COUNTIES MANUKAU HEALTH

Healthy Together

Strategic Assessment

Facilities Remediation Programme

Document Control

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Acronyms and Definitions

Acronyms

AR&F	Audit Risk and Finance Committee (of the CMDHB Board)
BAU	Business as Usual
DHB	District Health Board
ED	Emergency Department
ELT	Executive Leadership Team
EPB	Earthquake-prone Building
FMP	CM Health Facilities Master Plan
HVAC	Heating, Ventilation and Air Conditioning
ICR	Investor Confidence Rating
ICT	Information and Communication Technologies
IL	Importance Level
ILM	Investment Logic Map
LTIP	Long Term Investment Plan
MOH	Ministry of Health
NRLTIP	Northern Region Long Term Investment Plan
MRO	Maintenance, Repairs and Operations
P3M3	Portfolio, Programme and Project (P3) Management Maturity Model (M3)
SRO	Senior Responsible Officer

Definitions

Asbestos

Asbestos is a historical building product that is very strong and highly resistant to heat, fire, chemicals, and wear and tear due to friction. When inhaled as a fine dust asbestos presents a risk to human health. The level of this risk increases in line with exposure (through quantity inhaled and/or frequency of exposure).[1] Asbestos is primarily controlled under the Health and Safety in Employment (Asbestos) Regulations 1998. The Building Act 2004 and New Zealand Building Code also include provisions regarding the use of asbestos.

Critical Infrastructure

Critical infrastructure can broadly be defined as the systems, assets, facilities, and networks that provide essential services which are **necessary for the ongoing operation of our essential services**. The infrastructure component of the Remediation Programme will consider non-ICT critical infrastructure (e.g. power, water, gas, HVAC, vertical transportation etc.).

Earthquake-prone Buildings

EPBs are defined as those that fail to meet 34 percent of the current New Building Standards. The new national system categorises New Zealand into three seismic risk areas, and sets timeframes for identifying and taking action to strengthen or remove EPBs.

[1] About asbestos. Ministry of Health. (2015, 14 September). Retrieved from http://www.health.govt.nz/your-health/healthy-living/environmental-health/hazardous-substances/asbestos/about-asbestos

Facilities

Buildings and related core infrastructure supporting building services.

Importance Level

The Building Code defines the significance of a building by its IL – which is related to the consequences of failure. The required level of seismic performance increases with each IL (1 being the lowest, 5 being the highest). Buildings important to society (such as hospitals) attract a higher IL than typical commercial structures.

Passive Fire Protection

Passive fire protection is built into the structure of a building with the purpose of limiting the spread of fire and smoke, protecting escape routes, and protecting the structure of the building to prevent it from collapsing. Fire and smoke separation systems are prescribed in the New Zealand Building Regulations 2005.[2]

[2] Passive fire protection features and compliance schedule requirements. Building Performance – Ministry of Business, Innovation and Employment. (2016, 15 March). Retrieved from https://www.building.govt.nz/managing-buildings/managing-your-bwof/passive-fire-protection-features-and-compliance-schedule-requirements/

Contents

Executive Summary

CM Health's historic facility master plans identified a number of buildings for demolition.

1. Detailed master planning in 2008 and 2010 outlined significant investment required in CM Health's acute (Middlemore) and elective (Manukau) site services to serve what was then identified as high population growth. To achieve this, the preferred way forward included demolition or replacement of older buildings close to, or beyond, their economic life.

2. This approach was to include buildings supporting clinical services on the Middlemore site i.e. Colvin (Adult Rehabilitation and Health of Older People), Galbraith (Maternity, Birthing, Gynaecology, Radiology, day procedures and infusions). Other sites with buildings beyond their economic life and assessed as not fit for clinical service use and/or uneconomic to reinvest to bring up to standard for long-term occupancy include the Papakura Maternity Unit and Franklin Memorial Hospital. Lack of funding to achieve planned demolition or replacement has meant that services have remained operational in these buildings – the average age of CM Health's clinical buildings on the Middlemore Hospital site is 40 years.[3]

3. The Galbraith building condition concerns pose the highest risk due to scope of potential service impacts if independent assessments confirm internal concerns. Potential impacts include:
   - Seismic assessment outcomes on continuity of existing clinical services (as noted above) for which there are insufficient physical relocation options locally and limited capacity across the Auckland metropolitan District Health Boards (DHBs)
   - Building services infrastructure running under or through the building that support Galbraith based services and other Middlemore site buildings
   - Asbestos requiring removal in order to re-purpose or refurbish selected areas for three immediate demand capacity options (ward beds, day procedures and histology services)

Significant shifts in funding assumptions reduced capacity to invest.

4. Between 2008 and 2012 the funding signals for the health system, and consequently CM Health, significantly shifted. The 2008 global financial crisis and catastrophic Christchurch earthquake in 2011 resulted in significant constraints on Crown capital availability. In addition, CM Health experienced reduced annual operating revenue growth (4.5 percent growth to 2.6 percent from 2013/14) that impacted on forecast investment affordability. CM Health responded by reprioritising planned investments and accelerating demand management strategies to live within its means. CM Health has made trade-offs by limiting investment at strategic, tactical and operational levels to balance service demand risks.

A key trade off was to deprioritise/defer facilities maintenance and hospital services expansion to grow more integrated community services to reduce acute demand growth.

5. CM Health's strategic priority of the last five years has been to grow community health services with the aim of reducing acute demand on hospital services and delay requirements to expand acute hospital services. To afford this, CM Health prioritised baseline capital funding for clinical equipment to sustain frontline services, Information and Communication Technologies (legacy of

[3] This is calculated from the June 2017 Darroch valuation reports denoting the age of CM Health's buildings

underinvestment regionally) and focus CM Health discretionary funding on community service integration, model of care change and capacity expansion.

6. Together with CM Health's community services focus and strong hospital service efficiencies and operational demand management strategies, we were able to hold off investing in new major facilities on hospital sites over the last five years. The trade-off has been an underinvestment in a portfolio of (ageing) buildings in an environment of legislation amendments resulting in higher statutory non-compliance risks. Some clinical buildings are potentially unsuitable for immediate service expansion, or deteriorating at a rate faster than their original anticipated useful life.

Unprecedented service demand increases and key legislation amendments have escalated investment priorities.

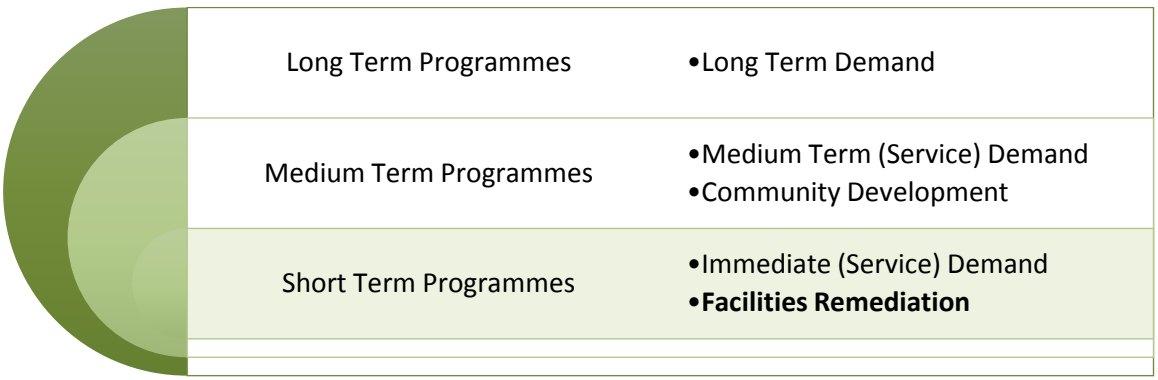
7. The metro Auckland region has experienced an unprecedented increase in demand for acute and planned hospital services and procedures in the last 18 months. At the same time, key legislation amendments[4] have increased CM Health's risk of statutory non-compliance across a number of key building condition requirements i.e. seismic, asbestos, and other core infrastructure. Regionally, District Health Boards (DHBs) share concerns about high service demand growth and the age and suitability of current facilities.

8. Immediate investment requirements for CM Health's facilities are two-fold; remediate key building conditions that risk statutory compliance, and maintain selected existing buildings to an appropriate level to support current service continuity and immediate service demand management options.

9. A series of phased building condition assessments across CM Health's property portfolio have been commissioned by the Executive Leadership Team (ELT). These have begun with priority given to buildings with the areas of highest concern. These assessments will inform our developing business cases and related Facilities Remediation Programme's capital requirements.

Two facilities master plan programmes have been prioritised for 2017 development.

10. This Facilities Remediation Programme is one of a suite of five, and is prioritised for immediate development alongside the Immediate Demand Programme.



[4] Significantly the Building (Earthquake Prone Building) Amendment Act 2016, Health and Safety at Work Act 2015

11. These Programmes are essential components of CM Health's overarching Long Term Investment Plan that includes other investment categories such as workforce, Information and Communication Technologies (ICT), clinical equipment and related operational impacts. In reality, many of these investments are dependent on each other to achieve high value investment benefits. Others have less complex investment relationships but potentially complicated implementation requirements.

12. **The Facilities Remediation and Immediate Demand Programmes have significant dependencies in terms of solution options, financial planning, affordability, and implementation planning. For these reasons CM Health recommends that both Strategic Assessments are reviewed together.**

Introduction

14. This Strategic Assessment outlines the strategic context and rationale (case for change) for investing in the remediation of CM Health's owned buildings and related building services core infrastructure. It seeks approval to develop a programme business case to provide a sound, structured framework for the development of subsequent investment business cases.

    Specifically, this Strategic Assessment:

    - provides context for this Programme and the internal and external factors driving the need for investment in the remediation of CM Health's facilities, and
    - actions the next stages of investment as outlined in the 2016 CM Health LTIP and the 2017 Northern Region Long Term Investment Plan (LTIP).

15. CM Health's ELT has **prioritised this Facilities Remediation Programme** and the **Immediate Demand Programme** for progression to Programme Business Case development. Both Programmes align with Northern Region LTIP priorities and will require local, regional, and national business case reviews and approvals.

Strategic Context

16. The strategic context laid out below provides a brief introduction to the organisation, the population served and organisation objectives. Refer to CM Health's 2016 LTIP for a more detailed summary of CM Health's strategic and organisational context.

CM Health's organisation

17. CM Health is one of 20 DHBs established under the New Zealand Public Health and Disability Act 2000 (NZPHD Act 2000) to plan and fund the provision of personal health, public health and disability support services for the improvement of the health of the population.

18. CM Health's functions comprise 'planner', 'funder' and 'provider' of health and disability services to an estimated 545,720[5] people in 2017 who reside in the local authorities of Auckland, Waikato, and Hauraki District. As a DHB, we have an annual budget of over $1.6 billion to cover the provision and funding of health services for the people living in the Counties Manukau district. This includes funding for primary care, hospital services, some public health services, aged care services, and services provided by other non-government health providers including Maaori and Pacific providers. Collectively, we refer to this as the Counties Manukau Health system.

19. Some specialist services are provided for CM Health's population by other DHBs through regional and national contracts. CM Health also provides regional and national services for people from other DHBs for specific specialties e.g. regional spinal service, National Burn Centre.

[5] Statistic New Zealand Census 2013 population forecast update October 2016.

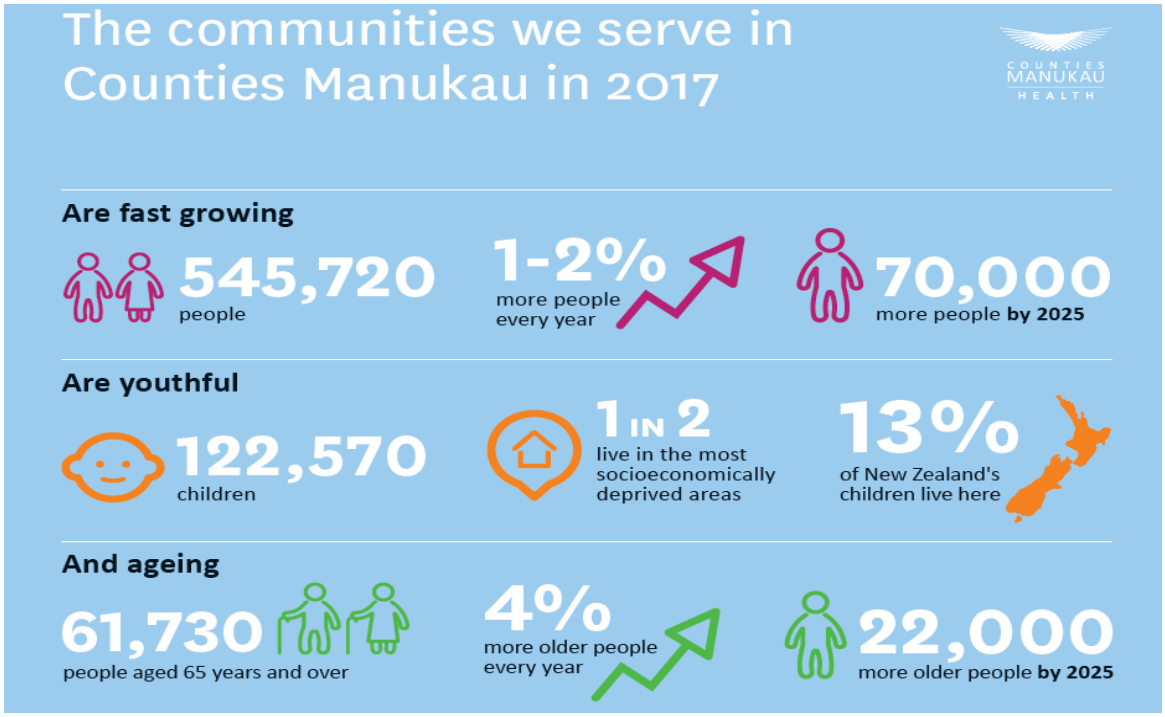
20. CM Health's Crown-owned buildings and related core infrastructure (such as building services and plant) are essential to business continuity, patient, visitor and staff safety, and future service expansion options. Services operated by CM Health are largely delivered from seven inpatient facilities and 18 leased or owned outpatient and community health facilities across the district. Manukau SuperClinic and Middlemore Hospital sites contain the largest elective, ambulatory, and inpatient facilities. In addition, a range of DHB and contracted community services are provided across the district e.g. Community Mental Health, Kidz First Community and others

21. Over 6,600 people are employed by CM Health in addition to those employed by primary and community health services across the district. Nursing, Midwifery and Health Care Assistant staff are by far the largest clinical workforce comprising 45 percent of DHB employed staff, medical 14 percent, and allied health and technical 18 percent.

CM Health's population

22. The Counties Manukau district is one of the fastest growing in New Zealand. It has the most ethnically diverse population in New Zealand with a youthful and ageing community. Counties Manukau is home to New Zealand's second largest Maaori population, largest population of Pacific peoples, as well as fast growing Asian communities.

23. **CM Health expects to serve a further 70,000 people by 2025.** The burden of poor health is unevenly distributed among CM Health's populations. Over 122,000 children live in Counties Manukau, with almost one in two (approximately 45 percent) living in areas of high socioeconomic deprivation (NZDep2013 9&10). There is an eight year life expectancy difference between Maaori and non-Maaori/non-Pacific, and six years between Pacific and non-Maaori/non-Pacific.



24. On the basis of the NZDep2013 measure, Otara, Mangere and Manurewa - home to many Maaori and Pacific communities - are the most socioeconomically deprived areas in the Counties Manukau district. Related to these inequities, the Counties Manukau population experiences relatively high rates of ill-health risk factors (such as smoking, obesity, hazardous alcohol use) for a 'package' of long-term physical conditions that are responsible for the majority of potentially avoidable deaths.

25. The steady rate of population growth within Counties Manukau, coupled with the high levels of socioeconomic deprivation, is driving an unprecedented and sustained rise in demand (both volume and complexity) for CM Health's services. The Strategic Assessment for the Immediate Demand Programme provides a summary of key hospital service demand pressures.

CM Health's strategic direction

26. CM Health's strategic direction assumes that system integration is central to medium to long term management of the health system demand challenges. The following summary of the Healthy Together strategic plan assumes that all three strategic action areas are interdependent and impact on each other. Facility development is an enabler for healthy services – providing a setting where healthcare workforces are equipped to deliver the best quality care.

27. The Healthy Together Strategic Plan 2015-2020 has three strategic objectives underpinning a goal of achieving equity in key indicator for Maaori, Pacific and other communities with health disparities. Strategic priorities across these objectives are to:
    - provide high-quality and high-performing modern specialist and hospital-based services,
    - strengthen primary and community-based services to reduce the burden of disease and prevent ill health, and
    - achieve health improvement for all with targeted support for our most vulnerable people and communities.

CM Health's Long Term Investment Plan 2016

28. CM Health's LTIP signalled a strong intention to expand prioritised hospital services and improve the organisation's asset performance measurement framework, increase building maintenance funding, and invest in key building cladding projects (planned maintenance) over the next five years. This reflected the age of facilities (average building age is 40 years on the Middlemore site[6]) and others planned for demolition/repurposing.
29. The preferred way forward within the LTIP was to enable asset improvements as follows:
    - **Sustain CM Health's existing building stock** through planned remedial and improvements, e.g. an estimated $28m over seven years for major building re-cladding on the two major hospital sites (Middlemore and Manukau)
    - An **uplift of approximately $5m each year** (50:50 operational and capital investments) to maintain facilities assets and infrastructure to support business delivery continuity. This

[6] June 2017 Darroch Building GFA_Age_Ins Value.xlxs

acknowledged the historic under-investment in the maintenance of buildings and related building services

- Planned **replacement of substandard facilities** rated as 'poor or very poor' for major services e.g. Spinal Unit relocation to a new Specialised Rehabilitation and Living Well facility, Papakura Community Maternity renewal, Pukekohe Hospital and Botany site campus developments as Community Hubs, Middlemore Radiology lift and shift into an Importance Level (IL) four building and others
- An increase of approximately $5m each year in recognition of the rising costs of **major diagnostic and other clinical equipment** to sustain excellent and safe service delivery
- Significant **ICT investment** was flagged as an enabler for efficient use of assets and new (more mobile) service delivery models

30. These investments, alongside the asset management improvement plan to enhance asset lifecycle efficiency, were planned to deliver an overall improvement in building condition ratings in the next five to ten years.

What is different in 2017 compared to July 2016 when the LTIP was completed?

31. Since the development of the LTIP, CM Health has continued to experience unprecedented levels of acute demand and complexity, and has also engaged in a more regional approach to future investment planning (in response to directives from the Ministry of Health and Treasury). Key differences between now and when the LTIP was prepared in July 2016 are:
    - The expected scope of facility remediation requirements has expanded as a result of an accumulation of deferred maintenance
    - A combination of accumulated maintenance and updated legislative requirements have escalated risks of seismic vulnerability in the Galbraith building; and to a lesser extent other buildings (refer Appendix 3)
    - CM Health's tactical approach to invest in service integration and community service delivery to reduce demand on hospital services has not sufficiently responded to the unprecedented volume and complexity of recent hospital service demand.

32. The Northern Region LTIP (currently under development) will reflect the investment plans originally signalled through the 2016 LTIP, as well as an emphasised need on immediate facility investments (capacity and condition).[7]

Alignment with existing strategy

Healthy Together 2020 Strategic Direction

33. To deliver on the *Healthy Together 2020* strategic direction, CM Health has established three structured portfolios of work to integrate all related programme and project delivery activities. Based upon best practice portfolio management, they will help design and delivery synergies,

[7] The first NRLTIP was reviewed by the Regional Governance Group in September 2017, and will be tabled with the **DHB Boards for sign off in late October/early November 2017**. The national Capital Investment Committee (CIC) will receive the first NRLTIP in November 2017. The national expectation is that major DHB business cases requiring Crown approval and/or funding will be identified in the NRLTIP. The region will continue to update the NRLTIP as more detailed information is available through programme and business case development.

more effectively allocate resources, and link strategic and tactical activities and benefits realisation.

34. The three Healthy Together portfolios of work are:
    - **Excellent Care Portfolio** - promotes whole-of-system coordinated care services (including contracted providers) that transcend traditional divisional and organisational structures. Related programmes and projects will focus on improving health outcomes and the patient and whaanau experience through the improvement of care models; improved access to information (and enabling technologies) and services.
    - **Infrastructure and Assets Portfolio** - focuses on effective and fit for purpose management (business) processes, information and communication technologies (ICT) upgrades, local and regional planning for major capital developments of facilities and related assets.
    - **Business as Usual (BAU) Portfolio** - designed to ensure that while CM Health is transforming the health system for the future, it is not losing focus on the need to continuously improve services today. The BAU portfolio will therefore encompass all programmes and projects that are seeking to deliver iterative improvements in quality, safety, and efficiency of existing services.

35. While the Facilities Remediation Programme will support and enable the delivery of projects and programmes across the three portfolios, the **most direct linkages are with the Infrastructure and Assets and BAU portfolios**. This aligns with the **New Zealand Health Strategy strategic theme of 'Value and Performance'.**

Northern Region Investment Objectives

36. The investment objectives for the Northern Region LTIP reflect the agreed themes of *fix*, *future-proof*, and *accelerate*. These themes and the related investment objectives are to guide planners and decision makers to ensure their investment decisions are aligned with regional strategic priorities. These objectives underpin the Northern Region LTIP Prioritisation Framework that CM Health has adopted locally.

37. Development of a Facilities Remediation Programme business case will ensure the Region's investment objectives are fully considered as part of CM Health's options assessment process. Some of the specific objectives that will be important in CM Health's considerations include:
    - Ensuring capacity on current sites to deliver an agreed set of core services for the local population as well as any designated regional and national services.
    - Exploring all forms of funding provision models (e.g. private capacity) to ensure a full range of options is considered when exploring new facilities and services.
    - Developing flexible designs so buildings can be repurposed as required into the future.
    - Undertaking the backlog of remediation work in regard to key sites across the region.
    - Maintaining and replacing current assets to ensure they are fit for modern purpose and aligned with future models of care.

38. The Northern Region LTIP proposes a **preferred way forward that concurrently invests in remediating existing infrastructure**, and future proofing for growth by investing in new sites and changes to models of care. The regional investment objectives, associated investment logic map, and sequencing timeline for the (draft) Northern Region LTIP investment path are attached as Appendix 2.

Treasury Investment Management - Investor Confidence Rating (ICR) in 2016

39. CM Health's ICR assessment is comprised of a number of key elements and related targets. The 2016 ICR assessment identified improvements in asset management maturity Portfolio, Programme and Project (P3) Management Maturity Model (M3) among other actions that include:
    - Development of an asset criticality framework (to support service continuity)
    - Establishment of an organisation-wide Risk Committee with Risk Champions
    - Implementation of a project prioritisation framework and benefits reporting.

    These will be important to growing a more systematic and robust investment management system to implement these investments effectively and to maintain the value of CM Health's investments.

40. Improvements in asset management and programme/project maturity will for more effective maintenance and value of CM Health's investments. For the Facilities Remediation Programme this includes:
    - addressing existing issues associated with CM Health's property portfolio,
    - implementing ongoing improvements to CM Health's asset management and performance reporting practices, and
    - increasing emphasis on planned preventative maintenance rather than costly and reactive maintenance to sustain continuity of service delivery and enable high performing facilities assets in the medium to long term

Rationale for Investment

Context

41. CM Health responded to local and external challenges by reprioritising within available capital and revenue resources. In reality, CM Health's capacity to fund the necessary investments to maintain its assets, grow services and ICT capability concurrently is severely constrained. This was outlined in the 2016 LTIP where all investment scenarios modelled against three Treasury funding path options proved to be unaffordable.

42. This has resulted in a property portfolio comprised of buildings of varying age and condition, and uncertainty about whether these buildings are of a suitable standard to support planned service delivery initiatives and changes for now and longer term. As a result, CM Health is in a vulnerable position – a single point of building asset failure, e.g. an earthquake-prone building, could have significant consequences in terms of service delivery, safety of staff and patients, financially, reputational, or any combination of these.

43. CM Health's financial assumptions that are important to the Facilities Remediation Programme:
    - CM Health has an annual budget allocation of $33m[8] for capital to be spread across facilities, IT and assets (clinical equipment), and

[8] While CM Health is in a deficit financial position, this may reduce to $20m each year while we work to reach breakeven.

- the trades offs are sharper and more critical, and our system has had an express bias towards shorter term that adds to capacity to meet immediate demand.

44. Continued underinvestment in the adequate maintenance of facilities as a result of shorter-term trade-offs has placed CM Health in a position where large capital investments are, or may be, required to address resulting facility issues. To manage this risk through a best practice asset portfolio approach (annual operational and capital funding) will require:
    - targeted investment in one-off remediation projects (this Remediation Programme),
    - an increase in ongoing operating funding to maintain existing and new assets at an acceptable standard going forward; and
    - an effectively resourced asset management team and supporting business processes to mature and achieve high performing assets.

45. It is inevitable, however, that for this case the traditional funding method that investment will be met by depreciation and/or savings in operating expenditure through added capacity and/or increase revenue will not apply in this case. CM Health's operating realities are that it cannot maintain its facilities, clinical equipment and ICT from annual depreciation capital and operating budget. The accumulation of facilities maintenance is evidence of a trade-off that is not sustainable. CM Health has 'sweated' a number of its assets to the point of failure.

46. A programme business case is being developed because:
    - CM Health's building concerns present a major risk compliance, potential service continuity and post emergency and disaster responses;
    - a clear framework is needed in which CM Health will consider investing in remediation (that does not add capacity) alongside other possible investments in new buildings and service delivery options (that may contribute to capacity but will take longer to build);
    - the size and scale of required remediation works will require the completion of several tranches over an extended period of time alongside works that add to immediate capacity;
    - the funding requirements for remediation under the current capital charge and equity management regime may place additional pressure on CM Health's ability to also meet immediate service needs;
    - there are strong interdependencies with other service capacity planning programmes that will be developed and considered concurrently – CM Health must align planning and investment decisions at a strategic level;
    - there are strong connections with regional service planning and investment considerations underway; and
    - investment in the remediation of CM Health's facilities will seek to not only address the immediate problems/risks at hand, but also fundamentally change the way the organisation manages and maintains its assets (enhancing asset management maturity).

47. A review of existing information, meetings with key stakeholders, and a preliminary problem scoping workshop with the Facilities and Asset Management Division, has identified the following five key building-related concerns across CM Health's property portfolio as requiring

investment; seismic resilience, asbestos, weathertightness, passive fire protection, and critical building infrastructure (e.g. power, water, gas, HVAC, vertical transportation etc).

48. A stocktake of these known and/or highly suspected concerns has been completed across CM Health's owned property portfolio, and is attached as Appendix 3. This internal assessment has been used to prioritise funding of independent assessments and develop indicative capital estimates of remediation requirements. These are underway and will shape the respective investment business cases as they are completed.

49. These assessments will also determine how wise it is to invest in the remediation of existing facilities versus development of new facilities to best manage immediate through to long-term demand. An indicative Remediation Programme assessment timeline (attached as Appendix 4) includes a range of solution options that will have a critical dependency on the outcomes of the building assessments.

50. The Remediation Programme business case will give structure to both the building assessment process and resulting investment project requirements.

51. CM Health's Facilities Remediation Demand Programme is aligned with the Northern Region LTIP investment logic (Refer Appendix 2) as summarised below.

NRLTIP Investment Objectives	**Aligned NRLTIP investment drivers**	**CM Health's Strategic Responses**
Design a system with the flexibility, capacity and capabilities to meet the needs of our future populations	• Ensuring capacity on current sites to deliver an agreed set of core services for the local population as well as any designated Regional services	• Increase funding for facilities asset management and P3M3 capability and capacity
Strengthen our foundations to ensure service provision as the future model of care is implemented.	• Undertake backlog remediation work in regard to key sites across the Region • Decongest and repurpose our existing hospital sites to address current capacity constraints • Maintain and replace current assets to ensure they are fit for modern purpose and aligned with future models of care	• Remediate prioritised facilities to enable service continuity • Decommission and replace life expired assets with alternative solution(s)

52. Aligned CM Health problem statements that add to the NRLTIP investment logic are outlined in Appendix 5. This will be further developed as part of the Programme Business Case.

Statutory and regulatory compliance

53. A suite of recent changes across building, workplace, and health and safety legislation and associated standards has resulted in new and emerging compliance risks and issues. Examples

of CM Health's most important compliance problems are identified below. The related indicative capital requirements are included in the Remediation Programme and will be refined as the independent expert assessments are completed.

Seismic vulnerability

54. On 1 July 2017, the Building (Earthquake-prone Buildings) Amendment Act 2016 introduced material changes to the way earthquake-prone buildings (EPBs) are identified and managed, with the introduction of a new national system for managing EPBs taking effect on 1 July 2017.[9]

55. In order to inform both short and long term investment decision making it is critical that CM Health understands as soon as practicably possible which of its owned buildings are earthquake-prone. This will inform whether it is wise to invest in their strengthening or develop alternative facilities or other solutions e.g. service outsourcing, relocation, model of care change.

56. In addition, CM Health has a responsibility to ensure all seismic risk relating to its buildings is actively identified and managed. CM Health is required to obtain appropriate structural engineering advice to inform all decisions made in this respect.

57. Across CM Health's owned property portfolio there are seven buildings which are known or highly suspected to have seismic compliance issues. A rolling schedule of assessment of all owned buildings has been commenced, starting with those considered to be of highest building condition concern and most critical to immediate clinical service continuity and capacity investment decisions.

Passive fire protection

58. During an inspection of the cladding system used for the Manukau SuperClinic it was discovered that the fire cells had been incorrectly constructed by Hawkins Construction. This was not immediately identified at the time of the construction as an independent Fire Engineer had formally signed off the installation.

59. Although this issue at the Manukau SuperClinic has been resolved, other buildings with suspected non-compliant passive fire protection issues have yet to be fully inspected – specifically Kidz First, McIndoe, and Scott. CM Health's Facilities division has conservatively estimated a provision of $2M of capital funding over the next three financial years to rectify anticipated passive fire protection problems in the above-mentioned buildings.

Asbestos contamination

60. Given the period in which CM Health's buildings were constructed, it is likely that many may have asbestos-containing materials. From 1 October 2016, the importation of asbestos-containing products was banned through the Imports and Exports (Asbestos-containing Products) Prohibition Order 2016. Although unlikely, it is possible that even recently constructed buildings may contain asbestos. Accordingly, all buildings constructed prior to

[9] Managing earthquake-prone buildings. Building Performance – Ministry of Business, Innovation and Employment. (2017, 15 August). Retrieved from https://www.building.govt.nz/managing-buildings/managing-earthquake-prone-buildings/

October 2016 will need to be assessed. The level of remedial action will be dependent on the outcome of the assessment, as well as any planned future works to the building.

61. An asbestos inspection and testing regime across CM Health's owned buildings has commenced, beginning with buildings where asbestos is known to be present, followed by those where it is highly suspected, and then followed by all remaining buildings. Removal and remediation for wide-spread asbestos-contaminated areas is currently priced at \$120-\$150/m^2. Remediation of this is well beyond the means of the Hospital Services Directorate's annual operating budget. Based on current pricing it is anticipated approximately \$1.5 - 2M of capital funding in the 2017/18 year alone will be needed for this purpose.

Reliability and functionality of CM Health's facilities

62. Delivery of safe and high-quality healthcare services is heavily dependent on having reliable, fit for purpose buildings and infrastructure. It is suspected that a large number of CM Health's critical assets are at high risk of failure i.e. they have failed in the past, their condition has deteriorated to the point they are likely to fail, or they are dependent on a surrounding environment/structure that is in poor condition.

63. Historically, investment critical assets and infrastructure at CM Health has been somewhat lacking. This has left CM Health with small pockets of knowledge (but no complete and consolidated view) and asset condition information that is around ten years old. It has also left CM Health with the reality of potentially inadequate infrastructure to reliably support its operations. Two key concerns relating to the reliability and functionality of CM Health's assets include the condition (and location) of critical infrastructure and the weathertightness of buildings – both are briefly discussed as follows.

Critical infrastructure

64. A lack of resilience across our critical infrastructure poses significant risk to the organisation in terms of continuity of service delivery – the scale of which ranges from service-specific to site-wide depending on where a single point of failure may be. An example is continued lift failures across the Middlemore and Manukau sites; between January 2015 and September 2017 the Facilities Division has received over 1,200 reports of lift outages.

65. CM Health is in the early stages of engaging Beca to undertake a comprehensive risk-based review of its critical infrastructure; it is expected that this review will identify significant infrastructure investment requirements. CM Health is already aware of investments needed in the next three financial years, including:
    - Relocation of critical Middlemore building service infrastructure running under or through the Galbraith building; in July 2017 Beca's preliminary estimate indicated approximately \$20m to complete these works.
    - Power resilience reinforcement on the Manukau site with an estimated capital requirement of \$3m.

Weathertightness

66. Maintaining weathertight buildings is important for two reasons; water ingress can compromise a building's ongoing structural integrity, as well as the health of the environment for its occupants (e.g. mould, rodents). Many of CM Health's owned buildings are either known or suspected to have weathertightness issues. This is due to either the cladding system used (e.g. Scott building) or more generally associated with the age of the building (e.g. movement of windows over time). CM Health's Facilities and Engineering Department has a good understanding of what buildings have, or potentially present, weathertightness issues.

67. With respect to CM Health's newer buildings, weathertightness issues have resulted either from the design and build approach taken, the cladding system used by Hawkins, or a combination of both. Recently, CM Health has reached a settlement with Hawkins Construction for the re-cladding of the Scott building. Other (relatively) new buildings housing clinical services with known cladding issues requiring remediation to enable ongoing health services delivery include:
    - Kidz First – includes two paediatric wards and high dependency unit,
    - McIndoe – includes Emergency Department, National Burns Unit, Intensive Care Unit, and
    - Manukau SuperClinic and Surgery Centre buildings – includes elective inpatient and day surgery/procedures, outpatient clinics, and dialysis services.

68. June 2017 (early) estimates prepared by Rider Levett Bucknall identified indicative remediation capital requirements of approximately $19.8M: Kidz First ($7.3M), McIndoe ($5.2M), and Manukau SuperClinic ($7.3M). These costs will be refined as more detailed building assessments are completed. CM Health's strategic risk relates to clinical service delivery continuity and capacity expansion.

69. Several other owned buildings also demonstrate signs of weathertightness problems which are linked to the age of the building and useful life of their respective components (e.g. windows, roofing). The associated costs of remediating such issues will need to be balanced with other building remedial costs, service needs, and other service delivery opportunities (e.g. regional, outsourced, new build).

Service delivery expansions hindered by poor or unknown building condition

70. CM Health is increasingly faced with unprecedented levels of acute demand and recently the rising levels and complexity of this demand has overwhelmed existing capacity (refer to the Strategic Assessment for the Immediate Demand Programme for further detail on this demand). A reality of rapidly implementing service solutions to meet this demand is a heavy dependency on the use of existing sites and buildings.

71. The majority of CM Health's options to respond to immediate service capacity/demand are in one way or another linked to a facility known or highly suspected to be affected by at least one building concern. Some examples are provided below.

Manukau SuperClinic

72. CM Health's Manukau site is utilised for elective and outpatient services – CM Health's intent has always been to grow elective capacity on this site to support/release acute care delivery at Middlemore. This strategy is complemented by development of community health services (a "Community Hub") – the Manukau site was identified in the 2016 LTIP as a site for a range of future demand solutions and more recently for interim immediate demand solution options, i.e.:
    - Opening of currently unresourced beds for services that can be decanted from Middlemore
    - Development of four additional elective theatres through expansion of the current suite as an interim solution in advance of a longer term new elective surgery build
    - Development of a specialised rehabilitation centre always planned for this site to support a new model of care that better links with and supports community rehabilitation services

73. There are known risks associated with the site's power resilience (history of multiple and prolonged power outages). CM Health is also aware of other issues associated with the cladding system installed by Hawkins Construction, regular failures with the Sterile Supply equipment, and confirmed presence of asbestos. Without investment in the remediation of these issues, the Manukau SuperClinic site is unlikely to tolerate increased service delivery within CM Health's risk appetite.

Middlemore Hospital

74. Middlemore Hospital is CM Health's only acute site. It provides essential healthcare services to the local, regional, and national population. The highest building risks on this site relate to the Galbraith building. Seismic vulnerabilities potentially impact existing clinical service continuity (Maternity, Birthing, Gynaecology, Radiology, day procedures and infusion services).

75. Seismic assessment outcomes will determine the operational viability and economic value of three Immediate Demand Programme projects to expand prioritised services capacity (ward beds, day procedures and histology services). In addition, removal of asbestos in the Galbraith building is a pre-requisite remediation prior to implementation of these three projects.

76. The Galbraith building has known seismic, asbestos, weathertightness, and critical site infrastructure issues requiring remediation to enable such use. Furthermore, such remediation may be required to enable the existing occupants of the building to remain in situ (specifically radiology, histology, and women's health) until a longer-term solution can be developed.

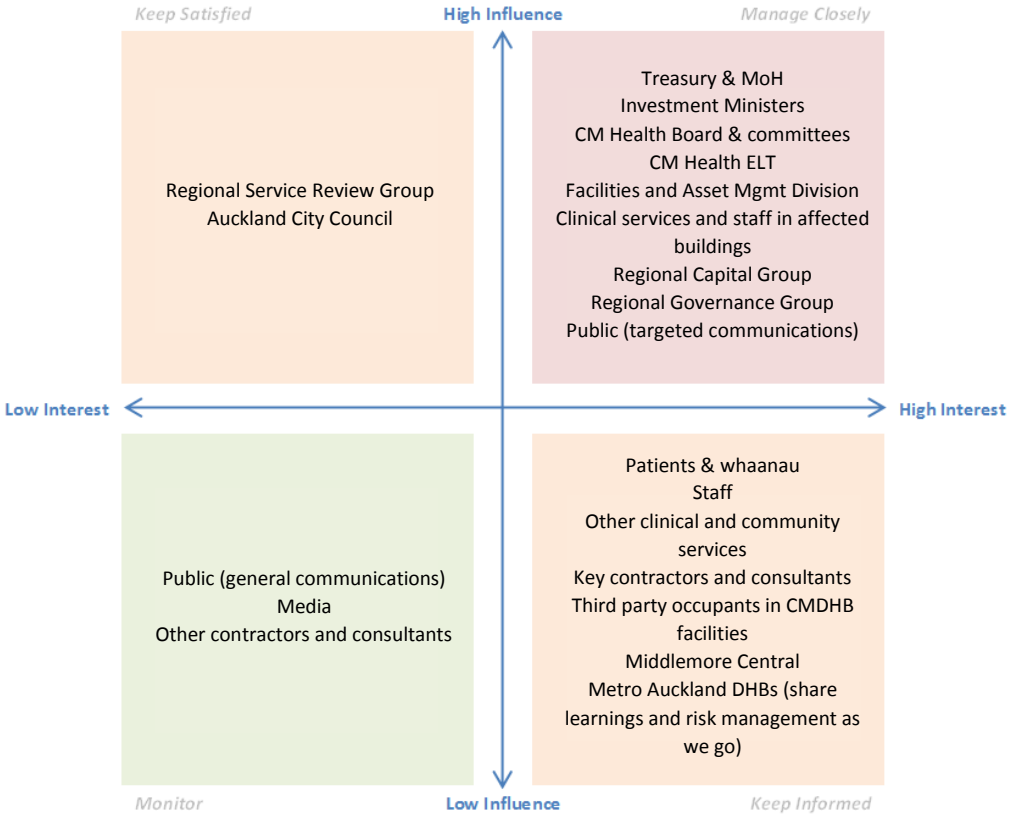
77. CM Health acknowledges that the Ministry of Health has a close interest in the Galbraith building assessment and will ensure through this investment process that they are kept informed at each step.

Key Stakeholders

Initial identification of key stakeholders

78. The key stakeholders that have an interest in the expected outcomes or can influence the investment proposal have been identified, and plotted on the following influence and interest chart. This is a preliminary view of stakeholder relationships to the Remediation Programme.

This will be updated as CM Health develops a comprehensive Stakeholder Engagement Plan as part of the Programme Business Case.



Summary of stakeholder engagement to date

79. Engagement with stakeholders to date has predominantly focused on familiarising them with the revised Facilities Master Plan (FMP), general condition of CM Health's buildings and key concern areas, and gaining support to proceed with the required assessments and subsequent programme business case. Highlights of key stakeholder engagement to date have been provided below.

Governance

80. Key governance stakeholders include the CMDHB Board, Audit Risk and Finance Committee, and the Hospital Advisory Committee.

81. On 12 July 2017, the Audit Risk and Finance Committee (AR&F) received a 'Risk Identification and Exposure Overview' for CM Health's Property, Infrastructure and Asset Portfolio. This paper briefly summarised the key issues described above as they related to some key clinical buildings, and included indicative timeframes and costs for remediation of the identified issues.

82. Following the 12 July AR&F meeting, a Facilities Master Planning Project was established – with the intent of confirming CM Health's capital intentions against regional long-term investment priorities and clarifying the remediation project schedule and investment dependencies and impacts.

83. On 4 October 2017 AR&F received an overview of the Facilities Master Planning Project progress to date; this included historical master planning context, an update on regional long-term investment planning, and a stocktake of building-related issues and the indicative timeframe for the assessment and potential remediation of these. Also on this date, the Hospital Advisory Committee received the building stocktake outlining key condition concerns and timeline for independent assessments.

Senior and Executive Management

84. Key senior and executive management stakeholders include the Project Sponsors, Hospital Management Team, Clinical Directors Forum, and Executive Leadership Team. Engagement with these stakeholders to date is summarised below.

85. The information received by the Governance groups (as described above) was presented, tested, and refined with senior and executive management teams – specifically the Hospital Management, Clinical Directors Forum, and Executive Leadership Team.

86. Regular meetings have also been held with the Director Hospital Services (key stakeholder), Chief Financial Officer and Chief Executive Officer (Project Sponsors), and Director Population Health, Strategy and Investments (Senior Responsible Owner). These key Executive stakeholders have also regularly engaged with other governing and management stakeholders as and when required.

87. A key theme arising through feedback received from stakeholders has been the criticality and urgency of better understanding the condition of CM Health's buildings to enable informed investment decision-making – with the key driver being the need to support an expansion of capacity to meet rising and changing demand patterns.

Facilities and Asset Management Division

88. Key representatives from the division (across engineering, capital works, hazardous substances, and project delivery) have been heavily involved in the initial identification of key building concerns, and the implementation of assessments and mitigations completed to date. The General Manager of the Division has reviewed all content prepared, and is a member of the Hospital Management Team that now regularly receives weekly FMP updates at their meetings.

89. Division representatives also attended Investment Logic Mapping workshops for this programme (refer Appendix 5). This will be completed as part of the Programme Business Case.

Ministry of Health and Treasury

90. A signal of the FMP and associated programme initiation has been provided to both organisations. Regular updates will continue to be provided, with meetings arranged as required to keep key Ministry and Treasury stakeholders informed and engaged. CM Health is working to establish their engagement in broader FMP Programme Business Case development oversight.

Next Steps

91. Following the Treasury investment process means a number of review and approval stages. Below are the key activities and decision points. To achieve these, Board support will be required to fast track review and endorsement processes through the respective Northern Region forums for the **Immediate Demand** and **Facilities Remediation Programmes**.

Ref	Treasury Stage	Activity/Decision	Owner/ Forum	Target Date	Actual Status
Facilities Master Plan Programme Level Steps					
1.	Initiation	Risk Profile Assessment & Point of Entry forms	Chief Financial Officer & Chief Executive Officer	05/10/17	Completed
		Treasury Submission	Director Population Health & Strategy (SRO)	12/10/17	Completed
2.	Planning	Strategic Assessments	ELT	10/10/17	Completed
			Board	25/10/17	Completed
			Regional Capital Group	10/11/17	Completed
			Regional Executives Forum	17/11/17	Completed
			Treasury & MOH (for agency briefing)	24/11/17	Completed
			Regional Governance Group	30/11/17	Completed
			Capital Investment Committee	08/12/17	Completed

Note: Programme Business Case timelines have been extended to allow for scenario testing of Galbraith building seismic vulnerability assessment outcomes and related impacts. These timeframes will be reflected in the 2018 Facilities Remediation Programme Business Case.

Appendix 1: Facilities Master Plan overview of progress to date

We have structured our 2017 Facilities Master Plan into groups of projects to allow us to get on with our most urgent demand pressures and building remediation concerns. A refresh of our forecast demand model is in progress and aims to better reflect the significant increase in volumes experienced since winter 2016. This work aims to not only inform our local demand planning, but to support regional modelling capability with a view to collaboration for a refresh of the Northern Region LTIP in 2018.

The practical realities of planning facilities investments on pre-existing sites/buildings and long standing service delivery structures is that there are important and challenging dependencies in developing options to address current and future demand. This includes:

- **Condition assessment of our buildings and assets:** to better understand and address seismic, asbestos, general condition (including weather tightness, cladding) and ongoing maintenance we have a rolling series of assessments in progress. These assessments may determine how wise it is to invest in some short term or interim solutions to our demand pressures, e.g. refurbishing level 1 of the Galbraith building.
- **Dependent facility development options:** some facility development options that are dependent on one another for development and are more effectively managed together, e.g. a new Catheter Laboratory built on top of a ground floor expansion of the Scott Dialysis unit. We have structured our FMP Programmes to bring related projects together.
- **With delayed major investment for five years (in accordance with the NRLTIP), we need interim and longer-term solutions:** Our FMP includes a number of facilities investments to shore up services experiencing the highest demand pressures now, plus medium to longer term investments that will align and leverage regional service models and capacity.

To prioritise these demand pressures and improve the cohesion and efficiency of business case development, we have organized a ten-year view of facilities investment into five Programmes. These timelines and indicative capital requirements were presented to our Audit Risk and Finance Committee 04 October 2017.

Unapproved Programme Cases - Indicative Capital Requirements ($m)

Investment Programme	Financial Year (ending 30 June) $m				Indicative
	16/17	17/18	18/19 - 21/22	22/23+	Capital
Immediate Demand Programme		*14.85*	42.00		**56.85**
Remediation Programme		*23.92*	89.68	9.80	**123.40**
Community Development Programme			52.20	104.00	**156.20**
Medium Term Demand Programme			312.90	177.00	**489.90**
Long Term Demand Programme				224.20	**224.20**
Unapproved Facilities Programme Total	**0.00**	**38.77**	**496.79**	**515.00**	**1050.55**
Approved Standalone Projects (see below)	*16.50*	*43.67*	*17.20*		*77.37*
Facilities Programme Grand Total	**16.50**	**82.44**	**513.99**	**515.00**	**1127.92**

Note: *Indicative capital requirements are a mixture of independent capital estimates at different stages of facility solution design and internal "best estimates" by our facilities team. This is normal for every facilities project as increased definition of the facility to be developed will increase the accuracy of the capital requirement.*

These programmes will be refined as Programme Business Cases are progressed. **This will impact project tranche definitions and indicative capital requirements.** For some investments, there is a significant time lag between starting the business case and opening a new facility. This is particularly relevant for major investments (> $10m capital) that require regional and national Capital Investment Committee approvals

Appendix 2: Regional Investment Objectives and Investment Logic Map and Sequencing

Source: Investment Logic Map presentation (file name: ILM v5 171002)

Accelerate model of care change programmes to maximise health outcomes

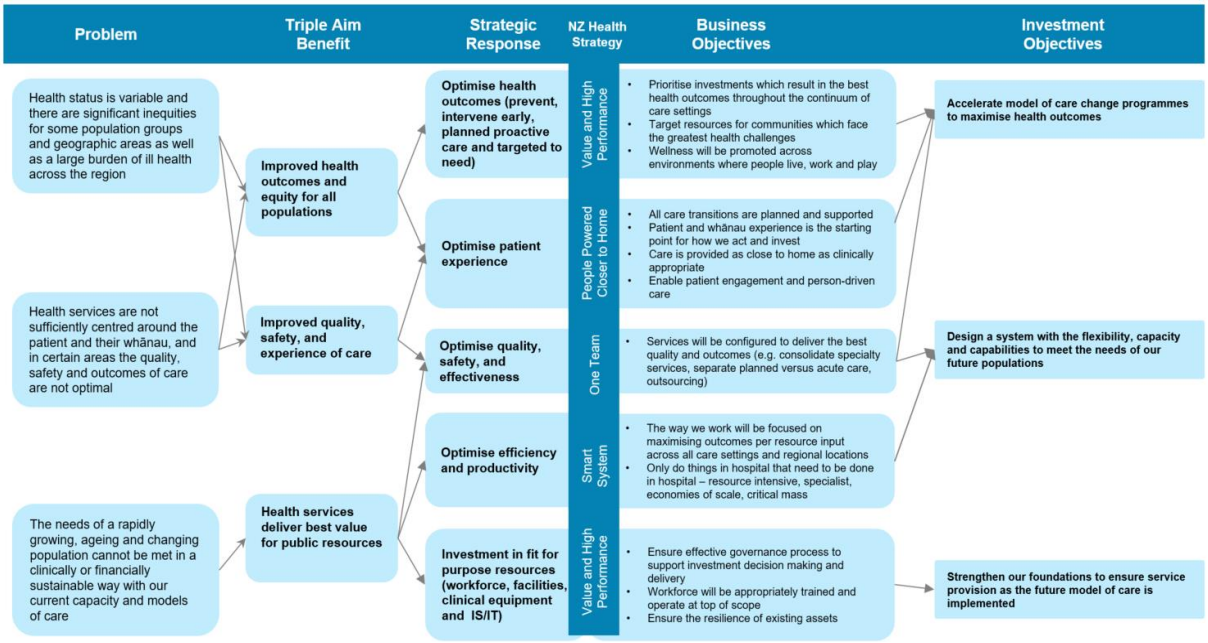
- Enable self-directed care
- Expand care across a wider continuum of non-hospital options, including public health, primary, community and home care, to enable more services to be delivered in the most appropriate setting.
- Leverage patient technologies which provide new opportunities to capture, relay and present clinical and non-clinical information, both in the home and other care settings.
- Provide mobile services and telehealth to ensure the needs of our isolated populations are met.
- Utilise information systems which support new models of care and provide patients and care teams with full, timely access to health information.
- Develop our non-hospital workforce to support the delivery of new models of care (incl GPs, nurses, pharmacists, other allied health and specialist medical practitioners, volunteers, whānau etc.).

Design a system with the flexibility, capacity and capabilities to meet the needs of our future populations

- Ensure capacity on current sites to deliver an agreed set of core services for the local population as well as any designated Regional services.
- Add new acute hospital site(s) to the Regional network to deliver services for a local population where required and purchase land where necessary.
- Stream elective surgery/procedures/services to specific sites across the Region where it makes most sense.
- Increase patient access to care providers by creating more options to access care (e.g. virtual / phone), extending hours of operation and delivering care closer to home where appropriate.
- Explore all forms of funding and provision models (e.g. private capacity) to ensure a full range of options are considered when exploring new facilities and services.
- Expand our clinical and non-clinical workforce to support growth in service delivery where aligned to future models of care.
- Develop flexible designs so buildings can be repurposed as required in to the future.
- Invest in community hubs.

Strengthen our foundations to ensure service provision as the future model of care is implemented

- Undertake backlog remediation work in regard to key sites across the Region.
- Decongest and repurpose our existing hospital sites to address current capacity constraints.
- Maintain and replace current assets to ensure they are fit for modern purpose and aligned with future models of care.
- Strengthen ICT foundations to increase the resilience of our systems, reduce risk and improve efficiency and effectiveness.



Appendix 2

Regional preferred investment path and sequencing timeline

This timeline has been redacted as the version was from October 2017 and it has been superseded by the 2018 Northern Region Long Term Investment Plan (NRLTIP).

Appendix 3: Consolidated Facilities Stocktake (current at September 2017)

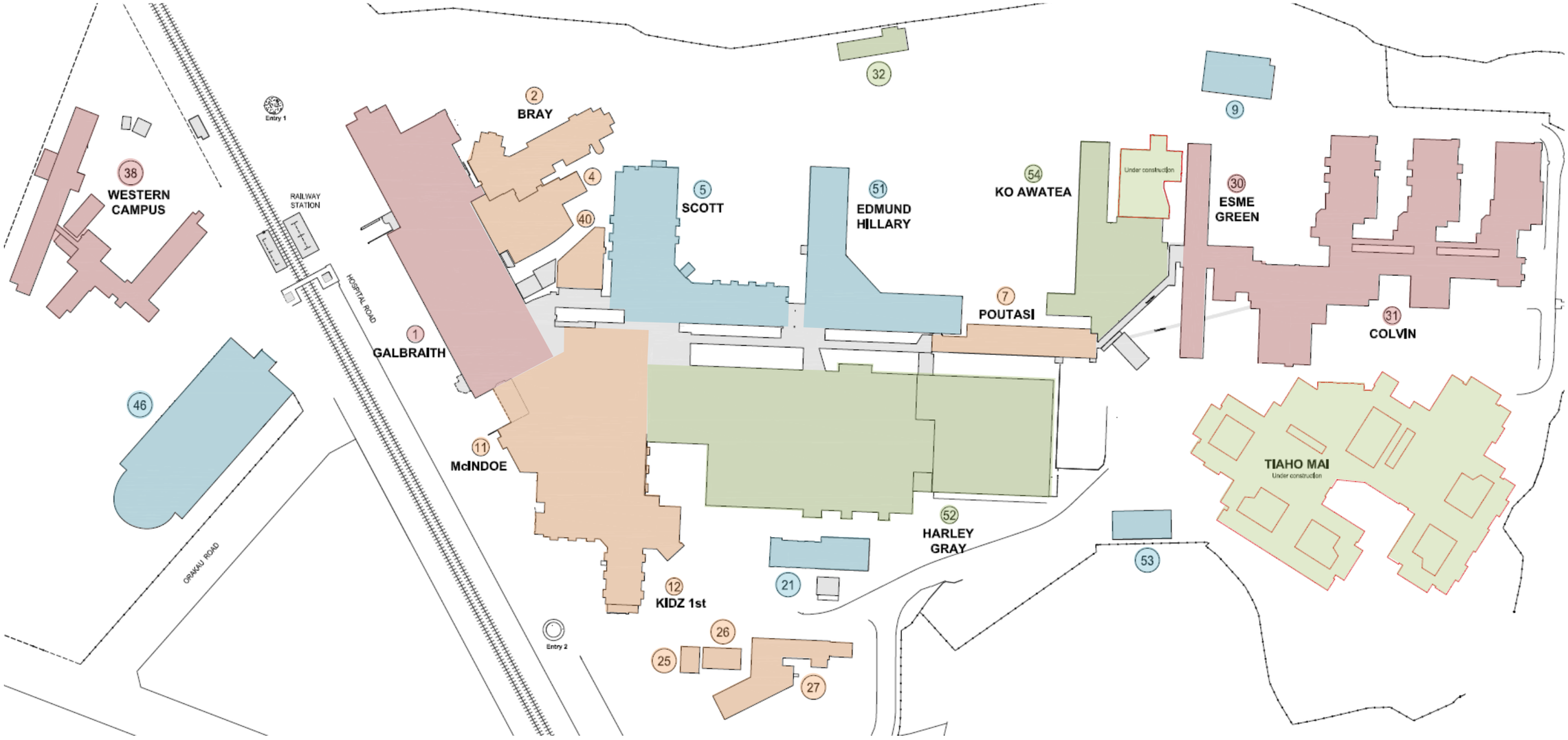
Facilities Master Plan 2017 Project – Consolidated Facilities Stocktake Summary

Legend (level of concern)**:**

High	Medium	Low	Little to none

The heatmap below provides a consolidated view of the level of issues associated with CM Health's owned buildings (as at September 2017). The overall 'level of concern' is based on the number of issue categories known to apply to each individual building, as well as whether the building is used for clinical or non-clinical purposes. A summary 'issues matrix' is provided in a table on the following page, followed by a more detailed stocktake of building information.

Middlemore Hospital (MMH) site:



Satellite sites:

Manukau		Mangere	Franklin	Pukekohe	Botany			Papakura				Otara	
Manukau SuperClinic [MHP 1]	Manukau Surgery Centre [MHP 2]	Mangere (leased out) [MAN}	Franklin Mem. Hospital [FRA]	Pukekohe Hospital [PUK]	Home Health Care [BOT HHC]	Maternity [BOT Mat]	Botany SuperClinic [BOT SC]	Salas Place (leased out) [PAP SP]	Sheehan Ave (leased out) [PAP SA]	Awhinitia Health [PAP Awh]	Maternity [PAP Mat]	Tamaki Oranga [OTA TO]	Spinal Rehab [OTA ASRU]

Consolidated building issue matrix and assessment timeline (Sept 2017)

Planned assessment period: Complete | Q1/2 | Q3/4 | 2018/19

Category and definition	Affected buildings	Predominant use	Map ref.	Issue category and assessment period				Risk Register reference
				Seismic	*Asbestos*	*Weathertightness*	*Critical Inf.*	
High concern (indicated by red heat spot) Criteria: • Clinical or mixed buildings - at least three known or suspected issue categories apply	Galbraith	Clinical	MMH 1	✓	✓	✓	✓	13.21,13.22,13.19
	Esme Green	Mixed	MMH 30		✓	✓	✓	13.21, 13.22, 13.19
	Colvin	Mixed	MMH 31	✓	✓	✓	✓	13.21, 13.22
	Western Campus	Mixed	MMH 38	Suspected	✓		✓	13.21, 13.22
	Manukau SuperClinic	Clinical	MHP 1		✓	✓	✓	13.21, 13.22, 13.19
	Manukau Surgery Centre	Clinical	MHP 2		✓	✓	✓	13.21, 13.22, 13.19
	Otara Spinal Rehab	Clinical	OTA ASRU		✓	✓	✓	13.21, 13.22
Medium concern (indicated by amber heat spot) Criteria: • Clinical or mixed buildings - two known or suspected issue categories apply • Non-clinical buildings - at least three known or suspected issue categories apply	Building 4 Radiology	Clinical	MMH 4		Suspected		✓	13.21, 13.22
	Bray	Non-clinical	MMH 2		✓	✓	✓	13.21, 13.22
	McIndoe	Mixed	MMH 11			✓	✓	13.21, 13.22, 13.19
	Kidz First	Clinical	MMH 12			✓	✓	13.21, 13.22, 13.19
	Building 40 Oral Health	Clinical	MMH 40	Suspected			✓	13.21, 13.22
	Poutasi	Non-clinical	MMH 7	Suspected	✓	✓	✓	13.21, 13.22
	Facilities Support	Non-clinical	MMH 25-27		✓	✓	✓	13.21, 13.22, 13.24
	Franklin Memorial Hospital	Clinical	FRA	✓			✓	13.21, 13.22
	Pukekohe Hospital	Clinical	PUK	✓			✓	13.21, 13.22
Low concern (indicated by blue heat spot) Criteria: • Clinical or mixed buildings - one known or suspected issue category applies • Non-clinical buildings – one to two known or suspected issue categories apply	Scott	Clinical	MMH 5			✓		13.21, 13.22, 13.19
	Edmund Hillary	Clinical	MMH 51			✓		13.21, 13.22
	Facilities Workshop	Non-clinical	MMH 53				✓	13.21, 13.22, 13.24
	Facilities Energy Centre	Non-clinical	MMH 21				✓	13.21, 13.22, 13.24
	Creche “treehouse”	Non-clinical	MMH 9			✓		13.21, 13.22
	Carpark building	Non-clinical	MMH 46				✓	13.21, 13.22, 13.24
	Botany Maternity	Clinical	BOT Mat			✓		13.21, 13.22
	Awhinitia Community Services	Clinical	PAP Awh				✓	13.21, 13.22
	Papakura Maternity	Clinical	PAP Mat				✓	13.21, 13.22
	Otara Mental Health Rehab	Clinical	OTA TO		✓			13.21, 13.22
Little to no concern (indicated by green heat spot) Criteria • Clinical or mixed buildings: no known or suspected issues • Non-clinical buildings: no known issues	Harley Gray	Clinical	MMH 52					13.21, 13.22
	Ko Awatea	Non-clinical	MMH 54					13.21, 13.22
	Pink Palace	Non-clinical	MMH 32		Suspected			13.21, 13.22, 13.24
	Acute Mental Health Unit	Clinical	MMH TM					13.21, 13.22
	Botany Home Healthcare	Clinical	BOT HHC					13.21, 13.22
	Botany SuperClinic	Clinical	BOT SC					13.21, 13.22
	Mangere	Leased out	MAN					13.21, 13.22
	Sheehan Ave	Leased out	PAP SA					13.21, 13.22
	Salas Place	Leased out	PAP SP					13.21, 13.22

Facilities Master Plan 2017 Project - Detailed Facilities Stocktake

Cost Key: Confirmed | External est. | Internal est.

Middlemore Hospital Campus

Version: 21 September 2017/J Taylor

Building	Galbraith	Bldg 4	Bray	McIndoe	Kidz First	Bldg 40	Scott	Harley Gray	Edmund Hillary	Poutasi	Ko Awatea	Esme Green	Tiaho Mai		Colvin	Western Campus	Facilities			Creche "tree house"	"Pink Palace"	Carpark bldg
Map ref.	1	4	2	11	12	40	5	52	51	7	54	30	New	Old	31	38	25,26,27	53	21	9	32	46
Predominant use	Mixed	Clinical	Non-Clinical	Mixed	Clinical	Mixed	Clinical	Clinical	Clinical	Non-clinical	Non-clinical	Mixed	Clinical	Clinical	Mixed	Mixed	Non-clinical	Non-clinical	Non-clinical	Non-clinical	Non-clinical	Non-clinical
Seismic																						
Last known IL rating (2013)[1]	IL4	IL3	IL3	IL4	IL4	IL3	IL3/4	IL4	IL4	IL3	IL3	IL3	N/A	IL3	IL3	IL3	IL3	IL3	IL4	IL3	Unknown	IL2
Required IL rating (current)[2]	IL3/4	IL3	IL3	IL4	IL3	IL3	IL3/4	IL4	IL4	IL3	IL3	IL3	IL3	N/A	IL3	IL3	IL2	IL2	IL4	IL2	IL2	IL2
Current NBS compliance (TBC)	TBC	TBC	TBC	TBC	TBC	TBC	TBC	TBC	TBC	TBC	TBC	TBC	TBC	N/A	TBC	TBC	TBC	TBC	TBC	TBC	TBC	TBC
Is there a known issue?	Yes	No	No	No	No	Suspected	No	No	No	Suspected	No	No	No	N/A	Yes	Suspected	No	No	No	No	Unknown	No
Action required	Assess	Assess	Assess	Assess	Assess	Assess	Assess	Assess	Assess	Assess	Assess	Assess	None	Demolish	Assess	Assess	Assess	Assess	Assess	Assess	Assess	Assess
Remediation period	Q3 - 36mths												N/A	N/A								
Remediation cost	$55-60M (Facilities estimate)												N/A	N/A								
Asbestos																						
Is there a known issue?	Yes	Suspected	Yes	No	No	No	No	No	No	Yes	No	Yes	No	No	Yes	Yes	Yes	No	No	No	Suspected	No
Action required	Assess & remediate	Assess	Assess & remediate	Assess	Assess	Assess	Assess	Assess	Assess	Assess	Assess	Assess	Assess	None	Assess	Assess	Assess	Assess	Assess	Assess	Assess	Assess
Assessment period	Q1/2	Q1/2	Q1/2	Q3	Q2	Q1/2	Q2/3	Q2	Q2/3	Q1/2	Q4	Q1/2	Q3	N/A	Q1/2	Q1/2	Q1/2	Q1/2	Q1/2	Q2/3	Q1/2	Q2/3
Remediation period	Q1/2+	Q2+												N/A								
Remediation cost	$2M (Facilities estimate)	TBC												N/A								
Cladding/weatherseal																						
Is there a known issue?	Yes windows	No	Yes windows	Yes cladding	Yes cladding	No	Yes cladding	No	No	Yes roof tiles	No	Yes cladding	No	N/A	Yes roof tiles	No	Yes roof tiles	No	No	Yes roof/leaks	No	No
Actiont required	Dependent*	None	Dependent[3]	Assess & remediate	Assess & remediate	None	Assess & remediate	None	None	Assess	None	Assess	None	N/A	Assess	None	Assess	None	None	Assess	None	None
Assessment period	2018FY	N/A	2018FY	Complete	Q2	N/A	Complete	N/A	N/A	2018FY	N/A	2018FY	N/A	N/A	2018FY	N/A	2018FY	N/A	N/A	2018FY	N/A	N/A
Remediation period		N/A		TBC	TBC	N/A	Q3 onwards	N/A	N/A		N/A		N/A	N/A		N/A		N/A	N/A		N/A	N/A
Remediation cost		N/A		$5.2M (RLB estimate)	$7.3M (RLB estimate)	N/A	$17.6M (RLB estimate)	N/A	N/A		N/A		N/A	N/A		N/A		N/A	N/A		N/A	N/A
Critical infrastructure (site																						
Is there a known issue?[4]	Yes	Yes	Yes	Yes	Yes	Yes	TBC	No	No	Yes	No	Yes	No	N/A	Yes	Yes	Yes	Yes	Yes	No	No	Yes
Assessment period	Asset condition survey & single point of failure risk assessment: Q3 - assess, Q4 - document (subject to approval of funding)																					

Notes:

[1] Last detailed seismic assessment completed in 1990/2000 (these were validated in 2013, however, may have been based on planned remedial work which was subsequently not completed)

[2] Current required IL ratings require validation against business continuity service planning, and the full assessment of critical infrastructure

[3] Investment in Bray dependent on decision to invest in Galbraith

[4] Based on internal Facilities knowledge/assessment only - requires validation via asset condition survey

Cost Key: Confirmed | External est. | Internal est.

Facilities Master Plan 2017 Project - Facilities Stocktake

Satellite sites

Version: 21 September 2017/J Taylor

Site	Manukau		Mangere	Franklin	Pukekohe	Botany			Papakura				Otara	
Map ref.	SuperClinic [MHP 1]	Surgery Centre [MHP2]	Mangere [MAN]	Franklin Hospital [FRA]	Pukekohe Hosp [PUK]	Home Health Care [BOT HHC]	Maternity [BOT Mat]	SuperClinic [BOT SC]	Salas Pl [PAP SP]	Sheehan Ave [PAP SA]	Awhinitia Health [PAP Awh]	Maternity [PAP Mat]	Tamaki Oranga [OTA TO]	Spinal Rehab [OTA ASRU]
Predominant use	Clinical	Clinical	Leased out	Clinical	Clinical	Clinical	Clinical	Clinical	Leased out	Leased out	Clinical	Clinical	Clinical	Clinical
Seismic														
Last known IL rating (2013)[1]	IL3	IL4	Unknown	IL3	IL3	IL3	IL3	IL3	Unknown	Unknown	Unknown	Unknown	Unknown	IL3
Required IL rating (current)[2]	IL3	IL4	IL3	IL3	IL3	IL3	IL3	IL3	IL2/3	IL2/IL3	IL3	IL3	IL3	IL3
Current NBS compliance (TBC)	TBC	TBC	TBC	TBC	TBC	TBC	TBC	TBC	TBC	TBC	TBC	TBC	TBC	TBC
Is there a known issue?	No	No	Unknown	Yes	Yes	No	No	No	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown
Action required	Assess	Assess	Assess	Assess	Assess	Assess	Assess	Assess	Assess	Assess	Assess	Assess	Assess	Assess
Assessment period	Q3/4	Q3/4	Q3/4	Q3	Q3	Q4	Q4	Q4	Q3/4	Q3/4	Q3/4	Q3/4	Q3/4	Q3/4
Remediation period														
Remediation cost														
Asbestos														
Is there a known issue?	Yes	Yes	Unknown	Unknown	Unknown	Unknown	No	Unknown	Unknown	Unknown	Unknown	Unknown	Yes	Yes
Action required	Assess & remediate	Assess & remediate	Assess	Assess	Assess	Assess	Assess	Assess	Assess	Assess	Assess	Assess	Assess & remediate	Assess & remediate
Assessment period	Q1	Q1	Q2/3	Q2/3	Q2/3	Q2/3	Complete	Q2/3	Q2/3	Q2/3	Q2/3	Q2/3	Q1	Q1
Remediation period	Q1/2						N/A							
Remediation cost	$100K (Facilities estimate)						N/A							
Cladding/weatherseal														
Is there a known issue?	Yes cladding	Yes cladding	No	No	No	No	Yes rising damp	No	No	No	No	No	No	Yes roof/leaks
Action required	Assess	Assess	None	None	None	None	Assess	None	None	None	None	None	None	Dependent[3]
Assessment period	Q3	Q3	N/A	N/A	N/A	N/A	2018FY	N/A	N/A	N/A	N/A	N/A	N/A	TBC
Remediation period			N/A	N/A	N/A	N/A		N/A	N/A	N/A	N/A	N/A	N/A	
Remediation cost			N/A	N/A	N/A	N/A		N/A	N/A	N/A	N/A	N/A	N/A	
Critical infrastructure														
Is there a known issue?[4]	Yes	Yes	No	Yes	Yes	No	No	No	No	No	Yes	Yes	No	Yes
Assessment period	Asset condition survey & single point of failure risk assessment: 2018FY - Q1 assess, Q2 - documentation (subject to approval of funding)													

Notes:

[1] Last detailed seismic assessment completed in 1990/2000 (these were validated in 2013, however, may have been based on planned remedial work which was subsequently not completed)

[2] Current required IL ratings require validation against business continuity service planning, and the full assessment of critical infrastructure

[3] ASRU dependent on potential investment in specialised rehabilitation at Manukau

[4] Based on internal Facilities knowledge/assessment only - requires validation via asset condition survey

Appendix 4: Indicative Programme assessment timeline and capital requirements

Indicative assessment programme timeline that is under revision as independent assessment services are confirmed

2017/18 Facilities Assessment Programme

	Remediation Investment Projects	Site	Jul-17	Aug-17	Sep-17	Oct-17	Nov-17	Dec-17	Jan-18	Feb-18	Mar-18	Apr-18	May-18	Jun-18	Target completion (CY)
Facilities Remediation requirements	Seismic assessment	All	Galbraith	✓ Preliminary complete			Detailed - due		Other buildings - six month rolling review						2018
	Seismic remediation	TBC						Galbraith	★ 2018 dates TBC						TBC
	Asbestos assessment	All	Group 1 (Q1)			Group 2 (Q2/3)			Group 3 (Q3)						2018
	Asbestos remediation	TBC		Commence rolling remediation and management programme											Ongoing
	Cladding assessment	Most	Scott		★CIC - TBC				Other buildings - rolling review						2018
				Kidz First, McIndoe, MHP											
	Cladding remediation	TBC				Scott recladding works (commencement subject to CIC approval) - total remediation period approx 36 months									Varied
	Critical Infrastructure assessment	All							Asset condition & single point of failure survey - all bldgs						2018
	Critical Infrastructure remediation	TBC													TBC
	Chilled Water Capacity upgrade	MMH				Construction contract only - b/c already approved									2018
						★24/10 ELT	★15/11 ARF	★6/12 Board							
	Power resilience upgrade	MHP													2018
						★24/10 ELT	★15/11 ARF	★6/12 Board							

Notes:
Timeframes are indicative and subject to change
All investment intentions are subject to approval unless otherwise indicated

Appendix 4

Indicative Facilities Capital Requirements for the Facilities Remediation Programme

Investment Programme & Projects	Financial Year (ending 30 June) $m 2016/17	17/18	18/19 - 21/22	22/23+	Indicative Subtotals	Indicative TOTALS
Remediation Programme						
Asbestos Removal		1.50	2.50	2.00	**6.00**	
CM Health Passive Fire Protection remediation		0.50	1.00	0.50	**2.00**	
Galbraith Remediation		10.00	50.00		**60.00**	
General Core Infrastructure Upgrades		5.00	10.00		**15.00**	
Kidz First Building Re-Cladding			7.30		**7.30**	
Manukau Building Re-Cladding				7.30	**7.30**	
Manukau Power Resilience Upgrade		1.00	2.00		**3.00**	
McIndoe Building Re-Cladding			5.20		**5.20**	
Scott Building Recladding		5.92	11.68		**17.60**	
Remediation Programme Total		**23.92**	**89.68**	**9.80**		**123.40**

Note: 2017/18 facilities capital estimates will be further refined as we factor in project start date delays and outer year requirements will be refined further during the Programme Business Case

Appendix 5: Draft Facilities Remediation Programme Investment Logic Map

In preparation for the Programme Business Case, workshops have started with key stakeholders to prepare an Investment Logic Map. It is important that this directly aligns and supports the Northern Region Investment Logic Map provided in Appendix 2.

Problem statements developed to date developed in facilitated workshops with Facilities Engineering and Asset Management staff and will be refined further in the Programme Business Case.