

Facility Planning Framework

Executive Summary

October 28, 2025

Hennepin Healthcare

CANNONDESIGN

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01

Executive Summary

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01.1 2025 Facility Planning Framework Background and Objectives



01.2.a Project Scope

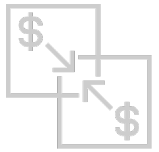
The work outlined in this deliverable establishes the foundational framework for subsequent phases of detailed programming, planning, and design. Through this process, we uncovered critical relationships, challenged assumptions, and explored a full range of possibilities to shape the most adaptable long-term strategy. The outcome is a high-level location and relationship plan that anchors preliminary cost estimating and a phasing timeline—both vital steps toward realizing a hospital campus that will serve the community for generations to come.

Looking ahead, the immediate next step will focus on deeper operational and financial modeling, along with developing a workplace strategy, examining the inner workings of departments, patient and staff flows, and system efficiencies. This effort will illuminate new ways of working that support a modern workforce and advance Hennepin's mission to deliver exceptional care in an environment designed for the future.



Framework Vision

Align on clear vision for the long-term campus framework and measurable metrics for success



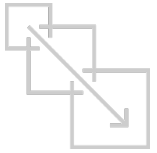
Campus Rightsizing, Planning & Design

Align space needs with budget, develop scenarios that balance needs with capital



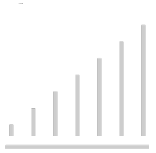
Gap Analysis

Thorough review of extensive collection of research, studies, projected future clinical growth and community needs to measure against benchmarks and identify gaps that require further study



Phasing and Implementation Plan

Develop a plan for execution flexibility over time that aligns with capital spending strategy



Growth Projections & Space Needs

Meet with stakeholders to refine data and translate growth into future Key Planning Units (KPUs)

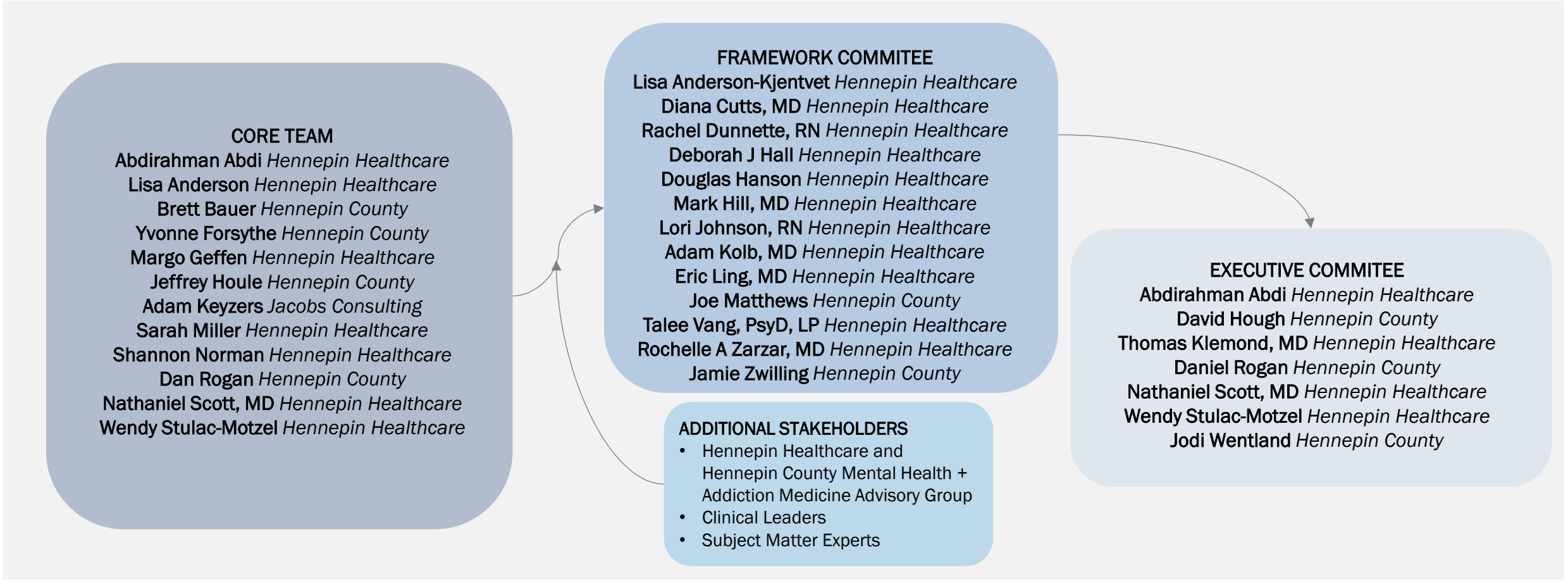


NEXT: Operational & Financial Modeling + Workplace Strategy

Deeper dive into throughputs, new operational models, and future workstyles

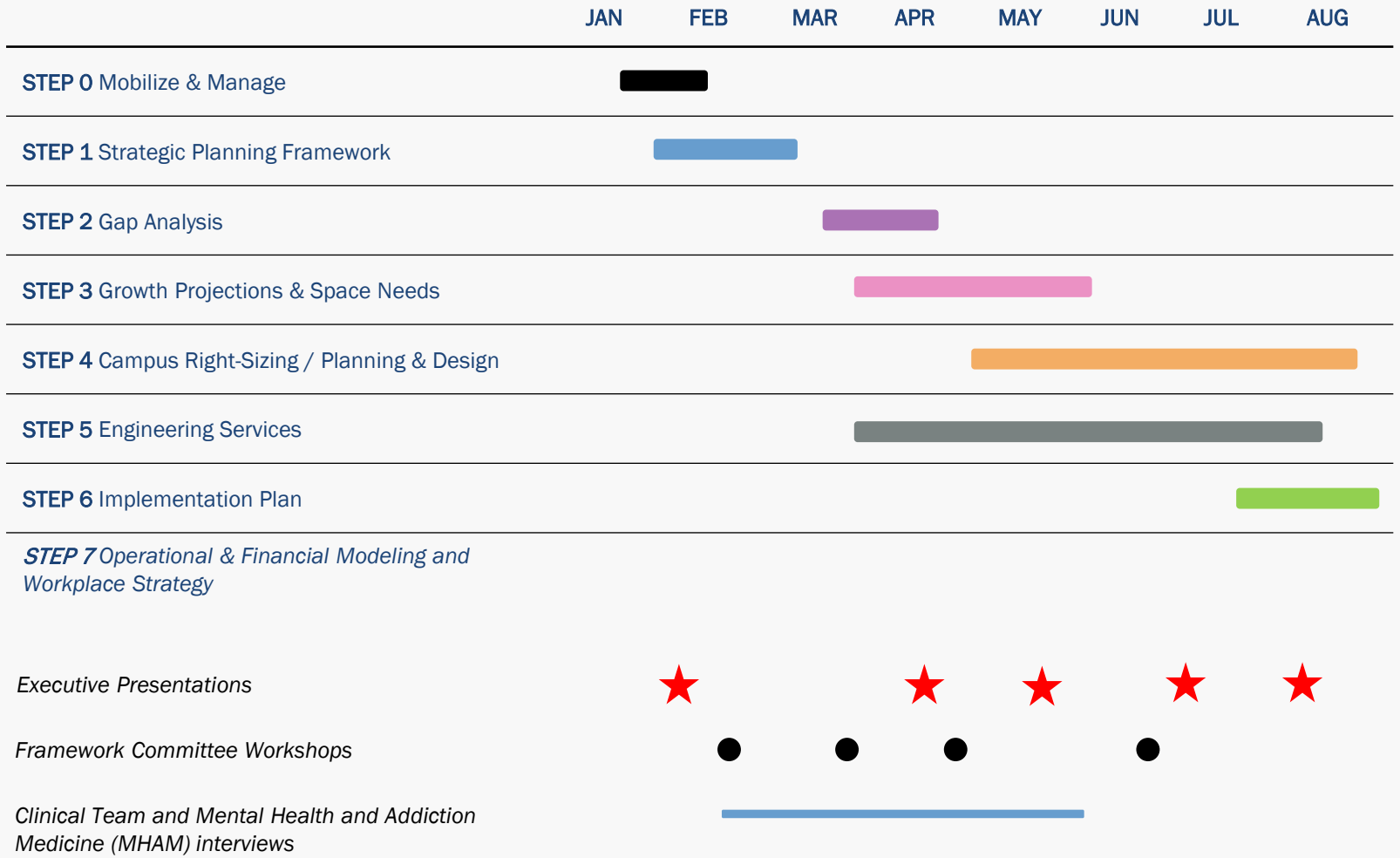
01.2.b Key Stakeholders

This progress has been possible only through the close collaboration of Hennepin County and Hennepin Healthcare leadership. These partners have collaborated to represent diverse perspectives and make balanced decisions, all focused on improving community health. Their partnership has been essential to the success of this effort and future work.



01.2.c Project Schedule 2025

This project followed a structured schedule from mobilization through implementation, guided by regular input from key stakeholders, clinical teams, framework workshops, and executive committee collaboration. Spanning January to August 2025, the process advanced through phased steps of strategic planning, gap analysis, design exploration, integrated engineering, and ultimately, the development of a realistic, flexible, and achievable implementation strategy.



01.3 Imperatives for the Future

Early in this process, **six major imperatives emerged**—powerful reminders of why this project is urgent. Our communities are in crisis, particularly when it comes to mental health, and the current facilities simply cannot keep pace with the urgent, complex needs of those who rely on Hennepin Healthcare every day. These imperatives highlight not just the gravity of today's challenges, but the extraordinary opportunity we have to transform the campus into one that is modern, efficient, dignified, and prepared to meet the future with strength and compassion.



1. Healthcare for All

Hennepin Healthcare is the safety net for a community with some of the most complex health, mental health, and social needs in the region. This project is about creating inclusive, adaptable spaces that embrace diversity, foster dignity, and provide care that is accessible to all—because health equity is not optional.

2. Private Rooms, Dignified Care

Today's families and patients deserve privacy, respect, and environments that reflect the highest standards of care. Private rooms provide space for healing, teaching, and human connection—fundamental to both patient dignity and clinical excellence.

3. Aging Facilities

Most of today's spaces consume significant routine capital and no longer meet modern Facilities Guidelines Institute (FGI) guidelines, highlighting the urgent need for environments that support contemporary standards of care.

4. Critical Front Door

An undersized Emergency Department has become a choke point for urgent and mental health needs across the community. When this "front door" is strained, the entire system suffers—placing patients, families, and staff at risk when time and space matter most.



5. Inefficient Clinical Platforms

Fragmented procedural and critical care spaces make collaboration difficult, delay care, and increase stress on caregivers. A modernized, integrated clinical platform is essential for both efficiency and better outcomes.



6. Strained Infrastructure

Things like wayfinding confusion, insufficient clinical support spaces, and a grossly inadequate loading dock create daily barriers to delivering safe, effective, and compassionate care. These invisible struggles drain resources and morale while underscoring the urgent need for investment.

Investing in Tomorrow – **TODAY**

Every year, Hennepin County pours $30 million into outdated facilities that cannot meet today's needs. That money should be fueling a campus designed for the future—one that provides equity, dignity, and healing for generations to come. Hennepin's remarkable caregivers continue to deliver extraordinary care despite facilities that strain them at every turn.. This is about more than efficiency. It is about lives, about hope, and about honoring the community that depends on us. **We should invest in tomorrow—today.**

01.4 Community Research

Hennepin Healthcare System (HHS) serves a diverse population of patients with 70% identifying as people of color. Patients and their families have cultural practices and traditions that influence how they would like to receive care for wellness and healing. Our research summary reveals the following spatial themes:

Key Themes:

- Community Centered Space
- Family-Centered Care
- Space Reflective of Cultural Identity and Practices
- Equity in the Built Environment

Spatial Impacts:

- Large flexible multi-use spaces for programs, events and services
- Community and teaching kitchen
- Larger family waiting areas
- Larger single occupancy patient rooms









01.5.a Key Space Drivers for Future New Build and Space Needs

An increase in volume is projected across almost all departments, underscoring the need to grow space strategically. Yet the larger driver for additional space is the poor condition of existing patient care space and the need to right-size them to meet today's standards and community needs—creating a campus with the flexibility to adapt to evolving care models.

1

Existing spaces are significantly **undersized** and **inefficient** comparing with industry benchmarks and best practices

2

Unmet demand leads to growth across service platforms (Emergency Department, Inpatient, and Mental Health and Addiction Medicine)

Key: ▲ Space Deficit ▼ Surplus of Space

Department		Existing DGSF [4]	DGSF [4] / KPU [5]	DGSF [4] Benchmark	Assessment	KPUs [5] Today	Ideal Future KPUs [5]
Emergency Department	Emergency Department (ED)	31,532	553	750 – 850	Poor	81	117 (▲36)
	APS [1]	12,461	890	750 – 850	Good		
Procedural Platform	Operating Rooms	56,750	3,338	4,250 – 5,000	Poor	22	24 (▲2)
	Cath Lab + EP [2]	4,372	1,457	3,000 – 3,500	Poor		
	Interventional Radiology	8,202	2,050	3,000 – 3,500	Poor		
Imaging	HOPD [3] Imaging	19,795 + 10,550	2,023	1,750 – 2,000	Good [6]	21	24 (▲3)
	ED Embedded Imaging	4,770	1,192	1,350 – 1,500	Poor		
Beds	Inpatient and Observation	239,762	493	750 – 900	Poor	486	606 (▲120)

Note: [1] Acute Psychiatry Services. [2] Electrophysiology. [3] Hospital Outpatient Department. [4] Department Gross Square Footage. [5] Key Planning Unit. [6] Assessment for Imaging is complicated since a lot of modalities are not used, or the space/room is now vacant. Hence the denominator for existing functional modalities is lot less than the functional space available for the department.

01.5.b Current and Ideal Future Key Planning Units (KPUs) At-A-Glance Summary

This summary includes Red, Purple, Orange, Green, Blue buildings only, and does not include the Clinic & Specialty Center (CSC). Note that not all Ideal Future KPU needs are accommodated in the preferred scenario due to capital constraints.

Key: ▲ Space Deficit ▼ Surplus of Space

Inpatient & Observation

	Space	Current KPUs	Ideal Future KPUs
General Adult Care	ICU	48	54 (▲6)
	IMCU	36	54 (▲18)
	Floor	161	174 (▲13)
Specialized Care	Burn	17	16 (▼1)
	Knapp	25	18 (▼7)
	Birth Center [1]	61	64 (▲3)
	Pediatrics [2]	32	27 (▼5)
	Mental Health [3]	93	159 (▲76)
	Inpatient Subtotal	**473**	**566** (▲93)
Observation	Medical	13	20
	Surgical		20
	Other Beds Subtotal	**13**	**40** (▲27)
	Bed Total	**486**	**606** (▲120)

Emergency Department (ED)

Emergency Service	Current KPUs	Ideal Future KPUs
Adult	42	56 (▲14)
Stabilization	4	8 (▲4)
HART [4]	1	2 (▲1)
Pediatrics	5	8 (▲3)
Locked and Secure	15	17 (▲2))
ED (General) Subtotal	**67**	**91** (▲24)
APS [5]	14	14 (0)
EmPATH [6]	0	12 (▲12)
MHAM Emergency Subtotal	**14**	**26** (▲12)
ED Total	**81**	**117** (▲36)

Mental Health & Addiction Medicine (MHAM) Outpatient [7]

Space	Current DGSF	Ideal Future DGSF
CAPS Clinic	9,200	14,400 (▲5,200)
CAPS PHP/IOP	0	3,500 (▲3,500)
MHAM CAPS Subtotal	**9,200**	**17,900** (▲8,700)
Adult Clinic	10,270	24,000 (▲13,730)
Adult PHP	4,946	5,300 (▲354)
Day Treatment	7,125	10,300 (▲3,175)
Hope Clinic	2,100	3,200 (▲1,100)
Neuromodulation Center	7,800	6,683 (▼1,117)
Neuro Psych Clinic	3,573	5,000 (▲1,427)
Coordinated Care	5,522	7,200 (▲1,678)
Addiction Medicine + OTP [8]	5,791	18,500 (▲12,709)
Family Resource	643	643 (0)
MHAM Adult Subtotal	**47,770**	**80,826** (▲33,056)
MHAM OP Total	**56,970**	**98,726** (▲41,756)

Imaging

Imaging Modality [9]	Fixed KPUs	Ideal Future Fixed KPUs
CT	2	3 (▲1)
MRI	2	3 (▲1)
Bone Densitometry	1	1 (0)
Nuclear Medicine (Gen)	3	3 (0)
PET/CT	1	1 (0)
Ultrasound	2	1 (▼1)
X-ray	2	3 (▲1)
Fluoroscopy	2	2 (0)
Non-ED Imaging Subtotal	**15**	**17** (▲2)
ED Embedded CT	2	3 (▲1)
ED Embedded X-ray	3	3 (0)
ED Embedded Ultrasound	1	1 (0)
ED Imaging Subtotal	**6**	**7** (▲1)
Modality Subtotal	**21**	**24** (▲3)

Procedural Platforms

Space	Current KPUs	Ideal Future KPUs
Operating Rooms [10] (Trauma)	14	14 (0)
GI Lab	1	1 (0)
Cath Lab	2	2 (0)
EP	1	2 (▲1)
IR	3	3 (0)
Hybrid OR/IR	1	2 (▲1)
Procedural Platform Subtotal	**22**	**24** (▲2)

Note: [1] Birth Center excluded nursery from bed count. [2] Includes 4 Peds under construction. [3] Addiction Medicine is not included in the Mental Health 159 bed need; It was considered earlier an additional add but leadership choose to remove the dedicated unit. [4] Hennepin Adult Response Team. [5] Acute Psychiatry Services. [6] Emergency Psychiatric Assessment, Treatment, and Healing. [7] MHAM Outpatient utilized DGSF comparison due to variety of room types. [8] Opioid Treatment Program. [9] Imaging is only representative of fixed modalities and does not include mobile/portable modalities. [10] Three non-operational ORs in G1 not included.

Sources: 240201_SOC IP OP Facility Capacity Compendium_vF; ED and Trauma Deep Dive Compendium v1; Mental Health Deep Dive Compendium; NEW OR Surgical Volume FY2019-FY2024 by specialty and IP vs OP, CardiacCathLab 2021 to 2024 (250205); Cardiology Compendium May 2024, Interventional Radiology Procedures (2022 - 2024). CannonDesign, 2025.

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01.6 Comprehensive Summary of Scenario Evaluation Metrics of Success

% = weighted scores identified by the core team

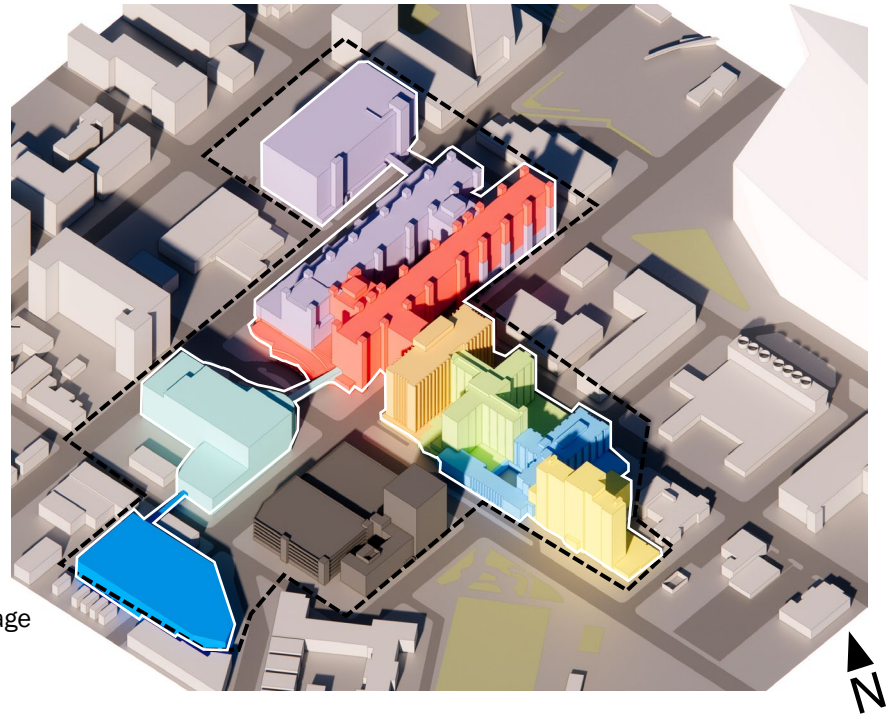
When paired with scenario development and Rough Order of Magnitude (ROM) project cost, these metrics illuminate which options provide the greatest impact for the resources invested, ensuring decisions align with both vision and value.

20%	**Financial Sustainability**	The **cash flow potential/funding sources** during new build and renovation across the **planning framework** time horizon.
20%	**Operational Efficiency and Connectivity**	Organization of space allows for **strategic adjacencies** across departments, allows for connectivity for smooth care transition, minimizes **travel distances** for high frequency tasks, enables staff/provider **collaboration** and productivity, promotes higher space utilization and throughput, and **reduce duplication** of services.
20%	**Patient Experience and Equity**	The degree of campus **organization** towards equity, intuition, clarity, and efficiency, while providing people seamless **transitions** from place to place. Campus design reflects the diversity of the community and provide **equitable** experience and sense of belonging to all visitors, providers, co-workers, and learners. Providing experiences that promote **recruitment and retention**.
13%	**Flexibility and Durability**	The degree of the planned campus allows **flexes** (expansion and contraction) and **adapts** over time to meet the changing needs of the community.
13%	**Expansion and Growth Potential**	The level of opportunities for **future growth or expansion** (shelled space or empty chair) to meet future / emerging community needs.
5%	**Timeline and Phasing**	The duration of **full project timeline** to achieve defined campus vision and the **degree of disruption** to operations in the phasing plan.
5%	**MHAM Priority**	The ability to expedite MHAM needs in the timeline (**speed to market**), The level of respectful and modern **integration** of mental, behavioral health and Addiction Medicine services that takes advantage of **holistic healing** of complex patients from arrival on campus through treatment and discharge.
4%	**Adaptive Reuse**	Degree of **reuse** to achieve highest and best use of existing **Red and Purple** facilities and provide **consistent experience** to any new build.

01.7 Scenario Matrix

Our planning process began with three key anchors—Emergency Department, Procedural Platform, and Mental Health & Addiction Medicine (MHAM), which was initially prioritized for fast-tracking. By exploring multiple scenarios around these critical services, we gained powerful insights into how the campus must evolve. Deeper study ultimately revealed that the MHAM functions achieve their greatest impact when closely integrated with the main hospital, strengthening both patient care and operational excellence, directing further study toward scenarios B.2, B.3, C.2 and C.3.

The Hennepin Healthcare System (HHS) occupies over 3 million square feet within eight city blocks



- Purple Building
- Red Building
- Orange Building
- Green Building
- Blue Building
- Shapiro
- Parkside Site
- South Parking Garage
- Clinic & Specialty Center (CSC)

ED / Procedural Platform

MHAM Inpatient Location	A Red/Purple	B Parkside	C OGB
		Multi-Level ED	Single-Level-ED
1 NORTH — MHAM Speed to Market	ED doesn't fit	B.1 Multi-Level ED — MHAM Speed to Market	C.1 Single-Level-ED — MHAM Speed to Market
2 RED PURPLE — Highest & Best Reno	ED doesn't fit	B.2 Multi-Level ED — Highest & Best Reno	C.2 Single-Level-ED — Highest & Best Reno
3 PARKSIDE — Integrated IP Tower	ED doesn't fit	B.3 Multi-Level ED — Integrated IP Tower	C.3 Single-Level-ED — Integrated IP Tower

01.8 Scenario C.2

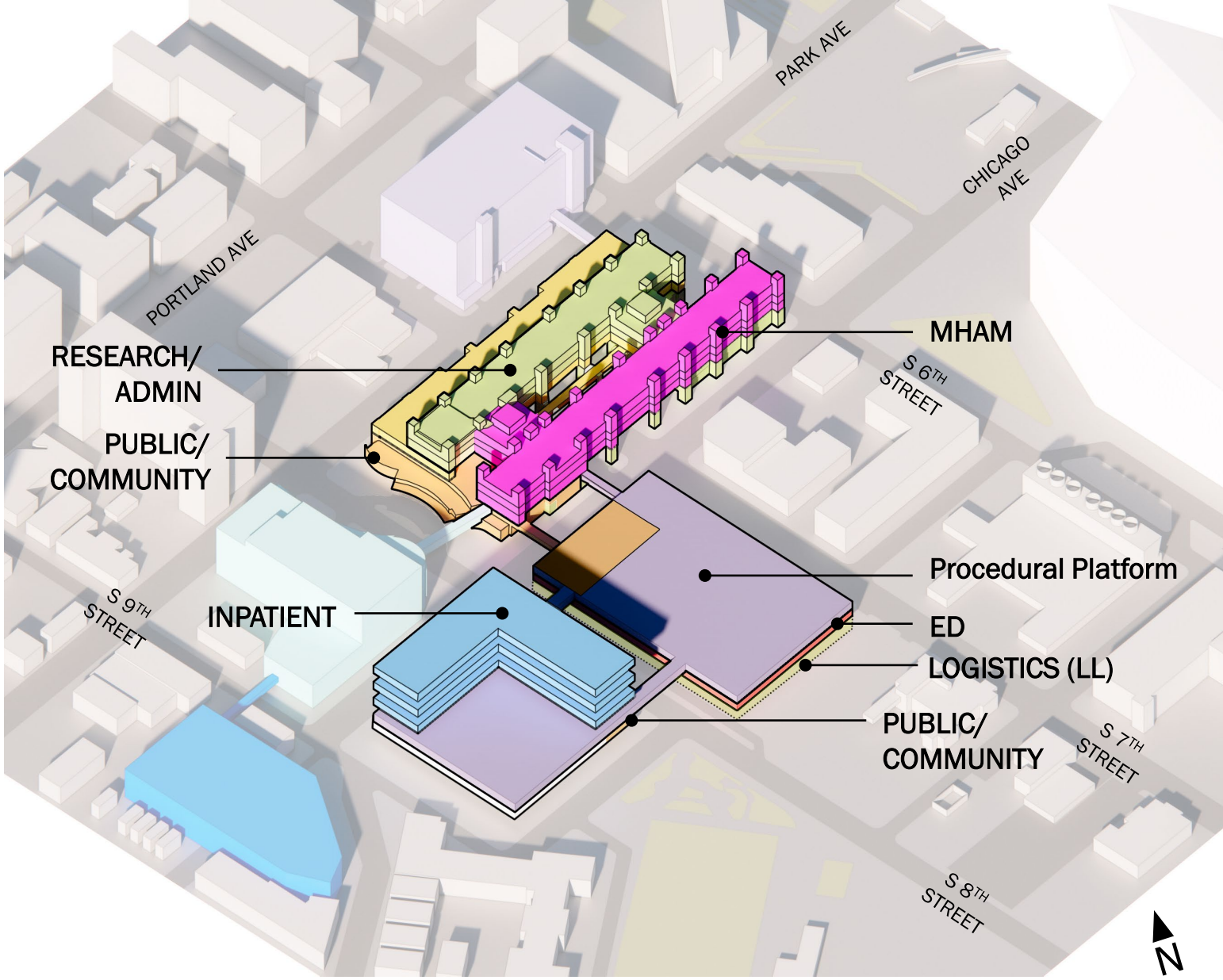
Scenario C2 emerged as the clear preferred option because it offers the strongest balance of vision, practicality, and long-term value. By maximizing reuse of existing facilities, it builds responsibly on the investments already made while creating a fully connected campus that leverages current infrastructure. Critically, it enables a single-level Emergency Department—an essential improvement for patient access, flow, and safety. Just as importantly, C2 provides a framework for growth that extends well beyond projected needs, enabling adaptability and resilience for decades to come. With the potential to sustain a 100-year life span, this scenario represents both a prudent and transformative path forward for Hennepin.

ADVANTAGES

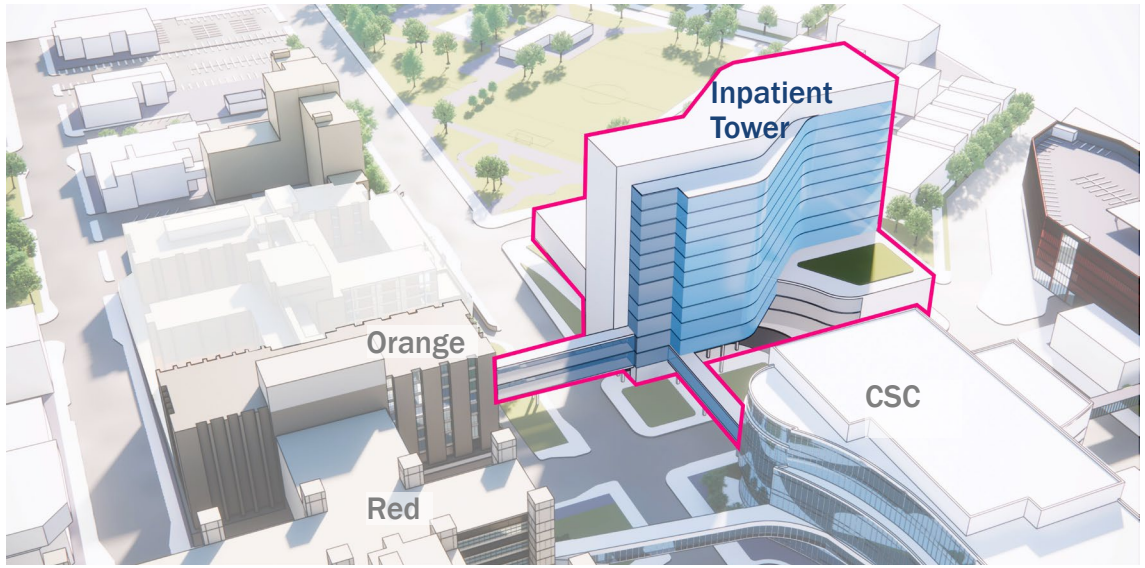
- Maximizes re-use of existing infrastructure
- Future single-story ED
- MH Inpatient (IP) and MHAM Outpatient (OP) are co-located
- Some MH IP phasing can be prioritized
- Maintains access to critical city infrastructure
- Ability to expand in the future by adding beds to Orange, Green, Blue (OGB)
- Dock is centrally located

PROJECT SHIFTS

- Requires use of OGB site
- Longer interim use of existing/enhanced ED
- Phasing is more complex
- Larger project than originally anticipated

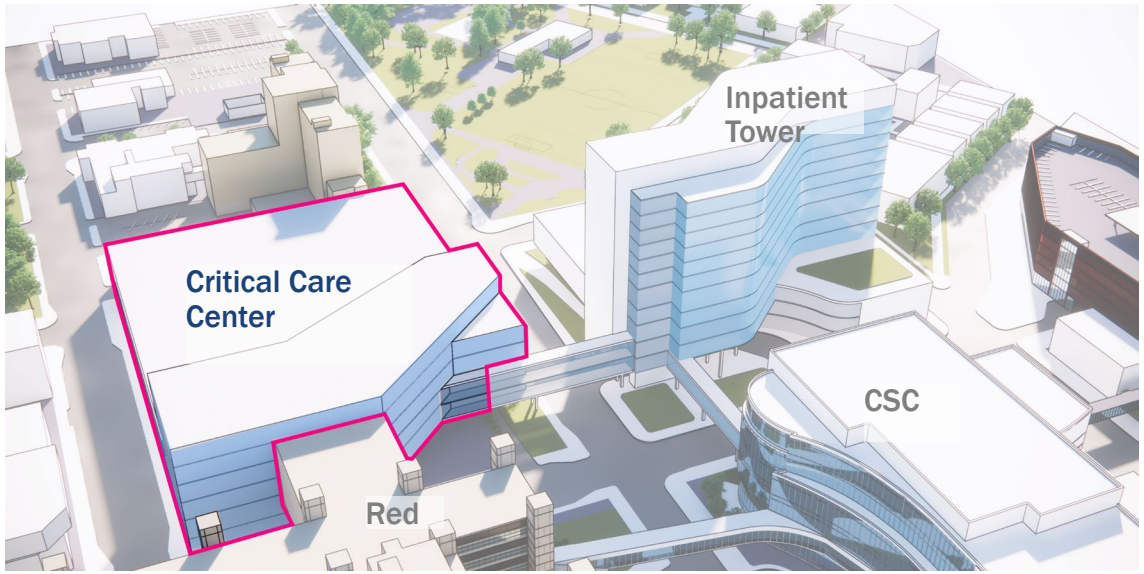


01.9.a C.2 Framework Projects



Project One: Advance TODAY

- Modernized patient / family / staff experience
- Renovated and updated Mental Health Inpatient and Outpatient services
- New Inpatient beds 100% single occupancy beds
- Consolidated Procedural Platform
- Shelled capacity for flexible decisions
- Incremental addition to key planning unit capacity
- Decanted Green & Blue

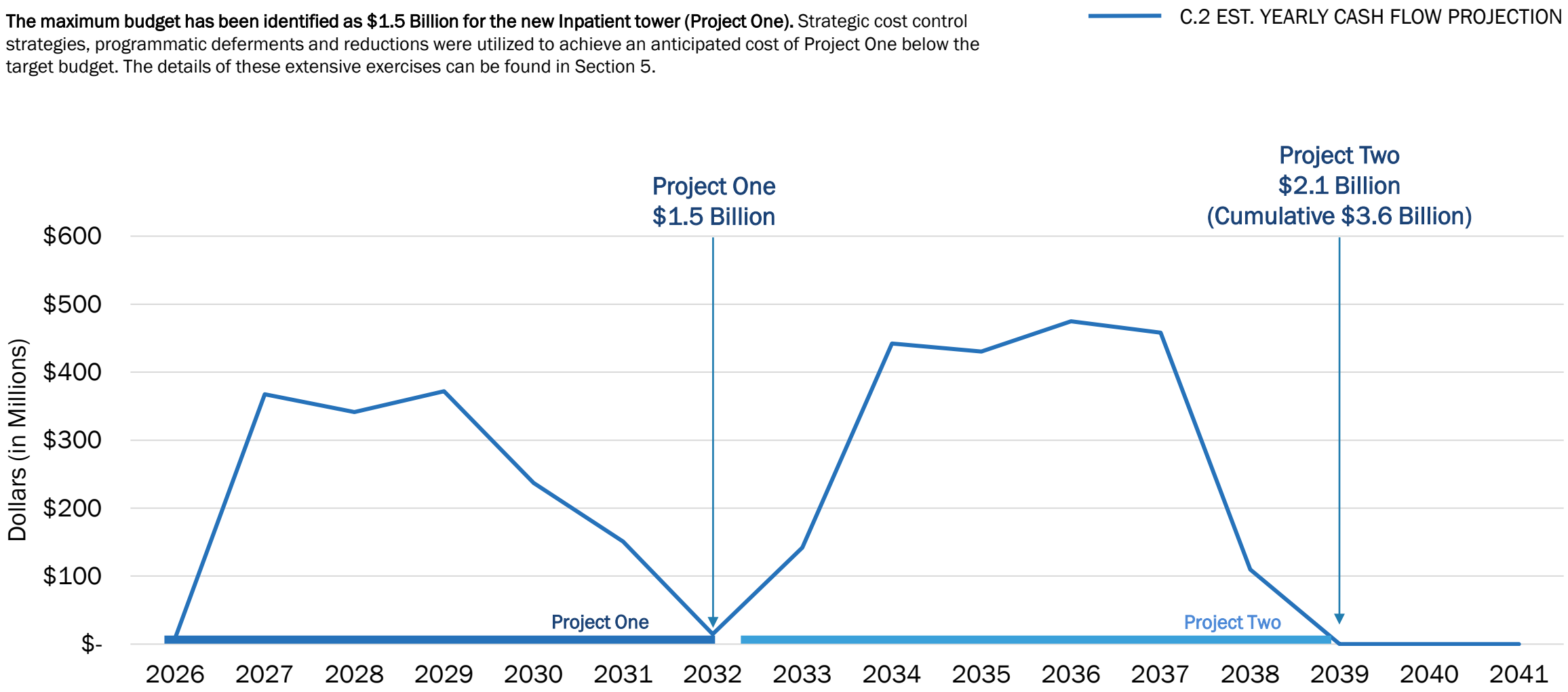


Project Two: Creating an Adaptable Future

- Flexibility to adapt for future community needs
- New single-story ED
- New integrated procedural platform
- State-of-the-art acute and critical care
- Increases Mental Health Inpatient capacity and strengthens adjacencies of Mental Health outpatient programs
- New right-sized dock
- Fully decommissioned OGB

01.9.b C.2 Cashflow Projection (with Escalation)

The maximum budget has been identified as $1.5 Billion for the new Inpatient tower (Project One). Strategic cost control strategies, programmatic deferments and reductions were utilized to achieve an anticipated cost of Project One below the target budget. The details of these extensive exercises can be found in Section 5.



Based upon the Master Plan Framework study, this high-level estimate provides an approximation of potential project costs. The estimate should not be relied upon as a commitment that the project can or will be completed for the estimated cost. Market conditions, project timeline, escalation, taxes and tariffs, project scope and program are subject to change and can influence the actual project costs.

01.9.c C.2 Framework Projects - Key Planning Unit (KPU) Ramp Up Summary by Phase

As an urban campus, Hennepin Healthcare has limited space for development, making a phased approach essential to revitalization. The completion of Project One will right-size select spaces and create modest growth, while full build-out of Scenario C.2 enables all areas to be planned for anticipated demand.

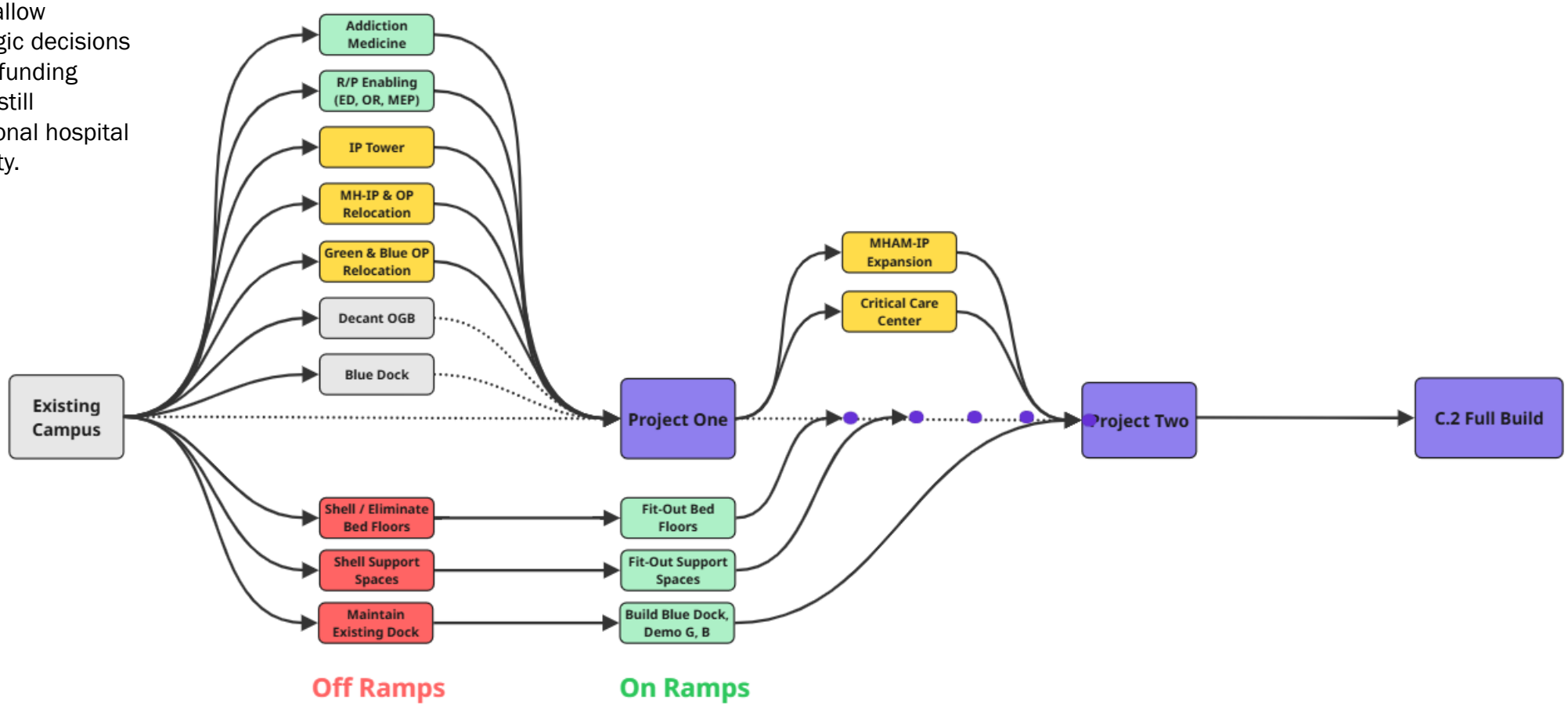
Recognizing the complexity of this effort, Hennepin County and Healthcare leadership partnered with CannonDesign to identify potential operational planning deep-dive efforts needed to confirm feasibility at the end of Project One.

	Now	Project One	Full C.2 [1]
Emergency Department	81 KPUs	93 KPUs	117 KPUs
Inpatient and Observation Beds	486 KPUs	498 KPUs	577 KPUs
Procedural Platform	22 KPUs	21 KPUs	24 KPUs
Imaging	21 KPUs	23 KPUs	24 KPUs
Mental Health and Addiction Medicine Outpatient	~56,970 DGSF	~84,206 DGSF	~98,726 DGSF

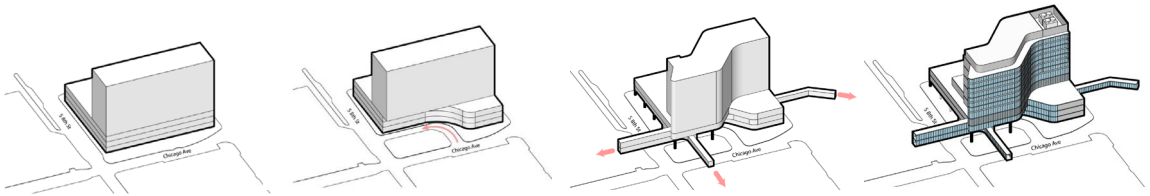
Note: [1] Cumulative and not additive to Project One. The KPUs and/or DGSF may differ from the ideal future as a result of identification of prioritized spaces and/or adjustments made per the direction of Hennepin Health.

01.9.d A Flexible Roadmap to a Sustainable Future

This diagram illustrates the flexible off- and on-ramp projects to allow Hennepin to make strategic decisions and advance projects as funding becomes available while still maintaining a fully functional hospital that serves the community.



01.10 Design Studies







01.11.a - Project Phase Descriptions

Project 1

Phase 1a – Red and Purple Building Renovations
Department Realignment and Emergency Department / Operating Room added capacity

Phase 1b – Red and Purple Building Renovations
Includes Mental Health Inpatient and Addiction Medicine Outpatient Clinic
Orange Building Renovations
Kidney and Hope Clinic Relocation

Phase 1c – New Inpatient Tower
Constructed on the Parkside Building and current parking structures site

Phase 1d – Red and Purple Building Renovations
Renovations of the Orange Building for relocated clinics and departments from Blue, Green and Shapiro buildings

Project 2

Phase 2a – Relocation of clinics and departments from the Orange Building
Demolition of the buildings on the Orange, Green and Blue Building Site
Construction of a new Critical Care Center –
New Emergency Department, Inter-Operative Platform, Critical Care Bed Capacity, Loading Dock

Phase 2b – Red and Purple Building Renovations
Connections to the new Critical Care Center and department relocations
Renovations for increased mental health Inpatient bed capacity

01.11.b C2 - Design/Construction Schedule

Note delays in the project starts add approximately $60 million per year in escalation to project cost estimates, assuming project start in 2026.

