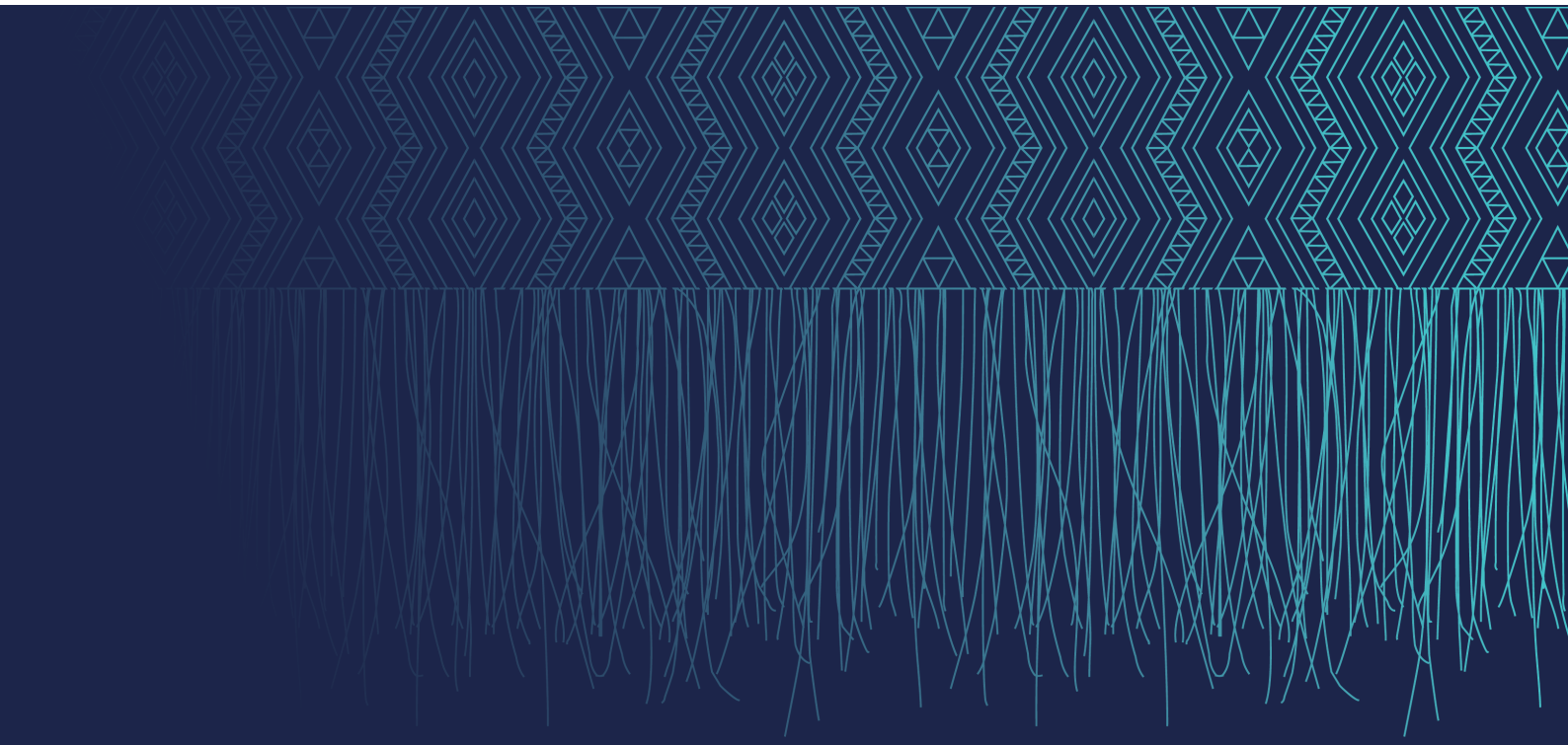
Te Whatu Ora
Health New Zealand

Design Guidance and Assurance Framework

Version 1.3



Te Kāwanatanga o Aotearoa
New Zealand Government

Citation: Te Whatu Ora – Health New Zealand. 2023. *Design Guidance and Assurance Framework*. Wellington: Te Whatu Ora – Health New Zealand.

Published in March 2023 by Te Whatu Ora – Health New Zealand
PO Box 793, Wellington 6140, New Zealand

ISBN 978-1-99-106722-7 (online)

Te Whatu Ora
Health New Zealand

This document is available at **tewhatuora.govt.nz**

1 Foreword

Te Whatu Ora is building the foundations of a new health system. Delivering a unified, sustainable health system includes:

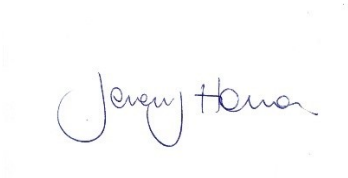
- Delivering equity for all,
- Embedding Te Tiriti,
- Implementing a population health approach, and
- Ensuring sustainability of the health system.

The health estate has an important role to play in delivering these objectives, and infrastructure investment must deliver on the aspirations set out in Te Pae Tata.

Providing nationally consistent design guidance, drawing on the wealth of expertise that exists across New Zealand, guidance that is genuinely informed by the principles of Te Tiriti o Waitangi, will deliver buildings that promote equitable access, that respond to the social, cultural and physical needs of all New Zealanders.

Nationally consistent design guidance, and transparent design assurance processes also support standardised, faster and more efficient infrastructure delivery processes, improving the sustainability of the health system, and building construction sector confidence in hospital development processes.

Thank you to everybody who contributed to producing this Design Guidance and Assurance Framework.



Jeremy Holman

Chief Infrastructure and Investment Officer

Infrastructure and Investment Group

Te Whatu Ora

2 Executive summary

Nationally consistent design guidance and assurance processes will support fit-for-purpose facility development, that supports equity and sustainability objectives. Providing clear and consistent design expectations will streamline development processes, and reduce the risk of time and cost overruns.

This framework sets out processes that will ensure that patients and their whānau, staff and key stakeholders can contribute to developing agreed guidance, using the Australasian Health Facility Guidelines as a base, and developing Aotearoa New Zealand specific guidance to meet our unique needs.

Developing Aotearoa specific guidance, developed in partnership with tangata whenua, will support health facility designs that reflect te Ao Māori priorities.

Assurance processes to support consistent application of the guidance are also set out here; the processes drive standardisation, while providing approval pathways for local and innovative solutions, where required.

The guidance and assurance processes are designed to be continuously improved, with lessons learned, and post-occupancy evaluation information feeding into guidance reviews and updates. Post occupancy reviews will not only seek input from clinicians and facilities managers, but will also include input from patients and their whanau, to amplify lived experience in developing and reviewing facility design guidance.

Contents

3 Working Group

This framework was developed in consultation with a Working Group including representatives set out in the table below:

Name	Title	Agency
Andy Savin	Clinical Health Planner & Project Manager	Klein Architects
Melanie Walsh	Technical Director – Building Services	Beca
Laura Aileone	Principal Advisor, Primary and Community	Te Aki Whai Ora – Māori Health Authority
Sole Labbe Hubbard	Service Design Business Analyst, Digital Strategy and Investment	Te Whatu Ora
Margo Kyle	Principal Advisor, Service Planning	Te Whatu Ora
Justin Kennedy-Good	Director, Ara Manawa	Te Whatu Ora, Te Toka Tumai, Auckland
Christine Corin	Programme Manager, Facilities and Infrastructure	Te Whatu Ora, Waitaha, Canterbury
Dr. Debbie Wilson	Principal Advisor – Sustainability, Health Asset Management and Analysis	Te Whatu Ora
Matt Johns	Head of Projects, Facilities & Development	Te Whatu Ora, Te Toka Tumai, Auckland
Allan Johns	Director, Facilities & Development	Te Whatu Ora, Te Toka Tumai, Auckland

4 Consultation

The draft was provided to the agencies listed below, from 14-20th February 2023.

Agency/Group
Te Aka Whai Ora
Pacific Health (Te Whatu Ora)
New Zealand Health Design Council
DIG – Investment Delivery Group (Te Whatu Ora)
MHIP (Te Whatu Ora, Infrastructure and Investment Group)
Infrastructure Investment Planning (Te Whatu Ora, Infrastructure and Investment Group)
Data and Digital (Te Whatu Ora)
Infrastructure Procurement (Te Whatu Ora, Infrastructure and Investment Group)

5 Revision History

Version	Date	Author	Description of changes
1.0	Jan 18, 2023	Facility Design and Advisory Team	Initial draft.
1.1	Feb 10, 2023	Facility Design and Advisory Team	Response to Working Group feedback.
1.2	March 10, 2023	Facility Design and Advisory Team	Response to consultation feedback.
1.3	March 24	Facility Design and Advisory Team	Response to Te Whatu Ora ELT feedback.

6 Design Guidance and Assurance Objectives

Design guidance and assurance processes help Te Whatu Ora and Te Aka Whai Ora to deliver consistent, fit-for-purpose health facilities across Aotearoa. Providing guidance helps design teams to develop facilities that not only deliver on functionality and affordability expectations, but increasingly sets out pathways for Te Whatu Ora facilities to support health equity outcomes, and reflect te Ao Māori priorities in health infrastructure.

Improved design assurance processes will provide early feedback for project teams, building confidence that project funding is meeting operational and strategic goals, and reducing the risk of project delays and cost overruns. By setting out clear design expectations and standardised solutions, where project teams are supported through assurance processes, we expect faster and more efficient design processes, with reduced risk during delivery phases.

The guidance is based on research and broad consultation and tested through decades of application in trans-Tasman projects. Establishing formal consultation processes will give consumers and industry an opportunity to contribute to design guidance and assurance processes, that suit the Aotearoa context. Feedback processes that value the voice of consumers will inform guidance for when we plan and design health services, and will ensure that we have mechanisms in place to be held to account.

Health facility design processes will still require professionals to weave together inputs from:

- clinical service plans (local and regional)
- models of care
- regulations
- site specific requirements (e.g. building condition)
- territorial authority's District Plans, and
- consultation with key stakeholders such as user groups, tangata whenua, clinicians, staff, data and digital teams and territorial authorities.

Design guidance sets out what Te Whatu Ora expects from designers. Assurance processes test alignment to the guidance, to ensure that health infrastructure expenditure will deliver on health outcomes.

7 What is out of scope?

Design guidance and assurance processes won't replace professional services such as engineering and architectural services, and it won't replace regulations such as the New Zealand Building Code.

While design guidance is freely available for designers to use for any health care facilities, Te Whatu Ora assurance processes don't apply to:

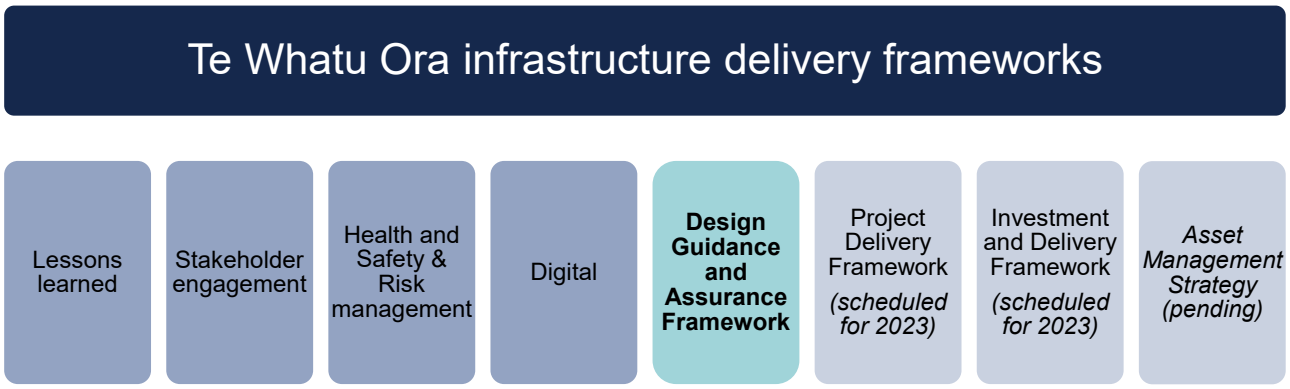
- private health facilities
- non-government aged care facilities
- private medical practitioners and associated consulting rooms
- pharmacies (retail and stand-alone)
- support residential facilities
- residential housing

Low risk public health projects should comply with guidance (see Appendix I for a definition of the threshold to trigger assurance processes), but project teams and/or facilities and maintenance teams can monitor alignment (rather than the Facility and Design Advisory team).

8 Context

This is one of a number of infrastructure frameworks being developed, as Te Whatu Ora and Te Aka Whai Ora establish a nationally led view of infrastructure investment. This framework should be used in conjunction with other infrastructure frameworks, as they are finalised.

Where the frameworks potentially overlap (e.g. with digital infrastructure development), the infrastructure and investment teams involved will collaborate to ensure that guidance is coordinated and led by the appropriate team.



As we come together as national agencies there is an opportunity to share resources like facility design expertise. The design and assurance framework will establish mechanisms to gather and communicate the wealth of facility design expertise that exists across Aotearoa so that designers have easy access to tried and tested design solutions.

A consistent, national approach will improve our ability to deliver high quality healthcare facilities, affordably. Agreeing on a national approach will improve equity outcomes, where, over time, patients and their whānau can expect the same quality healthcare facilities, no matter where they live.

Developing a standardised response (to improve efficiency and reduce risk) won't prevent design teams from responding to local voices and local conditions. While striving to support consistent, affordable, high-quality facilities, the framework will also build channels to hear, and respond to, the voices of patients and their whānau, clinicians, tangata whenua and local communities.

9 Benefits

Providing health facility design guidance, supported with collaborative assurance processes, ensures that projects not only meet Te Whatu Ora strategic health objectives, but also cost and quality standards.

Guidance and assurance processes are designed to provide the most support early in a project life (master planning/test of fit, concept plan, and preliminary design), so that project teams can build on best practice, and identify road-blocks and cost considerations as early as possible. Assurance processes (to check against agreed standards) early in the design process reduce the risk of rework, or poor alignment with functional or strategic outcomes.

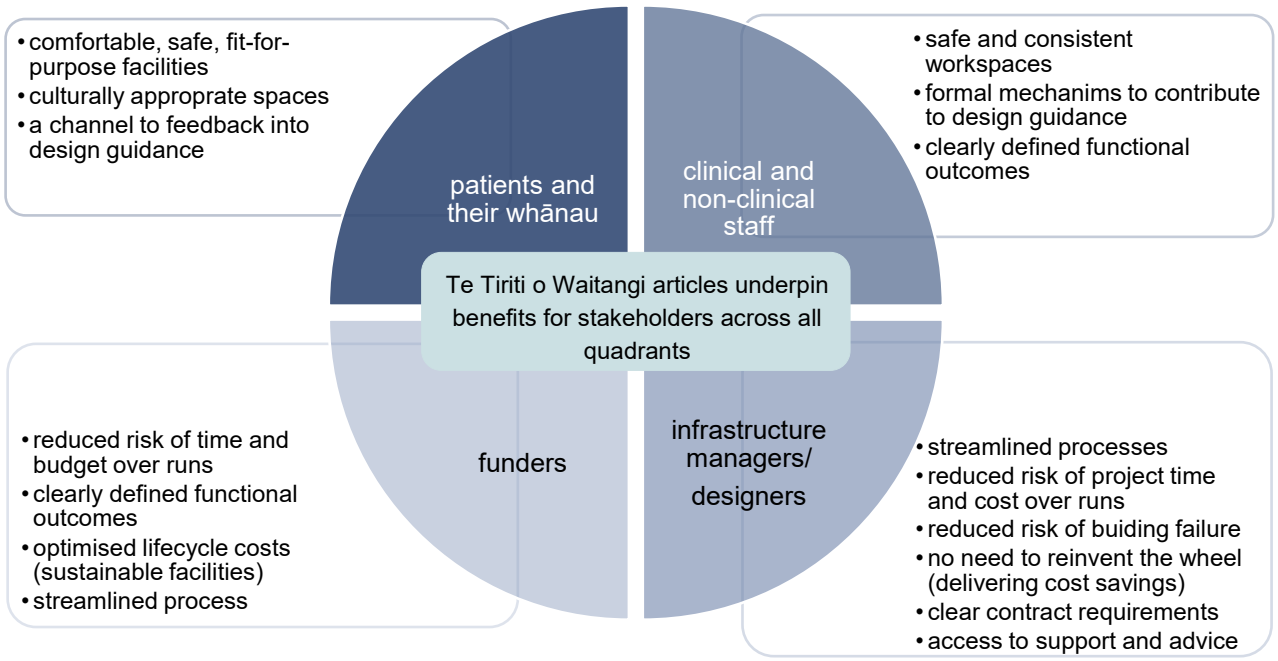
Clear design guidance, with transparent assurance processes, will give project teams certainty and confidence at each stage of the design. The guidance and assurance processes will ensure that the right technical assessments (e.g. geotechnical site analysis) are carried out, before committing to more extensive design processes. Te Whatu Ora will develop simple tools and checklists to help design teams build confidence in projects, and minimise project risk.

While the design guidance and assurance processes are mainly developed to improve new-build outcomes, the guidance is relevant for staff managing existing healthcare facilities. It covers important features such as door widths for access and security, ceiling finishes for infection prevention and control, and specialised plumbing specifications in renal facilities.

Design guidance and assurance can also optimise future use of the health estate. Master planning guidance ensures that project teams respond to a holistic, long-term plan for organising facilities at each hospital campus. Master planning is a key (and complex) design decision-making process in health facilities, where capital decisions can have long-term impacts on functional outcomes and operating costs. For example, a site with a large number of dispersed small buildings will be more expensive to heat, clean and keep secure, and harder for staff, patients and their whānau to navigate, particularly where accessibility is an issue.

In conjunction with asset management information, and clinical service plans (driven by Te Pae Tata), effective master plans can provide the foundation for long term investment planning. Setting out the master plan standards will ensure that there is a nationally consistent approach, that draws on international and industry best practice. Guidance to support effective site master planning in Aotearoa will be developed.

Improved design guidance supported by robust assurance processes will deliver consistent, value-for-money facilities. Consistent design outcomes will support a range of benefits for key stakeholder groups, as shown in the diagram below.



Guidance and assurance will be developed and updated through a process of continuous improvement, with clinicians, patients and their whānau, tangata whenua and local communities feeding back into design guidance through established channels; ensuring that lived experience informs guidance is a priority. This will support facility designs that continue to evolve to meet the changing health needs of our communities.

10 Design Guidance – Introduction

This Framework establishes design guidance as the basis for public health facility project briefs in Aotearoa New Zealand.

Providing design guidance early in a project enables designers, contractors, project managers and funders to deliver an effective result, quickly and consistently. For example, national design guidance centralises and front loads consultation processes, saving time on projects. Frontloading the consultation will ensure that consistent, tested designs can be developed efficiently (drawing on expertise from across Te Whatu Ora and Te Aka Whai Ora); with tangata whenua, clinicians and other key stakeholders reviewing and contributing to projects through normal project consultation processes.

Additional benefits of guidance include:

- setting out key project parameters (floor area, adjacencies, finishes, etc) giving a good idea of project costs and viability, early in a project; and
- supporting strategic, long-term use of the health estate by guiding effective master planning.

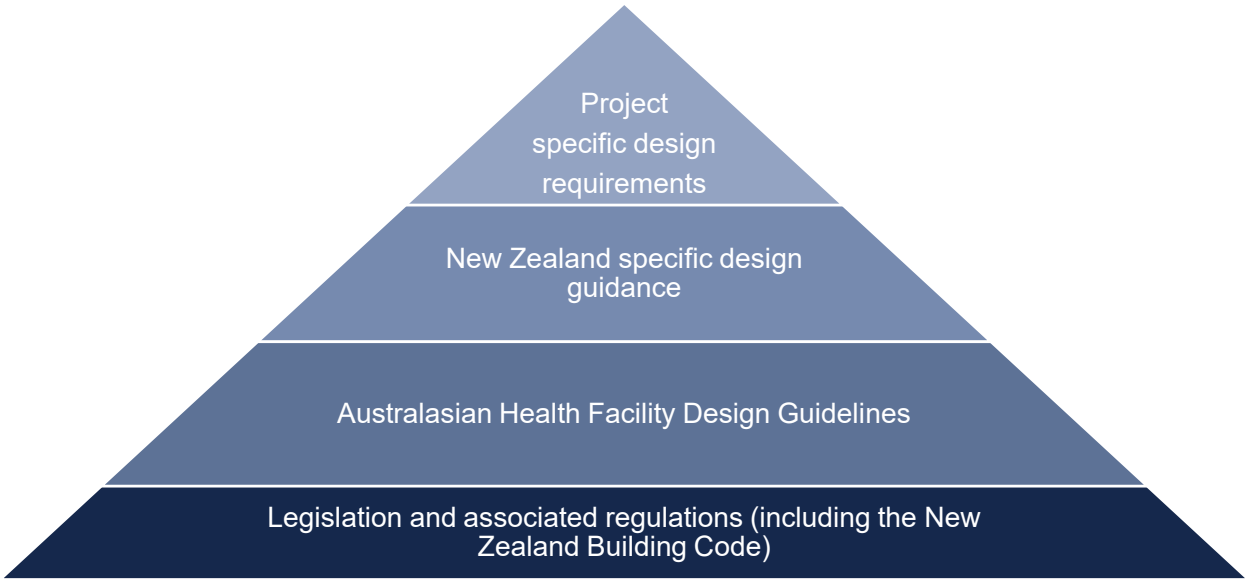
There are two parts to the design guidance:

1. Australasian Health Facility Guidelines (AusHFG), which is augmented by
2. New Zealand specific design guidance.

All Te Whatu Ora capital projects are required to follow this guidance and use the AusHFG and New Zealand Guidance Notes as the basis for facility, department and room planning and design. It is mandatory for design teams to develop solutions that are aligned with AusHFG and New Zealand specific design guidance.

Where projects require solutions that aren't addressed in the guidance, or an innovative solution is available, project specific design solutions will be considered (alongside any cost benefit analysis), and the guidance updated, as appropriate.

Complying with design guidance doesn't remove any requirement to comply with New Zealand regulations (e.g., the New Zealand Building Code, or food safety requirements). The guidance augments existing design inputs, including regulations, site constraints and user requirements. The diagram below sets out the hierarchy of considerations in the design process.



10.1 The Australasian Health Infrastructure Alliance (AHIA)

Te Whatu Ora, Health NZ participates in the Australasian Health Infrastructure Alliance (AHIA) which is made up of public health authorities across Australia and New Zealand. Collectively the nine jurisdictions provide funding for the Australasian Health Facility Guidelines (AusHFG). The Guidelines have now been in use for over a decade across Australasia and have been tested through billions of dollars of trans-Tasman hospital investment.

10.2 What do the Australasian Health Facility Guidelines (AusHFG) cover?

The AusHFG enable health facility planners and designers to use a common set of guidelines for the base elements of health facilities, with standard room layouts available in common BIM[1] formats. The Australasian guidance provides general advice including:

- health facility briefing and planning
- design for access, mobility, safety and security
- infection prevention and control, including pandemic planning
- building services and environmental design
- project Implementation.

The AusHFG also provides specific advice about laying out departments (**Health Planning Units)**, and standard rooms (**Standard Components**), including room layout sheets, generic specifications for fixtures, finishes, and furniture, floor areas and schedules of accommodation.

AusHFG content is developed to reflect the range of conditions in each of the AHIA jurisdictions, including Aotearoa. Our local subject matter experts (clinical and non-clinical) participate in consultation processes including Expert Review Groups, consultant review processes, and reviewing drafts.

AusHFG content will increasingly include and reflect New Zealand conditions, as this consultation framework is implemented.

10.3 New Zealand specific design guidance notes (DGNs)

New Zealand specific design guidance is developed when the need won't be met by AusHFG guidance (or won't be met within the required timeframe).

Design parameters that are specific to New Zealand will include cultural, environmental, legislative and geographic considerations, like:

- working with tangata whenua in design processes, and acknowledging kaupapa Māori design principles
- meeting equity objectives set out in Te Pae Tata

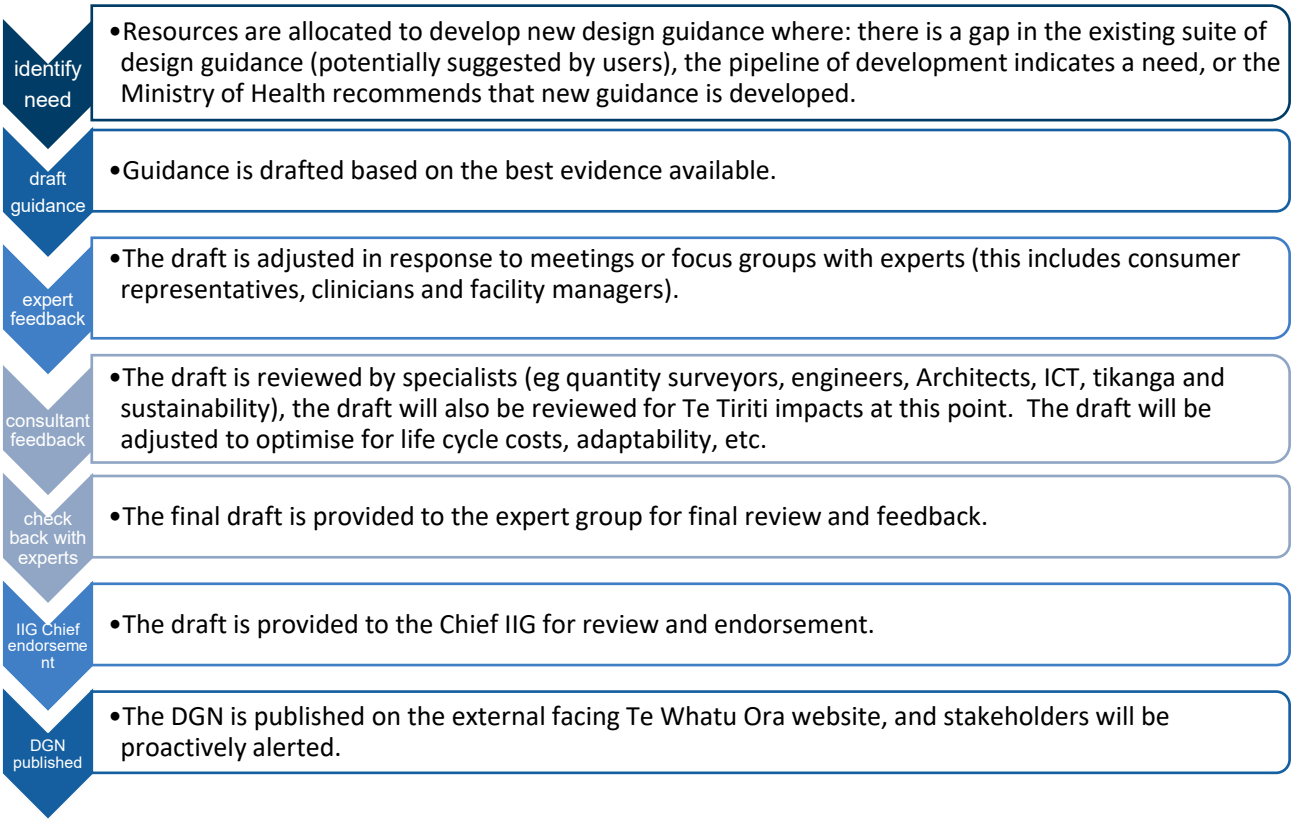
[1] Building Information Management

- responding to the geotechnical and seismic conditions at Te Whatu Ora sites
- regulations (like fire engineering requirements)
- meeting New Zealand's Carbon Neutral Public Sector objectives.

There is potential to develop agreed construction details and product specifications in the future, where this will reduce risk of building failure, and speed up design processes.

10.4 The process for developing AusHFG and New Zealand specific guidance notes (DGNs)

Both AusHFG guidance and New Zealand specific DGNs are drafted based on the evidence available, revised in response to expert review feedback, and revised again when impacts such as cost, sustainability, accessibility and adaptability have been taken into account. The diagram below sets out the process for developing DGNs in New Zealand (which mirrors the process for developing AusHFG).



10.5 The evidence base for guidance

DGNs are drafted based on the best available evidence. Te Whatu Ora holds a record of the evidence base for each decision, where the information we hold is:

- fact checked, publicly available, and sense checked by experienced practitioners
- ethical (e.g., obtained with informed consent, and without harm)
- up to date and relevant
- auditable.

Sources include international standards and guidance, New Zealand policy, our post-occupancy evaluation database (which includes lived experience feedback from patients and their whānau), industry and NGO best practice guidance and standards, and regulations.

Where there is no existing evidence, we explore sources like: learnings from similar industries, and primary research (using human-centred design principles, or new post occupancy evaluation for example).

10.6 Consulting on draft guidance

Expert Review Group membership varies according to the guidance topic, but formal consultation processes will increasingly involve a range of stakeholders, including:

- Voice for consumers
- Tangata whenua
- Pacific Health
- Experienced design practitioners
- Health planners
- Facility and asset managers
- Non-clinical support experts (e.g., security and cleaning contractors)
- Operations and logistics managers
- Clinicians
- Whaikaha – Ministry for Disabled People
- Te Tari Mātāwaka – Ministry for Ethnic Communities
- Data and Digital providers
- Subject matter experts (e.g., fire engineers, structural engineers).

Contributing to drafting processes might involve multi-disciplinary review groups, targeted interviews or focus groups, or reviewing drafts.

Amplifying the voice of consumers and their whānau and building channels for tangata whenua to participate in design processes will build a shared agreement on the kind of spaces that are required to deliver on the equity outcomes set out in Te Pae Tata.

10.7 Assessing the impact of guidance, before it is introduced

Key impacts of both AusHFG and New Zealand specific guidance will be considered before introduction, including:

- staff safety and wellbeing
- patient and whānau experience
- clinician experience
- clinical functionality (including pandemic readiness)
- capital cost (assessed by a QS)
- operating costs, including staffing costs, logistics, energy supply, facility resilience, maintenance and cleaning costs (to the extent that these can be estimated)
- buildability, maintainability and safety in design
- sustainability
- Te Tiriti o Waitangi, and tikanga Māori
- contribution to system transformation

While it may not be simple to weigh the relative merits of capital cost vs sustainability/operating cost outcomes (for example), we expect the formal process to make these trade-offs explicit and transparent.

Innovative design solutions may be tested through trials or pilot programmes, before formal DGNs are issued.

10.8 Timeframe for updating guidance

AusHFG and New Zealand specific guidance is updated on a 3-5 year cycle, but reviews can be brought forward when:

- there is a technological change

- there is a new or emerging risk (e.g., pandemic, building/material failure)
- there is a new opportunity (e.g., equity, sustainability, efficiency)
- a New Zealand specific gap is identified in AusHFG guidance.

AHIA strategy group can authorise an AusHFG out-of-cycle review, and the Manager, Facility Design and Advisory can authorise an out-of-cycle review (or drafting) in New Zealand.

10.9 Role of designers

AusHFG and DGNS don't replace professional services provided by Architects and Engineers (for example), who lead the response to the Functional Design Brief, and navigate regulatory and planning requirements, but guidance does set out what Te Whatu Ora, as a client, expects.

We expect guidance to help designers to establish fundamentals quickly, enabling them to use their expertise to address project specific and/or complex issues.

10.10 Site specific and innovative solutions

Guidance doesn't replace the need to work collaboratively with project-specific stakeholders, like tangata whenua, territorial authorities or user groups. Where site-specific design solutions are required (that significantly deviate from AusHFG or New Zealand DGNs), project teams can provide cost benefit analysis to project governance and the design governance body for consideration (the design governance body will be established over 2023).

Project teams may also develop innovative approaches to meet the Functional Design Brief, particularly where the model of care focuses on digital delivery. Where innovative solutions are proposed, project teams can provide cost benefit analysis to the project and design governance body for consideration.

Funding for projects that don't meet functional requirements (e.g. retrofitting clinical services in existing buildings that don't meet requirements) will also be considered by project governance and the design governance body on a case-by-case basis (as a variation).

Project teams are responsible for identifying variations, with project governance considering deviations below a threshold (see the Design Guidance Variation Process for threshold details). Variations above the threshold will be considered by the design governance body, based on evidence (including national and international experience).

Where the design governance body approves alternative solutions, the outcomes may be used to inform revised guidance.

10.11 Design guidance – continuous improvement

The Facility and Design team supports evidence-based design improvements. While guidance is updated on a 3-5 year cycle to keep up to date with changing technological, social and environmental conditions, guidance will be continuously improved by feedback loops (including post occupancy evaluation and alternative solutions approved by the design governance body).

The Facility Design and Advisory team maintain a database of post-occupancy review findings and lessons learned, to influence and improve future design guidance. This can include the performance of systems, fixtures and finishes, through to feedback on patient and whānau experiences of our healthcare facilities. Recurring issues identified through assurance processes will also form part of the lessons-learned dataset and be used to drive improvements in the guidance.

Design guidance and assurance processes and collateral will also be continuously improved, in response to feedback from facility users such as staff, patients and their whānau, and facilities managers. Supporting designers to adopt the guidance, and building relationships to understand how it is being adopted (and if not, why not) will ultimately deliver a robust set of design guidance.

Feedback mechanisms will include participating in industry forums, collaborative design assurance processes and maintaining and analysing a database of facility design queries.

10.12 Design guidance – how does it reach its audience?

The Facilities Design and Advisory Team will proactively update stakeholders when DGNs are developed or updated. Existing communication channels are in place for AusHFG updates, which will be amplified through Infrastructure and Investment Group stakeholder channels in Aotearoa.

Establishing consistent, formal channels will improve buy-in, and build confidence that the AusHFG and DGNs are the foundation for health facility design in Aotearoa. Proposed mechanisms include:

- anticipating new design guidance with early communications to stakeholders

- releasing DGNs on the Te Whatu Ora external facing website
- supporting new design guidance with training
- reaching core stakeholder groups through industry forums and e-newsletters.

Existing design advisory functions will continue to build awareness of the guidance, supporting improved uptake from project initiation.

Special care will be taken to provide in-flight projects with relevant design guidance as early as possible, with clear, realistic guidance about timeframes for implementation. The objective is to support delivery, and signal change as early as possible.

11 Design Assurance – Introduction

Collaborative design assurance processes provide an opportunity for design teams to get feedback at key points in the design process to ensure that healthcare facilities will meet Te Whatu Ora needs. The process is designed to be collaborative to reach a solution that complies with Te Whatu Ora requirements as quickly as possible.

Assurance processes give project teams an opportunity to meet and:

- understand and respond to Te Whatu Ora design expectations (i.e. check alignment with DGNs and AusHFG)
- consider the impact of designs holistically (e.g. cultural, digital, mechanical, geotechnical, architectural, urban planning, clinical service planning, and sustainability), and check for unintended consequences on site functionality, or long-term site planning
- test early design thinking, before they've invested heavily in a solution
- share best practice and lessons learned among practitioners in Aotearoa.

The cost of assurance processes (mainly meeting time) are small in relation to the total cost of projects, and will potentially prevent costly project failures. We expect the time and cost associated with design rework to diminish, as design teams become more familiar with design guidance.

11.1 What projects are covered?

The assurance process is mandatory for all Te Whatu Ora capital infrastructure projects, including any major asset replacement. Minor maintenance and refurbishment projects are excluded from the process. The process must be applied to new buildings, extensions, and significant refurbishments, including alterations to existing buildings. Where a building is repurposed (e.g. converted from a ward to an office space), the repurposed facilities must meet the requirements for the new occupancy type.

Minor renovations, maintenance and cosmetic upgrades are not covered by the assurance processes, but specifications should be aligned with AusHFG and DGN requirements.

Design assurance processes are tailored to suit the size and complexity of the project, with resources targeted to the highest value, most complex projects, or projects with the most consequential impact such as master plans.

11.2 When do assurance processes occur?

The Facility Design and Advisory team run assurance processes with project teams at:

- Masterplan
- Test of fit
- Concept Design
- Preliminary Design
- Developed Design.

This process is scalable for larger or smaller projects, at the discretion of the Manager, Facility Design and Advisory (in writing). Most resource will be allocated to early phases of the design process when project teams can alter project plans at least cost.

The threshold for triggering a design assurance review is set out in Appendix I. Mandatory design assurance processes are based on project risk; the table appended indicates the expected level of scrutiny based on design phase, project size and complexity. A desktop review will be a relatively quick check to identify any high-level concerns, for less complex, straightforward projects. More resource will be allocated to supporting complex and costly projects.

11.3 What do assurance processes involve?

Documentation is checked for completeness (against agreed the checklists) and quality, where proposals are considered through a collaborative review process (usually involving external peer reviewers).

Each assurance review is a two-stage process: early reviews and close out.

11.4 Early Reviews

Early reviews provide an opportunity to collaboratively discuss the proposal, while the design is still being resolved and has flexibility. This minimises the risk that design teams invest a lot of time and effort developing non-compliant design solutions.

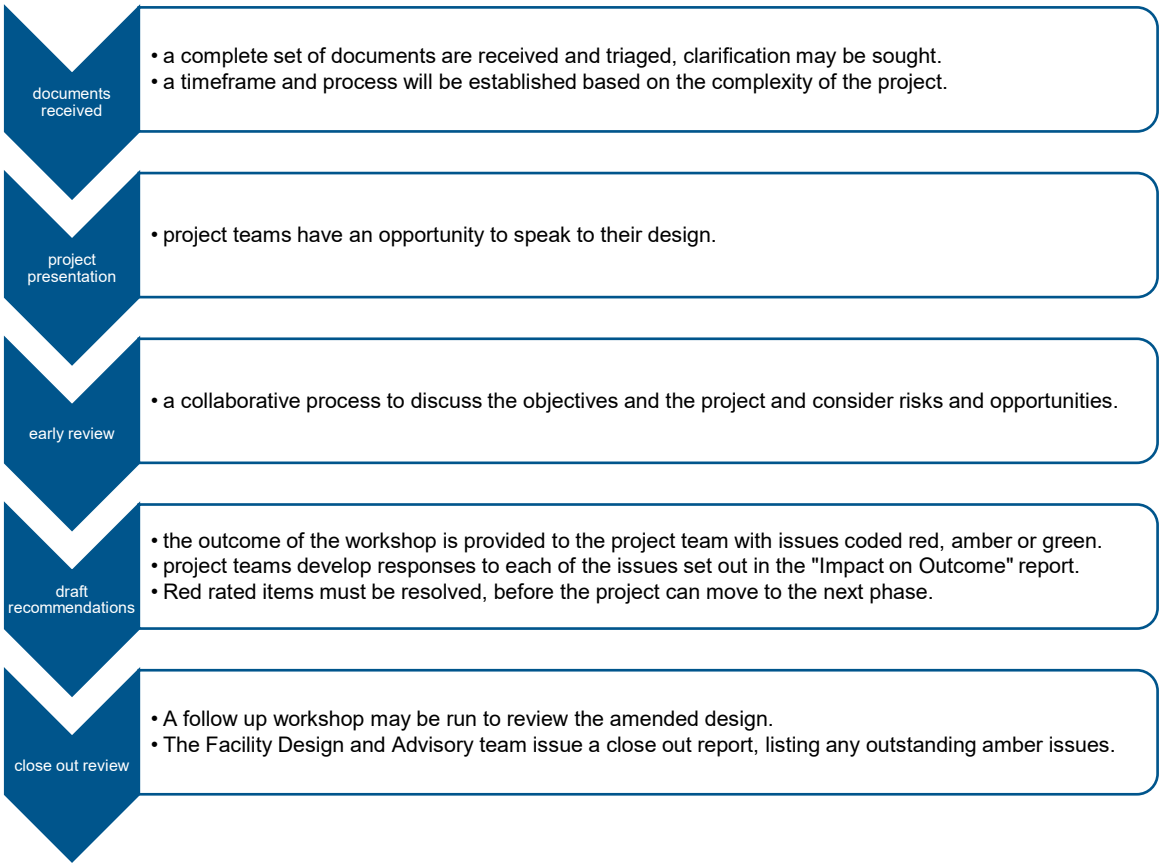
The early review aims to be a constructive, collaborative experience, and all parties should be open to the suggestions and questions that may arise. This is an opportunity to reflect on design drivers and consider other views, while in the early stages of design.

Project teams should demonstrate the design options they have considered to arrive at a preferred option, so that Te Whatu Ora has clear information about the benefits and implications of the preferred option.

11.5 Close-out Reviews

Close-out reviews provide an opportunity to check that discussions and guidance provided through the early review process has been resolved. The Close-out review is a final opportunity to check that the proposal meets all of Te Whatu Ora, Health New Zealand's requirements, and promotes the best outcomes for the Health portfolio.

The diagram below sets out the design assurance process.



11.6 Timeframe for reviews

On receiving a complete set of documentation, the Facility Design and Advisory team consider the business case or design and seek clarification where necessary. They will also consider any requirement for specialist input and suggest the timeframe and level of engagement required for the assurance process. This triage assessment reviews the documentation provided to ensure it is sufficient to complete the review and should only take a few days.

We expect assurance processes to be scaled based on complexity (established at business case), with appropriate allowances in the budget and timeframes; the process may be adapted for outlying projects, like New Dunedin Hospital, for example.

The review may identify design issues that require rework. We expect the incidence of rework to diminish, as project teams become more familiar with the guidance.

	Triage Assessment	**Review period (indicative)**
Desktop review	1-3 days	5-10 days
Full review	4-5 days	10-20 days

11.7 Incomplete documentation

If documentation is absent or incomplete, the project team must complete the document set as soon as possible. The assurance process cannot proceed until all documentation is made available to the Facility Design and Advisory team.

Core documentation requirements include the Schedule of Accommodation and Functional Design Brief. A full list of required documentation is provided in a separate schedule, which is updated regularly.

11.8 Peer reviews

The reviews typically include contracted peer reviewers to bring fresh points of view and transparency to the process (where peer reviews are coordinated by project teams).

Testing design solutions with lead practitioners reduces the risk of project failure, or the risk that the facilities fail to deliver on functional or strategic outcomes. Standardised solutions will not resolve every aspect of every project; peer reviews consider projects as a whole, with respect to Australasian and New Zealand design guidance. Drawing on the expertise of the lead practitioners will deliver project time and cost savings by identifying opportunities and risks, before site works have begun.

The peer review process also provides an opportunity for health design professionals to share best practice, improving performance of the industry as a whole, over time.

Depending on the design phase, the reviewers will focus on design aspects like:

- value for money (including alignment with spatial benchmarks, determined through the schedule of accommodation)

- whole of hospital flows
- departmental layouts
- room layouts
- response to the functional design brief (based on the service plan/model of care)
- response to site-specific considerations (e.g., climate, accessibility, geotechnical, urban planning, cultural heritage and service co-location)
- alignment with Australasian and New Zealand specific guidance
- response to user group and tangata whenua consultation
- response to asset management and serviceability considerations
- project management considerations (like decanting).

11.9 Review report process

Following the review, Te Whatu Ora provides the project team with a report (Impact on Outcome), on the results of the review, identifying issues that need to be resolved or areas to explore further, as the design progresses.

11.10 Report format

Design assurance reviews have a simple stop/go rating system, where ratings are based on the completeness of the documentation, or whether the proposed work meets Te Whatu Ora objectives.

Green: projects are rated green when they appear to be sound, where minor issues are to be resolved in the next design stage, or where concerns raised are minor.

Orange: Projects are rated orange when issues remain unresolved, but they may be resolved as the project progresses through the next phase.

Red: a red rating is given until all major concerns with the project are resolved. Project governance groups will have oversight of the red rated items, and make a decision on whether to proceed with that risk, and advise FDA. Where the variation is over a threshold the FDA will advise the design governance body to consider the risks and benefits (see the Design Guidance Variation Process for threshold details).

11.11 Functional design brief

The AusHFG and New Zealand Guidance Notes are used to form the basis of the Functional Brief, which forms part of the Business Case for each project. The functional brief shows how the facility will support health outcomes.

This includes the Schedules of Accommodation described in AusHFG Part C. Key spatial measurement concepts include:

- Net functional area (NFA)
- Intra departmental circulation (IDC)
- Gross departmental area (GDA)
- Travel and engineering (T&E)
- Gross building area (GBA)

The AusHFG benchmark rates for intra-departmental circulation and travel and engineering are provided in AusHFG Part C.

Designs must meet or improve on the benchmarked rates – any departure must be clearly articulated and justified in project reporting (see the Design Guidance Variation Process for threshold details).

11.12 Alternative solutions

Variations from the guidance (AusHFG or New Zealand Guidance) must be identified, and addressed appropriately. Minor variations can be considered by the project governance group. More significant variations must be reviewed by the design governance body, who will require cost benefit analysis to support their decision making process (see the Design Guidance Variation Process for threshold details). The processes for the design governance body to consider variations will be developed when the design governance body is established (scheduled for 2023).

Variations might include changes to the:

- floor area of a room
- engineered services
- circulation or travel and engineering allocation.

Where alternative solutions make sense, there is a process to move forward is set out in the table below.

Context	Alternative approval pathway
Regulatory or territorial authority requirements clash with design guidance.	Regulatory compliance takes precedence, provide written notification to the Manager Facility Design and Advisory.
Cultural or user group requirements indicate an alternative solution.	The project governance group and/or the design governance body will consider proposals, with determinations feeding into future design review processes.
Project teams offer an innovative approach to meet the brief.	The project governance group and/or the design governance body will consider proposals, with determinations feeding into future design review processes.
Guidance is unclear or contradictory.	The Manager Facility Design and Advisory and/or the design governance body can provide a determination, and review guidance.
Variations are minor (see the Design Guidance Variation Process for threshold details).	The project governance group will consider proposals, and let the Facility Design and Advisory team know the outcome, this may trigger a review of guidance.

11.13 When guidance is updated during a project

AusHFG and New Zealand specific guidance are regularly updated. Updates that occur before the Concept phase must be incorporated in the project design.

Updates made after this point should be considered for inclusion, in discussion with the project Governance group.

11.14 Closing out the report

The project team must respond to the Impact on Outcome Report, with concise notes showing how the issues have been addressed, and acceptably closed out. Each comment should:

- refer to specific drawings and reports
- provide supporting information, keeping comments concise and factual
- highlight key decision rationale

Solutions to all red-rated issues must go through the appropriate delegated authority before the project can proceed to the next stage of design.

Appendix 1 – Design Assurance Threshold

Read Appendix 1 – Design Assurance Threshold.