

**STATE OF VERMONT
GREEN MOUNTAIN CARE BOARD**

CERTIFICATE OF NEED APPLICATION
by
THE UNIVERSITY OF VERMONT MEDICAL CENTER INC.
for the
DEVELOPMENT OF AN OUTPATIENT SURGERY CENTER
February 10, 2023
Docket no. GMCB-

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SECTION I: PROJECT OVERVIEW

A. SUMMARY

The University of Vermont Medical Center Inc. (“UVMHC” or “the applicant”) submits this Certificate of Need (“CON”) application to the Green Mountain Care Board (“GMCB”) pursuant to 18 V.S.A. § 9434(b)(1) and GMCB Rule 4.000. The applicant requests a CON approving the replacement of the Fanny Allen operating rooms and development of a multi-specialty Outpatient Surgery Center (“OSC”) at 119 Tilley Drive in South Burlington (“the project”).¹

There is a deep need for this project. As the GMCB, the Agency of Human Services, and the Department of Financial Regulation have recently highlighted, wait times for access to specialty medical services in Vermont—including many of the specialties that will be served by the proposed OSC—are already at unacceptable levels. When Vermonters cannot receive the health care services they need, when they need them, they may either live with illness and pain for longer than necessary, worsening both quality of life and long-term health outcomes, or choose to travel elsewhere to receive their care, often with additional personal costs and inconvenience. This project is one of many undertaken by the UVM Health Network (“Network”) to address the current and future needs of its patients and the requests of its regulators.

Currently, UVMHC has 25 operating rooms (“ORs”) divided between the main campus, which houses 20 inpatient and outpatient ORs, and the Fanny Allen facility in Colchester, which houses five ORs used exclusively for outpatient procedures. The Fanny Allen ORs have been identified for replacement in the UVMHC Facilities Master Plan since 2017. They are undersized and outdated and, due to their configuration and footprint, they cannot be expanded or renovated to accommodate the array of outpatient surgeries available to patients today. With a lease set to expire in 2026 and air quality issues that forced OR closures in December 2019 and again in November 2020, replacement planning has been accelerated as it has become evident that the Fanny Allen surgical facility is nearing the end of its useful life as a surgical environment.

The anticipated loss of the Fanny Allen ORs will coincide with a rapidly growing and aging population within UVMHC’s service area, and therefore a significantly increased need for both inpatient and outpatient surgical procedures. Without the additional capacity provided by the proposed OSC, these demographic drivers will result in a nearly 4,300-patient surgical backlog by 2030 at UVMHC. Outpatient surgical capacity, already constrained, will fall to unacceptable levels.

The UVMHC main campus cannot accommodate the outpatient surgeries now performed at the Fanny Allen ORs once they close, nor will it have capacity to meet the increasing demand for inpatient and outpatient surgeries driven by a growing and aging population. To ensure continued access to care for its patients and meet current and future surgical demand, UVMHC proposes to construct a multi-specialty OSC that aligns with contemporary surgical practice and the expectations of UVMHC’s patients and providers. The increase in outpatient surgical capacity created by the OSC will allow UVMHC to shift a portion of surgical cases from its main campus to the new facility, resulting in increased inpatient surgical capacity at the main campus.

¹ The GMCB granted the applicant a Conceptual Certificate of Need for this project on September 20, 2021. *See* Docket no. GMCB-015-21con.

The project includes the purchase of a 13.5-acre parcel located 3.3 miles from the main campus on Tilley Drive in South Burlington. The strategically located site has ample parking for employees and patients, is served by public transportation, and is in close proximity to existing UVMMC services, offering a potentially integrated patient experience. The newly constructed 84,006 gross square foot (GSF) facility will house eight identical operating rooms, a net increase of three ORs once the five aging Fanny Allen ORs are closed. It will also contain 12 prep rooms and 36 recovery spaces (including eight 23-hour extended stay recovery rooms), plus shelled space for four additional ORs and 14 pre-and post-operative spaces that will be fit-up and utilized to increase capacity as needed. The OSC's design is intended to maximize flexibility and productivity, as well as to enhance patient and staff experience. On its first patient day, UVMMC expects to utilize eight ORs with the capacity to accommodate approximately 8,000 surgeries per year.

The project will require 166 FTEs, approximately half of whom will transfer to the facility from the main campus and the Fanny Allen. UVMMC will actively begin workforce recruitment and development to fill 78 new positions no less than 18 months prior to the first patient day. In addition, the Network is expanding its relationship with the University of Vermont College of Nursing and Health Sciences to grow the workforce necessary to staff this and other health care services.

As Vermont's largest community hospital, tertiary care facility, and sole academic medical center, UVMMC must be positioned to provide surgical capacity sufficient to meet community needs for the long term, while providing a high-quality educational environment to attract learners and clinicians to study and practice in Vermont. In light of the critical role the OSC plays in securing Vermonters' ability to access needed care, the project requires a significant up-front investment of \$129.6M: \$94.4M in capital construction costs, \$5.2M in land acquisition, \$23.7M in capital equipment and IT costs, and \$6.3M in capitalized interest. The estimated capital allocation for the project has been included in UVMMC's five-year capital budgets since FY2015, although the scope and timing of the project has changed as demand, location, on-site services and procedure mix have been refined, and as the COVID pandemic has altered spending priorities. Debt financing is planned for approximately \$100M of the capital expense.

UVMMC can afford to invest, and should invest, in the project as part of its financial stabilization. In addition to addressing the need for expanded surgical services in the region, the investment is consistent with the Network's financial framework and an indispensable step in placing UVMMC on a more sustainable financial path. The project will contribute to UVMMC's financial sustainability by reducing age of plant, helping maintain a healthy debt-to-capitalization ratio, and stabilizing days cash on hand. The project will also generate a positive financial margin that will enable UVMMC to continue to offer its adult and pediatric patients a wide range of essential health care services that do not produce a positive financial margin on their own.

Pending the GMCB's approval of the application, construction of the project is expected to last 18 months, with the OSC's estimated opening date in April 2025.

B. PROJECT NEED

1. Rationale

An OSC of the size and scale proposed in this application is a practical necessity. The following considerations support construction of the facility:

a. *A growing and aging population will drive increased demand:*

UVMMC serves a population that is growing, aging, and whose needs are changing. In the coming years, more patients will require a wide range of surgical procedures, many of which, in light of ongoing technological advances, can now be safely and efficiently performed on an outpatient basis. At the same time, patient preferences and expectations are evolving, and more patients prefer the convenience of an outpatient setting.

From 2020 to 2030, the overall population in Chittenden County is projected to experience a 10-year growth rate ranging from 4-8%, while the age 65+ segment of the population is expected to grow more significantly—from 30-60%. Similar growth estimates for total population and for the Medicare-eligible segment are forecast for the surrounding Vermont counties, including Franklin, Grand Isle, Lamoille, Washington and Addison. This rate of growth will drive increased demand for both inpatient and outpatient surgeries in the region. As a result, UVMMC's surgical demand is expected to grow between 14% and 22% by 2030. To put these numbers in context, this level of growth means that the 25 ORs currently in operation at the two UVMMC locations would fall short of meeting demand in 2030 by nearly 4,300 cases or *approximately a year's worth of outpatient surgeries at Fanny Allen*.

Based on these projections and accounting for the closure of the five Fanny Allen ORs, discussed below, UVMMC will require between 8 and 12 additional ORs to meet overall surgical demand and maintain ongoing access to care for its patients. Projected OR demand and surgical volume is discussed in detail in subsection 2.²

b. *UVMMC's current surgical facilities cannot absorb the increasing surgical demand:*

It is not feasible to increase surgical capacity by expanding or renovating the ORs on the main campus or at the Fanny Allen facility. The size and design of many of the current ORs make them unsuitable for some of the complex surgical procedures that are now common in the outpatient setting, and extending their hours of operation would not remedy the projected shortfall in surgical capacity.³ To ensure access for its patients, the applicant must move a portion of its outpatient surgeries from the UVMMC main campus to the new OSC, which will create room for much-needed clinical and surgical services that are appropriately located in the hospital setting.

Fanny Allen ORs: Development of the OSC includes the closure of the Fanny Allen ORs and migration of its surgical staff to the new facility. The full replacement of the Fanny Allen ORs, which have not been significantly renovated in 30 years, has been part of UVMMC's Facilities

² The GMCB requested and was provided with UVMMC's surgical demand modeling, including analysis and data supporting the need for additional OR capacity, in December 2021.

³ The GMCB acknowledged the inadequacy of UVMMC's ORs, particularly those at the Fanny Allen, in granting a Conceptual Certificate of Need in this matter. *See* Statement of Decision, Docket no. GMCB-015-21con, Finding of Fact ¶ 10 (Sept. 20, 2021).

Master Plan since 2017. In December of 2019, the ORs were closed for several weeks due to indoor air quality deficiencies at the facility, and were again closed when the issues recurred in November 2020. While mitigations were implemented that allowed the ORs to reopen in February 2022, these mitigations are not a long-term solution, and the events of the past several years have made it clear that this facility is near the end of its life as a useful surgical environment.⁴

Renovating Fanny Allen's ORs to meet modern surgical standards and provide additional capacity is not feasible. The ORs are unsuitable for many contemporary outpatient surgeries; they are significantly undersized by current FGI standards—ranging in size from 378 to 450 GSF—and cannot accommodate the installation of air handling systems to meet current code requirements. Nor can they accommodate contemporary surgical and interoperative imaging equipment routinely utilized in modern surgical environments. The Fanny Allen's preoperative and postoperative spaces are also lacking. The bays are small, narrow and shallow, leaving limited space for personnel to access the patient and for families to visit at the patient's bedside, and the bays' small size and close proximity raise concerns for patient privacy. So although UVMMC is exploring options to continue to use the Fanny Allen campus for the other non-surgical services that campus currently supports, and to address other important patient care access needs,⁵ it will no longer serve as UVMMC's outpatient surgery facility once the new OSC is constructed.

UVMMC Main Campus: For similar reasons, it is not feasible to expand outpatient surgical capacity on UVMMC's main campus. Many of the multi-purpose ORs are small and cannot accommodate specialized equipment and technology that some outpatient procedures require, making it increasingly difficult to schedule these procedures in an appropriate OR. Nor is there space available for the additional post-operative and recovery spaces necessary to support projected demand for both inpatient and outpatient surgeries.

A list of the current main campus ORs is included with this application as Exhibit 3.

⁴ Air quality work needed to reopen the facility was performed in the PACU and the inpatient units and involved replacing the air handler, filters and controls, and repairing the ductwork.

⁵ If UVMMC is to continue to use the Fanny Allen campus for non-surgical purposes, it will need to extend its current lease, which is due to expire in 2026, or otherwise gain control of the property beyond that date. UVMMC is currently exploring all of its options with respect to the Fanny Allen campus as part of its ongoing master facility planning process.

c. Preserving local access is critical:

As the community hospital serving Vermont's most populous region, UVMMC must be adequately prepared for the future. Any loss of inpatient or outpatient surgical capacity could send patients outside of the region and farther from their homes and their support networks to receive the high-quality care they deserve, often burdening them with additional costs and inconvenience. Safeguarding local access to needed care will help keep the community healthy and solidify the region's reputation as a desirable place to live and work. In addition, sending patients out of state for procedures they could receive close to home is often more expensive to payers and forfeits provider taxes upon which the State depends.

Other Network hospitals cannot permanently fill the void in surgical capacity, now or in the future. Demographic projections show that any unused OR capacity at these hospitals will not meet UVMMC's estimated need for 8 to 12 new ORs by 2030. During its review of the Collaborative Surgery Center's CON application in October 2021, the GMCB requested and received data from the Network indicating that OR capacity at Central Vermont Medical Center ("CVMC") and Porter Medical Center ("PMC") is insufficient to absorb a shortage in capacity at UVMMC.⁶ Moving surgeries to those facilities would merely degrade their ability to meet their own community needs.

d. The OSC will support high-quality care and improved patient access and experience:

The proposed OSC is designed to meet UVMMC's current and future OR needs and the needs of the clinical programs and patients that will be served there. It will support more clinically complex outpatient surgical procedures in an efficient and modern environment for patients, providers, and learners.

Outpatient setting and facility design: The proposed OSC is designed, and ORs sized, to accommodate a wide array of surgeries increasingly performed in the outpatient setting. Contemporary outpatient procedures require space for surgical technologies and integrated imaging; equipment such as mobile c-arms, robotic units, and navigation systems, plus the personnel required to operate these advanced technologies, must be accounted for in the OR footprint. ENT, Gynecology, Orthopedics, Plastic Surgery, Surgical Oncology, Urology, and Vascular surgery all require specialized equipment and/or imaging to support complex procedures in outpatient ORs. In addition, it is sometimes beneficial for two surgical teams to collaborate in the OR on "dual" procedures (for example, ENT and Plastics, or Surgical Oncology and Plastics), enabling patients to receive two procedures in one appointment, which streamlines care delivery and enhances both patient satisfaction and access. These dual procedures are not possible in the Fanny Allen today.

Another core design principle of the OSC is standardization of ORs across the OR suite. All rooms are the same size, have the same layout, and will accommodate the equipment required to perform the surgeries described above. Standardization enables schedulers to adjust room allocation between services in response to patient demand and team availability. Space standardization also helps teams move seamlessly between rooms to maximize patient throughput. Equipment can be moved into any of the facility's ORs to support the surgical teams

⁶ A letter was provided to the GMCB electronically and by U.S. Mail, accompanied by Exhibits 1 ("Description of the Methodology Used to Calculate Outpatient Operating Room and Procedure Room Capacity"), and 2 ("UVMMC, CVMC, and PMC Data").

as required. This flexible operating model will optimize utilization of space, staff, and equipment to maximize patient access to advanced outpatient procedures.

Location benefits: The applicant chose the Tilley Drive location after considering where it could achieve the best patient and provider experience and the OSC would integrate well with existing UVMMC services. The site's strategic location, 3.3 miles from the main campus, is served by a newly enhanced public transportation system and in close proximity to a number of current and proposed UVMMC outpatient clinics, including Orthopedics, Cardiology, Ophthalmology, Dermatology, and Rehabilitation. This makes the location convenient, familiar, and accessible for patients. The South Burlington site is also suitable because it can accommodate the potential long-term need for additional space.

For providers, staff and learners, the site's convenient location will make it easy to travel between the OSC and the main campus. Patients can access the full scope of hospital services nearby in the event of a medical emergency.

Enabling inpatient capacity and modernization: Decanting a portion of surgical cases from the main campus to the OSC will enable future renovation and modernization of the main campus ORs and surgical suites, some of which have not been updated in 30 years, including enlarging a limited number of ORs to support complex cases. Cardiac Surgery, Neurosurgery, and Vascular Surgery teams in particular require large ORs with specialized equipment to perform the advanced procedures that patients in the region require. These advanced procedures often combine open and minimally invasive surgical approaches, which help patients recover from surgery faster and can reduce surgical complications. As the regional population grows and ages, projections show an increasing demand for these specialized procedures. Renovations to the main campus ORs—including incorporating advanced imaging, advanced surgical technologies and robotics, as well as ensuring adequate space to accommodate larger clinical teams—will be required. The OSC will provide UVMMC with the flexibility and capacity to take main campus ORs off-line temporarily to enable any future upgrades.

e. *The OSC will support recruitment and retention:*

A modern OSC is critical to the recruitment and retention of much-needed surgical staff and health care providers. The quality of medical facilities is a significant consideration for talented surgeons, physicians, nurses, scientists and students who contemplate where they will practice, research and study, and when weighing their choices, these professionals are often considering a host of distinguished institutions with top-of-the-line facilities.

A modern OSC helps UVMMC attract the learners who become our future healthcare workforce. As an example, more than 90% of orthopedic surgeons complete fellowships in a subspecialty after their residencies. This extra training exposes them to the cutting-edge technology and efficient delivery systems that they seek when exploring facilities to ply their trade. Students, residents, and fellows expect access to OR time and the latest surgical technologies, and their absence will discourage talented people from pursuing their education and training at UVMMC. Graduates of UVMMC's residency program are lynchpins in the delivery of musculoskeletal care in the State of Vermont. The program attracts residents from the Pacific Northwest, Midwest, Southeast, and Northeast, many of whom have chosen to work in Vermont after they complete residency. UVMMC's ability to attract these excellent candidates will diminish if UVMMC cannot offer them training that includes exposure to modern outpatient surgery in an engaging educational environment in which learners can master leading-edge skills. In short,

without modern facilities that incorporate advanced technologies and equipment, UVMMC and Vermont will struggle to attract top-level surgeons of all disciplines.

The same facilities that attract employees and learners play a role in retaining them. Indeed, when UVMMC's current outpatient surgical facility at the Fanny Allen campus was closed for an extended period of time, both nurses and physicians left UVMMC for other opportunities to work in an outpatient setting, worsening the already concerning workforce shortage.

To ensure the proposed OSC will be a desirable environment for health care professionals to work, and for patients to receive care, the facility design process included input from providers, patients and family members, nursing staff, and other facility operations stakeholders. Dr. Jackie Hunter, the Network's Senior Vice President for Diversity, Equity and Inclusion ("DEI") served as an advisor to the project planning team and design advisory group to ensure DEI principles were taken into consideration during the facility design process to create safe and welcoming space for both patients and employees.

f. *The OSC will support higher productivity:*

The project is designed to support a higher throughput of cases, resulting in greater provider productivity and improved patient access to care. To maximize efficiencies for providers and staff, the facility features clinical areas of uniform size and orientation, with standard equipment set-up areas. Sterile set-up rooms that allow multiple procedure trays to be prepared in advance of surgeries are located adjacent to each OR, enabling faster, more efficient OR turnover. During the planning process, the applicant solicited input from providers, the perioperative team and supporting staff to ensure that the facility's floor plan design would produce an efficient flow within the operating room and as patients proceed from check-in to pre-op, to surgery, and finally to post-operative care. *See Exhibit 4 (patient flow sequence).* In response to surgeon input, the facility design also facilitates easy and quick access to post-operative spaces for providers to check on their patients, and ready access to quiet spaces for procedure documentation.

g. *UVMMC has not identified a viable alternative:*

UVMMC has not identified a viable alternative to the OSC proposed in this application that will meet the needs of UVMMC patients into the future. Doing nothing, meanwhile, will threaten UVMMC's ability to provide timely, high-quality care to Vermonters and may exacerbate issues around access, workforce and finance that the hospital faces today.

In the course of the facility planning process, the applicant considered whether it would be possible to purchase and renovate an existing building for use as an OSC. No available property was identified that could be repurposed at a reasonable cost and satisfied other indispensable criteria, including public transportation access and proximity to the hospital's main campus.

Once the applicant determined that new construction is required, it considered other potential building sites and found a very limited market for properties within the necessary proximity to the hospital's main campus that are also accessible by public transportation and required services. The Tilley Drive site, adjacent to other UVMMC outpatient services, was chosen for the reasons set forth in more detail in Section I, C, 1, below.

Finally, the size of the ORs (630 sq. ft.) comports with the recommendations of the applicant's architect and other consultants, and with industry standards, for their intended use for a range of specialized outpatient procedures. *See Exhibit 5 (eH4 letter).* As detailed in subsection f, above,

the uniform size and layout of the eight ORs will increase efficiency and optimize patient throughput, while the number of ORs is as needed to address current and future surgical demand. See Section I, B, 2.

The decision to put forth this proposal, at this juncture, reflects careful analysis and measured consideration. Neither UVMHC nor the State of Vermont can afford to underestimate the future health care needs of the communities UVMHC serves, and the proposed project is aligned with long-term goals that include ensuring the timely delivery of cost-effective, high-quality care in the most appropriate care setting. One of the many lessons learned during the pandemic is that delayed care costs more for everyone in the long run. Investing in the OSC now is the most feasible way to encourage timely access without incurring unnecessary and undue increases in the cost of patient care.

2. Surgical Volume and OR Demand Analysis:

To develop a comprehensive OR demand model for both inpatient (“IP”) and outpatient (“OP”) surgical cases, the applicant used FY2019 surgical data that includes volumes, procedure time and turnover time from both the main campus and Fanny Allen ORs as a baseline. The applicant chose FY2019 as the baseline year because it provides the last full year of data not interrupted by COVID-19, the October 2020 cyber-attack, or closings of the Fanny Allen ORs.

To identify future demand for surgeries that are performed in general-purpose OR spaces, data for labor & delivery, cardiology, and hybrid ORs, as well as data for special purpose procedure spaces (used for bronchoscopy, electroconvulsive therapy, endoscopy, and dental procedures) were excluded from this analysis, while volumes from two larger procedure rooms (“PRs”) at the main campus (often used for Urology and Gynecology cases, among other specialties), were included. As Figure 1.1 shows, there are currently 20 ORs located at the UVMHC main campus, comprising 18 ORs and two large procedure rooms. In addition, there are five ORs located at the Fanny Allen campus, for a total of 25 general-purpose ORs.

FY19*	# of ORs	Surgery Type	Surgical Volume (IP+OP)	Surgical Volume (IP+OP)
FA	5 ORs	OP	4,300	13,000 OP
		OP	6,700	
		IP	5,900	
MC	18 ORs	+		5,900 IP
		IP		
	2 PRs	OP	2,000	

* Excludes special purpose ORs and PRs: Labor & Delivery, Cardiology OR, Hybrid OR, rooms used for bronchoscopy, ECT, endoscopy, and dental procedures.

Figure 1.1. FY2019 OR supply, surgery type performed at each location and the approximate number of surgical cases by location.

Annually, approximately 19,000 (IP + OP) surgical cases are performed in UVMHC ORs. Those cases vary significantly in complexity and therefore in procedure time, from the longest Neurosurgery and Transplant surgeries to shorter ENT and Ophthalmology surgeries. Between FY2015 and FY2019, growth of the combined IP and OP surgical volume for these ORs was essentially flat. At the same time, however, wait times for surgeries grew, demonstrating that the ORs are capacity constrained.

Of all surgical cases performed in FY2019, approximately 13,000 OP cases were performed at either the main campus or Fanny Allen. The majority of these were Orthopedics, Urology, ENT, OB/GYN and Ophthalmology cases. Most of the OP surgery patients came from the Burlington area (51.4%).

Service Line	FY19		
	# of Cases	% of Cases	% of Time
Orthopedics	3,431	26%	24%
Urology	1,717	13%	13%
ENT	1,670	13%	12%
OB/Gyn	1,610	12%	15%
Ophthalmology	1,364	10%	7%
Other	3,260	25%	28%
Total	13,052	100%	100%

Figure 1.2. FY2019 OP cases by Service Line.

FY19 Patient Origin (HSA)	Pat. Origin Distr.	FY19 Payer	Payer Distr.
Burlington, VT	51.4%	Commercial	53.0%
St. Albans, VT	8.8%	Medicare	26.0%
Berlin, VT	7.7%	Medicaid	14.0%
Plattsburgh, NY	7.6%	Other	7.0%
Middlebury, VT	5.6%		
Other	18.8%		

Figure 1.3. FY2019 OP OR cases by patient origin and payer.

a. Surgical Volume Demand Forecast:

The surgical volume demand model projects only the growth of UVMHC’s FY2019 surgical volume, achieved by applying market growth projections by service line for IP and OP surgeries to the UVMHC baseline volumes. Said another way, *this model reflects the assumption that UVMHC’s market share remains the same by service line over the forecasted period.*

Projection through 2030: The surgical volume demand methodology projects both IP and OP case volumes by service line to 2030. In order to account for uncertainty inherent in this exercise, the model reflects three sets of volume growth assumptions (three scenarios):

Scenario 1: Sg2 Forecast for Surgical Demand. UVMHC subscribes to a Sg2 healthcare service forecast and analytics application, which it uses to generate demand projections for business planning. Sg2’s demand forecasts account for demographic changes using Claritas population forecasts, as well as other multiple volume impact factors. The set of assumptions in this scenario powered the original version of the demand model, developed in early 2021, and reflected demographic projections from Claritas, projections for cases that would shift from the IP to the OP setting, and other factors impacting demand including changes to policy, epidemiological trends, the impact of the economy and consumerism, and changes related to improvements in population health. It is important to note that the Claritas demographic forecast did not reflect 2020 census data, which had not yet been published.

In the summer of 2021, Public Opinion Strategies shared its Vermont demographic forecasts to inform the Network’s 2022 budget work. The Public Opinion Strategies population growth estimates were significantly higher than the Claritas 2020 estimates. That fall, newly published 2020 census data provided confirmation that the Claritas forecast had significantly underestimated population growth for Vermont, as well as for Chittenden and surrounding counties.

The table below reflects Public Opinion Strategies growth rates for Chittenden County, split by age group.

Population Growth by Age Group	2019	2030	2040	10 yr growth	20 yr growth
Chittenden, VT	162,646	171,718	181,506	6%	12%
Under 65	138,839	133,197	124,185	0%	-11%
Over 65	23,807	38,521	57,321	62%	141%

Figure 1.4. Chittenden, VT population growth projections by Public Opinion Strategies.

Public Opinion Strategies also projected growth rates for the surrounding counties. As shown in the table below, the populations of Vermont’s Franklin, Grand Isle and Washington counties are projected to grow, with significant growth in the over-65 age cohort, over the forecast period.

Population Growth by Age Group	2019	2030	2040	10 yr growth	20 yr growth
Franklin, VT	49,116	55,647	59,821	13%	22%
Under 65	41,473	41,777	39,259	1%	-5%
Over 65	7,643	13,870	20,562	81%	169%
Grand Isle, VT	7,022	10,708	12,678	52%	81%
Under 65	5,621	7,326	6,809	30%	21%
Over 65	1,401	3,382	5,869	141%	319%
Washington, VT	58,350	62,372	63,931	7%	10%
Under 65	47,270	45,122	40,564	-5%	-14%
Over 65	11,080	17,250	23,367	56%	111%

Figure 1.5. Franklin, VT, Grand Isle, VT and Washington, VT population growth projections by Public Opinion Strategies.

Based on this demographic forecast, the demand model was updated in the summer of 2021 with two additional scenarios:

Scenario 2: Utilization for Updated Demographic Growth: This is an age-adjusted utilization scenario based on Public Opinion Strategies population growth estimates and the FY2019 baseline data utilization by age cohort, which was previously submitted to the GMCB as part of UVMHC’s 2022 Budget Presentation in August 2021. These population growth forecasts differ in two significant ways from the Claritas population forecast utilized in the Sg2 forecast models:

First, the Public Opinion Strategies forecast estimates the overall population growth to 2030 for Chittenden County at 6%, where the updated Claritas forecast estimates a 4% overall population growth rate. Comparison of the overall population growth of Chittenden County and the surrounding region as reported in the 2020 census data lends weight to these forecasts.

Second, Public Opinion Strategies calculates a significantly higher growth rate for the 65+ segment of the population in the UVMHC service region from 2020 to 2030: nearly 60% as compared to the approximately 30% growth forecast for the same region and timeframe from Claritas.

Scenario 3: Sg2 Growth Rates Adjusted for Updated Demographic Growth: This scenario combines the updated demographic growth projections from Scenario 2 with the additional Sg2 factors from Scenario 1. This scenario reflects the expected shift from the IP setting to the OP setting for selected surgeries, with significant forecasted growth for a subset of these surgeries driving lower IP and higher OP growth as compared to Scenario 2.

The overall surgical volumes demand projections call for 10-year growth between 14% and 22% depending on the growth scenario. The table and the chart below highlight differences in surgical volume demand projections based on the three scenarios.

	10 year OR Volume Projections Based On:								
	Scenario 1: Sg2 Growth Rates			Scenario 2: Utilization for Updated Demographic Growth			Scenario 3: Sg2 Growth Rates Adjusted for Updated Demographic Growth		
	2030		2030	2030		2030	2030		2030
	IP	OP	IP + OP	IP	OP	IP + OP	IP	OP	IP + OP
Total Cases	6,231	15,938	22,169	7,226	15,980	23,206	6,717	17,050	23,767
Growth from 2019	2%	20%	14%	18%	20%	19%	10%	28%	22%

Figure 1.6. Ten-year surgical volume demand projections based on three growth scenarios.

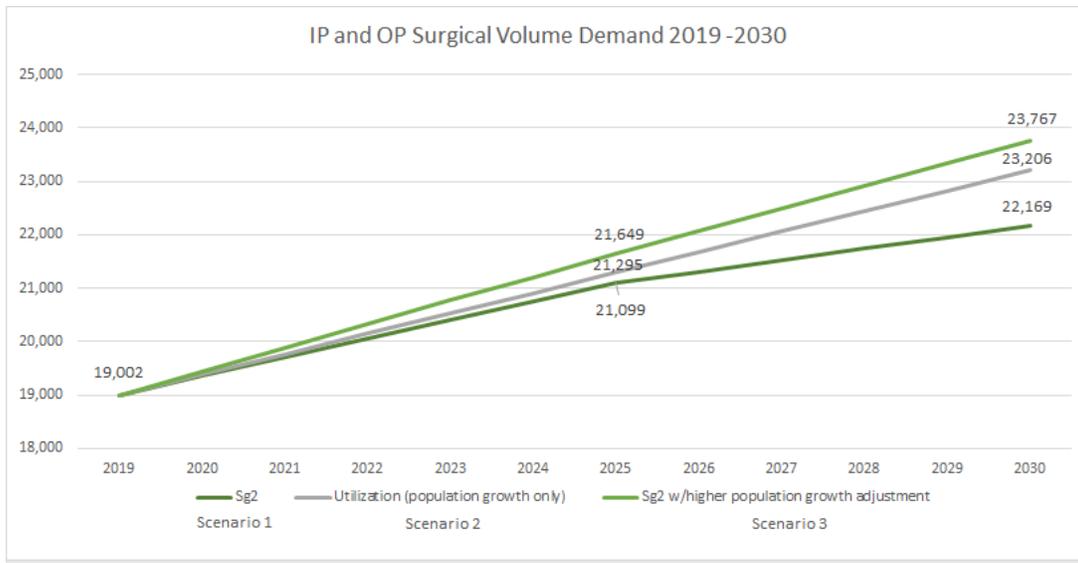


Figure 1.7. Ten-year surgical volume demand projections based on three growth scenarios.

Conclusions: The need for additional outpatient ORs is driven by the expected growth in both IP and OP surgeries for the following reasons:

- *Forecasted increase in need for surgical capacity for IP surgeries:* Inpatient surgical volumes are expected to grow between 2% and 18% by 2030, requiring additional ORs at the main campus. While this growth is not expected across all health care services, demand is expected to increase by 115 to 1,100 cases per year by 2030, as compared to 2019 inpatient surgeries. IP growth is driven by three key factors: population growth, population aging, and a modest growth in tertiary care IP surgeries, *i.e.*, highest acuity surgery for the UVMMC Hospital Referral Region population. Additional capacity will be required at UVMMC to perform these surgeries. UVMMC’s current inability to expand its OR area at the main campus necessitates moving a significant number of OP surgeries now performed at the main campus to another site.
- *Forecasted growth in OP volumes by service line:* The demand analysis shows that OP surgeries are expected to grow between 20% and 28% by 2030. OP surgical growth is projected across a number of health care specialties, with the highest projected growth in Ophthalmology, Orthopedics, General Surgery and Urology. A detailed table with projected volumes by service line is included in subsection b, below.
- Overall growth in surgical volume, as compared with the FY2019 baseline, ranges from approximately 2,700 to 4,300 cases per year by 2030.

Demographics Note: 2020 census data that became available in the fall of 2021 showed higher growth for Vermont and in particular Chittenden County and the surrounding region, than the census estimates for 2020 used for initial modeling. For example, Chittenden County’s 2020 census reflected 8% growth from 2010-2020, significantly higher than Claritas and other demographic forecasters’ projections. Similar higher growth rates were shown for surrounding counties in UVMMC’s service region. These 2020 census data solidified the decision to apply the Public Opinion Strategies population growth projections in Scenarios 2 and 3. Claritas 5-year

population forecasts, released in fall 2022, now reflect higher population growth expectations and in fact, project the population for Chittenden County will be 172,400 by 2023—exceeding the Public Opinion Strategies population forecast for Chittenden County for 2030. The significant change in population projections put the latter population projections into a relatively more conservative light and factored into the decision to include shelled space for an additional four ORs.

Operating room demand estimates: The number of ORs needed, based on FY2030 projected OR case volumes, was determined by:

- Translating OR case volume into OR minutes. IP OR cases for each service line were multiplied by average IP case length for that service line, and OP OR cases for each service line were multiplied by average OP case length for that service line. This approach accounts for time variations between case types (service line) and settings (IP or OP).
- Translating OR minutes into the number of ORs needed. The total of projected OR minutes was divided by annual available minutes per OR. The following formula was used to calculate annual available minutes per OR: 250 days * 10 hours/day * 60 minutes/hour * 75% utilization.⁷

The calculation using this methodology shows that UVMMC will need 28.5 to 30.6 general purpose ORs by 2030 to meet the expected growth in IP and OP surgeries. With 20 ORs in supply (Fanny Allen ORs are excluded because they have reached the end of their life), UVMMC will need to increase capacity by between 8.5 and 10.6 additional ORs to meet the forecasted growth.

	10 year OR Volume Projections Based On:								
	Scenario 1: Sg2 Growth Rates			Scenario 2: Utilization for Updated Demographic Growth			Scenario 3: Sg2 Growth Rates Adjusted for Updated Demographic Growth		
	2030		2030	2030		2030	2030		2030
	IP	OP	IP + OP	IP	OP	IP + OP	IP	OP	IP + OP
Total Cases	6,231	15,938	22,169	7,226	15,980	23,206	6,717	17,050	23,767
Growth from 2019	2%	20%	14%	18%	20%	19%	10%	28%	22%
Total # of ORs needed	10.9	17.6	28.5	12.3	17.6	29.9	11.9	18.8	30.6
Incremental # of ORs needed			8.5			9.9			10.6

Figure 1.8. Projected OR need for the three growth scenarios.

Extrapolation through 2035: The FY2030 projections in each of the three scenarios were extrapolated on a straight-line basis⁸ out to 2035 in order to better understand the number of ORs likely needed by that date. Although longer-term projections are by their nature less precise, they helped guide planning that must look well beyond the first six years of operation, since the useful

⁷ UVMMC’s experience, and that of other hospitals nationally, has demonstrated that greater than 75% planned OR/PR utilization does not contribute to, and often detracts from, the efficiency of the system.

⁸ The methodology is consistent with the POS population projections, especially the 65+ growth projections.

life of the new building is 30 years. As illustrated below, the extrapolation shows that by 2035, the need for additional OR capacity could increase to between 9.8 and 13.3 ORs.

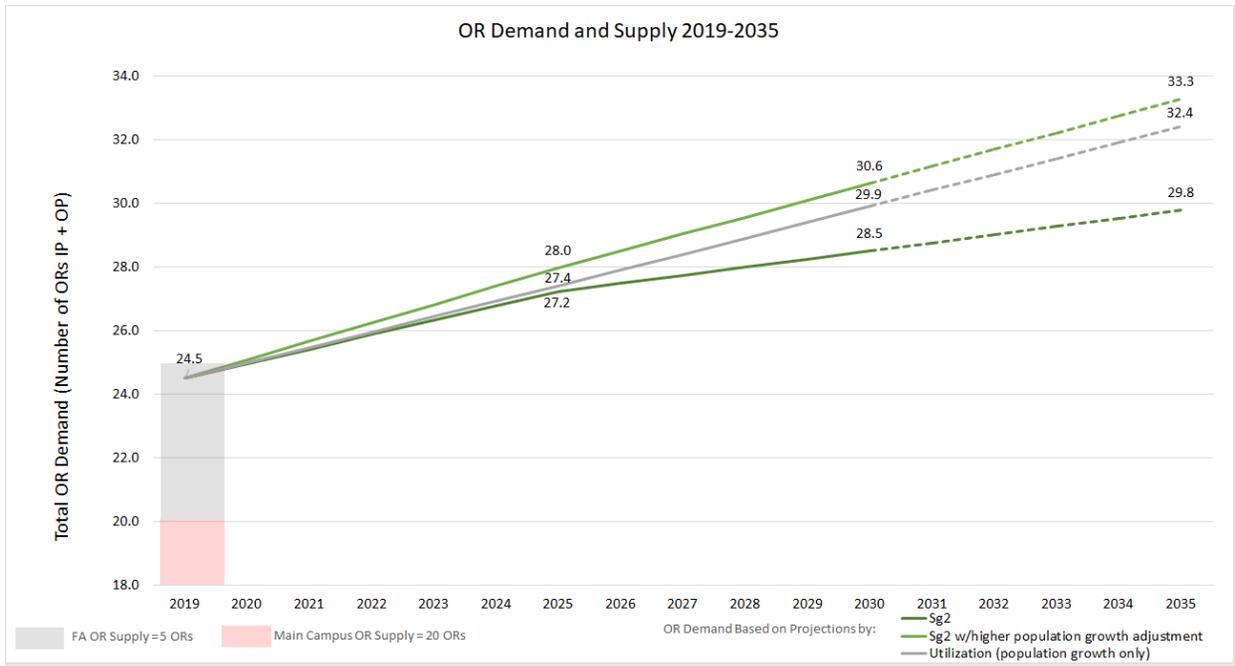


Figure 1.9. 2019 to 2035 OR Demand and Supply based on three growth scenarios.

Based on the OR demand and surgical volume projections, UVMMC proposes to develop an OSC that is designed to 1) replace the five outdated and undersized ORs on the Fanny Allen campus; 2) build additional capacity to meet projected 2030 demand; and 3) build additional shell space to address expected increases in the demand for additional OR capacity expected by 2035.

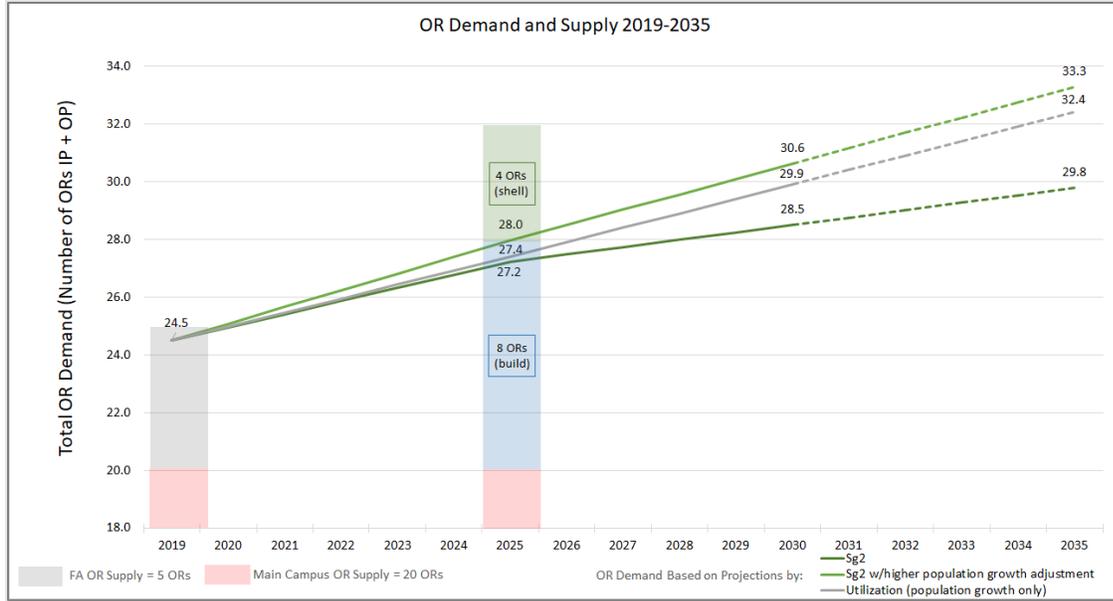


Figure 1.10. 2019 to 2035 OR Demand and Supply based on three growth scenarios with proposed OSC ORs overlay.

b. Projected OSC volumes (2025–2030):

Scenario 3 from the OR and surgical demand analysis, referenced above, was used as the baseline for OSC volume projections because it combines the Public Opinion Strategies population growth projections with Sg2’s forecasting for the shift from IP to OP sites of care and other Sg2 forecast factors that will drive growth or decline. Future surgical volume for the new OSC was projected in two steps: 1) determining the types and mix of surgeries that are appropriate for the new OSC; and 2) estimating future OSC volumes based on projected OP surgical demand and OSC capacity.

OSC surgical mix: Service line surgical and administrative leaders were consulted, and each surgical specialty evaluated to determine if the future OSC is the appropriate setting for those cases, taking into consideration:

- current location where surgeries are performed,
- need to be in close proximity to an IP setting, and
- novel procedures or technologies that could influence sites of care.

Because the proposed OSC is designed as a highly flexible, multi-specialty surgical center, it will accommodate a broad variety of surgical cases. Projections of those cases transitioning to the OSC are shown in the following table.

Service Line	2025 OP Cases	% of OP Cases moved to OSC	Y1 OSC Cases (Full Capacity 8 ORs)
	Total		
Cardiology	1	0%	-
Cardiothoracic	6	0%	-
Derm	47	0%	-
ENT	1,634	73%	1,193
General	1,210	32%	387
Neurosurgery	351	0%	-
OB/Gyn	1,661	40%	664
Ophthalmology	1,677	100%	1,677
Oral/Maxillofacial	89	0%	-
Orthopedics	4,293	83%	3,555
Pediatrics	297	0%	-
Plastics	473	50%	237
Pulmonary	160	0%	-
Surg/Onc	498	25%	124
Transplant	7	0%	-
Urology	2,303	0%	-
Vascular	580	35%	203
Total OP Cases	15287		8040

Figure 1.11. Projected OP transition cases

OSC Volume (surgical cases): Future OSC volume was projected as follows:

1. The main campus surgical capacity was estimated: Knowing that future growth in IP surgical cases will take priority over OP cases, future OP surgery capacity at the main campus was estimated, taking the projected growth in IP surgeries into consideration. In other words, the projected growth in IP surgical demand will necessitate a shift of OP surgeries outside of the main campus ORs.
2. Estimated main campus OP surgical capacity was compared to UVMMC total OP surgical demand: As stated above, Scenario 3 was used to determine future OSC surgical volume.
3. Future OSC capacity was determined based on the number of available ORs and surgical case mix.
4. Estimated OSC capacity was compared with OSC demand to determine future surgical volume at the OSC for 2025-2030.

The following table presents a high-level overview of steps taken to determine OSC cases between 2025 and 2030. Approximately 8,000 cases will be performed in eight fitted ORs at the new OSC in each of its first four years of operation. Note that in 2029, projected demand supports the fit-up and opening of two additional ORs.

Year	2025	2026	2027	2028	2029	2030
UVMHC Total OP Demand	15,287	15,639	15,992	16,345	16,697	17,050
Main Campus OP Capacity	7,977	7,855	7,733	7,611	7,489	7,367
OSC Demand	7,310	7,785	8,259	8,734	9,209	9,683
# of OSC ORs	8	8	8	8	10	10
OSC Capacity	8,040	8,040	8,040	8,040	10,055	10,055
Total of OSC Cases	7,310	7,785	8,040	8,040	9,209	9,683

Figure 1.12. 2025 to 2030 OSC surgical volume projections.

The projected OSC volume includes the increase in surgical volume due to demographic factors, as explained above, as well as the shift of OP surgeries from Fanny Allen and the main campus to the new facility. UVMHC will be able to accommodate increased IP surgical demand at its main campus once a portion of OP cases move to the OSC.

C. PROJECT DESCRIPTION

1. The Site

The project will be situated on approximately 13.5 acres of land located at 119 Tilley Drive, South Burlington, a short 3.3-mile drive from the main campus. UVMHC has an option agreement to purchase the property from its current owner, Pizzagalli Properties, LLC. The purchase is contingent upon successful permitting, site due diligence, and approval of this CON application.

The site selection process included evaluation of several alternative sites in Chittenden County. The Tilley Drive site was chosen after careful analysis of the location, proximity to other UVMHC health care services, pedestrian, vehicular and public transportation access, permitting, proximity to utilities (including water and sewer infrastructure), and the site's capacity to meet initial construction size requirements and any future growth needs.

Civil engineering will bring utilities such as electrical, water, storm-water, and natural gas from the Tilley Drive roadway to within ten feet of the building perimeter. A storm-water gravel wetland will be constructed on the eastern portion of the site. Civil engineering will also provide exterior signage and access roadways from Tilley Drive to the front entrance pedestrian drop-off canopy, patient and employee parking, and the loading dock and delivery entrances. Patient, employee, and ADA parking, site drainage, and pedestrian circulation sidewalks and landings are part of the civil site plan. Site lighting along roadways, parking, and sidewalks will be part of civil engineering but coordinated with the electrical engineer and landscape architect. Retaining walls up to five feet in height will be part of the civil engineering design. An exterior oxygen farm will be required, along with fencing and site-work to support this system.

The site design includes 270 onsite parking spaces for staff, patients, and visitors located on the west and north sides of the building. A windmill on the property will be relocated to a parking island. There are landscaping elements around the building, along the driveway to screen the site from abutting properties, and at parking islands. In addition, two elevated berms will provide additional screening near abutting residential properties. A small exterior patio with outside seating will be located adjacent to the family waiting area, which will be accessible through an exterior entrance door. A staff outdoor area is planned on the northern side of the building. A

resisted by a combination of braced frames and moment connections. The floor system will be slab on grade at the Lower Level, partial slab on grade at Grade Level with a composite metal deck with concrete topping. The roof deck will also be a composite metal deck with concrete topping. Roof deck steel will have wide flange members to provide a stiff frame to support surgical equipment and booms. Spray fireproofing will be utilized to provide the required fire rating protection for all structural steel. Slab between the Lower Level and Grade Level will be rated two-hour, and the roof level will have a one-hour fire resistive rating. Foundation walls will be insulated to R20 below grade with appropriate waterproofing and drainage. Any slab on grade areas, which will be minimal, will have R20 insulation with a 15-mil minimum under slab vapor barrier. Retaining walls greater than five feet will be part of the structural design.

Exterior: The roof will be a thermoplastic polyolefin (TPO) adhered membrane that will be Energy Star and CCRC certified and installed over tapered R50 insulation sloped to interior roof drains. Architectural screening at the roof level, primarily at the west end, will hide rooftop equipment. The exterior wall construction will be comprised of a steel stud backup system, with a combination of brick veneer and an aluminum composite metal panel system. A combination of continuous exterior insulation to reduce thermal bridging and cavity insulation will be used to achieve an effective R30 wall performance. A continuous air/vapor barrier across the entire building envelope will maintain air tightness and prevent water infiltration. A curtain wall system and a punched window system with interior solid surface sills will make up the building's fenestration. The systems will be thermally broken and triple glazed, providing a U-factor of 0.25. The front entrance vehicular and pedestrian drop off canopy will be clad with composite metal panel and a suspended ceiling with a wood-look appearance and integrated overhead lighting.

Building design and configuration: The building design provides ample space for providers, support staff and learners utilizing shared offices and workspaces to ensure maximum flexibility and efficient use of the space. The new building will be comprised of one Main Grade Level (ground floor) with a partial Lower Level (basement). Stairs and three separate elevators will connect the Main Grade Level with the Lower Level. The stair tower will communicate between the Lower Level, Grade Level, and Roof Level. The ground floor level features a covered drop-off area with separate ingress and egress paths for the convenience of arriving and departing patients. A registration area with an adjoining waiting room will be located immediately inside the building entrance. Discharged patients will leave through a separate, discrete exit. The ground floor will house eight uniform ORs plus adjacent pre- and post-operative spaces, as well as shell space for four additional ORs and 14 additional pre- and post-operative spaces. The shelled spaces will be built out during the initial construction phase because it would be impractical, and more costly, to extend and enlarge the completed facility in the future to house the additional rooms. The construction, if done later, would require below ground (basement) and above ground (building, roof) construction, and the installation and/or extension of the building's mechanical systems. Portions of the existing facility's exterior walls and façade would need to be demolished to accommodate the building addition. The construction would also be highly disruptive to the OSC's operations, requiring a temporary shut-down of at least two ORs and several pre-and post-operative bays, while the facility at large would experience elevated noise, vibration, and utility disruptions. The additional cost estimates of building the shelled

space at a later time range from approximately \$5.7M to \$7M.⁹ For all of these reasons, constructing the shelled space now represents the most prudent approach to serving anticipated future patient needs.

The facility's partial basement level will host a Central Sterile Reprocessing (CSR) area for the onsite sterilization of instruments and space for sterile storage and a material handling area with loading dock for the delivery of clean linen and surgery supplies and the pick-up of solid waste and recycled materials. Studies undertaken to assess the capacity of the CSR area at the main campus concluded that there was not available capacity to serve the OSC and recommended that the new facility house its own CSR function. While a significant additional capital and operating expense, the presence of onsite CSR reduces the risk of instrumentation-related case delays and provides redundancy to the main campus CSR service. The basement level will also include a separate entrance for employees, an employee changing area, locker and shower rooms, lactation room, bicycle storage, and a conference/classroom to support staff meetings and training activities.



Figure 1.14. Architect Rendering of OSC's Exterior View.

The configuration and uniformity of the ORs and pre- and post-operative areas will support higher patient throughput and greater provider efficiency. Patient flow through the site was carefully analyzed to ensure privacy, safety and convenience during each patient care encounter; for example, the building design separates the surgical, pre- and post-surgical spaces from public and back-of-the-house support areas to ensure patient privacy and reduce noise and incidental traffic. *See Exhibit 4 (Patient Flow Sequence).* The applicant anticipates that when the site opens,

⁹ UVMHC acknowledges that subsequent construction will require a CON if it meets jurisdictional thresholds.

initial patient surgical volume will be approximately +/-8,000 surgical cases per year, with an average of 32 patients per day served by eight operating rooms.

Each of the ORs are 630 square feet, which will provide the space needed to support sophisticated equipment and equipment-intensive and provider-intensive procedures. While current FGI Guidelines provide for a minimum of 400 sq. ft., they further recommend that ORs requiring additional personnel and large equipment should have a clear floor area of *at least* 600 sq. ft., and the industry standard for ORs designed for specialized surgery and advanced orthopedic procedures is 600 to 650 sq. ft. *See* Exhibit 5 (eH4 letter). As a reference, the newest ORs in the Ambulatory Care Center created 20 years ago average 600 sq. ft., while three of the Fanny Allen's operating rooms do not meet the minimum threshold of 400 sq. ft.

Functional program and spaces:

a. The **ground floor level** will include:

- 8 Operating Rooms and adjacent instrument set-up rooms with the infrastructure and capacity to expand to 12
- 8 Extended Recovery Beds with the infrastructure and capacity to expand to 12
- 12 Prep Bedrooms with the infrastructure and capacity to expand to 17
- 13 Phase 1 Recovery Cubicles and one Isolation Patient Room
- 14 Phase 2 Recovery Cubicles with the infrastructure and capacity to expand to 19

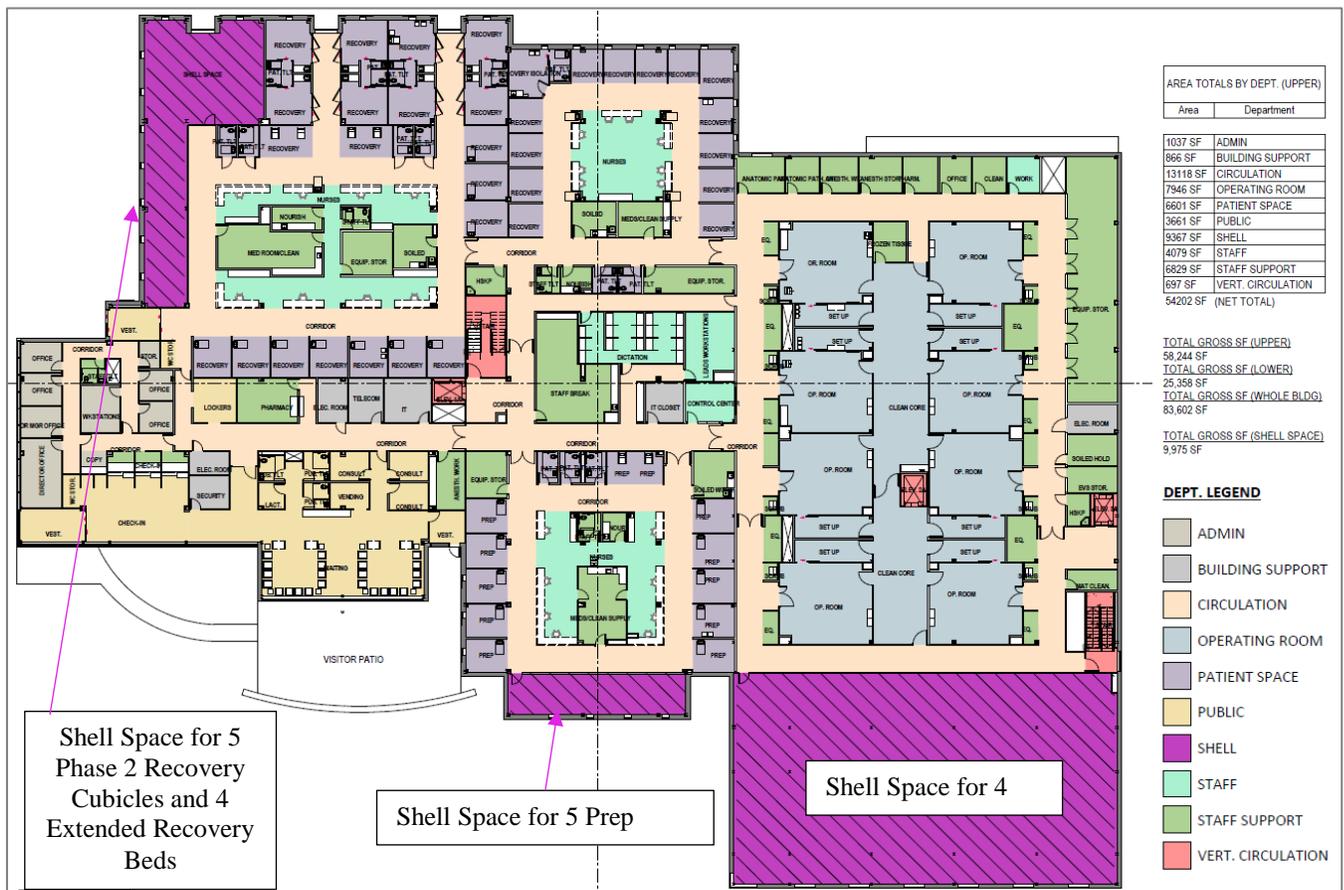


Figure 1.15. OSC Floor Plan: Ground Floor Level.

b. The support services in the partial **basement level** include:

- Central Sterilization and Reprocessing (CSR), with the infrastructure and capacity to support future expansion to 12 ORs
- Locker and Changing Rooms
- Sterile Supply Storage
- Mechanical and Electrical Rooms
- Shipping and Receiving / Loading Dock
- Bio-Med Support
- Information Services Support
- Environmental Service Equipment Room
- Conference / Education Room
- Bicycle Storage

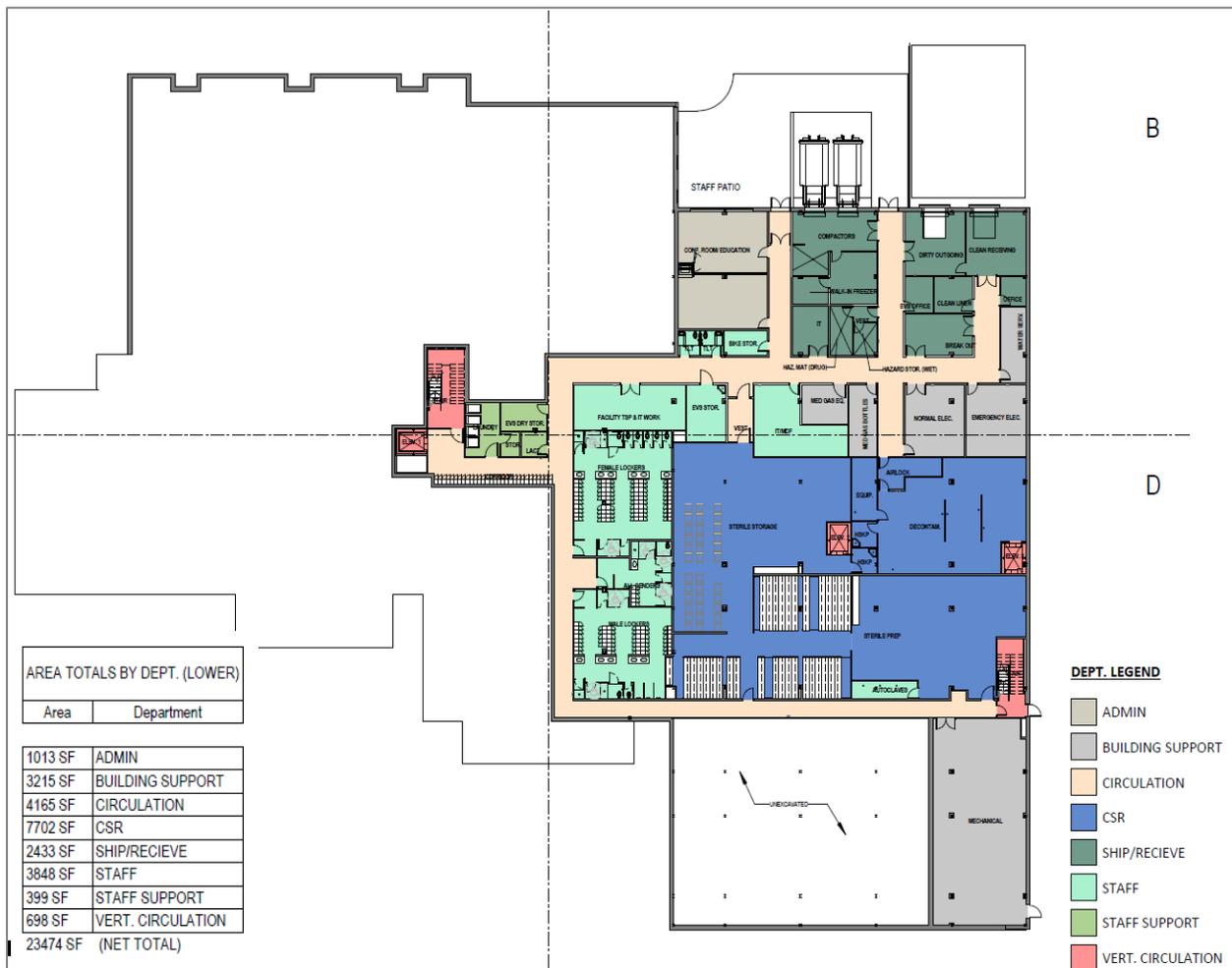


Figure 1.16. OSC Floor Plan: Basement Level.

c. Additional Building Features:

- Front Entrance, free standing Architectural drop-off canopy
- Open Check-in / Check-out Lobby with Family Lounge
- Designated CLEAN elevator from Surgical Clean Core to Lower-Level Central Sterile Processing
- Designated DIRTY elevator from Surgery to Lower Level
- Service Elevator
- Exit Stair Tower extends to Roof Level
- Medical Gas Manifold Room / Oxygen Farm
- Mechanical and Electrical Rooms
- Shipping and Receiving / Loading Dock
- Emergency Power

The building will be designed in accordance with applicable NFPA Sections, IBC 2015, and the adopted section of the Vermont Division of Fire Safety Code. The building use shall be an IBC B-Business Occupancy, NFPA 101 New Ambulatory Healthcare Occupancy, Vermont Energy Code, and follow the clinical requirements of the Guidelines for Design and Construction of Outpatient Facilities as issued by the Facility Guidelines Institute (FGI). A table listing applicable FGI guidelines and how the project satisfies those guidelines is attached as Exhibit 2.

Efficiency Vermont has reviewed construction plans and provided feedback on the project to ensure it meets or exceeds energy-efficiency standards. In addition, Efficiency Vermont will provide financial incentives to help defray the costs of installing electricity-savings systems and equipment, once they are certified. *See* Exhibit 6 (letter from Efficiency Vermont).

3. Staffing and Workforce

Direct staffing: The direct staffing model for the new OSC was developed using the American Society of Paranesthesia Nurses benchmark for Paranesthesia staffing and the Association of Perioperative Registered Nurses benchmark for OR staffing. Required administrative support staff and Central Sterile Reprocessing staff are also included in the direct staffing model. Well prior to the OSC opening, UVMMC will work with its relevant union bargaining units regarding staffing plans and models.

Based on key assumptions used in the model (hours and days of operations, shift hours, Combined Time Off backfill, etc.) the new 8-OR OSC will require approximately 107 FTEs in direct staff, and 57.5 of those will be incremental additions to the organization. Approximately 50 current or already budgeted FTEs will shift to the new OSC from either the Fanny Allen OP ORs or the main campus. When two additional ORs open, the center will need an additional 18 FTEs.

		Job Category	Total FTE Need (8 ORs)	Incremental FTE Need (8 ORs)	Incremental FTE Need (+2 more ORs)	
Perianesthesia	Admin	Assistant Director of Perianesthesia	0.6	0.6	-	
		Nurse Manager	1.1	1.1	-	
	PREOP	RN (10h days)	10.2	2.9	2.2	
		US/LNA's (10h days)	4.4	1.9	-	
		Care Coordinator (8h days)	1.1	1.1	-	
		APRN (8h days)	1.1	1.1	-	
	PACU Phase 1	RN (10h days)	7.3	1.0	-	
		RN (12h days)	3.5	3.5	-	
		US/LNA's (10h days)	1.5	-	-	
	PACU Phase 2	RN (10h days)	7.3	7.3	2.2	
		US/LNA's (10h days)	2.9	1.0	1.1	
	PACU 23h stay	RN (12h days)	6.9	6.9	1.1	
		US/LNA's (12h days)	5.2	5.2	1.1	
	OR	OR Staff	RN OR (10h days)	20.4	7.0	3.3
Surgical Tech (10h days)			8.7	2.9	3.3	
Admin		Assistant Director	0.6	0.6	-	
		OR Manager	1.1	1.1	-	
		Team Leads (SL Leader)	2.2	1.1	-	
		Unit Secretary	1.1	-	-	
		Equipment Specialist/Laser safety	1.1	1.1	-	
		Educator	1.1	1.1	-	
		Anesthesia Tech	2.2	1.1	1.1	
		Patient Care Associate	2.2	-	-	
		CSR	CSR Tech	12.2	7.8	2.2
			CSR Supervisor	1.1	-	-
		Total			107.1	57.5

Figure 1.17. Future OSC total and incremental direct staff FTEs.

Providers: Current surgeons and community physicians are expected to fill the incremental three ORs’ worth of surgical capacity without the need to hire additional surgeons. There will be a need for additional Anesthesia staffing beyond those who will relocate from the Fanny Allen ORs. One additional Anesthesiologist and four Anesthesia Advanced Practice Providers (“APPs”) will be required to support the 8 OR facility. The cost of these positions is included in the financial assessment. This need grows by one additional Anesthesiology MD and one APP when 10 ORs are in operation. The plan assumes that one Pathologist and one Pathology Physician Assistant (“PA”) will relocate to the new center and will support both OSC work in-person and Network work remotely.

		Job Category	Total FTE Need (8 ORs)	Incremental FTE Need (8 ORs)	Incremental FTE Need (+2 more ORs)
Providers & Learners	Physicians	MDs	8.0	-	
		Residents	8.0	-	
	Anesthesiology	MDs	3.2	1.2	1.0
		APPs	8.0	4.0	1.0
		Block Team	1.0	-	
	Other	Pathologist	1.0	-	
		Pathology PA	1.0	-	
		Medical Students	3.0	-	
	Total			33.2	5.2

Figure 1.18. Future OSC total and incremental provider FTEs.

Indirect/Ancillary Staffing: The indirect/ancillary staffing model necessary to support the new facility was created in collaboration with supporting departments. An estimated 15 additional FTEs will be needed to maintain the facility’s operations, primarily in the Environmental Services (“EVS”), Security, Facility, Radiology, IT and Pharmacy departments. Two additional FTEs will be needed to support two more ORs.

		Job Category	Total FTE Need (8 ORs)	Incremental FTE Need (8 ORs)	Incremental FTE Need (+2 more ORs)
Ancillary		Check In / Patient Access Specialist	2.0	1.0	-
		Housekeeping / EVS	7.0	2.0	2.0
		Security	1.5	1.5	-
		Facility	6.0	2.5	-
		Supply Tech	1.0	1.0	-
		Pharmacy technician	1.0	1.0	-
		Radiology Technician	2.0	2.0	-
		IT	2.0	2.0	-
		Technical Services Program	2.0	2.0	-
		Food Services	1.0	-	-
	Total			25.5	15.0

Figure 1.19. Future OSC total and incremental indirect FTEs.

Recruiting and workforce coordination: In total, the new OSC will initially require 78 incremental FTEs. Most of them, 57.5 FTEs, are needed for direct Paranesesthesia, OR and CSR staffing. Opening two more ORs will require an additional 22 incremental FTEs.

Type	Incremental FTE Need (8 ORs)	Incremental FTE Need (+2 more ORs)
Direct Staff	57.5	17.8
Providers	5.2	2.0
Indirect Staff	15.0	2.0
Total	77.7	21.8

Figure 1.20. Future OSC incremental FTE needs for eight and ten OR facility.

Given known staffing shortages in several roles, both nationally and at UVMHC, the staffing numbers reflect assumptions that 25% of OR RNs, 10% of Surgical Tech FTEs, and 10% of Paraneesthesia RN FTEs will be Travelers. These assumptions, along with costs for those contracted FTEs by role, are built into the operating staffing cost pro forma.

The project goals and facility plan will be positive assets in attracting potential candidates for available positions, and a strong recruiting plan executed well in advance of First Patient Day will be essential to the project’s success. In addition, the Network has recently reaffirmed and strengthened its affiliation with the University of Vermont School of Nursing and Health Sciences with the goal of expanding an already established training program through which it hires new nursing graduates for a yearlong program to prepare them for work as operating room RNs.

UVMHC will also continue its ongoing efforts to increase housing and childcare opportunities for both new and existing employees. In December 2022, the Network, in partnership with a local developer, broke ground on a new 120-unit apartment complex in South Burlington that will house employees and their families and include a day care center for up to 75 children. The complex is expected to open in 2024. It is the second of such projects and will be located next to the first 61-unit apartment building, which has begun accepting applications from Network employees with initial occupancy scheduled for May 2023. Network employees will have priority for occupancy in the units, with a subsidy for those meeting eligibility criteria. *See* VTDigger (Dec. 15, 2022) <https://vtdigger.org/2022/12/15/uvm-health-network-investing-in-additional-120-apartment-building-with-child-care-center/>.

Expenses for the initial recruitment of additional staff are estimated at \$373K and included in the start-up costs. The financials also include recruitment costs that will be incurred when two additional ORs are opened in Year 5 of operations.

4. Services and Hours of Operation

Services: The new OSC will serve patients who, through pre-assessment screening and testing, meet the patient criteria for OP surgery. The assessment process will follow the same guidelines established for Fanny Allen OP surgeries. In general, patients with an ASA (American Society of Anesthesiology) score of 3 or below are considered appropriate for surgical care at an outpatient surgical center, with low risk for complications and infection.

Hours of Operation: The OSC will open for first patient arrival on weekday mornings at 5:30 a.m. and will begin preparing patients for surgery at 6:00 a.m. The first surgical case will begin at 7:00 a.m. The normal surgical day will be scheduled from 7:00 a.m. until 5:00 p.m. (10-hour operating day).

The OSC will be limited to outpatient care and all patients will be expected to be discharged in less than 24 hours. 23-hour stays will be accommodated when clinically necessary. In case of an emergency or if a patient under observation fails to meet the discharge criteria, the patient will be transferred to UVMHC based on established protocols.

The scheduled closing time for the PACU/Stage 2 Recovery Unit will be 8:00 p.m. each evening. All 23-hour cases will be scheduled Mondays through Thursdays, allowing the center to close completely by 8:00 pm on Fridays. The OSC will be closed on weekends and holidays.

5. Patient and Visitor Experience

Pre-procedure arrangements: To optimize the resources of the OSC surgical teams and support staff, all prerequisites for the patient's surgery will be completed prior to their arrival at the OSC on the day of surgery. These include ensuring that the patient has completed Pre-Assessment Screening and Pre-Assessment Testing ("PAT"), and that the patient's financial responsibility is known (*e.g.*, that any insurance coverage for the procedure is approved by the payer). Patients who need language translation or may have special needs will be identified in the PAT process, allowing time to secure the appropriate resources to accommodate the patient.

Completing these prerequisites before the day of surgery expedites the check-in process for patients and for staff, and staffing needs at the check-in area are minimized.

Procedure day: Patients will be checked in at the reception desk or at a kiosk in the reception area and will be directed to the lounge area, consisting of a waiting room and outdoor patio. From there, patients will be taken to pre-op and prepared for surgery (including consultation with the surgeon and anesthesia) and transported to the OR. Upon completion of the surgery, the patient will be transported to one of the following post-surgical environments, as appropriate:

- Phase 1 recovery, higher acuity care post-anesthesia emergence;
- Phase 2 recovery, lower acuity care post-anesthesia emergence; or
- 23-hour observation area, for patients after certain complex surgeries.

During the recovery, the surgeon will visit the patient (and their companion, as relevant) to provide a post-procedural consultation.

The OSC will provide patients with Meds-to-Beds services, ensuring patients leave the facility with appropriate medications. Physical therapy will be available when clinically appropriate. The nursing staff will finalize post-procedural teaching with patients, provide written instructions, and support their discharge.

Post-procedural patients will not reenter the waiting room upon discharge. A member of the clinical team will assist the patient and their companion via the facility's separate discharge exit to their transportation.

A more detailed patient flow sequence is included as Exhibit 4.

Clinical food and nutrition: Patient meals will not be prepared at the OSC. Instead, two types of food, plus beverages and frozen snacks, will be stocked in facility kitchenettes:

- Standard outpatient snacks for short-stay patients, similar to what has historically been provided at the Fanny Allen outpatient surgery area, and

- Pre-packaged meals that are either shelf-stable/ready-to-eat or frozen and can be microwaved for 23-hour stay patients.

Specialty meals will also be available for some General Surgery patients (clear liquid diet) and ENT patients (no sharp-edge foods like chips, small nuts, etc.). Patients with allergies, pre-existing medical conditions or other diet restrictions, as identified prior to surgery through the pre-screening process, will also be provided with appropriate meals. Standard meals meeting the most typical conditions will be stocked at the OSC.

Visitors will be able to purchase food and beverages in the Red Barn Market & Deli located next door to the OSC.

6. Staff and provider experience

The OSC is designed to maximize efficiencies for providers and staff. By streamlining and eliminating variations in the patient preparation, surgery, and post-surgery processes, performance and outcomes can be improved.

The facility design enables providers and staff to minimize room turn-around time. ORs can be quickly vacated (“wheels out”) following surgery completion to allow the room to be cleaned and set up for the next case, with the next case positioned (“wheels-in”) and started as rapidly as is safely possible.

Two approaches will be used to minimize down-time for the surgical teams:

- First, making sure the next patient is always “on-deck” and prepared for surgery—eliminating excess time spent by the team waiting for the next patient.
 - This approach allows the surgical team to hold a patient whose nerve block or local anesthetic is failing to establish as expected in pre-op, while a later scheduled patient accelerates and takes the newly open OR time. This approach is particularly advantageous for shorter cases. All prep rooms will be capable of serving as a “block room,” and patients won’t be transferred to a distinct location. This eliminates a handoff and non-value-adding patient movement.
- Second, creating opportunities to prepare instrumentation and equipment for the next case in advance and accelerate cleanup post-procedurally.
 - Sterile set-up rooms adjacent to the ORs allow instruments and supplies for the next case to be set up before the current case is finished; in addition, breakdown areas where soiled instruments and trash can be separated and processed are readily accessible from the ORs, minimizing the use of an OR itself as a trash and soiled instruments processing room.

Both of these approaches follow Lean principles by eliminating steps that do not add value and utilizing the scarce resource—the clinical team—to the fullest. In addition to Lean principles, the OSC will be operationalized using the STEEP model, described in more detail in subsection 7, below.

As previously discussed, the new OSC design is intended to provide an efficient space for providers and staff to deliver the best care possible for patients and their families. To that end, the facility was also planned with diversity, equity, and inclusion in mind. From appropriately sized and fitted locker rooms and changing areas, to meeting spaces, break room and outdoor rest

areas and accommodations for learners, the new OSC will be an example of a modern surgical center that is built to support its workforce and accommodate surgical and patient care innovations well into the future.

7. Quality and Success Measures

Consistent with current practice, the applicant will continue to collect and report outpatient surgical quality measures as appropriate. The following table identifies key measures, as explained below:

Intended measures and models used: Intended measures are set using best practices and industry standards. Quality improvement measures categorized by the Institute of Medicine's six aims of health framework, known as the STEEEP model, are defined below:

- **Safe:** avoiding injuries to patients from the care that is intended to help them
- **Timely:** reducing waits and sometimes harmful delays for both those who receive and those who give care
- **Efficient:** avoiding waste, including waste of equipment, supplies, ideas, and energy
- **Effective:** providing services based on scientific knowledge to all who could benefit, and refraining from providing services to those not likely to benefit
- **Equitable:** providing care that does not vary in quality or accessibility because of personal characteristics such as gender, ethnicity, geographic location, and socioeconomic status
- **Patient/Family-centered:** providing care that is respectful of and responsive to individual patient preferences, needs, and values, including an additional measure to look at staff/employee satisfaction through retention and recruitment.

Measurement of success: Goals will be set using current state data to determine appropriate and achievable targets, using best practice benchmarks.

Best practice resources: Best practice resources are industry standards and provide national benchmarking. These are:

- Centers for Medicare and Medicaid Services ("CMS") Ambulatory Surgical Center Quality Reporting ("ASCQR") Program
- National Healthcare Safety Network ("NHSN") Same Day Outcome Measures (SDOM)
- Association of Perioperative Registered Nurses (AORN) and the Association for the Advancement of Medical Instrumentation® (AAMI)
- American Hospital Association (AHA) Health Equity, Diversity & Inclusion Measures for Hospitals and Health System (HHS) Dashboards
- Agency for Healthcare Research and Quality (AHRQ)

Intended Measure	Measurement of Success	Best Practice	Responsible Mechanism*	STEEEP
# of encounters or admissions experiencing a burn prior to discharge	Meets or exceeds identified benchmark based on current state	ASCQR; NHSN SDOM	Epic	Safe
# of encounters experiencing wrong site, wrong side, wrong patient, wrong procedure, wrong implant	Meets or exceeds identified benchmark based on current state	ASCQR; NHSN SDOM	Epic	Safe
# of patient falls at OSC	Decrease from baseline	ASCQR	Epic/ Safe Reports	Safe
# of post-operative visits to ED within 48 hours of discharge	Meets or exceeds identified benchmark based on current state	ASCQR	Epic	Effective
# of transfers back to main campus	Meets or exceeds identified benchmark based on current state	ASCQR; NHSN SDOM	Epic	Effective
# of readmissions from OSC within 48 hours of discharge	Meets or exceeds identified benchmark based on current state	ASCQR; NHSN SDOM	Epic	Effective
# of reoperations within 48 hours of discharge	Meets or exceeds identified benchmark based on current state	ASCQR	Epic	Effective
# of reported SSI (include 30-day and 90-day implants)	Decrease from baseline	ASCQR	Infection Prevention – NHSN/Epic	Effective
% of Immediate Use Steam Sterilization or IUSS (e.g. one-tray sterilization metrics)	Between 1-3% **identify current state to ensure above is achievable**	AAMI and AORN IUSS standards	SPM	Efficient
Throughput -On-time starts	Meets or exceeds identified benchmark based on current state	AHRQ and Leading industry practices	Epic	Timely
Throughput –Time in PACU	Meets or exceeds identified benchmark based on current state	AHRQ and Leading industry practices	Epic	Timely
Utilization of surgery block times	Meets or exceeds identified benchmark based on current state	AHRQ and Leading industry practices	EPIC	Equitable
For all metrics – by health equity: race, gender, sexual orientation, language, disability, veteran	Meets or exceeds identified benchmark based on current state	AHA Health DEI	NA	Equitable
Patient satisfaction with OSC results	Meets or exceeds identified benchmark based on current state	HCAHPS Survey for Ambulatory care centers	HCAHPS/ Press Ganey	Patient/Fam Centered
Retention and recruitment of OSC employees	Meets or exceeds identified benchmark based on current state	Leading industry practices	Workday	Workforce

* Identifies the data source used to obtain the measurements.

8. Energy Systems/Efficiency

The building design reflects UVMMC's overarching commitment to environmental sustainability goals. The applicant will seek LEED certification for the facility, which will be designed to meet or exceed EnergyStar standards. UVMMC has consulted throughout the planning phase of the project with Efficiency Vermont which has reviewed construction plans and provided a letter confirming its collaboration on the project. *See* Exhibit 6 (Efficiency Vermont letter).

9. Access to Public Transportation

The project is strategically located on Tilley Drive in South Burlington, adjacent to other UVMMC services. UVMMC has worked in collaboration with the Special Services Transportation Agency ("SSTA") to ensure that there is consistent, affordable and reliable public transportation available for patients to access these health care services. As of April 2022, SSTA offers free, direct shuttle service from the Green Mountain Transit ("GMT") Downtown Transit Center on Cherry Street in Burlington to Tilley Drive. The free shuttles stop to pick up and drop off passengers on their way to, or returning from, their appointments at any of the medical office buildings along Tilley Drive. *See* [Tilley-Drive-Shuttle August2022BMG.pdf \(ridegmt.com\)](#) (accessed Dec 13, 2022).

10. Information Technology

Information Technology (IT) capital costs and design elements related to the overall construction of the facility have been included in the project's budget estimates. Additional impacts related to IT applications, new hardware technology, resource allocation related to project implementation, Technical Standards Review Board recommendations (an internal IT review process), employee training and Cyber Security have also been evaluated.

IT leadership has reviewed the current design elements related to technology needs and the programming details utilized by the design advisory groups and architects and has identified the following impacts and additional operating costs related to implementation/construction. Any non-budgeted operating expenses identified below have been highlighted as start-up costs and are included in the construction budget for implementation of this project.

As an incremental resource needed for the OSC, the Information Technology team has identified:

- two permanent additional IT Techs, and
- six temporary IT Techs for the duration of two months to complete one time setup activities (*e.g.*, building workstations, Windows on wheels portable stations, conference room setup and similar activities).

No new IT staff training is anticipated based on the current understanding that no new applications are planned for this site. Epic training for additional new staff at the facility will be managed using existing training resources and fall within the normal Epic training budget. Cybersecurity efforts specific to this project are not anticipated although the Network's posture in this area continues to evolve and IT will seek to address any concerns that are presented by the opening of the project, including license expansion.

D. PROJECT FINANCES

1. **Capital Cost:** The capital expense for this project is approximately \$129.6M, which includes \$5.2M for site acquisition, \$94.4M for building construction, \$24M for equipment and IT costs, and \$6.3M in capitalized interest.

The \$94.4M construction capital cost includes construction of the eight-OR facility and pre- and post-operative spaces, plus construction of the shelled spaces (four additional ORs and 14 pre- and post-operative spaces) for future expansion.¹⁰

Capital Expense Summary: Outpatient Surgery Center

Capital Costs	
Construction	\$ 94,427,436
Land Acquisition	\$ 5,150,158
Equipment	\$ 22,062,928
IT	\$ 1,654,284
Total	\$ 123,294,807

Capitalized Interest	
Interest	\$ 6,345,897
Grand Total	\$ 129,640,703

Capital Cashflow Schedule		FY22	FY23	FY24	FY25	Total
Project Expense		\$ 2,891,990	\$ 11,662,208	\$ 71,680,687	\$ 37,059,921	\$ 123,294,807

Yrs. Of Depr.	Depreciation Schedule	FY25 (Half Year)	FY26	FY27	FY28	FY29	FY30	FY31	...	FY55	TOTAL
30	Construction	\$ 1,679,556	\$ 3,359,111	\$ 3,359,111	\$ 3,359,111	\$ 3,359,111	\$ 3,359,111	\$ 3,359,111		\$ 1,679,556	\$ 100,773,333
7	Equipment	\$ 1,575,923	\$ 3,151,847	\$ 3,151,847	\$ 3,151,847	\$ 3,151,847	\$ 3,151,847	\$ 3,151,847		\$ -	\$ 22,062,928
5	IT	\$ 165,428	\$ 330,857	\$ 330,857	\$ 330,857	\$ 330,857	\$ 165,428			\$ -	\$ 1,654,284
	Total	\$ 3,420,907	\$ 6,841,815	\$ 6,841,815	\$ 6,841,815	\$ 6,841,815	\$ 6,676,386	\$ 6,510,958		\$ 1,679,556	\$ 124,490,545

Depreciation Schedule	FY25 (Half Year)	FY26	FY27	FY28	FY29	FY30	FY31	...	FY59	TOTAL
Future Fit-up cost	\$ -	\$ -	\$ -	\$ -	\$ 541,001	\$ 541,001	\$ 541,001		\$ 216,076	\$ 8,756,748

Figure 1.21. Capital Expense Summary: Outpatient Surgery Center.

The total estimated capital cost of the project includes a notably high average contingency of 17% (~\$17.5M). While most of the capital cost categories include a 10% contingency, it is prudent to include a 20% contingency (\$14.6M), including \$4M for an unexpected delay of construction, in the new construction category. August 2023 is the targeted construction start date.

Construction and equipment costs are listed in the tables below. The equipment capital includes typical medical equipment, instrumentation, CSR equipment and other items needed to support the OSC. It also includes capital for a Mako surgical system, a surgical robot utilized by the orthopedic surgeons for joint replacement procedures (~\$1M).

¹⁰ The fit-up cost of the shelled spaces (which is not part of the project budget or this CON application) is currently projected to be approximately \$8.8M, which will be undertaken as the eight-OR facility nears capacity, which is estimated to occur by FY2028.

Construction Category	Capital Cost	Contingency
New Construction	\$ 71,708,913	\$ 14,635,886
Architectural / Engineering Fees	\$ 4,127,319	\$ 412,732
Administrative Expenses and Permits	\$ 1,305,214	\$ 130,521
Other	\$ 1,915,319	\$ 191,532
Total	\$ 79,056,765	\$ 15,370,671
Grand Total	\$94,427,436	

Equipment Category	Capital Cost	Contingency
Medical Equipment	\$ 10,363,365	\$ 1,036,337
Instrumentation	\$ 1,922,945	\$ 192,295
Robotics	\$ 950,000	\$ 95,000
Radiology	\$ 830,000	\$ 83,000
Pathology	\$ 133,700	\$ 13,370
Other	\$ 2,081,795	\$ 208,180
Telemetry (fixed)	\$ 1,743,674	\$ 174,367
CSR (fixed)	\$ 1,677,728	\$ 167,773
Nurse Call (fixed)	\$ 354,000	\$ 35,400
Total	\$ 20,057,208	\$ 2,005,721
Grand Total	\$22,062,928	

2. Depreciation: The facilities portion of the capital expense will be depreciated over 30 years. The equipment cost will be depreciated over seven years, and the IT component over five years.

3. Project funding and affordability

UVMMC’s proposed investment in the OSC represents the most responsible use of its resources as it seeks to both meet its patients’ healthcare needs and place its finances on a more sustainable path.

UVMMC’s Financial Framework: As the GMCB is aware based on the Network hospitals’ budget filings, the entire Network operates within a financial framework that seeks to strike a sustainable balance among four metrics: days cash on hand; operating EBIDA margin; average age of plant; and debt-to-capitalization ratio. *See* Network FY2021 Budget Narrative at 21-22 (July 31, 2020); Network FY2022 Budget Narrative at 32-33 (July 1, 2021). Together, these metrics are key indicators of an institution’s financial health and provide a framework for medium and long-term financial decision-making. As the largest hospital (by far) within the Network, UVMMC’s financial situation drives that of the entire Network.

Over the past five years, UVMMC’s operating margin has declined, due largely to the fact that reimbursement from all sources has not kept pace with the inflationary pressures affecting the delivery of health care. This has in turn eroded days cash on hand, which currently sits at 112 days—well below rating agencies’ A-rated medians of 175 to 225. In order to preserve cash, UVMMC (like all of the Network hospitals) has greatly reduced the amount of capital it has invested in its physical plant over the past three years. As a result of that lack of investment, UVMMC’s average age of plant has slowly but consistently risen, and is projected by the end of this year to be outside the acceptable range for an A-rated organization of 11 to 13 years, indicating a failure to modernize the facilities at which patients will receive care.

The fourth factor in the financial framework, debt-to-capitalization ratio, is well within the healthy range, which is generally between 30% and 40% for an A-rated health care organization; indeed, when an organization’s debt-to-capitalization ratio falls below 30%, it is often an indication that the organization is not taking full advantage of its borrowing capacity in order to meet its capital needs, including reinvesting in its physical infrastructure.¹¹ As the Network

¹¹ Most of the Network’s long-term debt is supported by the “Obligated Group” which consists of the Network and four of its six hospitals (including UVMMC), and allows these organizations to borrow as a single entity and benefit, for example, from lower interest rates. As with the entire financial framework,

continues to pay off its existing debt at a rate of approximately \$20M per year, however, its debt-to-capitalization ratio will soon fall below the recommended range, reaching approximately 27% within three years without additional borrowing. That means that UVMMC and the Network already have the capacity to borrow more money in order to make the necessary capital investments to modernize UVMMC's facilities and reduce average age of plant, and will gain significantly more capacity in the next three years.

Of course, if an organization borrows money, it also needs to be able to generate the cash to service that debt—that is, to pay back the borrowed money, with interest. In short, the organization needs to generate a positive operating EBIDA margin, either from the capital investment itself or from other operations, in order to support existing and additional debt.

The Project's Effect on the UVM Health Network's Financial Framework: The proposed OSC offers UVMMC the opportunity to bring all of the factors in the financial framework into better balance, improving the financial health of the organization, and therefore the Network, while increasing patient access to necessary services, both surgical and non-surgical. The project will take advantage of the Network's low debt-to-capitalization ratio, ensuring that it remains within a healthy range. It will then utilize the borrowed funds in a manner that will both service the debt generated by construction of the project and improve the Network's overall financial health by contributing to days cash on hand. And importantly, development of the new OSC will lower the average age of plant and modernize the tools that practitioners and staff will need to improve the health of Vermonters.

The estimated capital allocation for this project has been included in UVMMC's five-year capital budgets going back to FY2015. The scope and timing of the project has changed over this period, as demand, location, on-site services and procedure mix have been refined, and as the COVID-19 pandemic required reassessment of spending priorities. Currently, there is approximately \$119.1M included in the Network five-year capital budget allocated to this project, spread between FY2023 and FY2024, with a larger portion allocated to FY2024. Debt financing is planned for approximately \$100M of the capital expense.

As shown in the incremental project pro forma below, the proposed OSC is projected to produce a positive incremental EBIDA operating margin of \$8.5M in its first half-year of operation, rising to between \$18M and \$27.5M in each of the first full four years of operation. That margin is more than sufficient to service the \$100M debt financing, which includes approximately \$5.0M in annual interest payments. After taking account of both interest and depreciation, the proposed OSC will generate a positive incremental operating margin of between \$6M and \$15M in each of its first four full years of operation.

As a non-profit community hospital and academic medical center, UVMMC will reinvest the financial performance of the OSC for the benefit of patients. Surgical programs rely upon many collaborating specialties and health professionals to continue improving patient outcomes, especially for patients who are aging, have multiple chronic conditions, or are experiencing mental health concerns. Although many of those professionals will never practice within the four walls of the OSC, the facility and the revenue it generates will benefit them and their patients.

UVMMC's borrowing capacity and actual borrowing make up the lion's share of the Obligated Group's debt.

A successful OSC will also enable UVMMC and the Network to continue investing in the treatment of diabetes, kidney disease, and infectious disease; its primary care and psychiatry departments; as well as its nutrition, rehabilitation, and care management programs. Many of these services produce a negative financial margin on their own and therefore can only be offered because UVMMC realizes a positive margin on services such as outpatient surgery. The OSC also will enable investments in educational and training programs for nurses, surgeons, anesthesiologists, and clinical staff to strengthen the surgical workforce.

The positive margin from the OSC project will also help stabilize UVMMC's days cash on hand, which has declined from approximately 200 days to 112 days over the past five years, largely because reimbursement from all sources has failed to cover the expenses necessary to deliver care. Unless UVMMC is able to rebuild its cash reserves, it will be unable to continue to invest in its employees, facilities and community, jeopardizing the care of future patients.

The project's contribution to days cash on hand will also support the approximately \$30M of project capital costs that UVMMC intends to fund through cash from ongoing operations. The \$30M expenditure, which is equivalent to approximately four days of the Network's cash on hand and will be made over a period of many months, will have only a modest and very short-term negative effect on the Network's days cash on hand. It is not expected that either the anticipated borrowing or use of cash will negatively affect the Network's bond rating.

Incremental Operating Pro Forma: The incremental project pro forma included below focuses on the incremental financial impact of additional volume, revenue and costs associated with this project to UVMMC's financials.¹² As referenced elsewhere in this application, the proposed OSC will not only expand outpatient surgical capacity, but will also increase inpatient surgical capacity by shifting some outpatient cases to the new OSC. The incremental pro forma takes into account both the additional outpatient and inpatient volumes, revenues and costs expected as a result of the project.

Note that the pro forma reflects revenues in a traditional fee-for-service reimbursement model. By FY2025, however, it is expected that the reimbursement mix will include value-based and fixed payment arrangements with government and other payers, and that the shift to more value-based and fixed payment arrangements will increase during the pro forma timeframe. Traditional incremental pro forma analyses do not reflect the value of these projects to the organization in the context of a high value care strategy, as the focus on fee-for-service is reduced. However, to succeed in value-based payment arrangements, providers must strive to deliver care in the most efficient settings, such as the proposed OSC. Also note that the revenue estimates reflect continued downward pressure from government and commercial payers on reimbursements to outpatient surgery centers, as CMS is expected to continue movement toward site-neutral payments.

¹² At the request of the GMCB, in preparing the pro forma and the financial tables accompanying this application, UVMMC has included cost and revenue inflation assumptions and projections that are consistent with those utilized in the Network's own future financial framework. The projections are inherently inexact because actual outcomes in FY24-28 depend upon factors that are unknowable at this time and partially or fully outside of UVMMC's control. Also note that the pro-forma for FY29 reflects the expectation, informed by our demand analysis, that it will be necessary to fit-up two of the four shelled ORs to satisfy growing demand, thereby increasing revenue, expenses, and depreciation.

INCREMENTAL Pro-Forma: Outpatient Surgery Center						
	FY25 (Half Year)	FY26	FY27	FY28	FY29	5 Yr. Total
Incremental Volume						
Total Volume ¹	1,689	3,071	3,275	3,224	4,341	15,600
OP Surgical Volume @ OSC	1,482	2,587	2,721	2,599	3,645	13,034
IP Surgical Volume @ Main Campus	206	484	554	625	696	2,566
Incremental Revenue						
OP: Total Net Patient Revenue + FPP ²	\$ 14,195,742	\$ 24,860,014	\$ 26,812,979	\$ 26,513,468	\$ 36,780,818	\$ 129,163,021
Net Patient Revenue: Facility	\$ 10,965,556	\$ 19,203,214	\$ 20,711,789	\$ 20,480,431	\$ 28,411,485	\$ 99,772,475
Net Patient Revenue: Professional	\$ 3,230,186	\$ 5,656,800	\$ 6,101,190	\$ 6,033,037	\$ 8,369,333	\$ 29,390,546
IP: Total Net Patient Revenue + FPP ²	\$ 13,006,455	\$ 30,194,700	\$ 35,317,756	\$ 40,594,503	\$ 46,029,552	\$ 165,142,966
Net Patient Revenue: Facility	\$ 12,571,870	\$ 29,185,803	\$ 34,137,681	\$ 39,238,116	\$ 44,491,564	\$ 159,625,034
Net Patient Revenue: Professional	\$ 434,585	\$ 1,008,897	\$ 1,180,074	\$ 1,356,387	\$ 1,537,988	\$ 5,517,932
OP: Reimb. adjustment on current vol. shifted to OSC ³	\$ (1,636,303)	\$ (3,338,044)	\$ (3,512,510)	\$ (3,692,210)	\$ (3,877,301)	\$ (16,056,368)
Total Operating Revenue	\$ 25,565,894	\$ 51,716,670	\$ 58,618,224	\$ 63,415,761	\$ 78,933,069	\$ 278,249,619
Incremental Expenses						
Salaries/Wages and Other ⁴	\$ 4,992,114	\$ 9,959,665	\$ 10,251,726	\$ 10,552,381	\$ 14,259,707	\$ 50,015,594
Physicians	\$ 672,475	\$ 1,345,750	\$ 1,379,394	\$ 1,413,878	\$ 2,762,152	\$ 7,573,648
Staff Direct	\$ 3,741,691	\$ 7,461,412	\$ 7,685,255	\$ 7,915,812	\$ 10,142,835	\$ 36,947,005
Staff Indirect	\$ 577,948	\$ 1,152,503	\$ 1,187,078	\$ 1,222,691	\$ 1,354,720	\$ 5,494,941
Health Care Provider Tax ⁵	\$ 1,533,954	\$ 3,103,000	\$ 3,517,093	\$ 3,804,946	\$ 4,735,984	\$ 16,694,977
Provider Tax	\$ 1,533,954	\$ 3,103,000	\$ 3,517,093	\$ 3,804,946	\$ 4,735,984	\$ 16,694,977
Med/Surg/Pharmaceutical Supplies ⁶	\$ 1,919,327	\$ 3,382,994	\$ 3,725,474	\$ 3,771,162	\$ 5,260,721	\$ 18,059,678
Medical & Surgical Supplies	\$ 1,670,227	\$ 2,942,173	\$ 3,232,755	\$ 3,263,193	\$ 4,552,104	\$ 15,660,451
Pharmaceuticals	\$ 249,100	\$ 440,821	\$ 492,719	\$ 507,969	\$ 708,618	\$ 2,399,227
Other Dept. Operating Expense ⁷	\$ 1,463,494	\$ 672,394	\$ 692,566	\$ 713,343	\$ 1,090,165	\$ 4,631,963
Miscellaneous Other Expense	\$ 309,157	\$ 618,838	\$ 637,403	\$ 656,525	\$ 841,235	\$ 3,063,158
Maintenance	\$ 13,575	\$ 53,556	\$ 55,163	\$ 56,817	\$ 88,687	\$ 267,798
Start-up Costs	\$ 1,140,762	\$ -	\$ -	\$ -	\$ 160,244	\$ 1,301,006
Other non-Dept. Operating Expense ⁸	\$ -	\$ 333,281	\$ 465,821	\$ 479,796	\$ 1,054,961	\$ 2,333,859
Miscellaneous non-Dept. Other Expense	\$ -	\$ 333,281	\$ 465,821	\$ 479,796	\$ 1,054,961	\$ 2,333,859
IP Direct Cost ⁹	\$ 7,076,153	\$ 16,427,407	\$ 19,214,602	\$ 22,085,413	\$ 25,042,348	\$ 89,845,922
IP direct cost	\$ 7,076,153	\$ 16,427,407	\$ 19,214,602	\$ 22,085,413	\$ 25,042,348	\$ 89,845,922
Total Depreciation and Interest ¹⁰	\$ 8,420,907	\$ 11,841,815	\$ 11,841,815	\$ 11,841,815	\$ 12,382,816	\$ 56,329,168
Depreciation and Amortization	\$ 3,420,907	\$ 6,841,815	\$ 6,841,815	\$ 6,841,815	\$ 7,382,816	\$ 31,329,168
Interest Expense ¹¹	\$ 5,000,000	\$ 5,000,000	\$ 5,000,000	\$ 5,000,000	\$ 5,000,000	\$ 25,000,000
Total Expenses	\$ 25,405,950	\$ 45,720,557	\$ 49,709,097	\$ 53,248,854	\$ 63,826,703	\$ 237,911,160
Incremental Operating Margin	\$ 159,945	\$ 5,996,113	\$ 8,909,127	\$ 10,166,907	\$ 15,106,366	\$ 40,338,458
EBIDA OPERATING MARGIN ¹²	\$ 8,580,852	\$ 17,837,928	\$ 20,750,942	\$ 22,008,721	\$ 27,489,182	\$ 96,667,626

Notes:

General Assumptions:

- > All values include cost inflation and revenue inflation to be consistent with assumptions used in the development of our Future Financial Framework
- > Volume estimates are based on OR and surgical volume demand analysis
- > FY25 reflects the April 2025 expected start to operations.
- > Estimated cost and revenue not included for additional imaging or other ancillary services.
- > There were no estimates built into this pro-forma for revenue opportunities or expense savings for vacated space at the FA campus created by this move.

Specific Assumptions:

- 1: Volume based on OR cases. Incremental OP and IP cases due to this project.
- 2: Revenue based on average reimbursement per case per specialty, recommended by Stroudwater Associates.
- 3: Reduced reimbursement from HOPD rates for current OP cases moving to the new OSC. Reimbursement for OP cases adjusted down from current state to Stoudwater recommended rates.
- 4: Salaries for incremental providers and staff based on FY22 averages. 20% of physician salary added as benefits. 33.1% of staff salary added as benefits, then adjusted for cost inflation
- 5: Calculated at 6% of Total NPR + FPP.
- 6: Cost based on FY22 avg. supply cost per case and applied to incremental OP OSC volume then adjusted for cost inflation.
- 7: Incremental costs based on operating budget for the new OSC plus one time operating start-up cost incurred from FY21-FY25.
- 8: Incremental non-salary expenses assigned to the future OSC cost center. Based on cost accounting analysis.
- 9: Incremental IP direct costs for incremental IP cases.
- 10: Capital depreciation for project and Interest expense on a loan to fund this project. Includes additional depreciation for \$8.8M fit-up costs for shelled spaces starting in FY29.
- 11: \$5M represents 12 months of interest. \$100M debt issuance expected in October FY25 - Interest only payments for first 5 years.
- 12: Earnings before interest, depreciation and amortization.

From an incremental perspective, the aggregate cash flow from this investment turns positive in the second full year of operations and yields a five-year net present value of \$45M.

Incremental Cash Flow: Outpatient Surgery Center

	FY25 (Half Year)	FY26	FY27	FY28	FY29	5 Yr. Total
Margin from Operations	\$ 159,945	\$ 5,996,113	\$ 8,909,127	\$ 10,166,907	\$ 15,106,366	\$ 40,338,458
Depreciation	\$ 3,420,907	\$ 6,841,815	\$ 6,841,815	\$ 6,841,815	\$ 7,382,816	\$ 31,329,168
Cap Interest (non-cash, add back as in Total Project Cost)	\$ 6,345,897					\$ 6,345,897
Total Project Cost - this CON Application	\$ (129,640,703)					\$ (129,640,703)
Estimated fit-up cost of Additional 4 OR rooms - Future CON (TBD)					\$ 8,756,748	\$ 8,756,748
Debt Proceeds	\$ 100,000,000					\$ 100,000,000
Debt Principle payments (intest only first 5 years)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Annual Cash Flow	\$ (19,713,954)	\$ 12,837,928	\$ 15,750,942	\$ 17,008,721	\$ 31,245,930	\$ 57,129,568
Project Aggregate Cash Flow @ End of Each Yr	\$ (19,713,954)	\$ (6,876,026)	\$ 8,874,916	\$ 25,883,637	\$ 57,129,568	
5 Yr NPV @ 5%	\$44,950,562					

Facility Start-up Operating Costs: Operational costs related to project planning and transition to the new facility are not considered capital expenses and can affect operating financials before the opening of the new facility. Those costs are related to transition planning, moving, recruitment and training. These costs, estimated at approximately \$1M, will be incurred through operating dollars and budgeted for the period prior to, and during, construction.

Expense Category	2021-2024	2025	Total
Admin Expenses	\$ 171,000	\$ 13,000	\$ 184,000
Recruitment cost	\$ 373,691	\$ -	\$ 373,691
Operational Planning	\$ 20,000	\$ 10,000	\$ 30,000
Transitioning and Moving	\$ 125,000	\$ 130,000	\$ 255,000
Other Misc. Expenses	\$ 2,500	\$ -	\$ 2,500
Communications	\$ -	\$ 135,000	\$ 135,000
IT Set up	\$ -	\$ 96,000	\$ 96,000
Total	\$ 692,191	\$ 384,000	\$1,076,191

All start up costs included in financial pro forma

SECTION II: CONSISTENCY WITH CON STATUTORY CRITERIA

The GMCB shall grant a certificate of need if the applicant demonstrates that the proposed project serves the public good and meets the statutory criteria set forth in 18 V.S.A. § 9437. This application satisfies all statutory requirements and criteria.

As an initial matter, this project serves the public good. The proposed OSC will accomplish several important health care and financial goals at the same time and therefore represents the most responsible investment of UVMMC’s capital, especially during this time of financial instability.

First, the OSC will meet an existing and future community need for additional surgical capacity, as the population grows and ages. Without the project, thousands of Vermonters will not have acceptable access to the surgical care they need, when they need it.

Second, the OSC will produce a positive financial margin almost immediately after opening and will therefore contribute significantly to the financial sustainability of UVMMC and the Network, helping the health care system stabilize after a half-decade of declining financial results and the shock of an unprecedented global pandemic.

Last, this financial stabilization will enable the applicant to continue to offer a wide range of both essential and highly specialized health care services to its adult and pediatric patients, many of which do not produce a positive financial margin on their own.

The applicant meets each of the following statutory criterion:

18 V.S.A. § 9437(1).

(1) The proposed project aligns with statewide health care reform goals and principles because the project:

(A) takes into consideration health care payment and delivery system reform initiatives;

(B) addresses current and future community needs in a manner that balances statewide needs, if applicable; and

(C) is consistent with appropriate allocation of health care resources, including appropriate utilization of services, as identified in the HRAP pursuant to section 9405 of this title.

The proposed project meets the first statutory criterion. The project aligns with Vermont's health care reform goals and reform principles by expanding timely access to needed health care services, delivered to patients in the most appropriate, cost-effective care setting. The project supports the transition of some health care services from the hospital setting to an accessible, separate outpatient environment that many patients find preferable, and which enables them to recover safely and comfortably in their own homes. And as a result of the transition, space on the main campus can be used to help meet increasing demand for those surgeries that need to be performed in an inpatient setting.

The project is responsive to current and future community needs. The applicant has analyzed regional demographic data and projections of the future demand for inpatient and outpatient surgeries over the next decade and beyond. *See* Section I, B, above. That analysis informs the size and scope of this project as regional population growth, particularly in the +65 segment, is projected to fuel rising demand for inpatient and outpatient surgeries that will exceed existing surgical capacity. As Vermont's largest community hospital and tertiary care facility, UVMMC must be able to meet patient demand in its service area, and support higher acuity referrals and transfers from other regional institutions. Building a new OSC that can accommodate surgical growth across a wide range of subspecialties will meet community needs by helping ensure ongoing access to timely, high-quality care. In addition, moving certain procedures off the main campus and into the OSC will free up hospital ORs for surgeries, and patients, that need an inpatient setting.

The project is also consistent with the appropriate utilization of services. UVMMC serves Vermont's most populous county and surrounding areas, and is the state's largest community hospital and tertiary care facility. The data outlined in the demand modeling in Section I, B, above, demonstrates that Chittenden County and the surrounding area will experience not only a

growth in population, but an aging of that population, fueling the need for more surgical services. *See, e.g.,* Public Opinion Strategies demographic forecast, Figures 1.4 and 1.5 (showing 62% 10-year population growth for the 65+ population in Chittenden County, and 81%, 141% and 56% growth for the same cohort in Franklin, Grand Isle, and Washington County, respectively). In response to the demand, the proposed OSC is designed in sufficient size and scope to support the wide range of surgical specialties needed by this population, and to serve as an essential component of the full spectrum of care provided through UVMMC and Network-affiliated hospitals.

The Project meets each of the relevant HRAP Standards:

CON STANDARD 1.3: *To the extent neighboring health care facilities provide the services proposed by a new health care project, an applicant shall demonstrate that a collaborative approach to delivering the service has been taken or is not feasible or appropriate.*

UVMMC is the cornerstone facility of the Network, which serves over one million residents of Vermont and Northern New York State. As the state's largest community hospital and only academic medical center, UVMMC provides a range of surgical procedures across a broad spectrum of surgical specialties, many of which are unavailable elsewhere in Vermont. As such, UVMMC accepts referrals and transfers from other unaffiliated providers and hospitals for procedures that cannot be performed elsewhere in the State. UVMMC can accept those referrals only if it has adequate capacity to treat the referred patients. An expansion of its surgical capacity will better allow UVMMC to continue to engage collaboratively with other providers with respect to their patients' care and avoid access constraints that make collaboration more difficult.

Conversely, if UVMMC's surgical capacity is not expanded, it will be unable to meet growing demand for services in its service area, *see* Section I, B, 2 (Surgical Volume and OR Demand Analysis), and therefore the rest of the state. Other Network affiliate hospitals cannot be expected to absorb growing demand, as population growth is expected to fuel increased demand at those facilities as well. *See* Section I, B, 1, c (neither CVMC nor PMC have sufficient capacity to meet UVMMC's forecasted demand). Nor can other, smaller and more specialized facilities accommodate some of the complex, equipment-intensive surgical procedures that can be safely performed in the proposed OSC.

CON STANDARD 1.6: *Applicants seeking to develop a new health care project shall explain how the applicant will collect and monitor data relating to health care quality and outcomes related to the proposed new health care project. To the extent practicable, such data collection and monitoring shall be aligned with related data collection and monitoring efforts, whether within the applicant's organization, other organizations or the government.*

This project will not impact the applicant's ongoing data collection and monitoring efforts. Section II, C, 7, above, outlines the key quality measures the applicant will continue to collect, report and monitor to ensure that the OSC meets or exceeds industry standards and benchmarks. Resources for benchmarking and identifying industry standards include the Centers for Medicare & Medicaid Services (CMS) Ambulatory Surgical Center Quality Reporting (ASCQR) Program, the National Healthcare Safety Network (NHSN) Same Day Outcome Measures (SDOM); the Association of Perioperative Registered Nurses (AORN) and the Association for the Advancement of Medical Instrumentation® (AAMI), the American Hospital Association (AHA)

Health Equity, Diversity & Inclusion Measures for Hospitals and Health System (HHS) Dashboards, and the Agency for Healthcare Research and Quality (AHRQ).

CON STANDARD 1.7: *Applicants seeking to develop a new health care project shall explain how such project is consistent with evidence-based practice. Such explanation may include a description of how practitioners will be made aware of evidence-based practice guidelines and how such guidelines will be incorporated into ongoing decision making.*

The relocation of the Fanny Allen ORs and development of additional ORs to meet patient demand will not impact established protocols and adherence to evidence-based practices.

As UVMMC is a leading academic medical center providing graduate medical education based on a philosophy of evidence-based practice, most physicians on UVMMC's medical staff both practice and teach healthcare. UVMMC is committed to delivering high quality patient care using evidence-based practice guidelines; for example, consistent with established protocol and the current assessment process at the Fanny Allen, only patients with an ASA (American Society of Anesthesiology) score of 3 or below with low risk for complications and infection will be appropriate for surgical care the OSC.

UVMMC's surgical department will continue to be informed by best practice resources including the CMS Ambulatory Surgical Center Quality Reporting (ASCQR) Program, the National Healthcare Safety Network Same Day Outcome Measures, the Association of Perioperative Registered Nurses and the Association for the Advancement of Medical Instrumentation, American Hospital Association Health Equity, Diversity & Inclusion Measures, and the Agency for Healthcare Research and Quality. *See Section I, C, 7.*

CON STANDARD 1.8: *Applicants seeking to develop a new health care project shall demonstrate, as appropriate, that the applicant has a comprehensive evidence-based system for controlling infectious disease.*

UVMMC complies with Joint Commission requirements on Infection Prevention and Surveillance. Its Infection Prevention Team was established in 1984 and continues to strive to reduce and prevent healthcare-associated infections as part of the James M. Jeffords Institute for Quality and Operational Effectiveness. The team is led by the Hospital Epidemiologist and includes members certified in infection prevention. The team's infection prevention activities include:

- Collection and analysis of infection data
- Evaluation of products and procedures
- Development and review of evidence-based policies and procedures
- Consultation on infection risk assessment, prevention and control strategies including activities related to occupational health, construction and disaster planning
- Educational efforts directed at interventions to reduce infection risks
- Interpretation and implementation of changes mandated by regulatory, accrediting and licensing agencies
- Application of epidemiological and quality improvement principles including activities directed at improving patient outcomes
- Participation in research projects

In addition, UVMMC continues to remain vigilant in its efforts to prevent the spread of COVID-19, and has taken measure that include adopting visitation policies that have been implemented and updated in accordance with the latest science and best practices. *See, e.g.,* <https://www.uvmhealth.org/medcenter/patients-and-visitors/visitors/visiting-hours>

CON STANDARD 1.9: *Applicants proposing construction projects shall show that costs and methods of the proposed construction are necessary and reasonable. Applicants shall show that the project is cost-effective and that reasonable energy conservation measures have been taken.*

The applicant has taken steps to ensure that the construction costs and methods associated with this project are necessary and reasonable. UVMMC is employing a “Construction Manager (CM) at Risk” form of construction contract for the project. Under this approach, the CM is at risk to deliver the project with a Guaranteed Maximum Price (“GMP”) that is based on the construction documents and specifications at the time that the GMP amount is agreed to, typically once construction documents are completed. Essentially, the CM must complete the project as defined in the construction documents within the bounds of the GMP cost estimate.

Since the proposed construction cost estimate for this project is based on schematic level design documents available at this time, before final construction documents are available, the applicant will carefully manage the design development process to ensure the cost for the project remains within the budget established during the schematic design phase.

In order to manage cost risk as the design progresses, UVMMC has retained an independent third-party construction cost consultant and put in place an estimating process that will enable it to evaluate and monitor the cost of the project as design progresses. The schematic design documents are simultaneously and independently estimated by the CM and the construction cost consultant. The schematic design estimate is compared and reconciled resulting in a consensus construction cost estimate that is used to establish the budget for construction costs. The independent estimating and reconciliation process will be repeated at several points as the design progresses through the Design Development and Construction Document design phases. A Value Management process will also be put in place as a mechanism to limit changes in scope and potential cost increases.

Given the current unprecedented environment of construction cost inflation, supply chain disruption and critical labor resource shortages, the applicant finds it prudent and essential to retain Key Trade Partners (key subcontractors) early in the planning and design phase of the project. The Key Trade Partners will advise UVMMC and the design team during the design development process to suggest design considerations and materials and construction methods to make the project more constructible and less costly from a builder’s perspective. They will assist the team to develop mitigation measures to reduce the impact of cost volatility, supply chain disruptions and labor and materials scarcity. Taken together, these measures should ensure that only reasonable, necessary and affordable scope, design and construction options are considered throughout the planning and construction of the OSC.

These cost control techniques and measures should yield the following benefits:

- Reduce the design time
- Increase the accuracy of the construction documents
- Minimize design errors and omissions

- Allow for value-management alternatives to be conceived and developed throughout the design and construction phases
- Reduce the construction schedule and project timeline
- Provide for timely and direct feedback from the contractors to the design team
- Provide for higher quality design documents due to ongoing contractor input
- Reduce potential for design and scope changes

Despite the best cost control practices to defend against materials and commodity cost escalation and material and labor scarcity, as seen over the last several years, there is still risk for the cost of the project to exceed estimates. UVMMC will, of course, inform the GMCB of any material cost overruns and comply with all of its associated regulatory obligations.

The method of the project's proposed construction is also necessary and reasonable. The building is designed and will be constructed in accordance with applicable NFPA Sections, IBC 2015, and the adopted section of the Vermont Division of Fire Safety Code. The building use shall be an IBC B-Business Occupancy, NFPA 101 New Ambulatory Healthcare Occupancy, Vermont Energy Code, and follow the clinical requirements of the Guidelines for Design and Construction of Outpatient Facilities as issued by the Facility Guidelines Institute (FGI). Construction details are outlined in Section I, C, above.

The design of the building reflects UVMMC's overarching commitment to environmental sustainability goals. This project will seek LEED certification and is designed to meet or exceed Vermont Energy Code requirements and EnergyStar standards.

CON STANDARD 1.10: *Applicants proposing new health care projects requiring construction shall show such projects are energy efficient. As appropriate, applicants shall show that Efficiency Vermont, or an organization with similar expertise, has been consulted on the proposal.*

As stated above in Standard 1.9, the project design is energy efficient. A letter from Efficiency Vermont is attached as Exhibit 6.

CON STANDARD 1.11: *Applicants proposing new health care projects requiring new construction shall demonstrate that new construction is the more appropriate alternative when compared to renovation.*

New construction is the only viable option for the proposed project. As explained throughout this application, the region's population is both growing and aging, driving an increasing demand for surgical procedures. UVMMC's current surgical facilities cannot accommodate the impending growth; some of its ORs have not been renovated in 30 years, and are not suitable for many of today's complex surgical procedures. The Fanny Allen ORs are undersized by today's standards—ranging in size from 378 to 450 square feet, in contrast to the 630 sq. ft. ORs in the proposed OSC—and cannot accommodate the installation of advanced air handling systems or the contemporary surgical equipment and interoperative imaging used routinely in modern surgical environments. The pre- and post-operative areas are also lacking; the bays are small and limit access by personnel and visitors, and their close proximity is not conducive to patient privacy. Given the age and footprint of the building, expansion and/or renovation of these rooms

to bring them to contemporary standards is simply not feasible. Earmarked for replacement in UVMMC's Facilities Master Plan since 2017, the Fanny Allen ORs are outdated and reaching the end of their useful life as a surgical environment.

There is also no room to expand on the main campus. *See* Section I, B, 1, above. While growth projections indicate that the applicant will need between eight and 12 ORs to replace those at Fanny Allen and accommodate the growth in demand for outpatient surgeries, the main campus is essentially land-locked, and its limited clinical space is most appropriately utilized for those services that should be delivered in a hospital environment. Moving outpatient surgeries off the hospital main campus to a newly constructed, modern OSC is consistent with contemporary care standards and will vacate space for additional inpatient surgeries, easing backlogs and increasing patient access. The same result cannot be achieved by renovating existing space.

CON STANDARD 1.12: *New construction health care projects shall comply with the Guidelines for Design and Construction of Health Care Facilities as issued by the Facility Guidelines Institute (FGI), 2018 edition. See GMCB Certificate of Need Bulletin 001 (Nov. 19, 2019).*

UVMMC is accredited by the Joint Commission and therefore required to follow the FGI Guidelines for Design and Construction of Outpatient Facilities that address services that will be provided at this facility. *See* GMCB Certificate of Need Bulletin 001 (Bulletin clarifying CON Standard 1.12 requirements). Exhibit 2, attached, contains a detailed table showing each relevant FGI Guideline and a description of how the project satisfies the relevant guideline.

CON STANDARD 2.2: *Applicants seeking to introduce new ambulatory care services, including hospital ambulatory care center or physician office based services, shall show how such services are consistent with Vermont's focus on health promotion. Services to prevent the onset of disease and to minimize the effects of disease shall be given the highest priority.*

The applicant is not adding new services; the services that will be offered at the OSC are already provided by the applicant, whether on the main campus or at the Fanny Allen facility.

CON STANDARD 3.4: *Applicants subject to budget review shall demonstrate that a proposed project has been included in hospital budget submissions or explain why inclusion was not feasible.*

UVMMC has identified the project in its GMCB capital budget submissions since FY2020.

18 V.S.A. § 9437(2):

- (2) The cost of project is reasonable, because each of the following conditions is met:**
- (A) The applicant’s financial condition will sustain any financial burden likely to result from completion of the project.**
 - (B) The project will not result in an undue increase in the costs of medical care or an undue impact on the affordability of medical care for consumers. In making a finding under this subdivision, the Board shall consider and weigh relevant factors, including:**
 - (i) the financial implications of the project on hospitals and other clinical settings, including the impact on their services, expenditures and charges; and**
 - (ii) whether the impact on services, expenditures, and charges is outweighed by the benefit of the project to the public.**
 - (C) Less expensive alternatives do not exist, would be unsatisfactory, or are not feasible or appropriate.**
 - (D) If applicable, the applicant has incorporated appropriate energy efficiency measures.**

The cost of the project is reasonable, and the applicant therefore meets this criterion. The scope and cost of the OSC reflect careful analysis of the regional need for surgical services now and into the future.

First, the applicant’s financial condition can sustain the costs of the project. As explained in Section I, D, above, and in the Network budget submissions, the entire Network operates within a financial framework that seeks to strike a sustainable balance among four metrics: operating EBIDA margin; days cash on hand; average age of plant, and debt-to-capitalization ratio. Together, these metrics are key indicators of an institution’s financial health and provide a framework for medium and long-term financial decision-making.

Over the past five years, UVMMC’s operating margin has deteriorated, due largely to the fact that reimbursement from all sources has not kept pace with the inflationary pressures affecting the delivery of health care. This has in turn eroded days cash on hand, which currently sits at 112 days—well below the rating agencies’ A-rated medians of 175 to 225. In order to preserve cash, UVMMC (like all of the Network hospitals) has greatly reduced the amount of capital it has invested in its physical plant over the past three years. As a result, UVMMC’s average age of plant has slowly but consistently risen, and is projected by the end of the year to be outside the acceptable range for an A-rated organization of 11 to 13 years, indicating a failure to modernize the facilities at which patients will receive care.

The fourth factor in the financial framework, debt-to-capitalization ratio, is well within the healthy range—generally between 30% and 40%—for an A-rated health care organization; when an organization’s debt-to-capitalization ratio falls below 30%, it is often an indication that the organization is not taking full advantage of its borrowing capacity in order to meet its capital needs. As the Network continues to pay off its existing debt at a rate of approximately \$20M per year, however, its debt-to-capitalization ratio will soon fall below the recommended range, reaching approximately 27% within three years without additional borrowing. That means that

UVMMC and the Network already have the capacity to borrow more money in order to make the necessary capital investments to modernize its facilities and reduce average age of plant, and will gain significantly more capacity in the next three years. Of course, if an organization borrows money, it also needs to be able to generate the cash to service that debt—that is, to pay back the borrowed money, with interest. In short, the organization needs to generate a positive operating EBIDA margin, either from the capital investment itself or from other operations, in order to support existing and additional debt.

The proposed OSC offers UVMMC the opportunity to bring all of the factors in its financial framework into better balance, improving the financial health of the organization while increasing patient access to necessary services, both surgical and non-surgical. The project will take advantage of UVMMC's low debt-to-capitalization ratio, ensuring that it remains within what is recommended as a healthy range. It will then utilize the borrowed funds in a manner that will both service the debt generated by construction of the project and improve the Network's overall financial health by contributing to days cash on hand. And importantly, development of the new OSC will lower the average age of plant and modernize the tools that practitioners and staff will need to improve the health of Vermonters.

The estimated capital allocation for this project has been included in UVMMC's five-year capital budgets going back to FY2015. The scope and timing of the project has changed over this period as demand, location, on-site services and procedure mix have been refined. Currently, there is approximately \$119.1M included in the Network five-year capital allocation framework allocated to this project, spread between FY2023 and FY2024, with a larger portion allocated to FY2024. Debt financing is planned for approximately \$100M of the capital expense.

Importantly, the proposed OSC is projected to produce a positive incremental EBIDA operating margin of \$8.5M in its first half-year of operation, rising to between \$18M and \$27.5M in each of the first full four years of operation. That margin is more than sufficient to service the \$100M debt financing, which includes approximately \$5.0M in annual interest payments. After taking account of both interest and depreciation, the proposed OSC will generate a positive incremental operating margin of between \$6M and \$15M in each of its first four full years of operation.

As a non-profit community hospital and academic medical center, UVMMC will reinvest the financial performance of the OSC for the benefit of patients. Surgical programs rely upon many collaborating specialties and health professionals to continue improving patient outcomes, especially for patients who are aging, have multiple chronic conditions, or are experiencing mental health concerns. A contemporary and successful OSC will also enable UVMMC and the Network to continue investing in the treatment of diabetes, kidney disease, and infectious disease; its psychiatry and primary care departments, and its nutrition, rehabilitation, and care management programs. Many of these services produce a negative financial margin on their own and therefore can only be offered because UVMMC realizes a positive margin on services such as outpatient surgery. The OSC also will enable investments in educational and training programs for nurses, surgeons, anesthesiologists, and clinical staff to strengthen the surgical workforce.

The positive margin from the OSC project will help stabilize UVMMC's days cash, which has declined from approximately 200 days to 112 days over the past five years, largely because reimbursement from all sources has failed to cover the expenses necessary to deliver care. Unless

UVMMC is able to rebuild its cash reserves, it will be unable to continue to invest in its employees, facilities and community, jeopardizing the care of future patients.

The project's contribution to days cash on hand will also support the approximately \$30M of project capital costs that UVMMC intends to fund through cash from ongoing operations. The \$30M expenditure, which is equivalent to approximately four days of the Network's cash on hand and will be made over a period of many months, will have only a modest and very short-term negative effect on the Network's days cash on hand; UVMMC's projected margin from all operations should replenish it relatively quickly, especially after the OSC project is generating revenue. It is not expected that either the anticipated borrowing or use of cash will negatively affect the Network's bond rating.

Second, this project will not result in an undue increase in the costs of medical care or an undue impact on its affordability. As UVMMC discusses in detail in its annual budget filings, annual rate requests are not tied to specific projects and are instead based on year over year per unit cost inflation, the majority of which is generated by increases in salaries and the cost of supplies. *See, e.g.,* UVM Health Network 2023 Budget Narrative at 2-4; *see also* 2023 Budget Presentation, slides 17 (cost inflation components), 28-30 (calculation of requested rate increase); UVM Health Network 2022 Budget Narrative at 13 (“The commercial rates identified are, first and foremost, the product of a mathematical equation designed to cover cost inflation on the commercial business and to cover the cost shift related to expense inflation.”). Further, as shown in the CON Application Table 3B and the Incremental Pro-Forma, this project realizes an incremental net operating margin in year 1, while addressing the forecasted increase in demand for surgical services.

Third, there are no less expensive alternatives that are satisfactory, feasible or appropriate. The need to replace the Fanny Allen ORs has been identified in the Facilities Master Plan since 2017, and their repeated closure, in 2019 and 2020, underscores the need for their replacement. The ORs are undersized and outdated, making them unsuitable for many contemporary, complex surgical procedures. The building's footprint does not allow for expansion and renovation to increase OR square footage or to house advanced air handling systems that help minimize infection risk, and modern technologies and equipment. *See* Section I, B, above, *see also In re: Application of the University of Vermont Medical Center for a Conceptual CON for Planning and Design of an Outpatient Surgery Center*, GMCB-015-21, Finding of Fact ¶10 (Sept. 20, 2021). In addition, including the shelled space in the project at this juncture will avoid costly and disruptive construction in the near future, while helping ensure that patient demand will be met. *See* Section I, C, 2, above.

The main campus cannot be expanded to replace the Fanny Allen ORs or to accommodate the forecasted growth in demand for both inpatient and outpatient surgical procedures. Nor is the main campus the optimal space for expansion, as an increasing number of surgeries that once required a hospital setting can now be performed safely, efficiently, and more cost-effectively on an outpatient basis. Moving surgeries off the main campus will in turn free-up additional space on the main campus that can be utilized for those surgeries and patients that require an inpatient setting, helping meet the growing demand for inpatient procedures.

In contrast to a specialized ambulatory surgery center, the proposed multi-disciplinary facility can accommodate both simple and complex surgeries and procedures across a wide range of surgical subspecialties. The design incorporates features that maximize efficiencies and

flexibility, leading to increased productivity. The size of the ORs is consistent with industry standards and will allow for modern equipment and surgical teams, and their uniformity makes them interchangeable, easing scheduling issues that contribute to a backlog of cases.

Last, in consultation with Efficiency Vermont and consistent with UVMMC's overarching commitment to environmental sustainability goals, the applicant has incorporated appropriate energy efficiency measures, as explained in response to CON Standard s 1.9 and 1.10.

18 V.S.A. § 9437(3):

(3) There is an identifiable, existing, or reasonably anticipated need for the proposed project that is appropriate for the applicant to provide.

A new Outpatient Surgery Center is needed to replace the operating rooms at the Fanny Allen, add modern OR capacity to meet surgical demand now and in the future, and to operate in concert with UVMMC's high value care strategy. The new OSC will be a highly flexible, multi-specialty outpatient surgical center, in which a broad variety of surgical cases can be performed safely, efficiently and cost-effectively.

Closure of the ORs at the Fanny Allen has been included in UVMMC's Facilities Master Plan since 2017. The outdated and undersized rooms are at the end of their useful life, and cannot be expanded or renovated to meet contemporary standards or to accommodate advanced air handling equipment to minimize infection risk, or the types of technologies and equipment used in today's surgeries. There is no room on the main campus to replace these ORs, and the failure to replace them will only exacerbate existing patient access issues. *See* Section I, B, 1, b.

Demographic indicators support the need for this project to meet growing demand. UVMMC's demand model shows that population growth, particularly in the 65+ and above cohort, will continue to drive increased demand for both inpatient and outpatient services. By 2030, UVMMC surgical demand is expected to grow between 14% and 22%. *See* Section I, B, 2. The main campus does not have the space, nor is it the optimal location, for additional outpatient ORs. Rather, the construction of a new OSC will address the expected growth in both inpatient and outpatient demand, as outpatient surgeries moved to the new facility will create additional inpatient surgical capacity on the main campus.

As Vermont's largest community hospital, tertiary care facility and academic medical center, it is appropriate for UVMMC to develop this project. Other Network affiliate hospitals cannot fill the void in surgical capacity in the region without limiting local patient access, nor can they typically invest in the facilities or technologies commonly utilized in larger hospitals. UVMMC must increase its own surgical capacity to serve the Burlington area patient demand, support higher-acuity referrals and transfers from Network partners and regional institutions, and attract providers and learners who are looking to practice in a modern, multi-disciplinary setting.

UVMMC was unable to identify a feasible alternative to the proposed project. The applicant has considered potential renovations, expansion of existing facilities, as well as smaller, more limited facility construction. *See* Section I, B, 1, g, above. None of the choices are adequate, in light of demand that is expected to grow significantly across a number of specialties by 2030. The proposed size and cost of this project reflects this reality.

18 V.S.A. § 9437(4):

(4) The project will improve the quality of health care in the State or provide greater access to health care for Vermont’s residents, or both.

This project will both improve the quality of health care and provide Vermonters with increased access to care. It will promote better quality care by increasing the size of the ORs so they can support modern technologies, surgical teams, and advanced air handling systems that minimize risk of infection. The uniformity and interchangeability of the ORs will allow for more efficient scheduling; a patient does not have to wait for one, specific OR in which their surgery can be performed to become available. Importantly, the project will improve the patient experience, allowing patients to receive their care safely and conveniently in a facility that meets contemporary standards and expectations, and to return more quickly to their homes and their communities.

The project will provide greater access to care by increasing capacity to keep pace with increasing surgical demand. It is clear that the Fanny Allen ORs should be replaced; their ongoing use is precarious, given recurring air quality issues and their limited size and uses. Already, they have twice closed unexpectedly, leading to inadequate “fixes,” such as extending OR hours on the main campus, that only minimally relieved backlogs. The main campus ORs cannot absorb the loss of the Fanny Allen or the projected growth in demand for inpatient and outpatient surgeries. The project will offer high-quality care, in a modern facility that can accommodate today’s technologies, and address the growing demand for both inpatient and outpatient surgical services. *See generally*, Section I, B.

18 V.S.A. § 9437(5):

(5) The project will not have an undue adverse impact on any other existing services provided by the applicant.

This project will not create an undue adverse impact on any other services provided by the applicant. By developing the project and moving a portion of outpatient surgeries from the main campus, the applicant can increase inpatient surgical capacity, consistent with a forecasted rise in demand. Moreover, the applicant will be able to absorb the minimal impact to ancillary services (laboratory tests, administrative services, etc.) that will result from the increased surgical volumes.

18 V.S.A. § 9437(6) [Repealed.]

18 V.S.A. § 9437(7):

The applicant has adequately considered the availability of affordable, accessible transportation services to the facility, if applicable.

UVMHC has worked in collaboration with the Special Services Transportation Agency (“SSTA”) to ensure that there is consistent, affordable and reliable public transportation available for patients to access Tilley Drive health care services, which will include the proposed OSC. SSTA offers free, direct shuttle service from the Green Mountain Transit (GMT) Downtown Transit Center on Cherry Street in Burlington to Tilley Drive. The free shuttles stop to pick up and drop off passengers on their way to, or returning from, their appointments at any of the medical office buildings along Tilley Drive. *See* [Tilley-Drive-Shuttle August2022BMG.pdf \(ridegmt.com\)](#).

18 V.S.A. § 9437(8):

If the application is for the purchase or lease of new Health Care Information Technology, it conforms with the Health Information Technology Plan established under section 9351 of this title.

Not applicable to this project.

18 V.S.A. § 9437(9)

The project will support equal access to appropriate mental health care that meets standards of quality, access, and affordability equivalent to other components of health care as part of an integrated, holistic system of care, as appropriate.

If the patient seeking services at the OSC expresses a need for mental health care services and is not in an acute crisis, they would be referred to their primary care physician. The primary care provider, working with their mental health care provider colleagues, would be in the best position to assess the patient's needs. If a patient is in acute crisis, staff would follow UVMMC's suicide risk assessment protocol, which may include contacting 911 (from Tilley Drive) or the UVMMC internal Medical Emergency Team (at the main campus) to facilitate an assessment of the patient to determine appropriate care given the patient's presentation.

CONCLUSION

Based on the information contained in this application, and for all the foregoing reasons, UVMMC respectfully requests approval of the application and issuance of a CON for the project.

INDEX OF EXHIBITS

- Exhibit 1: CON Financial Tables
- Exhibit 2: FGI Guidelines Chart
- Exhibit 3: Existing ORs, Fanny Allen and Main Campus
- Exhibit 4: Patient Flow Sequence
- Exhibit 5: e4h Letter
- Exhibit 6: Efficiency Vermont Confirmation Letter