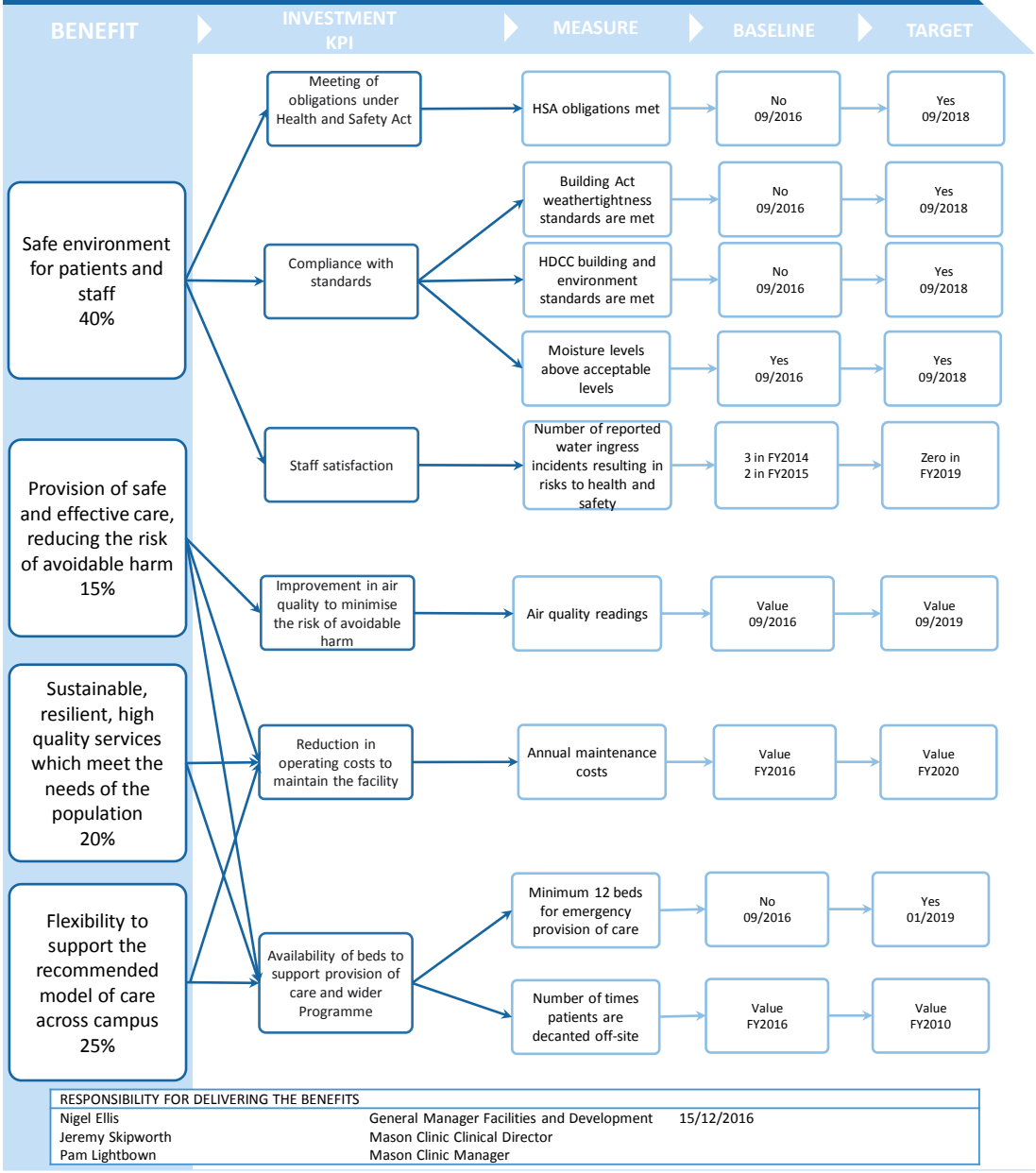
Appendix 2 - Benefit Map

WAITEMATA DHB

Tanekaha

BENEFIT MAP



RESPONSIBILITY FOR DELIVERING THE BENEFITS		
Nigel Ellis	General Manager Facilities and Development	15/12/2016
Jeremy Skipworth	Mason Clinic Clinical Director	
Pam Lightbown	Mason Clinic Manager	

Business Problem Owner: Nigel Ellis
Facilitator: Sylvia Meakin
Accredited Facilitator: Yes

Version no: 1.4
Initial Workshop: 13/09/2016
Last modified by: Mark Robinson 21/12/2016
Template version: 5.0

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Appendix 3 – Long list options testing

To assess the long list, each option is allocated a "Y", "P" or "N" based on how well the solution meets the criterion, with "Y" being meeting the criterion, "P" being partially meeting the criterion, and "N" being not meeting the criterion.

	Scale & Scope (What)			Implementation (Timing & staging)		Service Solution (How)																Service Delivery (Who)			
Description	Do nothing	Size is like for like replacement of existing facility	Larger scale replacement for existing facility	Staged implementation of change	Big bang - full implementation of change at one time	Temporary repairs (e.g. 'shrink wrap') plus air quality improvements	Temporary repairs - replacement of some of existing roof - plus air quality improvements	Temporary repairs - additional cover roof above existing roof - plus air quality improvements	Remediate/refurbish (to same quality as a new build) - fixing immediate issues, no upgrades	Remediate/refurbish (to same quality as a new build) - fixing building frame	Remediate/refurbish (to same quality as a new build) options 4 + 5 + infrastructure and services	Remediate/refurbish (to same quality as a new build) options 4 + 5 + 6 + security upgrade	Remediate/refurbish (to same quality as a new build) options 4 + 5 + 6 + 7 + reconfigure layout to meet new Model of Care	Remediate/refurbish (to same quality as a new build) options 4 + 5 + 6 + 7 + 8 + expand to meet increasing demand	New build on site in current location, same size as current facility	New build on site in current location, expanded size from current facility	New build on site in new location, same size as current facility	New build on site in new location, expanded size from current facility	Repurposing of an existing offsite facility, as a standalone unit	New build offsite as a standalone unit	New build on a new campus as part of a relocation of forensic MH services, same size as current facility	New build on a new campus as part of a relocation of forensic MH services, expanded size from current facility	Waitemata DHB	Prison	Private providers	Other DHBs
Reference	SCO1	SCO2	SCO3	IMP1	IMP2	SOL1	SOL2	SOL3	SOL4	SOL5	SOL6	SOL7	SOL8	SOL9	SOL10	SOL11	SOL12	SOL13	SOL14	SOL15	SOL16	SOL17	SD1	SD2	SD3	SD4
Investment Objectives																										
Solution must be in place within 3-5 years						Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N	N	Y	Y	Y	Y
Meets requirements for increased capacity	N	N	Y			Y	Y	Y	Y	Y	Y	Y	Y	Y	N	Y	N	Y	Y	Y	N	Y	Y	Y	Y	Y
Solution must be the end solution, or must be able to be sustained until the end solution is in place						N	Y	Y	N	P	P	P	P	P	P	P	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Value for money, minimises sunk costs																										
Critical Success Factors																										
Strategic Fit & business needs	N	P	Y	N	Y	P	P	P	P	P	P	P	Y	Y	P	Y	Y	Y	N	P	Y	Y	Y	N	N	P
Supplier capacity and capability		Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N	N	N
Affordability	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N	?	Y	Y	Y	Y	Y	Y
Achievability	Y	Y	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N	Y	Y
Summary	N	P	Y	N	Y	P	P	P	P	P	P	P	P	P	P	P	Y	Y	N	P	Y	Y	Y	N	N	N
Shortlisted Options *As all CSFs are crucial (not desirable) any option that has a CSF scoring a 'no' is discounted*	↓				↓													↓					↓			
Option Title																										
Option 1: Do nothing	SCO1 Do Nothing																									

Tanekaha Unit Not fit for Purpose Replacement Project

Appendix 4 – Updated proposed concept plan and schedule of accommodation

Tanekaha Unit Not fit for Purpose Replacement Project

Appendix 5 - Procurement models

Table 29 *Characteristics of different procurement models and application to the new unit option*

Model description	Waitemata DHB' risks	Contractor's risks	Payment mechanism	Use
Design then construct/ design bid build (DBB) Waitemata DHB individually contract with separate entities for the design and construction phases of the project for the segments they are responsible for.	• Design or scope does not meet brief (though there is risk to Waitemata DHB that this is disputed between design and construction contractors) • Site conditions • Whole-of-life asset ownership risks • Operational risks • Disputes between design and general contractor over responsibility for issues cause delays and/or mean some contractor risk is pushed back to Waitemata DHB • Separate design and construction contracts may lead to a design that is not buildable or that is not cost effective from a construction perspective. • Lack of clarity over roles and responsibilities between Waitemata DHB and the contractor • Infrastructure and resource	• Construction timetable breaches • Cost of works (except for agreed variations) • Construction trade performance • Materials and workmanship including weather tightness • Resource and subcontractor availability	• Fixed price (though subject to disputes, claims and variations) • Progress payments based on milestones or cost of work completed • Whole-of-life, maintenance and lifecycle type costs are retained by Waitemata DHB (though may be separately contracted out).	Best suited to projects where: • Waitemata DHB specifications can be clearly articulated before tender • Specifications are unlikely to change and where Waitemata DHB is best placed to manage non-construction project risks • Design is relatively uncomplicated, where the key procurement objective is ensuring a strongly competitive construction tender • One design is repeated over • Relationship with design team may be more interactive, which can reduce specification risks; however, it can also be harder to manage scope • Operational risks best managed separately • No upfront funding

Tanekaha Unit Not fit for Purpose Replacement Project

Model description	Waitemata DHB' risks	Contractor's risks	Payment mechanism	Use
	consent risks			constraints • Low scope for innovation.
Design and construct (D&C) Waitemata DHB seeks tenders to provide a (typically) fixed price for design and construction.	• Similar to DBB approach but risk of disputes between design and construction contractors is addressed • May increase risk that scope does not meet needs as there is generally greater separation between the client and the design team • Assumes Waitemata DHB can specify required outcomes clearly at the outset.	• Constructed design does not meet brief • Construction timetable breaches • Cost of works (except for agreed variations) • Construction related risks as per DBB.	As per DBB.	Similar to DBB but tends to be a quicker process as there is one tender process and D&C can overlap. Relative to DBB, it is better suited to more complex designs where there is a need for a closer relationship between the design and construction teams. More difficult than DBB because Waitemata DHB will give up some design control
Design, construct and maintain (DCM) Contractor retains responsibility for maintenance, but typically these models do not extend beyond the first major lifecycle phase.	Similar to the DBB approach: • Scope definition • Scope changes • Site conditions • Cultural and heritage risks • Operational risks • Residual ownership and asset performance risks beyond the term and scope of the maintenance contract. • Also, potential for	As per the D&C model, and also maintenance risk for the term and scope of the maintenance contract. Effective risk transfer can be limited by the lack of private finance at risk.	• As per D&C • Maintenance costs are paid periodically by Waitemata DHB. Incentive arrangements and competitive tensions during the original bid phase can drive the DCM contractor to provide some reduced maintenance costs, although this will depend on the relative value of the maintenance works and the D&C component.	DCM contractor retains responsibility for some lifecycle maintenance, so these models suit projects where there is: • Opportunity to introduce D&C innovation on a whole-of-life basis • Need to create longer term alignment of interests between the contractor and the owner • Desire for a different risk allocation.

Tanekaha Unit Not fit for Purpose Replacement Project

Model description	Waitemata DHB' risks	Contractor's risks	Payment mechanism	Use
	inconsistency with existing maintenance contracts and processes for the campus.			
Early Contractor Involvement (ECI) Typically, the preferred ECI contractor is selected under open competition for a whole of project contract (i.e. including design development, design and construction). Typically, agreements are staged, and either a D&C or bid/build contract is entered into with the ECI contractor following the detailed definition phase. A further contract could then be entered into to provide maintenance and (potentially) operations services.	• All risks retained exclusively by Waitemata DHB during development and definition phase • If the ECI converts to a subsequent contract, the risk allocation profile is as per the new contract, including whole-of-life ownership and operational risks • However, these risks would likely be lower as major design risks should have been dealt with during the development and definition phase.	D&C or bid/build types of risks accepted by the ECI contractor following agreement.	• During the design development phase, the ECI contractor is reimbursed at agreed rates on a time basis. • Based on preliminary design and draft construction contract, the contractor prepares a fixed price to undertake construction. Price is prepared on an open book basis utilising standard rates and margins originally bid by the contractor. This price may then be market tested. • Waitemata DHB would engage an external auditor to verify the price prepared prior to fixing in the D&C or bid/build contract. Payments are made similar to the subsequent arrangement.	• The ECI model has been used when cost, risks and scope cannot be sufficiently defined upfront and where there are opportunities to access contractor innovation in design and development. • ECI should reduce opportunity for successful claims and variations compared with D&C or bid/build only if the risk allocation of the underlying contract is different. This reflects the ECI's involvement during development, better understanding of Waitemata DHB' requirements and project risks and more clearly defined allocation of responsibilities and risks.

Tanekaha Unit Not fit for Purpose Replacement Project

Model description	Waitemata DHB' risks	Contractor's risks	Payment mechanism	Use
Alliance An Alliance relationship is formed between key project participants, which include Waitemata DHB and non-owner participants (e.g. designer, constructor, other key stakeholders, etc). The relationship must be collaborative for the Alliance to be effective. Options are available to develop the Target Outturn Cost (TOC) in a competitive environment. However, most alliances have tended to use a single party to develop the TOC. This relies on the owner implementing approaches that create appropriate cost, quality and scope tensions, and the right level of expertise to critically validate the TOC, including risk quantification. A further contract would likely then be entered into to provide maintenance and (potentially) operations services. A key feature of Alliances is the gain share pain share incentive mechanism.	• Alliances are predicated on 'no blame' and collective assumption of all project risk basis (ie parties share 'pain'). • Waitemata DHB share the risks during the D&C phase with the Alliance participants. The extent of the Alliance participants' financial exposure to adverse risk outcomes depends on specified sharing arrangements but is generally limited to their margin (corporate overhead and profit). Waitemata DHB remain fully exposed to the underlying project procurement costs, including the resultant costs of the occurrence of all project risks. • All asset ownership and whole of life risks are retained by Waitemata DHB. • Operational risks are retained by Waitemata DHB.		• Non-owner parties are typically guaranteed reimbursement of their direct project costs and payment of corporate overheads in an open-book arrangement. • Targets for cost, schedule and other key result areas are developed jointly during pre-construction phase. If actual delivery is better than agreed targets all participants share reward ('gain-share'). If delivery does not meet agreed targets, a pre-agreed 'pain-share' formula applies (where the margins of non-owner participants will be at risk). • Construction and other costs are paid over the course of the construction period on the basis of reimbursement of cost incurred (monthly).	• Typically used in high risk projects where it is difficult to effectively define and transfer risk and there is uncertainty around scope definition, design complexity, delivery complexity, and complex interfaces which will influence design and construction outcomes. • The model provides early collaboration of the designer and contractor in the project, providing opportunities to access construction expertise in the development of the design, definition and construction programming.

Tanekaha Unit Not fit for Purpose Replacement Project

Model description	Waitemata DHB' risks	Contractor's risks	Payment mechanism	Use
Public Private Partnership (PPP) Generally, a private sector contractor (or contractor consortium) is responsible for the design, construction, operation, maintenance and finance over an extended period (typically 25-30 years). This is a typical long-term, whole-of-life approach to infrastructure delivery. Risk allocation is determined up front for the period of the contract, including maintaining the infrastructure and providing the services to a pre agreed condition for the duration of the concession. Risk transfer, bundling of whole-of-life costs and incentives from having private finance at risk can drive increased innovation.	Some risks are common to the DBB/D&C models including: • site conditions (possibly) • cultural and heritage. Additional risks include: • transfer back risk • market changes that cannot be adapted to due to the long term PPP contract. Waitemata DHB will only bear the risk that is specifically allocated to the individual organisation. This means that all unspecified risks are borne by the private sector consortium.	• Majority of D&C and maintenance risks on a whole-of-life basis are transferred to a private sector consortium, which has full ownership risk over the assets. (No service, no payment; substandard service, reduced payment). • Private sector consortium has full exposure (of all its capital invested) to consequences of design, construction and maintenance judgments and trade-offs over the life of the project.	• Waitemata DHB make service payments once the project delivers the services at the required standard (ie post commissioning). Consortium pays D&C sub-contractors during construction through private financing, which is subsequently repaid to consortium from Waitemata DHB' service payments over the term of the contract. • The payment mechanism links with a key performance indicator (KPI) and service specifications regime and provides for reduced payments for poor performance or lack of availability during the concession. • In theory, the PPP model could involve the consortium assuming risk (e.g. having payments linked to the number of patients). However, there is currently limited appetite from private sector financiers to take 'risk'.	• Where there is a clear measurable service output against which performance can be measured. • Where there are opportunities for significant effective risk transfer to the private sector (including D&C and whole-of-life risks). • Where there is opportunity for private sector innovation in any or all aspects of the project (D&C, finance, O&M) to add value. • Where benefits can be realised through a whole-of-life approach to design and costing, i.e. there is a strong connection between the specific design, construction materials and the level and type of maintenance costs.
Privatisation Full transfer of rights to the private sector through sale.	Control over the infrastructure or land transferred to the private sector. Ability to ensure quality of service	All risks rest with private party.	Negotiated through the sale process.	• May be applicable to certain small components of the project only (e.g. redevelopment of land

Tanekaha Unit Not fit for Purpose Replacement Project

Model description	Waitemata DHB' risks	Contractor's risks	Payment mechanism	Use
	over the long-term could be challenging.			surrounding new stations, if this is currently owned). • Funds from any sale could be used to offset the costs of any of the other procurement methods.
Public provision This would involve direct provision from Waitemata DHB.	All risks reside with the individual Waitemata DHB for the segments they are responsible for.	N/A	N/A, as there is no contractual party	Not suitable as a full procurement option, but may be used in conjunction with another method.

Tanekaha Unit Not fit for Purpose Replacement Project

Appendix 6 – Updated plans for Options 1 and 2

Tanekaha Unit Not fit for Purpose Replacement Project

Appendix 7 – Master plan design report

Tanekaha Unit Not fit for Purpose Replacement Project

Appendix 8 – Minutes from Regional Mental Health Group meeting (30 November 2016)

MH&A Network

Minutes

Northern Regional Alliance
He Hononga o te Raki

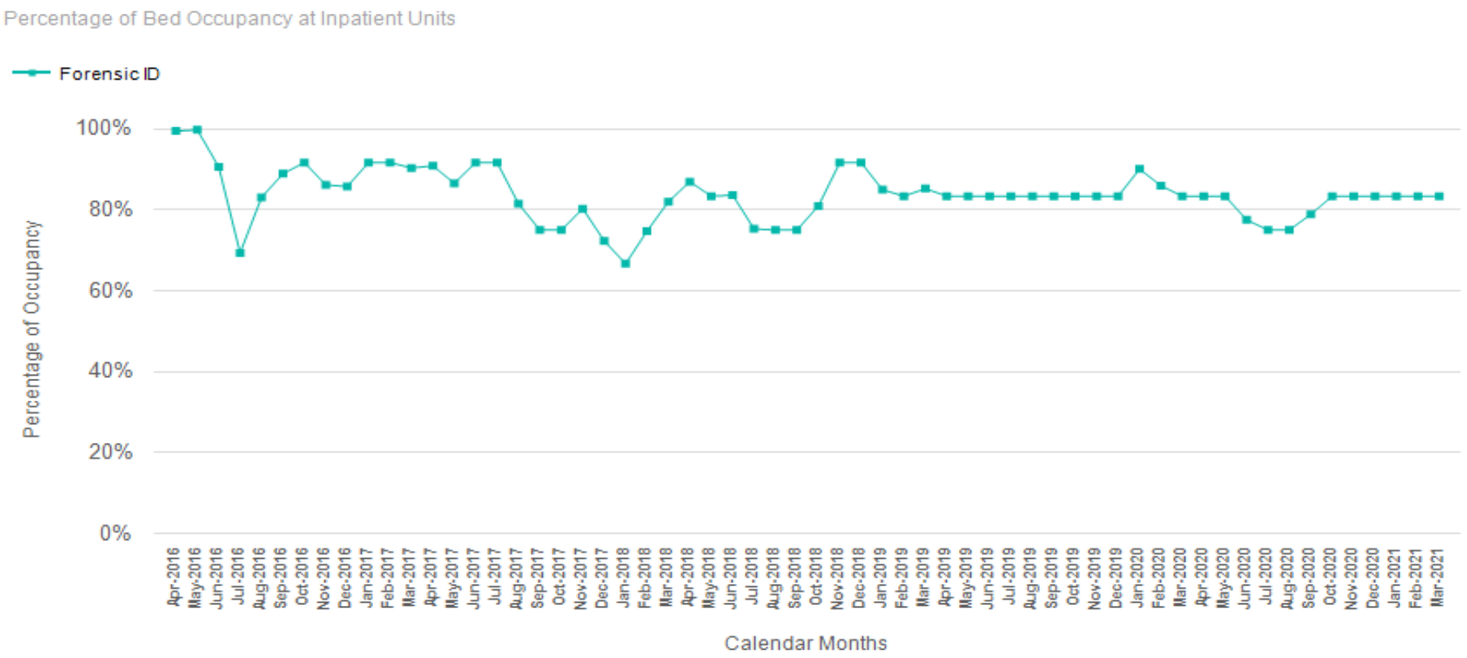
Date	30 November 2016	**Time**	9:00am-12:00pm
Location	NRA, Unisys Building, Level 2, 650 Great South Road, Penrose 1051		
Attendees	**Chair-**Sue Wyeth-NRA, Ian McKenzie-NDHB, Segina Te Ahuahu-NDHB ***(VC)***, Murray Patton-WDHB, Jeremy Skipworth-WDHB, Helen Wood-WDHB (Acting GM), Anna Schofield-ADHB (Acting Director), Alison Hudgell-ADHB, Trish Palmer-ADHB/WDHB, Peter Watson-CMH, Tess Ahern-CMH, Anne Brebner-CMH, Naomi Cowan-Equip		
Apologies	Ian McKenzie-NDHB, Helen Wood-WDHB, Alison Hudgell-ADHB, Anne Brebner-CMH		

Action Summary updated 5 December, 2016

Item No	Agenda Item
4	**Capital Proposal for Tanekaha Unit – Mason Clinic** • Noted that the majority of the Network had attended meeting earlier in the year, and had supported overall capital development plan for Mason. • This proposal is for Tanekaha only - Stage one of project. • Although beds for the unit are increasing from 10 to 15, the overall number of beds does not increase as part of overall capital project. • Unlikely to be approved until the whole of sector review of land is completed. • Proposal endorsed by the Network.

Bed Occupancy Trend for Mental Health and Addictions Unit between 01-Apr-2016 and 31-Mar-

Attachment 4



Percentage of bed occupancy mentioned in the table below

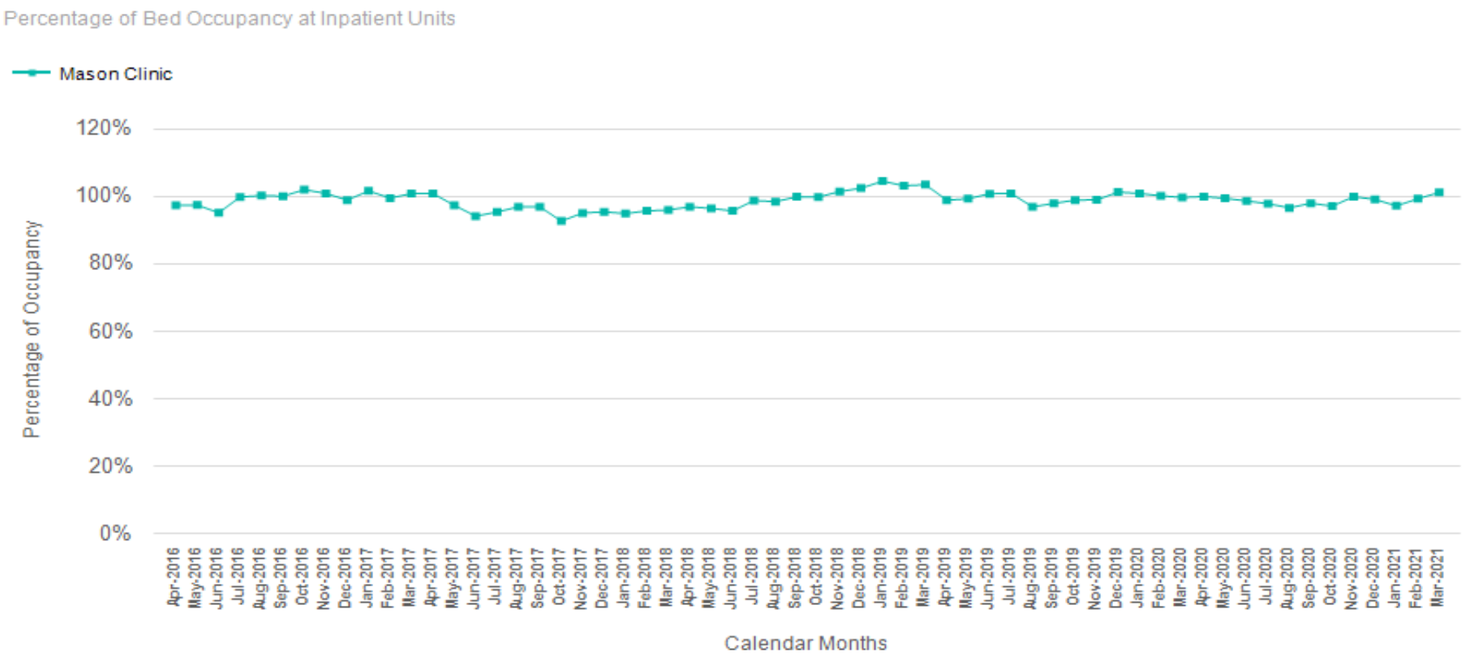
	Measure	Apr-2016	May-2016	Jun-2016	Jul-2016	Aug-2016	Sep-2016	Oct-2016	Nov-2016	Dec-2016	Jan-2017	Feb-2017	Mar-2017	Apr-2017	May-2017	Jun-2017	Jul-2017
Forensic ID	% Occupany incl Leave	99%	100%	91%	69%	83%	89%	92%	86%	86%	92%	92%	90%	91%	87%	92%	92%
	Available Beds	360	372	360	372	372	360	372	360	372	372	336	372	360	372	360	372
	Occupied Beds incl Leave	358	371	326	258	309	320	341	310	319	341	308	336	327	322	330	341

Aug-2017	Sep-2017	Oct-2017	Nov-2017	Dec-2017	Jan-2018	Feb-2018	Mar-2018	Apr-2018	May-2018	Jun-2018	Jul-2018	Aug-2018	Sep-2018	Oct-2018	Nov-2018	Dec-2018	Jan-2019	Feb-2019
81%	75%	75%	80%	72%	67%	75%	82%	87%	83%	84%	75%	75%	75%	81%	92%	92%	85%	83%
372	360	372	360	372	372	336	372	360	372	360	372	372	360	372	360	372	372	336
303	270	279	289	269	248	251	305	313	310	301	280	279	270	301	330	341	316	280

Mar-2019	Apr-2019	May-2019	Jun-2019	Jul-2019	Aug-2019	Sep-2019	Oct-2019	Nov-2019	Dec-2019	Jan-2020	Feb-2020	Mar-2020	Apr-2020	May-2020	Jun-2020	Jul-2020	Aug-2020	Sep-2020
85%	83%	83%	83%	83%	83%	83%	83%	83%	83%	90%	86%	83%	83%	83%	78%	75%	75%	79%
372	360	372	360	372	372	360	372	360	372	372	348	372	360	372	360	372	372	360
317	300	310	300	310	310	300	310	300	310	335	299	310	300	310	279	279	279	284

Oct-2020	Nov-2020	Dec-2020	Jan-2021	Feb-2021	Mar-2021
83%	83%	83%	83%	83%	83%
372	360	372	372	336	372
310	300	310	310	280	310

Bed Occupancy Trend for Mental Health and Addictions Unit between 01-Apr-2016 and 31-Mar-



Percentage of bed occupancy mentioned in the table below

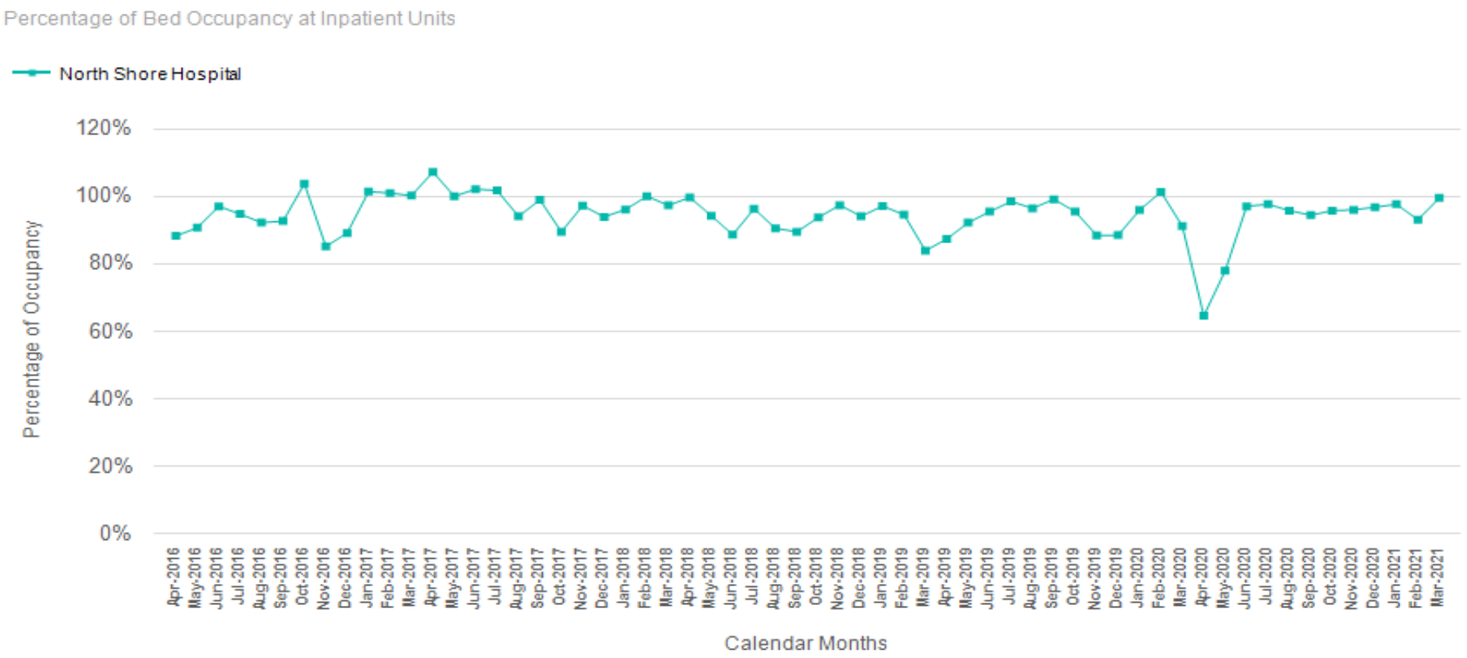
	Measure	Apr-2016	May-2016	Jun-2016	Jul-2016	Aug-2016	Sep-2016	Oct-2016	Nov-2016	Dec-2016	Jan-2017	Feb-2017	Mar-2017	Apr-2017	May-2017	Jun-2017	Jul-2017
Mason Clinic	% Occupany incl Leave	97%	97%	95%	100%	100%	100%	102%	101%	99%	102%	99%	101%	101%	97%	94%	95%
	Available Beds	2520	2604	2520	2604	2604	2520	2604	2520	2604	2604	2352	2604	2520	2604	2520	2604
	Occupied Beds incl Leave	2453	2536	2397	2599	2609	2520	2655	2541	2575	2645	2339	2625	2540	2535	2371	2483

Aug-2017	Sep-2017	Oct-2017	Nov-2017	Dec-2017	Jan-2018	Feb-2018	Mar-2018	Apr-2018	May-2018	Jun-2018	Jul-2018	Aug-2018	Sep-2018	Oct-2018	Nov-2018	Dec-2018	Jan-2019	Feb-2019
97%	97%	93%	95%	95%	95%	96%	96%	97%	96%	96%	99%	98%	100%	100%	101%	102%	104%	103%
2819	2970	3069	2970	3069	3069	2772	3069	2970	3069	2970	3069	3069	2970	3069	2970	3069	3069	2772
2731	2876	2843	2823	2927	2912	2652	2945	2877	2959	2841	3031	3020	2965	3061	3012	3142	3206	2858

Mar-2019	Apr-2019	May-2019	Jun-2019	Jul-2019	Aug-2019	Sep-2019	Oct-2019	Nov-2019	Dec-2019	Jan-2020	Feb-2020	Mar-2020	Apr-2020	May-2020	Jun-2020	Jul-2020	Aug-2020	Sep-2020
103%	99%	99%	101%	101%	97%	98%	99%	99%	101%	101%	100%	100%	100%	99%	99%	98%	97%	98%
3069	2970	3069	2970	3069	3069	2970	3069	2970	3069	3069	2871	3069	2970	3069	2970	3069	3069	2970
3174	2936	3047	2992	3095	2973	2907	3035	2938	3107	3094	2875	3058	2968	3051	2929	3002	2963	2909

Oct-2020	Nov-2020	Dec-2020	Jan-2021	Feb-2021	Mar-2021
97%	100%	99%	97%	99%	101%
3069	2970	3069	3069	2772	3069
2979	2967	3040	2982	2751	3104

Bed Occupancy Trend for Mental Health and Addictions Unit between 01-Apr-2016 and 31-Mar-



Percentage of bed occupancy mentioned in the table below

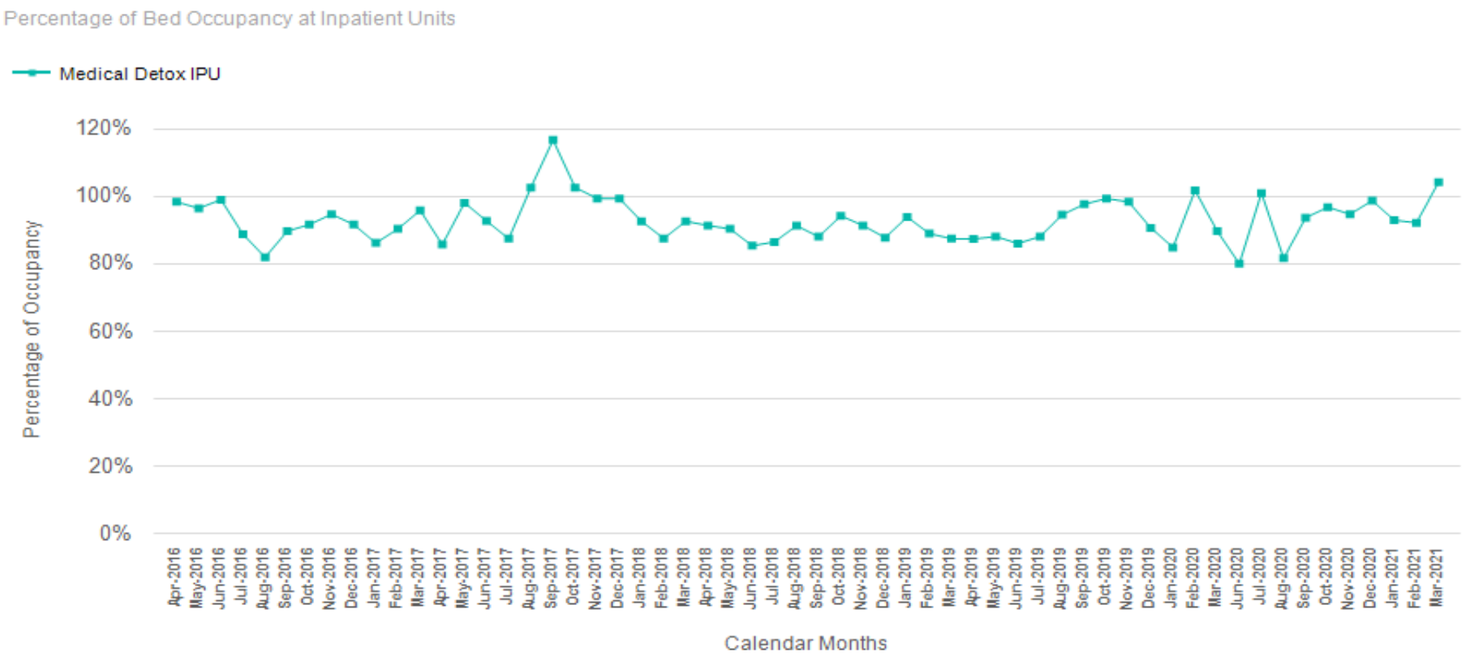
	Measure	Apr-2016	May-2016	Jun-2016	Jul-2016	Aug-2016	Sep-2016	Oct-2016	Nov-2016	Dec-2016	Jan-2017	Feb-2017	Mar-2017	Apr-2017	May-2017	Jun-2017	Jul-2017
North Shore Hospital	% Occupany incl Leave	88%	91%	97%	95%	92%	93%	104%	85%	89%	101%	101%	100%	107%	100%	102%	102%
	Available Beds	570	589	570	589	589	570	589	570	589	589	532	589	570	589	570	589
	Occupied Beds incl Leave	503	534	553	558	543	528	611	485	525	597	537	590	611	589	582	599

Aug-2017	Sep-2017	Oct-2017	Nov-2017	Dec-2017	Jan-2018	Feb-2018	Mar-2018	Apr-2018	May-2018	Jun-2018	Jul-2018	Aug-2018	Sep-2018	Oct-2018	Nov-2018	Dec-2018	Jan-2019	Feb-2019
94%	99%	89%	97%	94%	96%	100%	97%	100%	94%	89%	96%	90%	89%	94%	97%	94%	97%	95%
589	570	589	570	589	589	532	589	570	589	570	589	589	570	589	570	589	589	532
554	564	527	554	553	566	532	573	568	555	505	567	533	510	552	555	554	572	503

Mar-2019	Apr-2019	May-2019	Jun-2019	Jul-2019	Aug-2019	Sep-2019	Oct-2019	Nov-2019	Dec-2019	Jan-2020	Feb-2020	Mar-2020	Apr-2020	May-2020	Jun-2020	Jul-2020	Aug-2020	Sep-2020
84%	87%	92%	95%	98%	96%	99%	95%	88%	88%	96%	101%	91%	65%	78%	97%	98%	96%	94%
589	570	589	570	589	589	570	589	570	589	589	551	589	570	589	570	589	589	570
494	498	543	544	580	568	565	562	504	521	565	558	537	368	459	553	575	564	538

Oct-2020	Nov-2020	Dec-2020	Jan-2021	Feb-2021	Mar-2021
96%	96%	97%	98%	93%	99%
589	570	589	589	532	589
564	547	570	575	495	586

Bed Occupancy Trend for Mental Health and Addictions Unit between 01-Apr-2016 and 31-Mar-



Percentage of bed occupancy mentioned in the table below

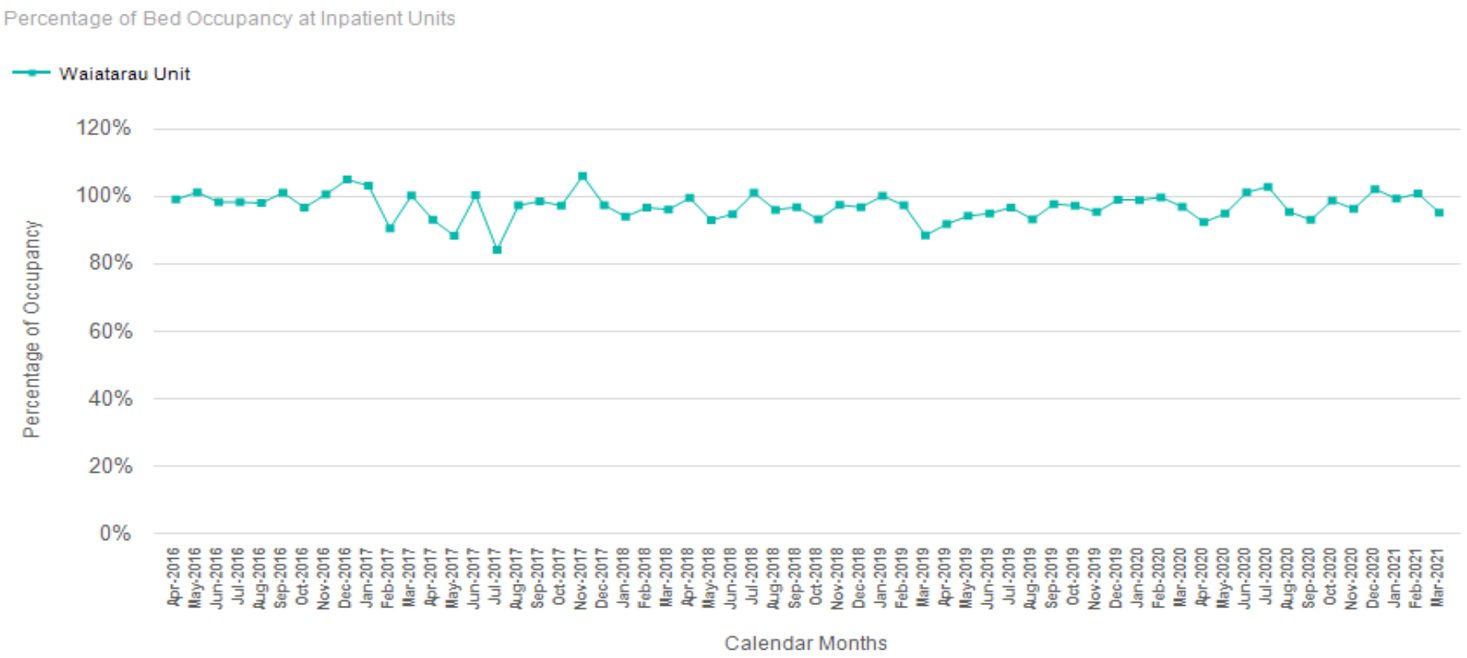
	Measure	Apr-2016	May-2016	Jun-2016	Jul-2016	Aug-2016	Sep-2016	Oct-2016	Nov-2016	Dec-2016	Jan-2017	Feb-2017	Mar-2017	Apr-2017	May-2017	Jun-2017	Jul-2017
Medical Detox IPU	% Occupany incl Leave	98%	96%	99%	89%	82%	90%	92%	95%	92%	86%	90%	96%	86%	98%	93%	87%
	Available Beds	300	310	300	310	310	300	310	300	310	310	280	310	300	310	300	310
	Occupied Beds incl Leave	295	299	297	275	254	269	284	284	284	267	253	297	257	304	278	271

Aug-2017	Sep-2017	Oct-2017	Nov-2017	Dec-2017	Jan-2018	Feb-2018	Mar-2018	Apr-2018	May-2018	Jun-2018	Jul-2018	Aug-2018	Sep-2018	Oct-2018	Nov-2018	Dec-2018	Jan-2019	Feb-2019
103%	117%	103%	99%	99%	93%	88%	93%	91%	90%	85%	86%	91%	88%	94%	91%	88%	94%	89%
310	300	310	300	310	310	280	310	300	310	300	310	310	300	310	300	310	310	280
318	350	318	298	308	287	245	287	274	280	256	268	283	264	292	274	272	291	249

Mar-2019	Apr-2019	May-2019	Jun-2019	Jul-2019	Aug-2019	Sep-2019	Oct-2019	Nov-2019	Dec-2019	Jan-2020	Feb-2020	Mar-2020	Jun-2020	Jul-2020	Aug-2020	Sep-2020	Oct-2020	Nov-2020
87%	87%	88%	86%	88%	95%	98%	99%	98%	91%	85%	102%	90%	80%	101%	82%	94%	97%	95%
310	300	310	300	310	310	300	310	300	310	310	290	280	290	310	310	300	310	300
271	262	273	258	273	293	293	308	295	281	263	295	251	232	313	253	281	300	284

Dec-2020	Jan-2021	Feb-2021	Mar-2021
99%	93%	92%	104%
310	310	280	310
306	288	258	323

Bed Occupancy Trend for Mental Health and Addictions Unit between 01-Apr-2016 and 31-Mar-



Percentage of bed occupancy mentioned in the table below

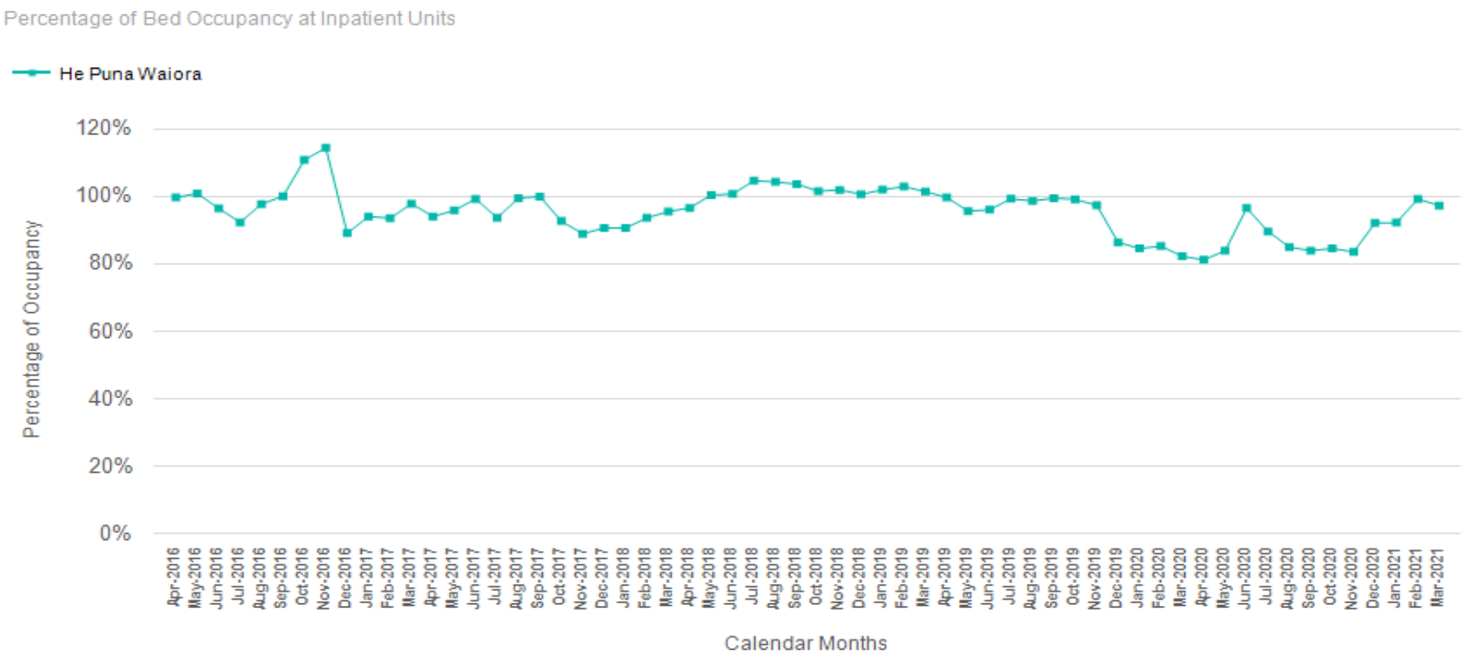
	Measure	Apr-2016	May-2016	Jun-2016	Jul-2016	Aug-2016	Sep-2016	Oct-2016	Nov-2016	Dec-2016	Jan-2017	Feb-2017	Mar-2017	Apr-2017	May-2017	Jun-2017	Jul-2017
Waiatarau Unit	% Occupany incl Leave	99%	101%	98%	98%	98%	101%	97%	101%	105%	103%	91%	100%	93%	88%	100%	84%
	Available Beds	960	992	960	992	992	960	992	960	992	992	896	992	960	992	960	992
	Occupied Beds incl Leave	951	1004	943	975	972	970	959	965	1041	1023	811	994	893	876	963	834

Aug-2017	Sep-2017	Oct-2017	Nov-2017	Dec-2017	Jan-2018	Feb-2018	Mar-2018	Apr-2018	May-2018	Jun-2018	Jul-2018	Aug-2018	Sep-2018	Oct-2018	Nov-2018	Dec-2018	Jan-2019	Feb-2019
97%	99%	97%	106%	97%	94%	97%	96%	99%	93%	95%	101%	96%	97%	93%	97%	97%	100%	97%
992	960	976	880	992	992	896	992	960	992	960	992	992	960	992	960	992	992	896
965	946	949	933	966	932	866	953	955	922	909	1002	952	929	924	935	960	993	872

Mar-2019	Apr-2019	May-2019	Jun-2019	Jul-2019	Aug-2019	Sep-2019	Oct-2019	Nov-2019	Dec-2019	Jan-2020	Feb-2020	Mar-2020	Apr-2020	May-2020	Jun-2020	Jul-2020	Aug-2020	Sep-2020
88%	92%	94%	95%	97%	93%	98%	97%	95%	99%	99%	100%	97%	92%	95%	101%	103%	95%	93%
992	960	992	960	992	992	960	992	960	992	992	928	992	960	992	960	992	992	960
877	881	934	911	959	924	938	964	915	982	981	925	961	886	941	971	1020	946	893

Oct-2020	Nov-2020	Dec-2020	Jan-2021	Feb-2021	Mar-2021
99%	96%	102%	99%	101%	95%
992	960	992	992	896	992
979	924	1013	985	903	944

Bed Occupancy Trend for Mental Health and Addictions Unit between 01-Apr-2016 and 31-Mar-



Percentage of bed occupancy mentioned in the table below

	Measure	Apr-2016	May-2016	Jun-2016	Jul-2016	Aug-2016	Sep-2016	Oct-2016	Nov-2016	Dec-2016	Jan-2017	Feb-2017	Mar-2017	Apr-2017	May-2017	Jun-2017	Jul-2017
He Puna Waiora	% Occupany incl Leave	100%	101%	96%	92%	98%	100%	111%	114%	89%	94%	93%	98%	94%	96%	99%	94%
	Available Beds	1050	1085	1050	1085	1085	881	734	725	1085	1085	980	1085	1050	1085	1050	1085
	Occupied Beds incl Leave	1046	1094	1012	1001	1060	881	813	829	966	1020	916	1061	987	1039	1042	1016

Aug-2017	Sep-2017	Oct-2017	Nov-2017	Dec-2017	Jan-2018	Feb-2018	Mar-2018	Apr-2018	May-2018	Jun-2018	Jul-2018	Aug-2018	Sep-2018	Oct-2018	Nov-2018	Dec-2018	Jan-2019	Feb-2019
99%	100%	93%	89%	91%	91%	94%	95%	97%	100%	101%	105%	104%	104%	101%	102%	101%	102%	103%
1085	1050	1085	1050	1085	1085	980	1085	1050	1085	1050	1085	1085	1050	1085	1050	1085	1085	980
1079	1049	1005	933	983	983	917	1036	1014	1089	1057	1135	1131	1088	1101	1070	1091	1106	1008

Mar-2019	Apr-2019	May-2019	Jun-2019	Jul-2019	Aug-2019	Sep-2019	Oct-2019	Nov-2019	Dec-2019	Jan-2020	Feb-2020	Mar-2020	Apr-2020	May-2020	Jun-2020	Jul-2020	Aug-2020	Sep-2020
101%	100%	96%	96%	99%	99%	99%	99%	97%	86%	85%	85%	82%	81%	84%	96%	90%	85%	84%
1085	1050	1085	1050	1085	1085	1050	1085	1050	1085	1085	1015	1085	1050	1085	1050	1085	1085	1050
1100	1046	1037	1008	1077	1070	1044	1075	1022	937	917	865	892	852	910	1013	972	921	881

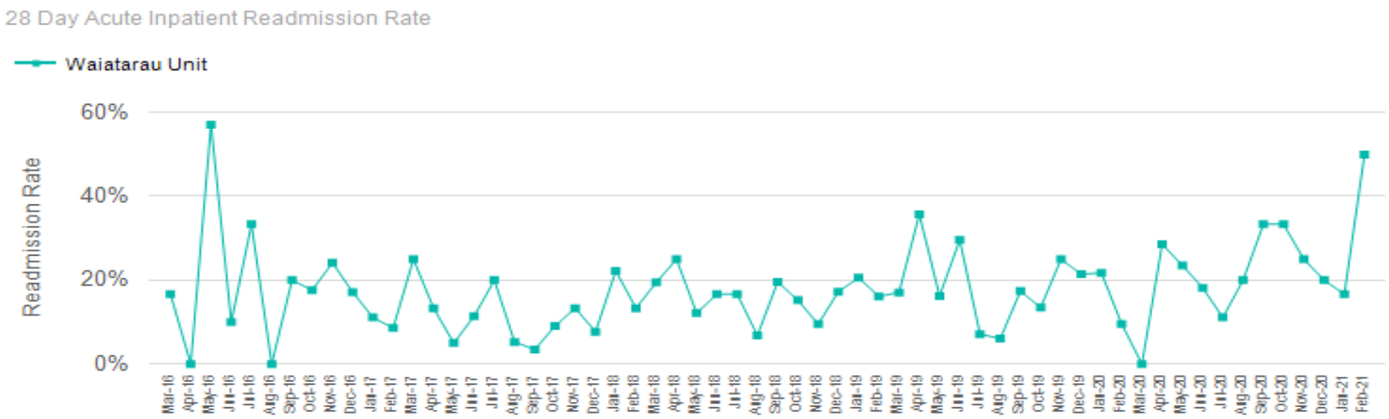
Oct-2020	Nov-2020	Dec-2020	Jan-2021	Feb-2021	Mar-2021
85%	84%	92%	92%	99%	97%
1085	1050	1085	1085	980	1085
917	877	999	1000	972	1055

Inpatient 28 day readmission from 01-Mar-16 and 28-Feb-21

Attachment 5

Note: This is a drill-down report. Kindly select the datapoints in the graph below to see readmission stats for the discharges in a month

Numerator: Total number of acute inpatient overnight discharges closed in the reporting period that are followed by a readmission within 28 days
Denominator: Total number of in-scope acute inpatient discharges closed during the reference period where the referral either ended routinely or if transferred to another service/facility, the transfer-to service is not psychiatric inpatient or accident and emergency



Months	Mar-16	Apr-16	May-16	Jun-16	Jul-16	Aug-16	Sep-16	Oct-16	Nov-16	Dec-16	Jan-17	Feb-17	Mar-17	Apr-17	May-17	Jun-17	Jul-17
Denominator	18	11	7	10	9	6	5	34	29	35	18	35	40	30	40	35	40
Numerator	3	0	4	1	3	0	1	6	7	6	2	3	10	4	2	4	8
Readmission Percent	17%	0%	57%	10%	33%	0%	20%	18%	24%	17%	11%	9%	25%	13%	5%	11%	20%

Aug-17	Sep-17	Oct-17	Nov-17	Dec-17	Jan-18	Feb-18	Mar-18	Apr-18	May-18	Jun-18	Jul-18	Aug-18	Sep-18	Oct-18	Nov-18	Dec-18	Jan-19	Feb-19
38	29	33	30	39	27	30	36	20	33	24	36	44	46	46	42	29	34	31
2	1	3	4	3	6	4	7	5	4	4	6	3	9	7	4	5	7	5
5%	3%	9%	13%	8%	22%	13%	19%	25%	12%	17%	17%	7%	20%	15%	10%	17%	21%	16%

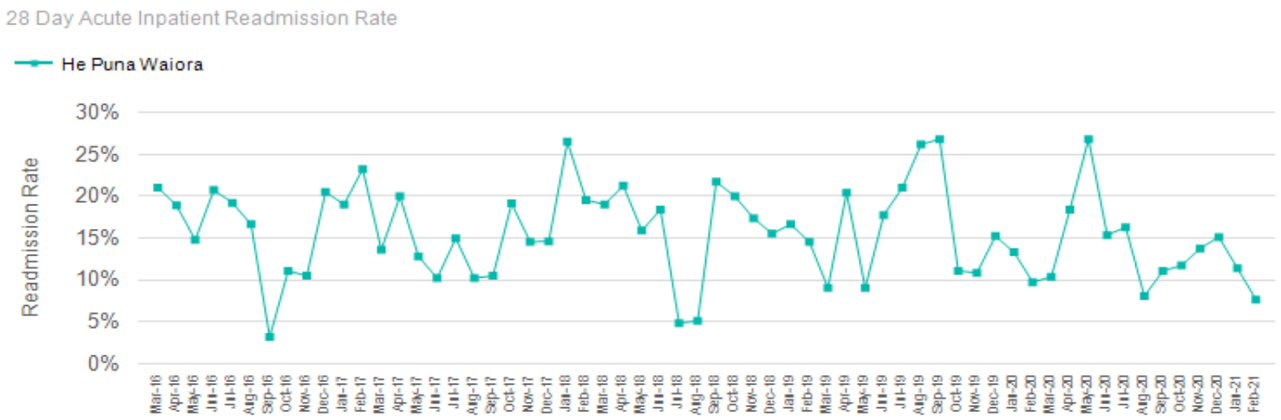
Mar-19	Apr-19	May-19	Jun-19	Jul-19	Aug-19	Sep-19	Oct-19	Nov-19	Dec-19	Jan-20	Feb-20	Mar-20	Apr-20	May-20	Jun-20	Jul-20	Aug-20	Sep-20
41	28	37	27	28	33	46	37	4	14	23	21	16	7	17	11	9	10	3
7	10	6	8	2	2	8	5	1	3	5	2	0	2	4	2	1	2	1
17%	36%	16%	30%	7%	6%	17%	14%	25%	21%	22%	10%	0%	29%	24%	18%	11%	20%	33%

Oct-20	Nov-20	Dec-20	Jan-21	Feb-21
6	8	5	6	2
2	2	1	1	1
33%	25%	20%	17%	50%

Inpatient 28 day readmission from 01-Mar-16 and 28-Feb-21

Note: This is a drill-down report. Kindly select the datapoints in the graph below to see readmission stats for the discharges in a month

Numerator: Total number of acute inpatient overnight discharges closed in the reporting period that are followed by a readmission within 28 days
Denominator: Total number of in-scope acute inpatient discharges closed during the reference period where the referral either ended routinely or if transferred to another service/facility, the transfer-to service is not psychiatric inpatient or accident and emergency



Months	Mar-16	Apr-16	May-16	Jun-16	Jul-16	Aug-16	Sep-16	Oct-16	Nov-16	Dec-16	Jan-17	Feb-17	Mar-17	Apr-17	May-17	Jun-17	Jul-17	Aug-17
Denominator	38	37	54	53	52	30	31	27	38	39	42	43	44	35	39	39	40	39
Numerator	8	7	8	11	10	5	1	3	4	8	8	10	6	7	5	4	6	4
Readmission Percent	21%	19%	15%	21%	19%	17%	3%	11%	11%	21%	19%	23%	14%	20%	13%	10%	15%	10%

Sep-17	Oct-17	Nov-17	Dec-17	Jan-18	Feb-18	Mar-18	Apr-18	May-18	Jun-18	Jul-18	Aug-18	Sep-18	Oct-18	Nov-18	Dec-18	Jan-19	Feb-19	Mar-19
38	47	48	41	49	46	42	47	44	38	41	39	46	55	46	45	48	48	33
4	9	7	6	13	9	8	10	7	7	2	2	10	11	8	7	8	7	3
11%	19%	15%	15%	27%	20%	19%	21%	16%	18%	5%	5%	22%	20%	17%	16%	17%	15%	9%

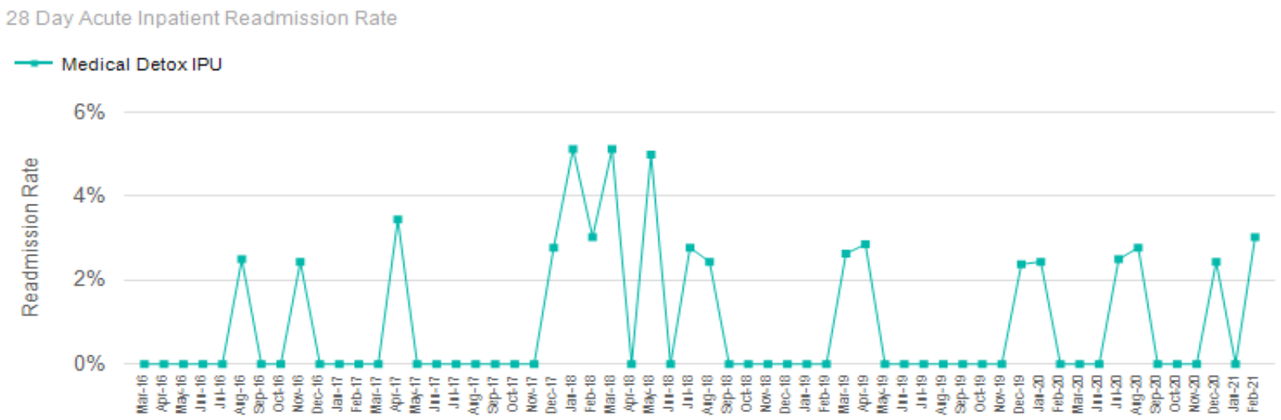
Apr-19	May-19	Jun-19	Jul-19	Aug-19	Sep-19	Oct-19	Nov-19	Dec-19	Jan-20	Feb-20	Mar-20	Apr-20	May-20	Jun-20	Jul-20	Aug-20	Sep-20	Oct-20
44	44	45	38	42	41	45	46	59	45	41	48	38	41	26	49	37	27	34
9	4	8	8	11	11	5	5	9	6	4	5	7	11	4	8	3	3	4
20%	9%	18%	21%	26%	27%	11%	11%	15%	13%	10%	10%	18%	27%	15%	16%	8%	11%	12%

Nov-20	Dec-20	Jan-21	Feb-21
29	33	35	39
4	5	4	3
14%	15%	11%	8%

Inpatient 28 day readmission from 01-Mar-16 and 28-Feb-21

Note: This is a drill-down report. Kindly select the datapoints in the graph below to see readmission stats for the discharges in a month

Numerator: Total number of acute inpatient overnight discharges closed in the reporting period that are followed by a readmission within 28 days
Denominator: Total number of in-scope acute inpatient discharges closed during the reference period where the referral either ended routinely or if transferred to another service/facility, the transfer-to service is not psychiatric inpatient or accident and emergency



Months	Mar-16	Apr-16	May-16	Jun-16	Jul-16	Aug-16	Sep-16	Oct-16	Nov-16	Dec-16	Jan-17	Feb-17	Mar-17	Apr-17	May-17	Jun-17	Jul-17	Aug-17
Denominator	43	41	42	43	40	40	40	41	41	40	37	34	44	29	45	40	36	40
Numerator	0	0	0	0	0	1	0	0	1	0	0	0	0	1	0	0	0	0
Readmission Percent	0%	0%	0%	0%	0%	3%	0%	0%	2%	0%	0%	0%	0%	3%	0%	0%	0%	0%

Sep-17	Oct-17	Nov-17	Dec-17	Jan-18	Feb-18	Mar-18	Apr-18	May-18	Jun-18	Jul-18	Aug-18	Sep-18	Oct-18	Nov-18	Dec-18	Jan-19	Feb-19	Mar-19
42	43	42	36	39	33	39	35	40	36	36	41	37	40	40	37	36	33	38
0	0	0	1	2	1	2	0	2	0	1	1	0	0	0	0	0	0	1
0%	0%	0%	3%	5%	3%	5%	0%	5%	0%	3%	2%	0%	0%	0%	0%	0%	0%	3%

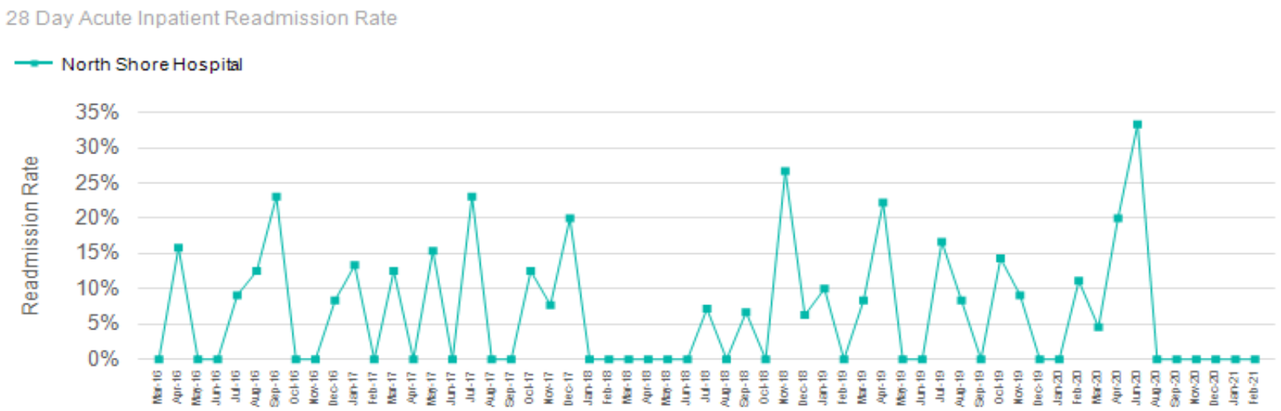
Apr-19	May-19	Jun-19	Jul-19	Aug-19	Sep-19	Oct-19	Nov-19	Dec-19	Jan-20	Feb-20	Mar-20	Jun-20	Jul-20	Aug-20	Sep-20	Oct-20	Nov-20	Dec-20
35	39	37	37	32	37	42	42	42	41	40	38	30	40	36	39	39	41	41
1	0	0	0	0	0	0	0	1	1	0	0	0	1	1	0	0	0	1
3%	0%	0%	0%	0%	0%	0%	0%	2%	2%	0%	0%	0%	3%	3%	0%	0%	0%	2%

Jan-21	Feb-21
33	33
0	1
0%	3%

Inpatient 28 day readmission from 01-Mar-16 and 28-Feb-21

Note: This is a drill-down report. Kindly select the datapoints in the graph below to see readmission stats for the discharges in a month

Numerator: Total number of acute inpatient overnight discharges closed in the reporting period that are followed by a readmission within 28 days
Denominator: Total number of in-scope acute inpatient discharges closed during the reference period where the referral either ended routinely or if transferred to another service/facility, the transfer-to service is not psychiatric inpatient or accident and emergency



Months	Mar-16	Apr-16	May-16	Jun-16	Jul-16	Aug-16	Sep-16	Oct-16	Nov-16	Dec-16	Jan-17	Feb-17	Mar-17	Apr-17	May-17	Jun-17	Jul-17	Aug-17
Denominator	13	19	9	14	11	8	13	10	17	12	15	7	8	9	13	6	13	11
Numerator	0	3	0	0	1	1	3	0	0	1	2	0	1	0	2	0	3	0
Readmission Percent	0%	16%	0%	0%	9%	13%	23%	0%	0%	8%	13%	0%	13%	0%	15%	0%	23%	0%

Sep-17	Oct-17	Nov-17	Dec-17	Jan-18	Feb-18	Mar-18	Apr-18	May-18	Jun-18	Jul-18	Aug-18	Sep-18	Oct-18	Nov-18	Dec-18	Jan-19	Feb-19	Mar-19
12	8	13	15	8	7	10	11	17	8	14	7	15	7	15	16	10	14	12
0	1	1	3	0	0	0	0	0	0	1	0	1	0	4	1	1	0	1
0%	13%	8%	20%	0%	0%	0%	0%	0%	0%	7%	0%	7%	0%	27%	6%	10%	0%	8%

Apr-19	May-19	Jun-19	Jul-19	Aug-19	Sep-19	Oct-19	Nov-19	Dec-19	Jan-20	Feb-20	Mar-20	Apr-20	Jun-20	Aug-20	Sep-20	Nov-20	Dec-20	Jan-21
9	10	10	18	12	9	14	11	9	8	9	22	5	3	10	4	3	1	4
2	0	0	3	1	0	2	1	0	0	1	1	1	1	0	0	0	0	0
22%	0%	0%	17%	8%	0%	14%	9%	0%	0%	11%	5%	20%	33%	0%	0%	0%	0%	0%

Feb-21
1
0
0%