Orientation to the Capital Planning Process
NH/RHD Spring Joint Meeting

northern health
the northern way of caring

April 5, 2023

Ministry of Health Capital Investment Categories

- MOH has four categories as summarized below and detailed on the next two slides:
  1. Priority Investment (PI)
  2. Restricted Capital Grant (RCG)
  3. Non- Restricted Capital Grant (Non-RCG)
  4. Carbon Neutral Capital Program (CNCP)

Ministry of Health Capital Investment Categories

1. Priority Investments (PI)	
1A. Whole Asset Replacement & Renewal • 50% or more of the asset is replaced • Work undertaken will improve the facility condition index of the whole asset and reduce Asset Rehabilitation backlog	**1B. New and Expansion** • Will result in new system capacity and building footprint
Includes: • Replacement of existing health care facility • Complete refurbishment of a building – 50% or more of all major components are replaced, demolished and rebuilt	Includes: • Net new health care facility • Net new major diagnostic equipment and IMIT and infrastructure
Example: • Mills Memorial redevelopment • Dawson Creek redevelopment	Example: • Cancer Centre for the North

2. Restricted Capital Grant	
2A. Asset Rehabilitation • Extends the life of the asset and is therefore a capital cost • Improves facility / asset condition and/or addresses deferred Asset Rehabilitation backlog, including code requirements	**2B. Upgrades & Renovations** • Modifies existing infrastructure to meet the current standards of practice • Asset improvements undertaken primarily to improve functionality or operational efficiency
Includes: • Major repairs and refits • Replacement of building systems and components such as: fire alarm, nurse call, mechanical systems • Replacement of equipment and IM/IT infrastructure because of failure (or at risk of failure)	Includes: • Replacing equipment and IM/IT infrastructure for reasons of obsolescence. Does not result in additional operating costs other than amortization (e.g., staff costs) • Net new equipment (excluding net new major diagnostic equipment) • Net new IM/IT less than $5 million • May include small building additions to accommodate program requirements • Relocations and/or redesign of clinical programs
Example: • Chetwynd Nurse Call replacement • Bulkley Valley Sterile Compounding Room Upgrade	Example: • Prince Rupert Ultrasound replacement • GR Baker Chemistry analyzers replacement

Ministry of Health Capital Investment Categories

3. Non-Restricted Capital Grant (Non-RCG)

Funding provided to Health Authorities from Ministry's operating budget

Funds can be used for:

- Health capital investments between $5,000 and $100,000, including investments for minor construction or minor upgrades of health facilities, and purchase of minor medical equipment or IM/IT;
- Non-capital repairs and maintenance of facilities classified as operating expenditures.

Example:

- IV pumps
- Routers

4. Carbon Neutral Capital Program (CNCP)

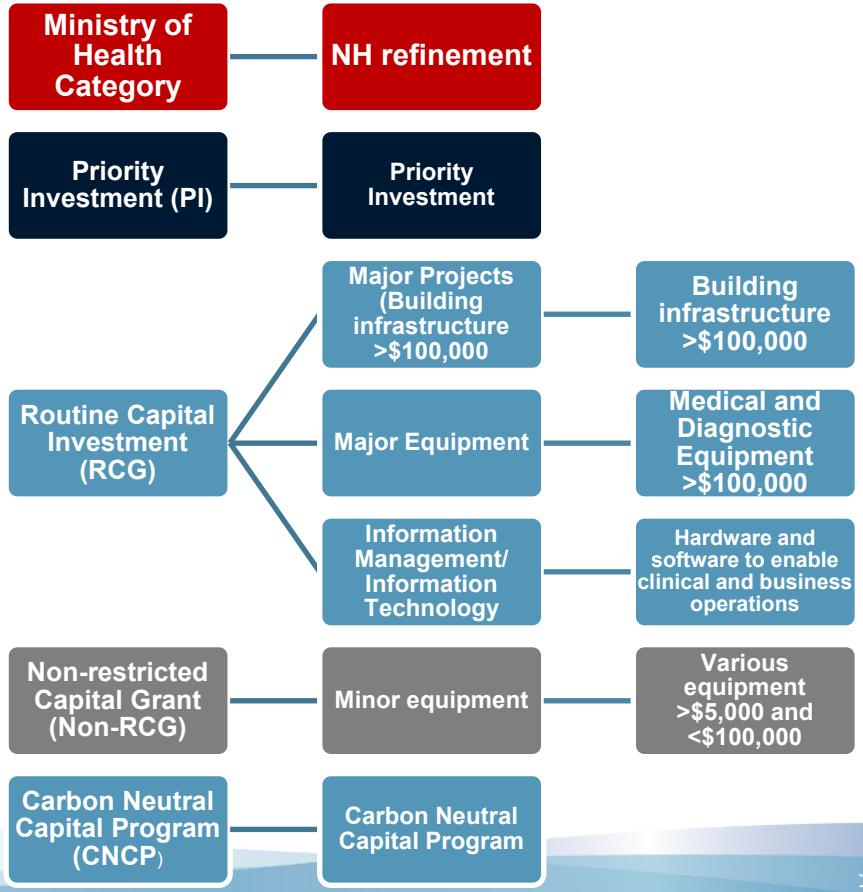
Targeted funding to support Health Authorities and other public sector organization to make capital investments to reduce energy costs, energy consumption and lower carbon emissions

Example:

- UHNBC Domestic Hot Water Decoupling and Condensing Boilers
- Terraceview Lodge Boiler Upgrade and HVAC Recommissioning

Ministry of Health Capital Investment Categories

- For internal management purposes, NH breaks down the MOH Categories as follows:



Glossary

Master Program = Identifies goals and objectives, service area, demographic impacts, current services, future services including block spaces and adjacencies

Master Plan = Represents the Master Program space needs in graphical fashion, with block functional areas, defines site spaces, layouts and access requirements

Concept Planning = the Concept Plan identifies, at a high level, the need for the project and presents a proposed solution. A Concept Plan describes the issues, outlines the needs, assesses cost, site logistics, and procurement options. Government uses the Concept Plan to inform approvals to proceed to a Business Plan. The Concept Plan is informed by a Master Program and Plan

Business Plan = presents a detailed analysis of the project and includes service demands, service delivery, operational needs, financials, procurement, detailed space needs, site requirements and other details upon which Government can make an informed funding decision.

The business plan results in an approval to proceed to procurement

Key Components of a Master Program and a Master Plan

A Master Program consists of the following:

- Project Parameters
- Functional and Physical Evaluation of the current facility and space
- Description of each Service Component being planned. This includes:
  - Service delivery description (existing and proposed)
  - Historic and projected workloads
  - Description of space elements within each component and associated total space requirement of the component

A Master Plan consists of the following:

- A facility layout solution at a block diagram level of detail
- Cost Estimate (+/- 25%)

Concept Plan

A Concept Plan contains the following:

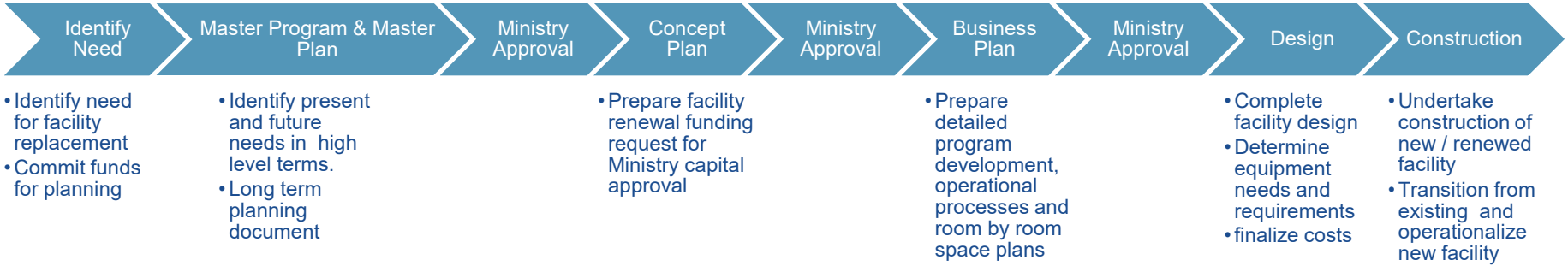
- Ministry of Health grants permission to proceed with concept planning following submission and approval of the Master Plan
- A Project Rationale and context within the Health Authority and the provincial mandate to deliver health care services to residents
- Project Goals and Objectives
- Delivery options for health care services
- A proposed solution to meet the identified needs
- Recommendations for future work
- Cost estimates of solution +/- 25%

Business Plan

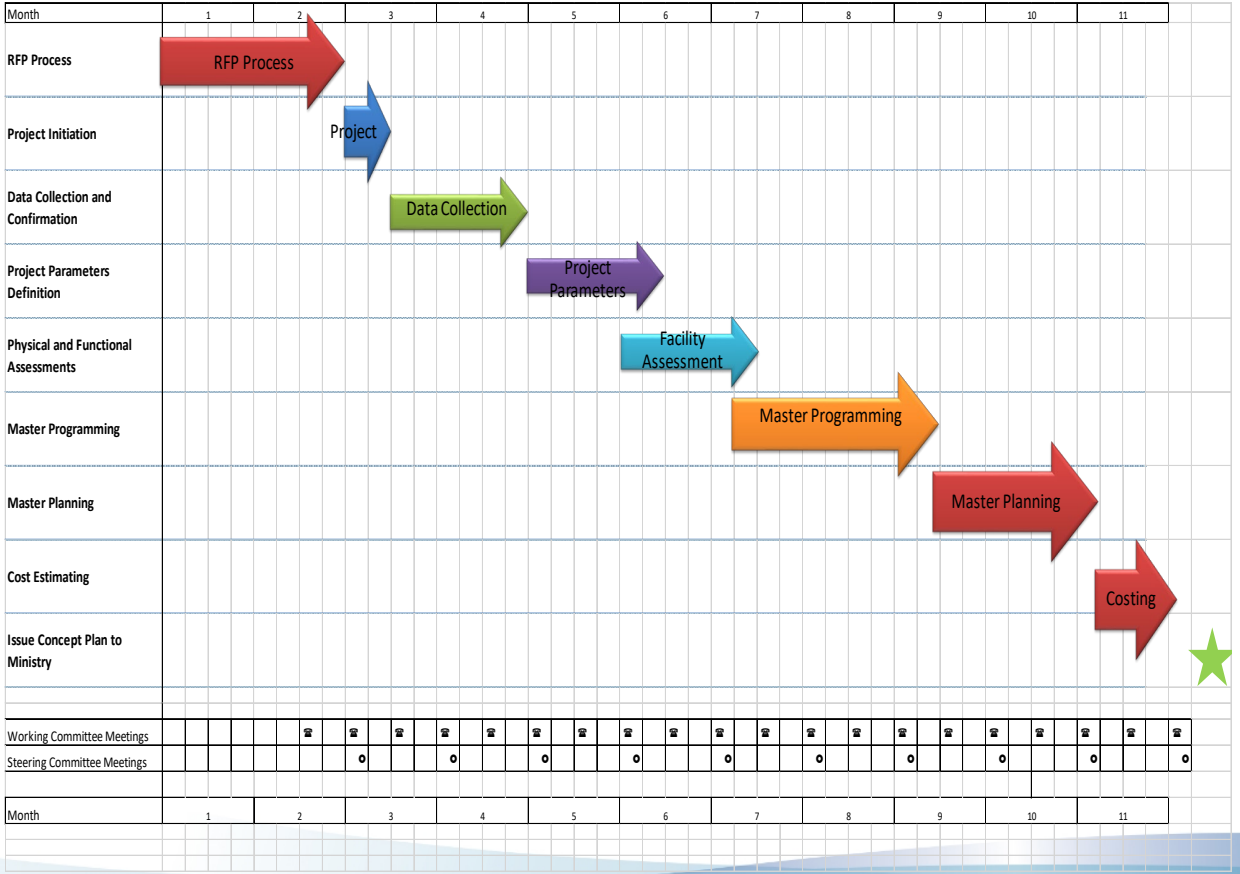
A Business Plan consists of the following:

- Ministry of Health grants permission to proceed from Concept Planning to Business Planning following approval of the Concept Plan.
- Explores the components of the Concept Plan in greater detail including:
- Better assurance of project costs
- Options for procurement
- Identifies ongoing cost of operations
- Explores operational challenges to transition from old facility/services to new facility/service models
- Cost estimates of solution +/- 15%

The Capital Planning Process for Facility Renewal

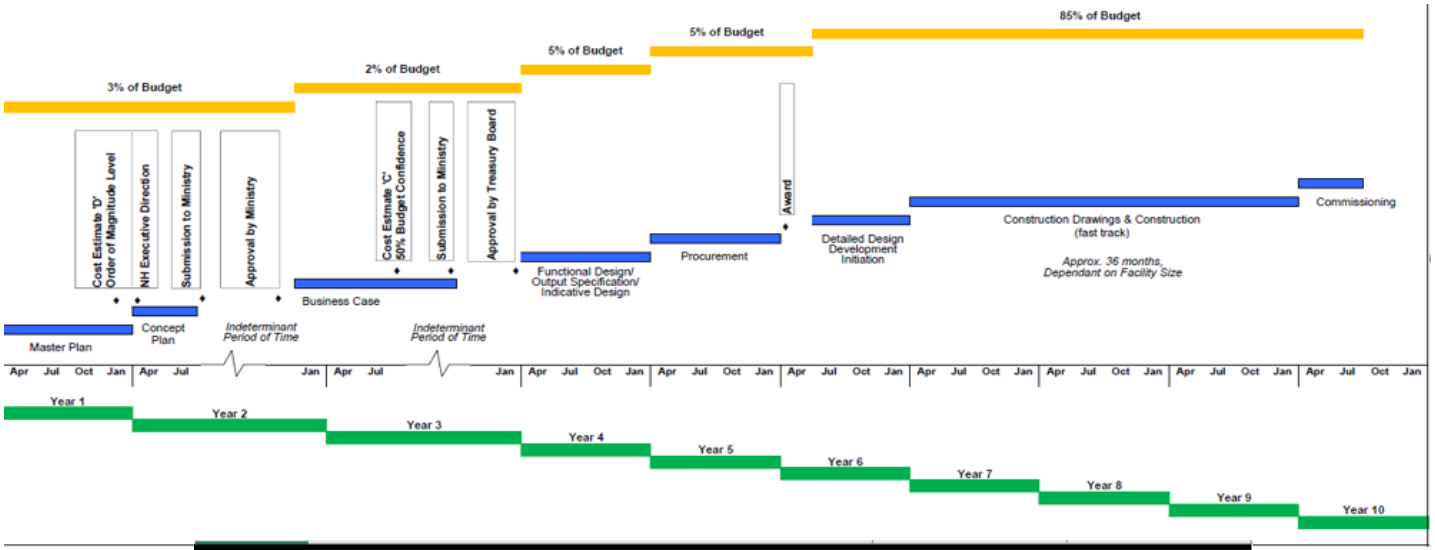


Master Program & Master Plan Process



Project Scheduling & Budgeting

Facility Replacement – Approximate Timeline and Cashflow Projections – Project Budgets Exceeding $50 Million



Year	Task Name	Approx. Duration	% of Budget
Y1	Master Plan	12 months	3%
	Approval by Ministry	Unknown	
Y2	Concept Plan	6 months	
	Approval by Ministry	Unknown	
Y2 to Y3	Business Case	9 to 12 months	2%
Y3	Approval by Treasury Board	Unknown	
Y4	Functional Design/Output Specification/Indicative Design	9 months	5%
Y5	Procurement	12 months	5%
Y6	Detailed Design Development Initiation	6 months	85%
Y6 to Y9	Construction Drawings & Construction (fast track)	36-48 months+	
Y10	Commissioning	6 months	

Project Governance

Project Charter: A project charter will be developed which will act as a guiding document. The charter will define project goals, assumptions, scope and deliverables, project resources, roles and responsibilities of the participants, and a project process

Provincial Project Board: The project board provides direction and oversight, financial and risk management to the steering committee and liaison committee. This is a provincial level committee that consists of the Health Authority, Ministry of Health, Infrastructure BC, and Ministry of Transportation & Infrastructure. This structure is only used for major projects where priority investment funding >$10 M is used.

Steering Committee: The Steering Committee will provide direction and oversight of the project, will accept final documents or provide direction to the Working Group for modifications. The project Steering Committee is accountable through to the Ministry of Health through the Provincial Project Board and to the Audit and Finance Committee of the Northern Health Board.

Advisory Committee: The Advisory Committee provides advice and recommendations to Northern Health on local considerations, patient experience and cultural safety considerations related to the health services and building design contemplated within the approved project scope. The Advisory Committee reports to the Steering Committee.

Working Group: Working groups will be established to address areas of focused work, will work closely with the project management team and will provide input and feedback on these areas of focused work to the NH Project Manager. The Working groups will report to the Steering Committee.

Building Standards Affecting Health Care Facilities

- CSA Z8000 - Canadian Health Care Facilities - Planning, Design and Construction
- Provides a nationally recognized baseline for the design and construction of hospitals and selected care facilities
  - Issued 2011, revised 2018
- Within the CSA Z8000 Standard is:
  - Heating and Ventilation, Fresh Air, Recirculation
  - Electrical Standards such as generators, redundancy of power
  - Single patient rooms with private washrooms
  - Many Infection Prevention & Control issues
  - Changes in the 2018 edition include technology integration, mobile communications, electronic patient records and robotics

Building Standards Affecting Health Care Facilities

- CSA Z317.13 - Infection Control During Construction, Renovation and Maintenance of Health Care Facilities
  - Issued 2003, Revised 2007, 2012, 2017 and 2022(CSA Z317.13:22)
  - Especially applies to renovations in an active hospital
- National Building Code of Canada
  - Current Version, 2020
  - Nearly 400 technical changes by Canadian Commission on Building and Fire Codes
- British Columbia Building Codes
  - Current version, 2018, updated every 5 years
- WorkSafe BC
  - Ranges from overhead patient lifts and portable lifts to eye wash stations and flooring standards for non slip, non grounding

Healthcare Regulations Affecting Northern Health Capital Projects

- BC Centre for Disease Control (BCCDC)
- Provincial Infection Control Network of British Columbia (PicNET)
- Pharmacy Standards
  - USP797- issued 2004, 2 revisions, 1 pending revision(2017)

Other Standards Affecting Northern Health Capital Projects

- Nuclear Medicine – radiation safety, shielding for X-rays, containment of radiopharmaceuticals
- Diagnostic Accreditation Program standards
  - Laboratory
  - Medical Imaging
  - Nuclear Medicine

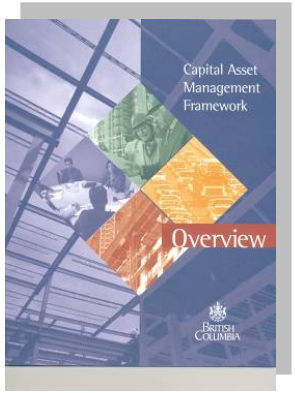
Memorandum of Understanding

- The Memorandum of Understanding (MOU) was established on October 7, 2003.
- The MOU was developed to provide a partnership arrangement with Northern Health and all the RHD's and how we work together.
- The intent is to ensure the planning and funding of equipment, clinical information technology and capital projects are effective and efficient while ensuring accountability.
- The MOU is reviewed and signed every two years. The last MOU was renewed on October 18, 2021. It is due to be signed again at the fall joint NH/RHD meeting in October 2023.

Facility Condition Assessments (FCA)

Provincial Capital Asset Management Framework (CAMF):

- all ministries to establish and maintain an inventory of their facilities and their physical condition



In 2003:

- Ministry of Health contracted VFA Inc. to complete a province-wide inventory and assessment of 500 health care facilities

Assessments were completed in 2006

- Contract did not address need for re-assessments to ensure facility condition data reflects ongoing capital investments

New FCA Agreement

- 2012 – Ministry of Health selected VFA Canada Corporation (VFA) as the successful RFP proponent for facility assessment service

- The Agreement:
  - was signed in July 2012 for a term of 5 years;
  - includes two 5-year options for renewal, at the sole discretion of the Ministry;
  - requires VFA to assess approx. 20% (based on m^2) of health care facilities per year;
  - requires VFA to assess all identified BC health care over the 5-year term.

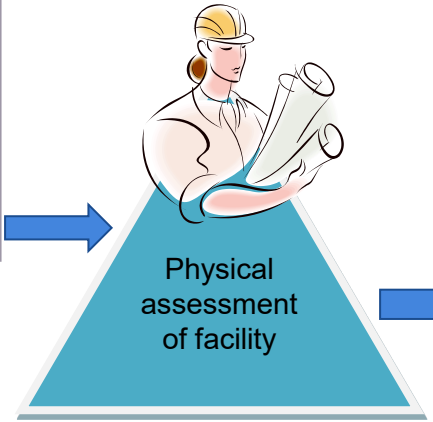
New FCA Agreement (cont'd)

- Physical assessments of approx. 500 health facilities (3 million m^2) to:
  - identify deficiencies;
  - estimate work required to update the infrastructure.
- Assessments are performed by VFA teams of professionals:
  - architects
  - professional engineers
  - quantity surveyors

- Hosting and maintaining a secure database system to provide the Ministry and Health Authorities with data for:
  - tracking and reporting facility physical condition
  - identifying future capital projects

The Assessment Process

HSA provide VFA drawings and reports about specific facilities a minimum of 15 business days prior to on site arrival of the VFA team.



System updates

Assessments were not done in 2020 due to COVID

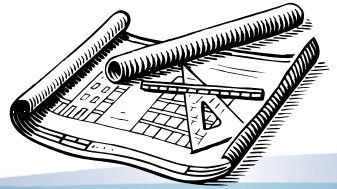
Facility Condition Index (FCI)

The FCI is:

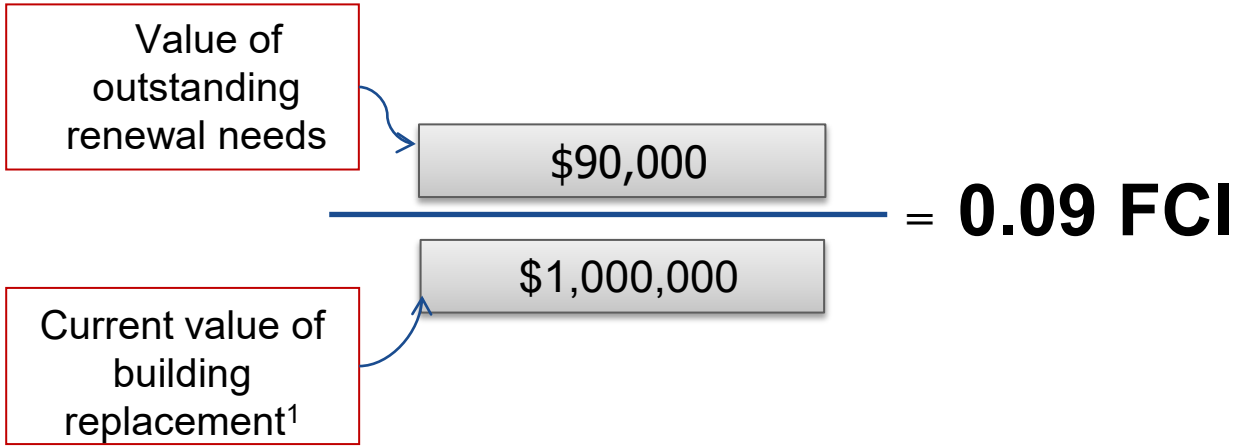
- the numeric outcome of a facility assessment
- **an industry-standard indicator** that measures the relative physical condition of a facility and its systems (mechanical, electrical, plumbing, etc.) at a specific point in time

FCI ratio:

$$\frac{\text{Total cost of facility systems repairs/renewals (\$)}}{\text{Facility replacement value (\$)}}$$



FCI Example



[1] Current Replacement Value is the total amount required to replace a facility to its optimal condition.

What does FCI mean?

The lower the FCI value,

- the better condition that a facility is in, and
- the lesser the need for renovations or renewal funding relative to the facility's value.

For health facilities, the target FCI of 0.10 (10%) was recommended by VFA[2].

FCI does not capture all costs

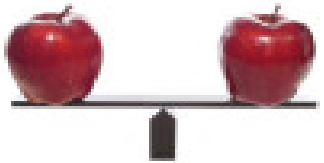
FCI calculations do not include:

- taxes
- LEED improvements
- financing costs
- architectural fees
- Inspection of systems
- commissioning of systems
- consulting fees
- asbestos removal
- site work
- equipment or furniture

How to Use FCI Values

FCI allows the Ministry and Health Authorities to:

- compare the condition of facilities against industry-wide standards;
- compare similar facilities by their physical condition;
- identify areas of facilities in the greatest need for updating, repair or replacement.



How to Use FCI Values (cont'd)

- FCI is only **one** component (related to facilities physical infrastructure) used in the process of making informed capital planning decision.

- In capital planning, other conditions and criteria other than the FCI value must be taken into consideration, such as:
  - Is the facility providing the right services?
  - Is the facility over or under capacity?
  - Is the facility adaptable to current standards?

A well maintained 1960 era hospital with a low FCI value is still designed to deliver care as if it's 1960

FCI - Next Steps

- Once facilities have been assessed, Health Authorities use the FCI data, together with other relevant criteria, to plan and prioritize future capital investments.

- FCI data must be considered together with other strategic criteria such as: facility functionality, market trends (e.g. available funding), demographic needs.

Cariboo RHD

As of March 13, 2023

Building	City	FCI	Replacement Value ($ Millions)	Facility Repairs/ Renewals ($ Millions)	Year Constructed
Dunrovin Park Lodge	Quesnel	0.55	28.79	15.77	1974
Dunrovin Park Lodge Addition	Quesnel	0.30	26.14	7.79	2007
Eileen Ramsay Memorial Clinic	Quesnel	0.41	1.73	0.71	1954
G R Baker Memorial Hospital	Quesnel	0.80	85.49	67.97	1954

Fraser Fort George RHD

As of March 13, 2023

Building	City	FCI	Replacement Value ($ Millions)	Facility Repairs/ Renewals ($ Millions)	Year Constructed
Mackenzie Hospital	Mackenzie	0.74	19.13	14.12	1988
Storage	Mackenzie	0.56	0.68	0.38	1995
McBride and District Hospital	McBride	0.81	12.35	9.99	1963
Alward Place	Prince George	0.40	38.27	15.44	1986
Aspen 1 Independent Living	Prince George	0.60	4.67	2.82	1965
Aspen 2 Independent Living	Prince George	0.67	4.35	2.90	1964
Duplex Cottage Independent Living	Prince George	0.53	0.78	0.41	1959
Fourplex Cottage Independent Living	Prince George	0.64	1.34	0.85	1959
Gateway Residential Care Assisted Living	Prince George	0.18	33.12	6.12	2009
Gateway Residential Care Complex Care	Prince George	0.12	53.09	6.11	2009
Iris House	Prince George	0.26	6.44	1.67	2002
JG Mackenzie Family Practice Centre	Prince George	0.56	4.12	2.31	1996
Laurier Manor	Prince George	0.18	11.54	2.12	2001
Learning & Development Centre	Prince George	0.07	4.07	0.27	2015
Nechako Centre	Prince George	0.44	6.67	2.93	2001
Parkside Intermediate Care Home	Prince George	0.47	14.77	6.95	1983
Rainbow Intermediate Care Home	Prince George	0.64	9.13	5.84	1972
Spruceland	Prince George	0.57	10.33	5.88	1955
University Hospital of Northern British Columbia	Prince George	0.63	343.98	215.77	1958
Valemount D and T Centre	Valemount	0.20	3.82	0.76	1978

Stuart Nechako RHD

As of March 13, 2023

Building	City	FCI	Replacement Value ($ Millions)	Facility Repairs/ Renewals ($ Millions)	Year Constructed
Burns Lake - The Pines	Burns Lake	0.50	13.60	6.75	1992
Lakes District Hospital and Health Centre	Burns Lake	0.01	42.82	0.32	2015
Nurses Residence	Burns Lake	0.46	0.91	0.42	1965
Southside Health and Wellness Centre	Burns Lake	0.11	1.60	0.18	2003
Stuart Lake Hospital	Fort St. James	0.55	11.32	6.22	1972
Fraser Lake Community Health Centre	Fraser Lake	0.55	6.77	3.74	1979
Nurses Residence	Vanderhoof	0.66	2.91	1.91	1935
Old Hospital - College of New Caledonia	Vanderhoof	0.62	7.80	4.80	1940
St John Hospital	Vanderhoof	0.64	28.82	18.51	1971
Stuart Nechako Manor	Vanderhoof	0.27	20.97	5.71	2004

Peace River RHD

As of March 13, 2023

Building	City	FCI	Replacement Value ($ Millions)	Facility Repairs/ Renewals ($ Millions)	Year Constructed
Chetwynd General Hospital	Chetwynd	0.68	20.16	13.66	1971
Dawson Creek and District Hospital	Dawson Creek	0.78	94.67	74.24	1960
Dawson Creek and District Hospital Service Building	Dawson Creek	1.04	9.27	9.68	1996
Rotary Manor	Dawson Creek	0.33	20.38	6.65	2002
Rotary Manor Addition	Dawson Creek	0.23	17.59	4.05	2008
Fort St John Hospital	Fort St John	0.17	196.42	32.98	2012
Fort St John Medical Clinic	Fort St John	0.30	7.12	2.11	1963
Peace Villa Residential Care	Fort St John	0.20	43.57	8.61	2012
Hudson's Hope Health Centre	Hudson's Hope	0.66	7.78	5.14	1997
Tumbler Ridge D and T Centre	Tumbler Ridge	0.72	9.16	6.57	1983

Northern Rockies RHD

As of March 13, 2023

Building	City	FCI	Replacement Value ($ Millions)	Facility Repairs/ Renewals($ Millions)	Year Constructed
Fort Nelson General Hospital	Fort Nelson	0.83	30.33	25.20	1963

Northwest RHD

As of March 13, 2023

Building	City	FCI	Replacement Value ($ Millions)	Facility Repairs/ Renewals ($ Millions)	Year Constructed
Atlin Health Center	Atlin	New Build – To be assessed			
22 Tatcho Street	Dease Lake	0.67	0.43	0.29	1979
23 Tatcho Street	Dease Lake	0.55	0.39	0.22	1979
3rd Avenue	Dease Lake	0.66	0.42	0.28	1982
Stikine Health Centre	Dease Lake	0.60	9.76	5.87	1994
Hazelton Duplex	Hazelton	0.29	0.39	0.11	1998
Wrinch Memorial Hospital	Hazelton	0.86	26.41	22.71	1977
Houston D and T Centre	Houston	0.60	7.60	4.56	1982
Kitimat General Hospital	Kitimat	0.31	79.17	24.41	2002
Kitimat Mixed Elder Care	Kitimat	0.31	18.11	5.70	2002
Masset Assisted Living	Masset	0.23	1.34	0.31	2008
Northern Haida Gwaii Hospital and Health Centre	Masset	0.11	11.16	1.28	2008
Duplex at 2208 and 2210 Dogwood	Masset	0.45	0.55	0.24	1970
Acropolis Manor	Prince Rupert	0.15	22.14	3.30	2011
Prince Rupert Regional Hospital	Prince Rupert	0.60	59.35	35.76	1971
Haida Gwaii Hospital	Haida Gwaii	0.07	22.92	1.70	2017
Bulkley Lodge	Smithers	0.48	18.05	8.67	1978
Bulkley Valley District Hospital	Smithers	0.68	31.96	21.64	1954
Stewart Health Centre	Stewart	0.75	13.59	10.22	1993
Birchwood Place	Terrace	0.35	1.96	0.70	1994
McConnell Estates	Terrace	0.19	8.24	1.56	2002
Mills Memorial Hospital	Terrace	0.79	62.10	49.13	1959
Seven Sisters Residential Mental Health	Terrace	0.34	4.10	1.38	2000
Terraceview Lodge	Terrace	0.54	20.69	11.24	1984
Terraceview Lodge New Addition	Terrace	0.17	15.72	2.61	2009

Questions?