

August 1, 2025

BY ELECTRONIC MAIL (COPN@vdh.virginia.gov)

Karen Shelton, M.D.
State Health Commissioner
Virginia Department of Health
109 Governor Street, 13th Floor
Richmond, VA 23219

**RE: COPN Request No. VA-8827
Virginia Hospital Center Arlington Health System d/b/a VHC Health
Addition of One (1) Cardiac Catheterization Laboratory and Eleven (11)
Intensive Care Unit Beds at Virginia Hospital Center
Planning District 8**

Dear Dr. Shelton:

Enclosed please find an application by Virginia Hospital Center Arlington Health System d/b/a VHC Health ("VHC Health") to add 11 intensive care unit ("ICU") beds, five of which will be dedicated to the cardiovascular ICU,¹ and one cardiac catheterization laboratory at Virginia Hospital Center ("VHC"). A check in the amount of \$20,000, representing the application fee for this request, was delivered today to the Division of Certificate of Public Need ("DCOPN").

VHC Health's application addresses a public and institutional need to expand service capacity at the hospital for certain critical care and cardiovascular services. The proposal capitalizes on a rare opportunity on VHC's densely developed campus to address high demand for three important and clinically codependent service lines and improve timely access to care. Simultaneously, the project promotes clinical and operational improvements, generates substantial economies of scale in its implementation, and minimizes the duration of construction and thus the disruption to patient care.

As the only acute care hospital in Arlington County and the only remaining independent community hospital in Planning District ("PD") 8, VHC is relied upon by nearly 350,000 patients annually to provide comprehensive health care services, including adult ICU and cardiovascular services. VHC is a Level 2 Trauma Center, and its patients are complex and often present through the emergency department ("ED") with multiple comorbidities and specialized acute care needs. VHC's ED is the second-busiest in PD 8. With its campus located in the middle of a residential neighborhood, VHC Health has thoughtfully developed its infrastructure both on and off the

¹ While VHC Health's letter of intent for this project referenced 13 ICU beds, further analysis of the available space indicates room for only 11 new beds, hence the reduced scope of the application.

campus to improve access to care and to respond to evolving patient and community needs. This application is the next step in VHC Health's long-range plan; it maximizes use of rare building space on the campus, focuses on services most in need of expanded space and capacity, and is necessary to ensure that VHC can timely and appropriately address patient care needs.

In this application, VHC Health proposes to expand three key services: intensive care services, cardiac catheterization services, and (although not COPN-reviewable) ED services – all within a new three-floor corner addition to be constructed and seamlessly connected to existing hospital space. Each floor expansion – with the expanded ED on the ground level, the expanded cardiovascular department to include the addition of a cardiac catheterization laboratory on the first floor, and the additional ICU beds on the second floor – will be built adjacent to existing space currently housing the corresponding service line. This approach allows VHC Health to address needs for the expanded services while consolidating construction, generating substantial cost and time savings. In the interest of transparency and comprehensiveness, VHC Health has included the costs for the entire construction project, including the ED expansion, in the application materials, while also providing a separate registration of the related capital expenditure.

VHC Health's proposal addresses a public need for more ICU bed capacity in PD 8; the State Medical Facilities Plan ("SMFP") indicates a need for 11-30 additional ICU beds in the PD (depending on the population data used in the calculation). VHC is well positioned to meet that need. VHC's ICU plays a critical role in supporting multiple patient populations across the hospital, including ED and trauma patients, post-surgical patients, and general inpatients who may experience sudden clinical deterioration and who require immediate critical care interventions. The 32-bed ICU is also robustly utilized; its daily noon census is at or above the SMFP's 65% occupancy threshold nearly half the time.

VHC Health proposes to dedicate five of the 11 requested ICU beds to the cardiovascular ICU, further addressing a vital component of care for VHC patients. VHC is one of three hospitals in PD 8 that provides open heart surgery services, and it has a large and clinically diverse cardiovascular service line. Its cardiovascular ICU cares for patients with severe heart conditions, including patients suffering from heart attacks and heart failure. These patients are at risk for rapid changes in their condition and for serious comorbidities such as respiratory or renal failure and will benefit from the expanded ICU space proposed here.

In addition to intensive care services, VHC's cardiovascular patients often require cardiac catheterization services – a critical diagnostic and treatment tool in cardiovascular care. Within its cardiovascular unit, VHC operates four busy cardiac catheterization laboratories. In 2025, annualized utilization of VHC's four catheterization labs exceeds 109% of the SMFP's utilization threshold based on cardiac catheterization procedures alone. With higher-complexity catheterizations increasing at a faster rate, VHC's catheterization utilization is experiencing sustained growth that necessitates additional capacity. Further, like many catheterization labs, VHC's labs are also used for other procedures such as electrophysiology and structural heart cases, which are not reflected in catheterization-based utilization metrics. Based on 2023 VHI data,

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authorized cardiac catheterization services in PD 8 likewise are effectively at capacity, with average utilization at 90% in 2023; VHC's utilization (again, based just on procedures defined as cardiac catheterizations) ranked second among existing providers.

In sum, VHC Health's proposed project responds to a multifaceted need for expanded ICU and cardiovascular services at VHC in connection with a much-needed expansion of the hospital's ED. Together, these expansions will complement and enhance VHC's ICU and cardiovascular services, streamline patient flow in the hospital, optimize clinical and operational efficiencies, and improve patient care, experience, and outcomes.

VHC Health looks forward to working with DCOPN and the Health Systems Agency of Northern Virginia on this project. We welcome any questions and also would welcome you to tour the facility if you would find that helpful. Thank you for your review of VHC Health's request.

Sincerely,



Jamie B. Martin

cc: Mr. Erik O. Bodin, III, Director, Division of Certificate of Public Need
Mr. Dean Montgomery, Executive Director, Health Systems Agency of Northern Virginia
Mr. Adrian Stanton, Vice President, Real Estate Acquisition and Development, VHC Health
Maggie S. Krantz, Esquire, Williams Mullen
Jennifer L. Ligon, Esquire, Williams Mullen

COMMONWEALTH OF VIRGINIA

APPLICATION FOR A

MEDICAL CARE FACILITIES CERTIFICATE OF PUBLIC NEED

(CHAPTER 4, ARTICLE 1:1 OF TITLE 32.1,

SECTIONS 32.1 – 102.1 THROUGH 32.1 – 102.11 OF

THE CODE OF VIRGINIA OF 1950, AS AMENDED)

HOSPITALS

COPN Request No. VA-8827

VHC Health

**Add Eleven (11) Intensive Care Unit Beds and
One (1) Cardiac Catheterization Laboratory
at Virginia Hospital Center**

SECTION I

FACILITY ORGANIZATION AND IDENTIFICATION

A. Virginia Hospital Center

Official Name of Facility

1701 N. George Mason Drive

Address

Arlington

City

VA

State

22205

Zip

(703) 558-5000

Telephone

B. Virginia Hospital Center Arlington Health System d/b/a VHC Health

Legal Name of Applicant

1701 N. George Mason Drive

Address

Arlington

City

VA

State

22205

Zip

C. Chief Administrative Officer

Christopher T. Lane

Name

1701 N. George Mason Drive

Address

Arlington

City

VA

State

22205

Zip

(703) 558-5000

Telephone

D. Person(s) to whom questions regarding application should be directed:

Adrian Stanton

Name

1701 N. George Mason Drive

Address

Arlington

City

VA

State

22205

Zip

(703) 558-6319

Telephone

ASanton@vhchealth.org

E-mail

and**Jamie Baskerville Martin**

Name

Williams Mullen**200 South 10th St., Suite 1600**

Address

Richmond

City

VA

State

23219

Zip

(804) 420-6407

Telephone

(804) 420-6507

Facsimile

jbmartin@williamsmullen.com

E-mail

- E. Type of Control and Ownership (Complete appropriate section for both owner and operator.)

Will the facility be operated by the owner?

Yes **X** No _____Owner of the Facility
(Check one)

Proprietary

Operator of Facility
(Check one)

(1) _____

(1) Individual

(1) _____

(2) _____

(2) Partnership-attach copy of
Partnership Agreement and
receipt showing that
agreement has been recorded

(2) _____

(3) _____

(3) Corporate-attach copy of
Articles of Incorporation and
Certificate of Incorporation

(3) _____

(4) _____

(4) Other _____ Identify (4) _____

Non-Profit(5) **X**(5) Corporation-attach copy of
Articles of Incorporation and
Certificate of Incorporation(5) **X**

(6) _____

(6) Other _____ Identify (6) _____

Governmental

- | | | |
|------------|--|------------|
| (7) _____ | (6) State | (7) _____ |
| (8) _____ | (8) County | (8) _____ |
| (9) _____ | (9) City | (9) _____ |
| (10) _____ | (10) City/County | (10) _____ |
| (11) _____ | (11) Hospital Authority or
Commission | (11) _____ |
| (12) _____ | (12) Other _____ Identify | (12) _____ |

See Attachment I.E—Organizational Documentation.F. Ownership of the Site (Check one and attach copy of document)

- (1) X Fee simple title held by the applicant
 (2) _____ Option to purchase held by the applicant
 (3) _____ leasehold interest for not less than _____ years
 (4) _____ Renewable lease, renewable every _____ years
 (5) _____ Other _____ Identify

See Attachment I.F—Ownership Documentation.

G. Attach a list of names and addresses of all owners or persons having a financial interest of five percent (5%) or more in the medical care facility.

Virginia Hospital Center Arlington Health System, a Virginia non-stock corporation, is Virginia Hospital Center's sole owner.

(a) In the case of proprietary corporation also attach:

- (1) A list of the names and addresses of the board of directors of the corporation.
- (2) A list of the officers of the corporation.
- (3) The name and address of the registered agent for the corporation.

(b) In the case of a non-profit corporation also attach:

- (1) A list of the names and addresses of the board of directors of the corporation
- (2) A list of the officers of the corporation
- (3) The name and address of the registered agent for the corporation

Virginia Hospital Center Arlington Health System, d/b/a/ VHC Health has one class of members, which consists of all voting members of the Board of Directors. The Board of Directors is identified at Attachment I.G—Board of Directors. The officers and registered agent are as follows:

Christopher T. Lane	President/CEO
Alexander Eremia	Vice President
John Nguyen	Chairman
Anthony Casolaro, MD	Vice Chairman
O’Kelly McWilliams	Treasurer
Andre Collins	Secretary
Registered agent:	Alexander Eremia, Esquire
	1701 N. George Mason Drive
	Arlington, VA 22205

- (c) In the case of a partnership also attach: **Not applicable.**
- (1) A list of the names and addresses of all partners.
 - (2) The name and address of the general or managing partner.
- (d) In the case of other types of ownership, also attach such documents as will clearly identify the owner.
- H. List all subsidiaries wholly or partially owned by the applicant.
- See Attachment I.H—List of VHC Health Subsidiaries.**
- I. List all organizations of which the applicant is wholly or partially owned subsidiary.
- Not applicable.**
- J. If the operator is other than the owner, attach a list of the names(s) and addresses of the operator(s) of the medical care facility project. In the case of a corporate operator, specify the name and address of the Registered Agent. In the case of the partnership operator, specify the name and address of the general or managing partner.
- Not applicable.**
- K. If the operator is other than the owner, attach an executed copy of the contract or agreement between the owner and the operator of the medical care facility.
- Not applicable.**

SECTION II

ARCHITECTURE AND DESIGN

A. Location of the Proposed Project

1. Size of site: **22.5 acres**
2. Located in **Arlington County, PD 8** City/County/Planning District
3. Address or directions **1701 N. George Mason Drive**
Arlington, VA 22205
4. Has site been zoned for type of use proposed:

☒ Yes (attach copy of zoning or use permit)
☐ No
 If no, explain status _____

The site allows for hospital use and for the proposed expansion and building addition to VHC.

See Attachment II.A.4—Zoning Documentation.

B. Type of project for which Certificate of Public Need is requested. (Check one)

- (1) _____ New construction
- (2) ☒ Remodeling/modernization of an existing facility
- (3) _____ No construction or remodeling/modernization
- (4) ☒ Other **addition of eleven (11) adult intensive care unit (“ICU”) beds¹ and one (1) cardiac catheterization laboratory** (Identify)

C. Design of the facility

- (1) Does the facility have a long range plan? If yes, attach a copy.

While VHC Health’s long-range plan is confidential, its goals are to (i) provide the highest quality clinical care; (ii) achieve the highest levels of patient satisfaction; (iii) provide state-of-the-art facilities and

¹ While VHC Health’s letter of intent indicated that VHC Health would seek authorization to add 13 ICU beds, upon further review and analysis of associated space constraints, VHC Health proposes here the addition of only 11 ICU beds.

equipment; (iv) innovate in the use of information technology; (v) invest in the professional growth and development of its people; (vi) manage resources prudently; and (vii) serve the healthcare needs of the community.

By way of background, VHC Health (originally Arlington Hospital) has served the communities of Arlington, Alexandria, Falls Church, McLean, and other Fairfax County suburbs since 1944. It is the only remaining independent community hospital in Planning District (“PD”) 8 and a key low-cost provider in Northern Virginia.² Last year, VHC served nearly 350,000 unique patients. Today, VHC – a 530,000-square foot tertiary-level facility and academic medical center – is VHC Health’s only general acute care facility and a critical resource for residents of its service area, as reflected in high demand for its services.

VHC Health has long recognized a need to decompress the hospital’s high utilization and busy hospital campus and to streamline and expand inpatient and outpatient services. Over the past few years, the hospital has grown alongside its service area community, implementing a variety of acute care and ambulatory care expansions within its primary service area (“PSA”) to meet the current and growing needs of the facility and its patients. These endeavors have made VHC Health’s services geographically and financially more accessible by establishing off-campus facilities closer to the neighborhoods where its patients and their families live.

Despite those efforts, VHC Health has a growing need to expand on-campus capacity for services provided in the VHC inpatient facility. Particularly as advancements in medical technology, research, and treatment strategies have significantly improved the survivability of previously life-threatening complex conditions, the need for acute care resources is strong and growing, amplified by population growth and aging in the VHC PSA. As a result, today’s inpatients tend to have more complex health issues and suffer from higher-acuity conditions, multiple co-occurring medical comorbidities, and often chronic diseases.

To accommodate growing inpatient utilization and demand, VHC has sought to reconfigure and streamline services on the densely developed and landlocked VHC hospital campus, located in the middle of a residential neighborhood as illustrated below. Because the campus does not provide vacant space for any measurable new

² VHC’s net revenue per adjusted admission, i.e., the average dollar amount expected to be collected per admission, has historically been the second-lowest among all existing acute care hospitals in PD 8. See, e.g., 2023 VHI Hospital Industry Report, Hospital and Ambulatory Indicators.

development, however, it has been challenging for VHC Health to accommodate needed service capacity on site.

Aerial View of VHC Campus



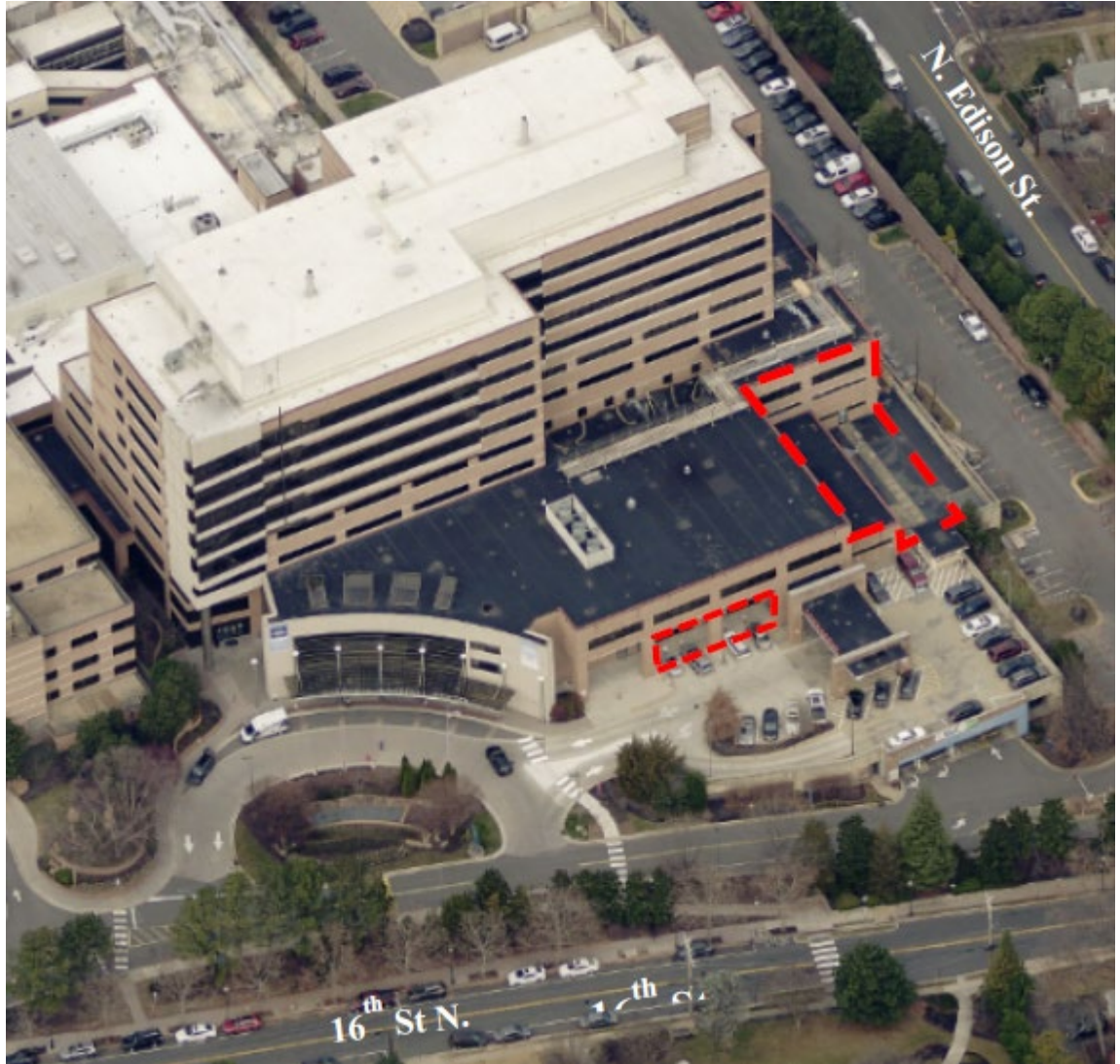
This project represents a rare opportunity to expand hospital space on the otherwise crowded VHC hospital campus and accommodate demand for three busy, growing, and interconnected service lines.

Specifically, in this application, VHC Health proposes to expand its ICU bed capacity, its cardiac catheterization service capacity, and its emergency department (“ED”) capacity (not COPN-reviewable). These service expansions will be implemented across a new three-floor addition to be constructed in an “internal corner” at the intersection of two existing buildings (the “Corner Addition”), adjacent to and above the existing hospital ED and seamlessly connected to existing hospital space across three floors of the existing hospital building,³ along with the addition of a new waiting area under the second floor overhang at the front of the ED, as illustrated below. Incorporating these service expansions as part of the overall Corner Addition will allow VHC Health to not only meet patient and area needs but also capitalize on efficiencies of scale in the development of the project, reducing the overall cost of the project, and minimizing the duration of construction and thus the disruption to patient care. In short, the

³ See Attachment II.C(1) – Corner Addition Capital Expenditure Registration.

project addresses patient service needs, VHC Health's long-term goals, and its responsibility for judicious campus development.

Corner Addition Illustration



- (2) Briefly describe the proposed project with respect to location, style and major design features, and the relationship of the current proposal to the long range plan.

The location, style, design, and scope of the project are the result of extensive discussions and planning for space-maximizing expansion options on the VHC hospital campus. While only about 15,000 square feet, the three-story Corner Addition will allow the expansion of three critical and clinically codependent services and spaces – the ED, the ICU, and the cardiovascular care unit. Each floor expansion will be built adjacent to existing space currently housing the corresponding

existing service, allowing for seamless transitions between the spaces and efficient rearrangement and renovation of existing space.

Specifically, eleven private-room ICU beds will be added to the expanded ICU. Of those, five beds will be added to the VHC cardiovascular ICU (“CVICU”) (for a total of nine CVICU beds), and the remaining six ICU beds will be added to the general ICU (for a total of 34 general ICU beds), resulting in an overall total of 43 ICU beds at VHC.

In addition, all existing ICU space, including beds, support and treatment areas, and patient/family space will be expanded and upgraded, including by enlarging all existing ICU patient rooms, several of which are undersized. The proposed cardiac catheterization laboratory, to be located directly below the ICU, will similarly help VHC to more efficiently treat patients with heart disease and appropriately allocate staff and resources. Finally, as part of the Corner Addition, VHC Health will expand the busy VHC ED – a gateway to critical hospital services, especially for patients requiring immediate cardiovascular intervention and other intensive care services.

Addressing the proposed service expansions as part of the broader Corner Addition will yield multiple synergistic benefits. For example, VHC Health will be able to consolidate permitting, contractor mobilization, construction, and procurement processes, avoiding the added expense of individual future projects. Consolidation will also minimize the duration of construction and thus the disruption to patient care. See also Section II.C(6).

In brief, the proposed project (and the Corner Addition more broadly) is a critical component of VHC Health’s long-range plan and reflects a rare opportunity to expand in place to efficiently address patient needs.

- (3) Describe the relationship of the facility to public transportation and highway access.

VHC is centrally located in Arlington County, a suburb of Washington, D.C. The surrounding area is a mix of single-family residential communities, large multi-family housing developments, and commercial development around the Orange and Silver Lines of the Metrorail transit system. Major highway access is provided by Route 66 and Route 29 (east and west) and by N. George Mason Drive and Glebe Road, two four-lane local cross-county connectors that

travel primarily North/South. Emergency vehicles primarily use Glebe Road and Washington Boulevard to access the hospital.

Public transportation, including Metrorail and bus services, augments VHC's accessibility. Metrorail patrons can use the Arlington Connector (ARTbus) to access the hospital from the local Metro transit stations. There are two bus stops adjacent to the hospital campus. One stop is at the hospital's main entrance at N. George Mason Dr., and the other stop is at the hospital's entrance off 16th Street. Additionally, Washington Metropolitan Area Transportation Authority provides handicapped para-transit.

- (4) Relate the size, shape, contour and location of the site to such problems as future expansion, parking, zoning and the provision of water, sewer and solid waste services.

The proposed ICU beds and cardiac catheterization laboratory will be located within the Corner Addition. The additional space on each newly constructed floor will expand the service/unit already operational on that floor. The existing hospital building is already served with water, sewer, and other utility services, which are sufficient to support the proposed Corner Addition. A site plan highlighting the location of the Corner Addition is provided at Attachment II.F. Given the recent construction of the outpatient parking garage on the VHC campus, there will be ample parking to support the project.

- (5) If this proposal is to replace an existing facility, specify what use will be made of the existing facility after the new facility is completed.

Not applicable; VHC Health is not proposing to replace an existing facility.

- (6) Describe any design features which will make the proposed project more efficient in terms of construction costs, operating costs or energy conservation.

The construction and renovation required for this project will comply with all applicable regulations and standard practices for hospital construction and energy conservation, including:

- IBC (International Building Code, as supplemented by the Virginia Uniform Statewide Building Code ("VaUSBC"));
- IECC (International Energy Conservation Code, as supplemented by VaUSBC);

- GDCHF (Guidelines for Design and Construction of Health Care Facilities);
- IMC (International Mechanical Code);
- ASHRAE (American Society of Heating, Refrigerating and Air-Conditioning Engineers as per IMC and as applicable for IECC Standards);
- ICC Electrical Code (International Code Council – Electric);
- IPC (International Plumbing Code);
- IFC (International Fire Code);
- Arlington County Zoning and Fire Prevention Code;
- Americans with Disabilities Act, Accessibility Guidelines for Building and Facilities;
- ANSI A1-117 (and as per VA and/ or Arlington County Standards); and
- Guidelines for Design and Construction of Health Care Facilities.

VHC Health’s proposal will use the hospital’s existing infrastructure to supply HVAC, utilities, and medical gases. The new addition will include a high-efficiency mechanical system that will be fully integrated with the hospital’s recently upgraded central utility plant, further enhancing energy performance and operational efficiency. A new mechanical air handler will offer energy efficient features such as variable speed fans and the ability to provide air volume for the entire floor; a new chiller will also be installed. These features will enhance VHC’s isolation capacity based on recent experience during the 2020 COVID-19 outbreak.

Further, the COVID-19 experience has underscored the importance of Airborne Infection Isolation (“AII”) rooms and fully exhausted patient spaces. Accordingly, VHC is developing select ICU and ED rooms as AII rooms. In addition, the new ED will include a 6-room unit that can be closed off and separated and is fully exhausted and operated under negative pressure, with a separate entrance, to manage infectious disease outbreaks. These and other infection isolation-driven design features will enable VHC to safely manage patients requiring isolation while maintaining flexibility and operational readiness.

The consolidation of all three service expansions within one construction project will offer various efficiencies of scale and logistic benefits. Staging construction within an operational hospital is inherently challenging, causing noise, vibration, dust, staff and patient re-routing, and possibly temporary closures, and introducing infection control risks and workflow interruptions, particularly in critical care and procedural areas. Integrating the addition of ICU

beds and a cardiac catheterization laboratory with the expansion of the VHC ED and construction of the Corner Addition will allow VHC to minimize those hospital-specific construction barriers.

Further, structural requirements are also easier and cheaper to build into new construction than to retrofit later; the mechanical, electrical, and plumbing systems can be planned and scaled to support ICU and catheterization lab demands from the onset. This single phase approach further allows permitting, architectural, and engineering work to only be performed once, with designs optimized holistically rather than piecemeal, and for bulk procurement of materials and equipment, shared contractor mobilization, and a unified project timeline. In contrast, implementing the ICU bed addition and additional catheterization laboratory after the Corner Addition is complete would not only fail to meet VHC patients' and the PD's current needs but would also (i) require additional mitigation efforts to minimize hospital construction issues during distinct implementation phases; and (ii) prolong the period during which those mitigation efforts must be deployed.

Consolidation of the COPN project with the Corner Addition not only reduces the burdens and disruptions to hospital services but also allows for significant cost efficiencies and time savings. This includes more favorable equipment pricing, contractor bids, and consultant pricing due to economies of scale. Conversely, multiple separate projects would incur higher costs due to multiple mobilizations, additional general conditions, low-tier equipment pricing, additional project management resources, duplicative general contractor engagement, and potential for consultant overlap.

In short, implementing ICU and cardiac catheterization capacity now, in connection with the Corner Addition, is the most practical, reasonable, efficient, and cost-effective way to address current and future demand.

- D. Describe and document in detail how the facility will be provided with water, sewer and solid waste services. Also describe power source to be used for heating and cooling purposes. Documentation should include, but is not limited to:
- (1) Letters from appropriate governmental agencies verifying the availability and adequacy of utilities,
 - (2) National Pollution Discharge Elimination System permits,
 - (3) Septic tank permits, or
 - (4) Receipts for water and sewer connection and sewer connection fees.

All utilities necessary to support this project are currently available on the VHC campus.

See Attachment II.D—Documentation of Utilities.

E. Space tabulation – (show in tabular form)

1. If Item #1 was checked in II-B, specify **Not applicable.**
 - a. The total number of square feet (both gross and net) in the proposed facility.
 - b. The total number of square feet (both gross and net) by department and each type of patient room (the sum of the square footage in this part should equal the sum of the square footage in (a) above and should be consistent with any preliminary drawings, if available).
2. If Item #2 was checked in II-B, specify:

See Attachment II.E.2—Space Tabulation.

- a. The total number of square feet (both gross and net) by department and each type of patient room in the existing facility.
- b. The total number of square feet (both gross and net) to be added to the facility.
- c. The total number square feet (both gross and net) to be remodeled, modernized or converted to another use.

As part of the Corner Addition, 50,320 SF of existing space within the VHC hospital building will be renovated, including:

- **27,400 SF within the existing ED on the ground floor of the northeast corner of the VHC hospital building;**
 - **14,320 SF on the first floor of the hospital building above the expanded ED; and**
 - **8,600 SF on the second floor of the hospital building above the expanded ED and housing the ICU.**
- d. The total number of square feet (both gross and net) by department and each type of patient room in the facility upon completion. (The sum of square footage in this part should equal the sum of the square footages in parts (a) and (b) above and should be consistent with any preliminary drawings, if available.) (The department breakdown should be the same as in (a) above).

3. Specify design criteria used or rationale for determining the size of the total facility and each department within the facility.

All aspects of VHC's proposal will meet the requirements of (i) the Facilities Guidelines Institute's Guidelines for the Design and Construction of Hospitals and Outpatient Facilities; (ii) the Virginia Hospital Standards for Patient, Support, and Diagnostic Services; and (iii) the standards of the Centers for Medicare and Medicaid Services. See also Response to Section II.C(6).

Additional criteria, including inpatient volume and area needs for services, were considered in determining the ICU bed and cardiac catheterization service capacity needed and the necessary support services and spaces for those additional resources. Overall, the project has been designed to provide:

- **ICU staffing ratios of 1:2 based on acuity;**
- **Optimized ICU layout for clear patient visibility;**
- **Direct connectivity between ICU and CVICU for coordinated care;**
- **Dedicated Comprehensive Psychiatric Emergency Program ("CPEP") for behavioral health;**
- **Fast Track unit for low-acuity ED patients;**
- **A welcoming, patient-centered environment;**
- **Specialized equipment;**
- **Flexible, infection-controlled room design;**
- **Enhanced patient safety through efficient workflows;**
- **In-room EMR charting for streamlined care;**
- **Scalable services aligned with community needs; and**
- **Support for families.**

- F. Attach a plot plan of the site which includes at least the following:

1. The courses and distances of the property line.
2. Dimensions and location of any buildings, structures, roads, parking areas, walkways, easements, right-of-way or encroachments on the site.

See Attachment II.F—Plot Plan.

- G. Attach a preliminary design drawing drawn to a scale of not less than 1/16"-1'0" showing the functional layout of the proposed project which indicates at least the following:

1. The layout of each typical functional unit.

2. The spatial relationship of separate functional components to each mechanical spaces.
3. Circulatory spaces (halls, stairwells, elevators, etc.) and mechanical spaces.

See Attachment II.G—Preliminary Design Drawings.

H. Construction Time Estimates

1. Date of Drawings: Preliminary **2/4/2025**
Final **6/6/2025**
2. Date of Construction: Begin: **July 2025**
Completion: **February 2028**
3. Target Date of Opening: **March 2028**

While the proposed cardiac catheterization lab is anticipated to be completed by May 2027 and the ICU beds are expected to be operational by August 2027, the entirety of the Corner Addition is projected to be completed by March 2028.

SECTION III

SERVICE DATA

- A. In brief narrative form describe the kind of services now provided and/or the kind of services to be available after completion of the proposed construction or equipment installation.

VHC operates 453 beds and offers comprehensive inpatient services, including medical-surgical, adult intensive care, pediatric, obstetric, medical rehabilitation, neonatal intensive care services, and other complementary services. VHC also operates a Level 2 Trauma Center, a certified Comprehensive Stroke Center, a cardiovascular care unit nationally recognized for its high quality care,⁴ and Arlington County's only acute care hospital-based mental health unit. An overview of the services relevant to this application is provided below.

ICU Services

As an academic medical center, VHC treats some of the sickest and most medically complex patients in its 28-bed ICU and four-bed CVICU.⁵ It serves as a safety net provider, an innovation hub, and training grounds. Its Level II trauma center receives critically injured patients 24/7, including victims of motor vehicle accidents, falls, gun violence, and industrial accidents. VHC also routinely treats patients with multiple comorbidities who require specialized therapies, multiple surgeries, intensive monitoring, and prolonged ICU stays. Its ICU supports multiple patient populations across the hospital, including ED and trauma patients and post-surgical patients. VHC's ICU also serves patients who had been in medical-surgical units but who experience sudden escalation of clinical needs due to infection, cardiac events, respiratory failure, or complications of chronic disease.

Across these patient groups, access to the ICU is vital for timely intervention, optimal clinical outcomes, and survival. Adequate ICU bed capacity is not just about accommodating critical care patient volumes but also about ensuring, on a daily basis, system-wide readiness, responsiveness, and patient safety throughout the hospital. It is essential to support effective management of daily fluctuations in patients requiring intensive care, more efficient resource allocation, and more effective delivery of critical care. Indeed, the lack of available ICU beds can delay escalation of care, increasing the risk of morbidity and mortality; it can result in the postponement of surgeries or canceling of elective procedures, leading to delays in

⁴ VHC's cardiovascular care unit holds the following distinctions: (i) Aetna Institute of Quality for Cardiac Care; (ii) BlueCross BlueShield Distinction Center for Cardiac Care; and (iii) UnitedHealthcare Premium Cardiac Specialty Center.

⁵ VHC has consistently operated 32 ICU beds (28 general ICU beds and four CVICU beds). It appears that since 2020, VHC has inadvertently reported 8 additional beds co-located with the CVICU as ICU beds; however, those beds have never operated as ICU/CVICU beds but rather as step-down care beds and thus reflect medical-surgical beds. The occupancy of these beds has been correctly reported as medical-surgical occupancy. The reported ICU occupancy likewise correctly reflects only patient days in VHC's 32 ICU beds, but the classification of the eight step-down beds has been misstated, resulting in incorrect reporting of 40 ICU beds at VHC.

treatment and increased risk of complications; and it can extend ED boarding of patients, leading to ED overcrowding and straining ED resources and staff. VHC Health's proposal seeks to address a demonstrated need for the proposed ICU beds and cardiac catheterization laboratory – at VHC, in the service area, and in PD 8.

Cardiac-Related Services

VHC's cardiovascular care unit, established in 1964, was the first in the region and only the third in the United States to offer specialized care for heart disease. Today, it offers complex diagnostic, therapeutic, and surgical care, including open heart surgery – one of three open-heart services in PD 8. Over the past 18 months, and following the retirement of various key cardiac staff members, VHC has hired three cardiovascular and thoracic surgeons, one electrophysiologist, three cardiac nurse practitioners, and two cardiovascular operating room physician assistants. Credentialing is in progress for an additional cardiologist and three cardiology/cardiovascular and thoracic surgery nurse practitioners. Further new hires are planned for the near future. With those additions – each an important and necessary investment in the hospital's ability to meet the increasing demand for high-acuity cardiac care in the service area – VHC has expanded the range of services available to cardiac patients in the community.

CVICU Services

VHC's comprehensive Cardiovascular Intensive Care Unit is staffed with cardiologists, interventional cardiologists, vascular and endovascular surgeons, and other advanced team providers. The CVICU cares for patients with severe heart conditions, including patients suffering from heart attacks or heart failure. Many higher-risk cardiac surgical cases at VHC are at risk for rapid changes in their condition and for serious comorbidities such as respiratory or renal failure; they typically require immediate post-operative ICU care for close monitoring, advanced pain control, ventilator support, or management of potential complications such as bleeding or organ dysfunction. Additionally, many cardiovascular patients undergoing minimally invasive procedures, even cardiac catheterization, often require pre- and/or post-procedure monitoring and care in the ICU/CVICU.

Cardiac Catheterization Services

Within its cardiovascular care unit, VHC also operates four busy cardiac catheterization laboratories. With average cardiac catheterization laboratory utilization at 94.2% in 2023, VHC ranked second-highest among all existing providers in PD 8. Cardiac catheterization services are critical for diagnosing and treating heart conditions and support a variety of specialized minimally invasive procedures for higher acuity patients. For example, cardiac catheterization can (i) assess the function of heart valves and identify conditions like stenosis (narrowing) or regurgitation (leakage); (ii) evaluate and treat arrhythmia; (iii) diagnose coronary artery disease; (iv) determine the cause of heart failure,

including cardiomyopathy (enlarged heart); (v) diagnose and treat congenital heart defects; (vi) open blocked arteries, often with angioplasty and stent placement; (vii) replace or repair heart valves (for example via transcatheter aortic valve replacement); (ix) remove plaque from the arteries via atherectomy; and (x) be used for a range of other cardiac procedures like biopsies and hybrid procedures. As a Level 2 Trauma Center, VHC treats high volumes of patients with serious cardiovascular issues and the need for immediate intervention.

Cardiac catheterization laboratories are also used for electrophysiology (“EP”) procedures, which help diagnose and treat heart rhythm disorders such as atrial fibrillation, pulmonary vein (“PV”) procedures, and catheter-based structural heart cases such as Transcatheter Aortic Valve Replacement (“TAVR”), Transcatheter Pulmonary Valve Replacement (“TPVR”), and Transcatheter Mitral Valve Replacement (“TMVR”). Structural heart, EP procedures, and PV procedures require precise imaging, fluoroscopy, EP mapping, and angiography. Cardiac catheterization labs are equipped with the requisite technology, including high-resolution fluoroscopy, radiation shielding, infrastructure for electroanatomic mapping, and seamless integration with ablative energy sources. Because cardiac catheterization labs are designed for high-risk interventions, they also present the safest setting for structural heart, EP, and PV procedures, which can carry the risk of vascular injury, stroke, or arrhythmias.

Logistically, the performance of structural heart, EP, and PV procedures alongside cardiac catheterization procedures in a cardiac catheterization lab also offers numerous efficiency and continuity of care benefits. For example, it avoids the need for costly duplication of or upgrades to other standalone procedure rooms, separate scheduling systems, staffing duplication, and delays in turnover from room-to-room transitions. It also minimizes the fragmentation of care, particularly as some patients require multiple types of procedures and as that need is often not determinable until following the cardiac catheterization procedure. These other procedures are not counted in VHC’s cardiac catheterization utilization, at 109% in 2025. However, because they are performed in the cardiac catheterization laboratories, VHC’s high volume of those procedures impacts the accessibility of its cardiac catheterization services. For example, in 2025, VHC’s cardiac catheterization laboratories accommodated an additional 1,334 other procedures which are not reflected in its 109% average utilization based on the State Medical Facilities Plan’s (“SMFP’s”) threshold.

ED Services and the Comprehensive Psychiatric Emergency Program

While the ED expansion is not subject to COPN authorization, because the Corner Addition will accommodate the expanded ED along with the additional cardiac catheterization laboratory and ICU beds, the ED component is also important to consider. VHC’s hospital ED provides a full array of emergency services, including diagnostic imaging, laboratory services, consultations and treatment from a broad range of specialists such as cardiologists, interventional radiologists, obstetricians,

gynecologists, and surgeons. The ED is often the gateway to admission and inpatient care. Its utilization has been consistently robust. In 2023, with 67,295 visits, VHC's ED was the second-busiest ED in PD 8. VHC also had the second-highest volume of patients who arrived at its ED via ambulance.⁶ The ED's expansion as part of the Corner Addition reflects a creative solution to the space shortage on the campus, developed with the input of the VHC Health team of hospital design experts and architects.

In addition, the planned ED expansion will better serve patients experiencing psychiatric crisis because it will include a special area for the development of a CPEP. The CPEP is an innovative approach to caring for the emergency needs of psychiatric patients within an environment that is part of the ED but offers vulnerable mental health patients a calm, secure, more therapeutic, and trauma-informed setting. This separate area will be used to provide a comprehensive range of therapeutic services and continuous, personalized care by mental health staff, tending to individuals who may be behaviorally dysregulated due to symptoms of mental illness or substance abuse disorders. The prompt evaluation and treatment necessary for patients in urgent need of services will dramatically reduce patient boarding in the ED. Community education will further mitigate the stigma associated with mental health issues. The proposed expansion will provide additional space and needed capacity, thus improving care delivery, internal circulation, and the patient experience.

Clinical Benefits of Simultaneous Expansion

To meet its patients' and its service area's growing need for cardiovascular and ICU services, VHC Health proposes here, as part of the Corner Addition, the addition of eleven ICU beds (including five CVICU beds and six general ICU beds) and a cardiac catheterization laboratory, coupled with the (non-reviewable) expansion of the hospital's busy ED. With approval of the project, VHC will operate a total of 43 ICU beds (nine CVICU beds and 34 general ICU beds) and five cardiac catheterization labs.

The consolidation of those service expansions in one application and one construction project reflects the clinical interconnectedness of the services. Indeed, the delivery of cardiovascular care, ICU, and cardiac catheterization services is highly interdependent in terms of patient flow, acuity, and treatment needs. Many cardiac catheterization and cardiovascular patients require intensive post-procedure monitoring, advanced technologies, critical support, and prolonged ICU care. For example, many cardiac catheterization procedures such as percutaneous coronary interventions, structural heart interventions (such as TAVR, TPVR, and TMVR), or EP ablations require ICU-level monitoring pre- and post-procedure, especially for patients with complex comorbidities or unstable cardiovascular status. Emergent cardiac catheterization patients such as patients with ST-elevation myocardial infarction ("STEMI") or cardiogenic shock must likewise be admitted to

⁶ 2023 VHI Emergency Data.

the ICU post-procedure. The demand for cardiac catheterization at VHC – driven by growing patient and community needs, new service lines, and added cardiovascular providers – in turn drives the demand on ICU beds.

At the same time, the ED is often the first point of contact for patients who require immediate cardiovascular intervention or intensive care – such as patients suffering from acute myocardial infarctions, cardiac arrhythmias, advanced heart failure, sepsis, stroke, and trauma. These patients typically require direct admission to the ICU and/or rapid access to a cardiac catheterization lab, diagnostic interventional procedures, pacemaker placement, emergency EP studies, and highly specialized postoperative or post-catheterization care. In fact, the ED depends on access to these downstream resources to deliver life-saving care.

B. Specify the historical and projected utilization of the facility using the following format:

Due to recent COPN approvals and some historical VHI reporting inconsistencies, it is helpful to revisit VHC's bed history prior to assessing recent occupancy levels.

As of 2024, VHC operated 371 beds, as reflected in the historical utilization table for the past three fiscal years further below. This bed capacity does not account for 66 of 87 additional medical-surgical beds approved in 2017 and 2020; only 21 of those 87 beds were operational in 2024. It also does not reflect 16 additional, not-yet-operational psychiatric beds, approved in 2022. In 2025, VHC Health completed all approved medical-surgical beds at the hospital, for a total of 274 medical-surgical beds and a complement of 437 operational inpatient acute care beds. Additionally, VHC has consistently operated 32 ICU beds.⁷

VHC Authorized and Operational Beds 2024-2025

Bed Type	2024 Authorized VHC Beds	2024 Operational VHC Beds	2025 Operational VHC Beds
Medical-Surgical	274 ⁸	208 ⁹	274
ICU	32	32	32
Pediatric	13	13	13
Obstetric	58	58	58
Medical Rehabilitation	20	20	20
Mental Health	56 ¹⁰	40	40
TOTAL	453	371	437

⁷ VHC has consistently operated 32 ICU beds but has since 2020 erroneously reported 40 ICU beds due to a misclassification of eight medical-surgical beds used as step-down beds in the ICU. See n. 5.

⁸ Reflects approval of 44 medical-surgical beds per COPN No. VA-04563 issued 5/19/2017 and 43 med-surg beds per COPN No. VA-04724 issued 11/16/2020.

⁹ Reflects opening of 21 of the 44 medical-surgical beds approved per COPN No. VA-04563, in addition to the 187 medical-surgical beds historically operated at VHC.

¹⁰ Reflects approval of 16 additional psychiatric beds per COPN No. VA-04773 issued 2/7/2022.

With the Commissioner’s 2024 approval of the VHC Health Wellness Hospital (“Wellness Hospital”) – a facility to be outfitted with some beds to be relocated from VHC – the authorized bed count at VHC will change. Specifically, the Wellness Hospital will contain 146 beds, comprised of 96 mental health beds (54 new and 42 relocated from VHC, including the 16 psychiatric beds approved for VHC in 2022) and 50 medical rehabilitation beds (30 new and 20 relocated from VHC).¹¹ The project is expected to be operational in 2028. The corresponding authorized bed counts for VHC and the Wellness Hospital are updated in the table immediately below.

VHC Authorized Beds Following Opening of Wellness Hospital

Bed Type	2024 Authorized VHC Beds	Wellness Hospital Authorized Beds	Beds at VHC Following Opening of Wellness Hospital
Medical-Surgical	274	-	274
ICU	32	-	32 ¹²
Pediatric	13	-	13
Obstetric	58	-	58
Medical Rehabilitation	20	50	0 ¹³
Mental Health	56	96	14 ¹⁴
TOTAL	453	146	391

Notably, until the Wellness Hospital opens, the beds approved for relocation to the new facility remain operational at VHC. Given that the Wellness Hospital is anticipated to be complete by the time the ICU beds and cardiac catheterization laboratory proposed in this application become operational, the utilization projections for 2028 and 2029 in the table below reflect the bed counts authorized for VHC following relocation of certain beds to the Wellness Hospital – i.e., a total of 391 beds at VHC – plus the eleven ICU beds proposed in this application, for a total of 402 inpatient beds at VHC following implementation of all currently pending inpatient bed projects.

¹¹ COPN No. VA-04888 issued 6/3/2024.

¹² Does not reflect the beds requested in this application.

¹³ All 20 of VHC’s medical rehabilitation beds will be relocated to Wellness Hospital.

¹⁴ 42 of the 56 mental health beds approved for VHC will be relocated to Wellness Hospital, leaving 14 psychiatric beds at VHC.

	Past Three Fiscal Years			Projected Two Years Following Completion	
	2022	2023	2024	Year 1 2028	Year 2 2029
1. Inpatient Data					
Total Licensed Beds	371	371	371	402	402
Total Patient Days	113,882	111,161	109,575	112,874	116,610
Total Occupancy %	84.1%	82.1%	80.9%	76.9%	79.5%
Total Discharges	22,637	23,046	23,422	24,215	24,899
Total Discharge Days	119,347	117,981	118,929	116,899	120,753
Average Length of Stay	5.3	5.1	5.1	4.8	4.8
2. By Major Inpatient Services					
a. Medical/Surgical Beds	208	208	208	274	274
Medical/Surgical Patient Days	83,039	80,346	79,724	89,730	92,422
Medical/Surgical Occupancy %	109.4%	105.8%	105.0%	89.7%	92.4%
Medical/Surgical Discharges	16,114	16,387	16,850	18,965	19,534
Medical/Surgical Discharge Days	87,032	80,997	83,094	93,523	96,329
Average Length of Stay	5.4	4.9	4.9	4.9	4.9
b. Pediatric Beds¹⁵	13	13	13	13	13
Pediatric Patient Days	79	77	78	78	78
Pediatric Occupancy %	1.7%	1.6%	1.6%	1.6%	1.6%
Pediatric Discharges	97	98	99	99	99
Pediatric Discharge Days	216	215	216	216	216
Average Length of Stay	2.2	2.2	2.2	2.2	2.2
c. Obstetric Beds¹⁶	58	58	58	58	58
Obstetric Patient Days	11,765	12,113	11,604	11,604	11,604
Obstetric Occupancy %	55.6%	57.2%	54.8%	54.8%	54.8%
Obstetric Discharges	4,482	4,320	4,290	4,290	4,290
Obstetric Discharge Days	8,340	12,277	11,859	11,859	11,859
Average Length of Stay	1.9	2.8	2.8	2.8	2.8

¹⁵ Notably, low pediatric occupancy is not unusual. At VHC, average daily census of the 13 pediatric beds is often less than the licensed bed complement, so VHC has regularly used its pediatric beds to accommodate surges in demand for its medical-surgical beds. That occupancy is reflected under medical-surgical occupancy; pediatric occupancy reflects only use of pediatric beds by pediatric patients.

¹⁶ VHC does not regularly operate at least three of its OB beds which are located in very small and outdated rooms, to be renovated in the future.

	Past Three Fiscal Years			<u>Projected Two Years Following Completion</u>	
	2022	2023	2024	Year 1 2028	Year 2 2029
d.1. Psychiatric Beds (Adult) ¹⁷	40	40	40	14	14
Psychiatric Patient Days	5,313	4,927	4,664	2,483	3,495
Psychiatric Occupancy % ¹⁸	36.4%	33.7%	31.9%	48.6%	68.4%
Psychiatric Discharges	1,006	1,236	1,179	273	376
Psychiatric Discharge Days	11,133	10,841	10,267	2,482	3,495
Average Length of Stay	11.1	8.8	8.7	9.1	9.3
d.2. Psychiatric Beds (Pediatric)	Not applicable.				
e. Long-Term Care/Nursing Home Beds	Not applicable.				
f.1. Adult ICU Beds	32	32	32	43	43
Adult ICU Patient Days	7,082	6,792	6,639	8,976	9,011
Adult ICU Occupancy %	60.6%	58.2%	56.8%	57.2%	57.4%
Adult ICU Discharges	440	436	470	588	590
Adult ICU Discharge Days	6,041	6,723	6,660	8,819	8,854
Average Length of Stay	14	15	14	15	15
f.2. Pediatric ICU Beds	Not applicable.				
g. CCU Beds	Included with ICU Beds above.				
h. Medical Rehab Beds	20	20	20	0	0
Medical Rehab Patient Days	6,604	6,906	6,866	-	-
Medical Rehab Occupancy %	90.5%	94.6%	94.0%	-	-
Medical Rehab Discharges	498	569	534	-	-
Medical Rehab Discharge Days	6,585	6,928	6,833	-	-
Average Length of Stay	13.2	12.2	12.8	-	-

¹⁷ Projected utilization per COPN Request No. VA-8744, the Wellness Hospital application. Wellness Hospital is anticipated to become operational in 2028.

¹⁸ Because all the existing psychiatric beds are located in semi-private rooms, VHC has at times been unable to accommodate certain patients because of various co-rooming compatibility issues such as the patient's age, gender, acuity, psychiatric diagnosis, aggressive behavior, and medical comorbidities. These co-rooming challenges functionally limit VHC's practical capacity.

- C. State assumptions and show methodology used to calculate projections for two years following completion of the proposed project.

VHC has projected utilization of its beds based on a range of factors, including (i) VHC's historical bed utilization and growth; (ii) the acuity of inpatients receiving inpatient care at VHC; (iii) relocation of beds to the Wellness Hospital; (iv) strong inpatient cardiovascular utilization, including cardiac catheterization and cardiovascular surgical utilization; (v) the growing demand on VHC's ED; (vi) growth of the VHC cardiovascular program; (vii) the growing demand for endovascular procedures; and (viii) demographic factors, including population growth and aging in VHC's service area. Certain specific factors are discussed in more detail below.

a) Cardiovascular Program Growth

The proposed expansion of VHC's ICU and cardiac catheterization labs is necessary to accommodate the growing number of cardiovascular providers who now regularly perform procedures at the hospital, placing increasing pressure on existing resources in meeting the growing public need for cardiovascular services. Over the past year, VHC has increased the staff of its cardiovascular program, hiring two additional providers – a cardiothoracic surgeon and an electrophysiologist – and anticipates hiring another cardiovascular/thoracic surgeon and at least one additional electrophysiologist and structural heart physician within the next several months. Additionally, four Kaiser physicians (two electrophysiologists and two interventionalists) have recently become credentialed on VHC's medical staff and have started performing cardiac procedures at VHC. Two additional private practice physicians have likewise been credentialed and require time for cardiac procedures.

This addition of interventional cardiologists and structural heart specialists has already led to a meaningful increase in the volume and complexity of surgical procedures performed, including subspecialized thoracic interventions, structural heart procedures, and emergent vascular repairs. Increasing numbers of cardiovascular physicians increasingly request time in VHC's cardiac catheterization labs. More broadly, over the past several years, demand for these procedures has grown substantially, driven by a combination of an aging and growing population and rising prevalence of complex cardiac disease in the service area. Today, multiple physicians are routinely scheduling cases, often competing for limited procedural time.

b) Growing Demand for Endovascular Procedures

The additional resources proposed here are also urgently needed to support the increasing demand for advanced endovascular procedures, particularly carotid artery stenting, which requires both procedural capacity and appropriate post-procedure critical care. As carotid artery disease becomes more commonly

managed through minimally invasive approaches, VHC has a need to accommodate carotid stenting and related high-risk vascular procedural interventions. These procedures, many of which are now performed in the cardiac catheterization lab by interventional cardiologists and vascular specialists, require dedicated scheduling and procedural planning, sedation or anesthesia services, and appropriate ICU-level recovery monitoring due to the potential for neurologic and hemodynamic complications post-intervention. Lack of appropriate ICU bed capacity can delay care and recovery and give rise to challenges in efficiently turning over cases.

c) Service Area Demographics

Population growth in VHC's service area is significant, especially in Arlington County, where VHC is the only acute care hospital, and in the surrounding communities. Arlington County is one of the fastest-growing localities in Northern Virginia as well as the Commonwealth of Virginia at large, registering 16.5% population growth between 2010 and 2020. VHC's service area includes not only Arlington County but several other localities experiencing significant population growth in that same timeframe, including Falls Church City (17.9%) and Alexandria City (13.6%).¹⁹ This growth is anticipated to continue as Arlington County is forecasting strong growth in population, housing, and employment over the next two decades. Specifically, Arlington County is projecting 36.3% growth in population, 36.7% growth in households, and 28.3% growth in employment between 2015 and 2045. The City of Alexandria and the inner suburbs of Washington DC, most of which overlap with VHC's service area, are also projected to experience similar growth.²⁰ At the same time, in 2024, approximately 12.4% of Arlington County's residents were 65 years or older.

In addition, rising demand for cardiovascular interventions in Virginia is driven by demographic and epidemiologic trends. Indeed, Arlington County has a significantly higher ICU and cardiac ICU use rate per capita than for example Fairfax County. Alexandria, also a key part of VHC's PSA, likewise has a high cardiac ICU rate.²¹ As cardiovascular disease rates continue to grow, particularly in older adults, these demographics will continue to fuel a need for better access to ICU and cardiac catheterization services at VHC and in its service area.

D. Existing and/or Proposed Bed Complement

1. <u>Hospitals</u>	Distribution Of Existing	Total Beds	Total Beds To be Lost or Removed	Total Beds After Construction (Should equal sum of

¹⁹ Weldon Cooper Center, Intercensal Estimates for Virginia, Counties and Cities, 2010-2020 (January 29, 2021).

²⁰ Metropolitan Washington Council of Governments Cooperative Forecasts data (2018).

²¹ www.healthierarlington.com.

	Licensed Beds	to be Built	from Service	Columns 1, 2 and 3)
Medical/Surgical	274	_____	_____	274
Obstetrical	58	_____	_____	58
Pediatric	13	_____	_____	13
Psychiatric	40	_____	26 ²²	14
Intensive/Coronary Care	32	11	_____	43
Long-Term/Extended Care	_____	_____	_____	_____
Self-Care	_____	_____	_____	_____
Other (Specify)	_____	_____	_____	_____
Inpatient Rehab	20	_____	20 ²³	0
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
TOTAL	437	11	46	402
Newborn Bassinets	_____	_____	_____	_____
2. <u>Nursing Home Units</u>	N/A			
Skilled Care	_____	_____	_____	_____
Intermediate Care	_____	_____	_____	_____
Other (Specify)	_____	_____	_____	_____
_____	_____	_____	_____	_____
TOTAL	_____	_____	_____	_____
3. <u>Bed Assignment (reflects bed counts)</u>				
One Bed Rooms	419	11	28	402
Two Bed Rooms	18	_____	18	_____
Three Bed Rooms	_____	_____	_____	_____
Four Bed Rooms	_____	_____	_____	_____
Other (Specify)	_____	_____	_____	_____
TOTAL	437	_____	_____	402

E. Facilities and Services to be Provided (Check)

This

²² Will be relocated to the VHC Wellness Hospital per COPN No. VA-04888 (2024), along with 16 additional psychiatric beds authorized per COPN No. VA-04773 (2022).

²³ Id.

		<u>Existing</u>	<u>This Project To be Added</u>	<u>This Project to be Discontinued</u>	<u>Project to be Expanded Renovated</u>
1.	Post Operative Recovery Room	<u>X</u>	_____	_____	_____
2.	Intensive Care Unit Cardiac	<u>X</u>	<u>X</u> (expansion of existing bed capacity)	_____	_____
3.	Open Heart Surgery Facilities	<u>X</u>	_____	_____	_____
4.	Pharmacy with full-time pharmacists with part-time pharmacists	<u>X</u> _____ _____	_____ _____ _____	_____ _____ _____	_____ _____ _____
5.	Diagnostic Radiological Services x-ray ultrasonography radiosotope CT scanning	<u>X</u> <u>X</u> <u>X</u> <u>X</u>	_____ _____ _____ _____	_____ _____ _____ _____	_____ _____ _____ _____
6.	Therapeutic Radiological Services Brachytherapy Specify Source(s) Used Teletherapy Specify Source(s) or Type(s) of Equipment Used	<u>X</u> _____ _____ _____ _____ _____	_____ _____ _____ _____ _____	_____ _____ _____ _____ _____	_____ _____ _____ _____ _____
7.	Clinical Pathology Laboratory	<u>X</u>	_____	_____	_____
8.	Organ Bank	_____	_____	_____	_____
9.	Blood Bank	<u>X</u>	_____	_____	_____
10.	Electroencephalo- graphy	<u>X</u>	_____	_____	_____
11.	Electrocardiology	<u>X</u>	_____	_____	_____
12.	Respiratory Therapy	<u>X</u>	_____	_____	_____
13.	Premature Therapy	<u>X</u>	_____	_____	_____
14.	Self-Care Unit	_____	_____	_____	_____
15.	Skilled Nursing or Long-Term Nursing	_____ _____	_____ _____	_____ _____	_____ _____

16.	Renal Dialysis				
	acute	<u>X</u>			
	chronic				
	inpatient				
	outpatient				
	home dialysis				
	training				
17.	Burn Care Unit				
18.	Physical Therapy				
	Department	<u>X</u>			
19.	Occupational Therapy	<u>X</u>			
20.	Medical Rehabilitation				
	inpatient	<u>X</u>			
	outpatient	<u>X</u>			
21.	Tuberculosis Unit				
22.	Psychiatric Services				
	inpatient	<u>X</u>			
	outpatient	<u>X</u>			
	partial hospitali- zation program				
	emergency services		<u>X</u>		
			(expansion of existing services)		
	foster and/or home care				
	consultation				
23.	Clinical Psychology				
24.	Organized Outpatient Department				
25.	Outpatient Surgery	<u>X</u>			
26.	Social Work				
	Department	<u>X</u>			
27.	Family Planning Service	<u>X</u>			
28.	Genetic Counseling Service	<u>X</u>			
29.	Abortion Services				
	inpatient				
	outpatient				
30.	Pediatric Department	<u>X</u>			
31.	Obstetric Service	<u>X</u>			
32.	Alcoholic & Detoxi- fication Department	<u>X</u>			
33.	Home Care Depart- ment				
34.	Speech Pathology Services	<u>X</u>			

35.	Audiology Services	<u>X</u>	_____	_____	_____
36.	Hospital Auxiliary	<u>X</u>	_____	_____	_____
37.	Volunteer Service				
	Department	<u>X</u>	_____	_____	_____
38.	Paramedical Training				
	Program	<u>X</u>	_____	_____	_____
39.	Emergency Department	<u>X</u>	<u>X</u>		
			(expansion of existing ED)		
40.	Dental Services		_____	_____	_____
41.	Podiatric Services	<u>X</u>	_____	_____	_____
42.	Pre-Admission				
	Testing	<u>X</u>	_____	_____	_____
43.	Pre-Discharge				
	Planning	<u>X</u>	_____	_____	_____
44.	Multiphasic				
	Screening				
45.	Other (Identify)	<u>X</u>	_____	_____	_____
	PET/CT	<u>X</u>	_____	_____	_____
	MRI	<u>X</u>	_____	_____	_____

F. Staffing of Existing and/or Proposed Facility

In the following categories, indicate the number of full time equivalent personnel (at least 35 hours per week).

	<u>Current</u>		<u>Additional</u>	<u>NEEDED</u>
	<u>Full</u>	<u>Vacant</u>	<u>Full</u>	<u>Total</u>
	<u>Time</u>	<u>Positions</u>	<u>Time</u>	
<u>Total number of Full-time staff</u>	3,842.0	214.0	48.0	262.0
Administration-Business				
Office	753.7	26.2	0	26.6
Registered Nurses	1,204.2	130.3	27.0	157.3
Licensed Practical Nurses	11.5	0	0	0
Nurses Aides, Orderlies and Attendants	139.3	33.0	8.0	41.0
Registered Pharmacists	41	0	0	0
Laboratory Medical				
Technologists	111.4	11.4	0	11.4
ADA Dieticians	8.2	0.9	0	0.9
Radiologic Technologists	134.3	3.2	5.0	8.2
Occupational Therapists	16.4	2.6	0	2.6
Physical Therapists	60.6	4.0	0	4.0
Psychologists	1.6	0.7	3.0	3.7
Psychiatric Social Workers	52.4	1.1	0.0	1.1

Recreational Therapists	_____	_____	_____	_____
Inhalation Therapists	_____	_____	_____	_____
Medical Social Workers	_____	_____	_____	_____
Other Health Professionals (Identify)	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
All Other Personnel (Exclude Physicians and Dentists)	1,307.4	0	5.0	5.0
(includes environmental, IT services, nutrition, engineering, safety, and security services and various other support services)				

- G. Present a plan for obtaining all additional personnel required to staff the project following completion and identify the sources from which such personnel are expected to be obtained.

In the face of national health care staffing challenges, VHC Health has worked hard to strengthen physician, nurse, and clinical staff retention and recruitment; reduce turnover; and effectively manage costs to offset the rising costs of labor. It continually pursues innovative approaches to compensation and benefits and invests in various workplace safety initiatives. Its workforce development efforts have resulted in VHC Health’s designation as a Magnet facility by the American Nursing Association/ American Nurses Credentialing Center (“ANCC”) in 2019 and again in 2024. The Magnet hospital designation, awarded for four years, is the highest national credential for nursing programs and is considered a gold standard. The recognition helps patients identify hospitals with satisfied nurses and that exceed certain quality of care benchmarks. VHC Health also achieved CMS’s Overall Hospital Quality Five Star Rating for 2024, a rating that helps to attract and retain top-quality staff.

Further, VHC Health is closely affiliated with numerous educational and training facilities in Northern Virginia and the District of Columbia, including Marymount University, Northern Virginia Community College, George Mason University, Georgetown University, George Washington University, James Madison University, Catholic University, Shenandoah University, Stratford University, and Chamberlain University. In addition to those affiliations, VHC Health participates in a variety of initiatives with various partners that support VHC Health’s recruitment and training efforts, including Arlington County, Friends of Nursing Foundation, the National Institute of First Assists, and the Foundation Poyant Fund. In 2022, VHC Health became the first hospital in the D.C. Metro area to become a Practice Transition Accreditation Program – a national certification awarded by the ANCC for meeting global standards that transition new graduate registered nurses through their first twelve months of practice.

VHC Health prioritizes staff retention. Its strong community hospital culture, coupled with an excellent clinical reputation, makes VHC Health an employer of choice. Its strong retention rates reflect not only its culture but also its investment in employees. For example, VHC Health offers performance-based merit increases consistently above the industry standard. It is one of few employers to offer 100% coverage within its PPO for VHC facility expenses, as well as those at Children's National Medical Center. VHC Health also rewards employee longevity with increasing retirement plan matching and paid time off. As an institution, VHC qualifies for Public Service Loan Forgiveness for physicians.

The anticipated additional staffing needed to support the Corner Addition, including the eleven additional ICU beds and one cardiac catheterization laboratory, is 48 full-time employees ("FTEs"). Personnel will be recruited through customary channels, including the internet and print advertising, and the many schools with which VHC Health is affiliated. Given its ongoing staff recruitment and retention efforts and successes, VHC Health does not anticipate an issue with recruiting the necessary number of staff.

H. Describe the anticipated impact that the project will have on the staffing of other facilities in the service area.

Given VHC's role as a teaching hospital and its relationships with area teaching and educational facilities as described in Section III.G above, VHC does not anticipate that the project will have any significant impact on staffing at other facilities in the area.

I. Attach the following information or documents

1. Roster of medical staff (existing facilities). Indicate their specialty, board Certification, Board eligibility, and staff privileges (active, associate, etc.)

See Attachment III.I.1—Medical Staff Roster.

2. Existing Facilities- Attach copy(ies) of letter of endorsement from the medical staff organization indicating the medical need for the proposed project.

See Attachment III.I.2—Letter of Endorsement.

3. Copy of most recent licensing report from State Agency (existing facilities).

A copy of VHC's 2025 license is attached. See Attachment III.I.3—2025 License Information.

VHC is accredited by the Joint Commission, whose accreditation materials are attached, and therefore Virginia does not conduct annual licensure inspections (or issue annual licensure reports) at the facility.

4. Current accreditation status and copy of the latest accreditation report from the Joint Commission on Accreditation of Hospitals (existing facilities).

See Attachment III.I.4—Accreditation Documentation.

SECTION IV **PROJECT JUSTIFICATION AND IDENTIFICATION OF COMMUNITY NEED**

A. Please provide a comprehensive narrative description of the proposed project.

VHC Health proposes here the addition of eleven ICU beds and a fifth cardiac catheterization laboratory at VHC. Those beds and the additional cardiac catheterization laboratory will be housed in the Corner Addition at VHC, along with the expansion of VHC’s busy ED.²⁴ The project seeks to address the needs of VHC’s patients and PD 8 for services at the hospital in an efficient way that not only satisfies current demands on VHC’s existing resources but also offers sustainable capacity for the foreseeable future. The project, and the entirety of the Corner Addition, also recognize the clinical interdependence of these services. Rising patient volumes, especially for cardiovascular care, and unpredictable fluctuations in ICU demand strain existing capacity and compromise timely care. Expanding these interconnected services together will help VHC to effectively manage acute episodes, reduce delays in care transitions, and maintain high-quality services across the care continuum – from ED admission through intervention and recovery. At the same time, the application capitalizes on a range of efficiencies made possible by combining the ICU and cardiac catheterization lab expansion with the ED expansion and the construction of the Corner Addition at VHC.

See also Responses to Sections III.A and IV.D.

B. Identification of Community Need

1. Describe the geographic boundaries of the facility’s primary service area. (Note: Primary service area may be considered to be geographic area from which 75% of patients are expected to originate.)

The primary service area for VHC includes Arlington County, Falls Church City, Alexandria City, and portions of Fairfax County.

See Attachment IV.B.1—VHC Service Area Map.²⁵

2. Provide patient origin, discharge diagnosis or utilization data appropriate for the type of project being proposed.

See Attachment IV.B.2—Patient Origin Data.

- C. 1. Is (are) the services(s) to be offered presently being offered by any other existing facility(ies) in the Health Planning Region?

²⁴ The ED expansion is not subject to COPN review. A registration of the capital expenditure is appended at Attachment II.C(1).

²⁵ The VHC ICU PSA extends farther west and south; those ZIP codes are provided at Attachment IV.B.2(i).

Yes.

2. If yes,
 - a. Identify the facility(ies)

PD 8 facilities operating ICU beds:

**Inova Alexandria Hospital
 Inova Fair Oaks Hospital
 Inova Fairfax Hospital
 Inova Loudoun Hospital
 Inova Mount Vernon Hospital
 UVA Health Prince William Medical Center
 UVA Health Haymarket Medical Center
 HCA Reston Hospital Center
 HCA Stone Springs Hospital Center
 Sentara Northern Virginia Medical Center
 Virginia Hospital Center**

PD 8 facilities offering cardiac catheterization services:

**Inova Alexandria Hospital
 Inova Fairfax Hospital
 Inova Loudoun Hospital
 UVA Health Prince William Medical Center
 HCA Reston Hospital Center
 HCA Stone Springs Hospital Center
 Sentara Northern Virginia Medical Center
 Sentara Heart & Vascular Center²⁶
 Virginia Hospital Center**

- b. Discuss the extent to which the facility(ies) satisfy(ies) the current demand for the services(s)

There are no reasonable alternatives to the project that would meet the current needs of VHC's patients and the service area in a less costly, more efficient, or more effective manner. The beds at other hospital facilities in PD 8 simply do not – and cannot – address the need for additional capacity at VHC. Moreover, average ICU bed utilization in PD 8 in 2023 was at 65% - i.e., at the SMFP's threshold for expansion; there is no excess capacity in the PD to meet further demand. Only three hospitals in the PD have low ICU bed occupancy – Inova Alexandria Hospital (47%), Inova Mount Vernon Hospital (34%), and Stone Springs Medical Center (16%). The two

²⁶ COPN No. VA-04847 issued 6/12/2023.

former facilities are on the outskirts of the VHC service area; Stone Springs Medical Center is outside of it. ICU beds at Inova Fairfax Hospital, the only other hospital in the VHC primary service area, operated at 82% of the SMFP threshold in 2023. Between 2019 and 2023, PD-wide ICU patient days have increased by 2.4%. Indeed, there is a calculated need for 11-30 ICU beds in the PD (depending on the population data used).²⁷

Similarly, existing cardiac catheterization services in the PD are effectively at capacity, with average utilization at 90% in 2023. VHC's 2023 utilization, at 94.2%, was second-highest among all existing providers. There is no excess capacity in the PD. See also Response to Section IV.D.

In short, none of the other existing facilities can satisfy the need addressed by VHC Health's application. Even if capacity were available elsewhere, transferring complex patients to other facilities is neither practical nor clinically preferred. The additional eleven ICU beds and one cardiac catheterization lab proposed in this application will provide needed capacity to meet patients' needs and to allow VHC to better fulfill its role to the community as an academic medical center and a key facility for the area's trauma cases.

- c. Discuss the extent to which the facility(ies) will satisfy(ies) the demand for services in five years.

For various reasons, including location, utilization, care coordination, and clinical challenges of transporting patients, none of the existing facilities can meet the current need identified in this application for additional ICU beds and a cardiac catheterization lab, and none will be able to do so in five years. Particularly given VHC's important role as an academic medical center and a Level 2 Trauma Center, appropriate ICU bed and cardiac catheterization capacity at VHC is a must. Approval of the proposed beds and cardiac catheterization lab is critical to ensure that VHC is well-equipped to meet its patients' sustained and growing demand now and in the future.

- D. Discuss how the project will fill an unmet need in the delivery of health care in the service area including, where applicable, geographic barriers to access.

²⁷ See Attachment IV.E—SMFP Compliance.

VHC is the only acute care hospital in Arlington; serves approximately 350,000 unique patients annually; is one of three open heart surgery providers in PD 8; operates PD 8's second-busiest ED; and is relied on by patients for a range of services that involve, among other things, cardiac catheterization and ICU services. Inadequate or unreliable capacity of those services creates delays and barriers to care. VHC is also consistently one of the lowest-cost hospital providers in PD 8.²⁸ Adequate capacity at the hospital is necessary to ensure access to care that is often less costly than at other providers.

VHC Health proposes here to expand its highly utilized ICU services and its cardiac catheterization services in conjunction with its planned expansion of the hospital ED and construction of the Corner Addition. This combined request recognizes not only the high demand on those services but also the mutual throughput dependency and clinical relationship between those services. In fact, many cardiovascular and cardiac catheterization patients require ICU-level care, and those volumes tend to drive the need for additional ICU capacity; both cardiovascular patients and ICU patients often enter the health care system via the ED. Particularly as cardiovascular disease rates rise and more procedures move to minimally invasive cardiac catheter-based approaches, cardiac catheterization laboratory capacity and ICU capacity must grow in tandem to meet demand. This simultaneous and efficient resource optimization will not only address VHC's institutional need and the PD-wide need, but will also be particularly efficient, allowing for shared planning of staffing, workflow, equipment, and pre- and post-procedural pathways. Thereby, it will support seamless care transitions from admission to procedure to recovery, reducing delays and improving outcomes. At the same time, it will offer substantial economies of scale and efficiency benefits related to the centralized implementation, consolidated construction, and operationalization of the Corner Addition.

1. Institutional Need for the Proposed ICU Beds at VHC

VHC operates 32 ICU beds.²⁹ Those beds are frequently insufficient to accommodate demand and maintain critical flexibility for unpredictable daily and seasonal fluctuations common in ICU operations. Based on annualized data through June 2025 and reflecting the midnight census of the facility, VHC's ICU beds' average occupancy was 61% – a robust utilization level with a very real impact on patient flow and timely patient management and care. The average occupancy of VHC's CVICU beds exceeds 85%.

²⁸ See, e.g., 2023 VHI Hospital Industry Report, Hospital and Ambulatory Indicators.

²⁹ See n. 5.

VHC ICU Bed Occupancy Per Midnight Census, 2023-2025

Bed Type	Beds	Utilization	2023	2024	2025 ³⁰
General ICU	28	Patient Days	5,928	5,835	5,920
		Occupancy	58.0%	57.1%	57.9%
CVICU	4	Patient Days	864	804	1,246
		Occupancy	59.2%	55.1%	85.3%
TOTAL	32	Patient Days	6,792	6,639	7,166
		Occupancy	58.2%	56.8%	61.4%

That midnight census-driven average occupancy, however, underrepresents the intensity, variability, and real-time constraints of VHC's ICU utilization, driven by the high acuity and unpredictability of critical care. The volume and timing of these cases fluctuate daily, making the midnight census and average occupancy unreliable measures of true capacity needs.

Specifically, the midnight census reflects a snapshot of occupancy in the facility as of 12:00 am, when the hospital is typically at its lowest activity level, with few admissions or discharges taking place over night. In hospital capacity planning, the noon census is often considered a more accurate gauge of a hospital's actual ICU occupancy because it is more likely to capture the peak of hospital activity, including patients admitted in the morning and usually bedded by noon and many discharges which have not yet occurred, including patients admitted for short stays. This is particularly relevant in the assessment of ICU bed capacity as ICU beds are high turnover resources; that turnover, and most bottlenecks and real-time bed pressures, happen during the day. The average occupancy of VHC's ICU beds, based on the more accurate noon census, was 69% in 2025 based on annualized data through June 2025 – above the SMFP's 65% occupancy threshold.

VHC ICU Bed Occupancy Per Noon Census, 2023-2025

Bed Type	Beds	Utilization	2023	2024	2025 ³¹
General ICU	28	Patient Days	6,382	6,199	6,808
		Occupancy	62%	60.7%	66.6%
CVICU	4	Patient Days	783	731	1,241
		Occupancy	54%	50.1%	85.1%
TOTAL	32	Patient Days	7,165	6,930	8,050
		Occupancy	61%	59.3%	68.9%

³⁰ Based on annualized internal VHC data for January – June 2025.

³¹ Id.

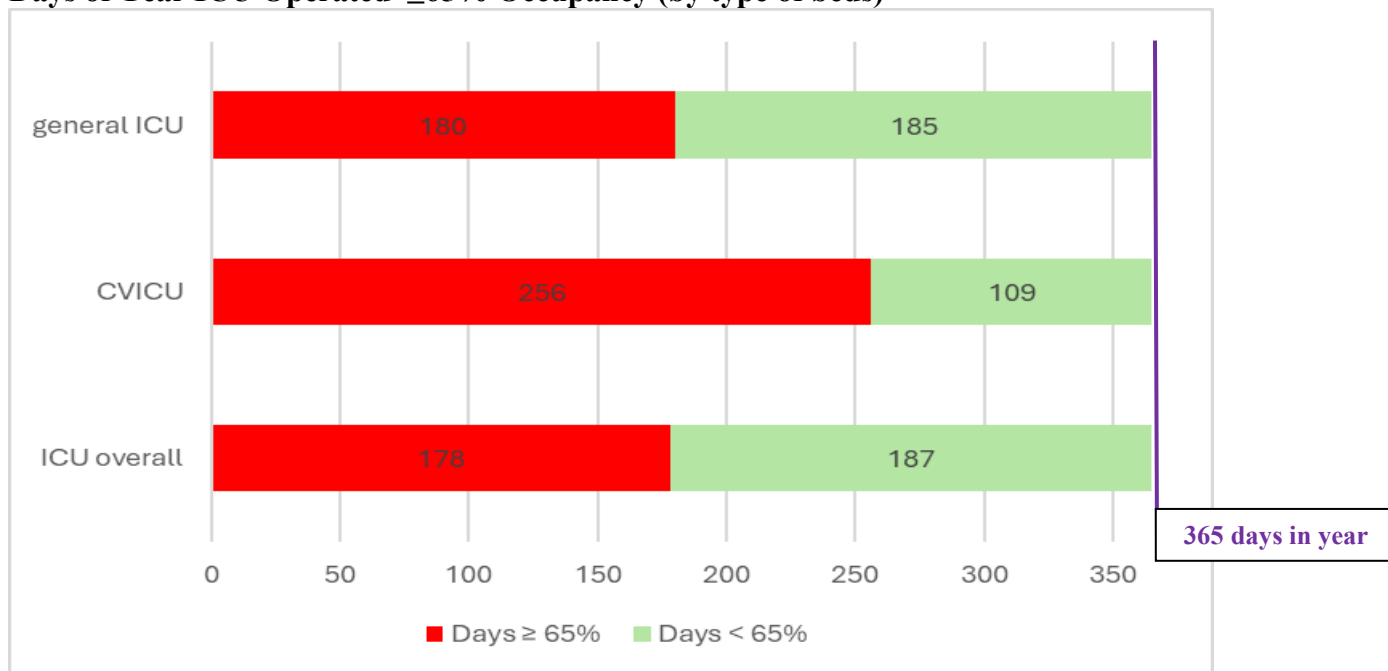
Moreover, average occupancy masks peak utilization and bottlenecks and glosses over spikes characteristic of ICU operations. An ICU may operate at or near full capacity for several hours a day, even if the average occupancy otherwise indicates bed availability. A review of the daily noon census of VHC's ICU beds illustrates the daily fluctuations in demand typical of an ICU and reveals that the ICU is substantially busier than the average suggests:

- Per the 2024 noon census, the 32 ICU beds operated at or above 65% capacity 32% of the year (117 days).
- In 2025, the noon census indicated occupancy
 - at or above 80% on 12% of the year (42 days);
 - at or above 75% on 25% of the year (92 days);
 - at or above 70% on 39% of the year (144 days); and
 - at or above 65% capacity, the SMFP's occupancy threshold, on 49% of the year (178 days).³²

In short, VHC's ICU effectively operates at or above the SMFP's occupancy threshold nearly every other day.

2025 VHC ICU Daily Noon Census

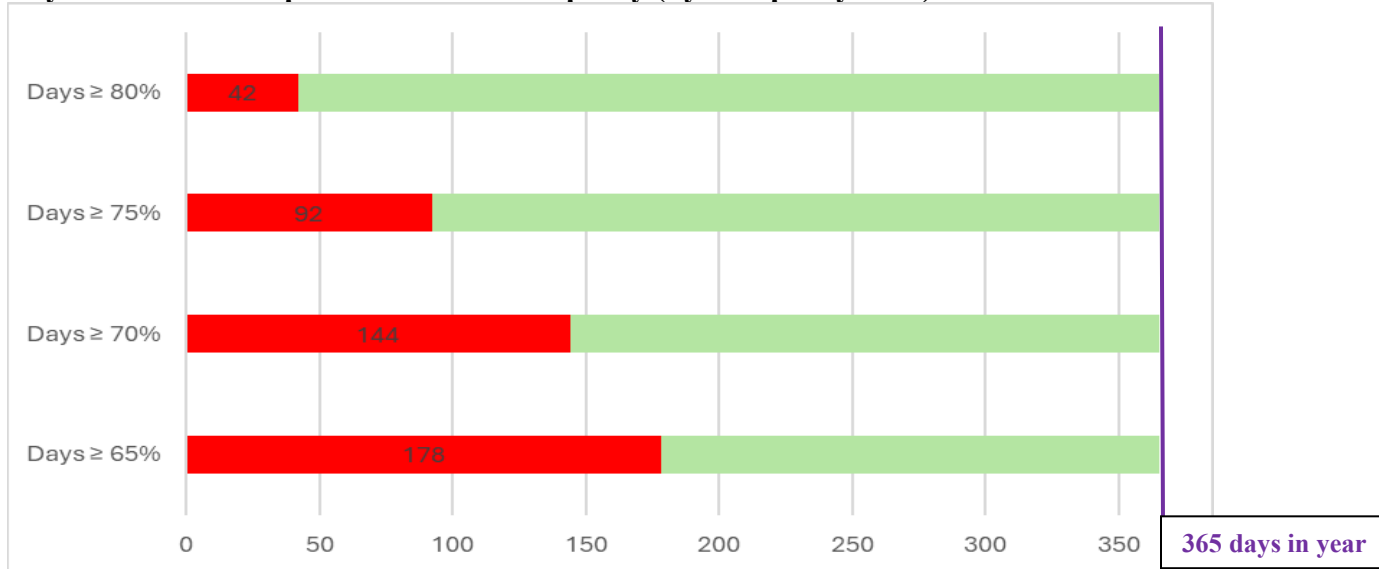
Days of Year ICU Operated $\geq 65\%$ Occupancy (by type of beds)



³² Id.

2025 VHC ICU Daily Noon Census

Days of Year ICU Operated $\geq 65\%$ Occupancy (by occupancy level)



When ICU bed capacity is constrained, the consequences affect not only the ICU but the entire hospital. In the ED, critical patients may have to be boarded for hours, or even overnight, awaiting an appropriate bed. This delay compromises care for these patients and exacerbates the overcrowding in VHC's already busy ED. Operating room and procedural delays or cancellations can also result. Surgical procedures requiring post-operative care in the ICU – especially complex cardiovascular, neurosurgical, or trauma surgeries – may be delayed or cancelled due to lack of downstream ICU availability. Patients who require ICU-level care may be held in the post-anesthesia care unit for prolonged periods or admitted to a lower-acuity bed (such as medical-surgical). As an academic medical center and a Level II Trauma Center, ICU bed availability also directly limits VHC's ability to accept complex transfers. In short, the proposed beds are required to enhance timely access to needed care for VHC's patients and allow VHC to operate in an efficient and effective manner.

2. Public Need for the Proposed ICU Beds in PD 8

There is also a PD-wide need for additional ICU resources. Even per the SMFP's midnight census-based 65% average occupancy threshold, in 2023, the existing 312 ICU beds in PD 8 operated at capacity – i.e., at 65% average occupancy. The SMFP's need calculation methodology, utilizing Weldon Cooper population data for the 18+ cohort, indicates a calculated need for 11 ICU beds in the PD. Utilizing the Division of Certificate of Public Need's ("DCOPN's") population data, there is a need for 30 ICU beds in PD 8.³³

³³ DCOPN Staff Report Re COPN Request No. VA-8803, 4/21/2025.

VHC is particularly well-positioned to meet this public need, which appears to be centered largely in its service area. For example, vacant ICU bed capacity in PD 8 is located primarily at hospitals on the outskirts of the VHC service area or beyond.³⁴ ICU beds at Inova Fairfax Hospital, the only other hospital in the VHC primary service area, operated at 82% of the SMFP threshold in 2023. Between 2019 and 2023, PD-wide ICU patient days have increased by 2.4%; ICU patient days at VHC increased by 8.4% in the same time period and are on track to grow by more than 14% between 2019-2025.

3. Institutional Need for the Proposed Cardiac Catheterization Lab at VHC

VHC Health proposes to add a fifth cardiac catheterization laboratory at VHC. In 2025, the existing four cardiac catheterization laboratories at the hospital are on track to exceed 109% of the SMFP's utilization threshold based on cardiac catheterization procedures alone.³⁵ Notably, 2024 utilization was somewhat suppressed due to the retirement of a longtime cardiac surgeon and other cardiac staff and corresponding staffing transitions. Since then, VHC has added cardiovascular providers to its medical staff, and utilization has substantially increased, growing by 18% over 2024. Complex therapeutic cardiac catheterization procedures are on the rise, having grown nearly 40% between 2023 and 2025 and representing approximately 20% of VHC's cardiac catheterization procedures in 2025. Many patients requiring cardiac catheterization present with more advanced disease and multiple comorbidities requiring higher-acuity and more advanced procedures. Currently, these rising case volumes are leading to scheduling delays, limitations in acute STEMI response flexibility, and constraints on elective and advanced procedures.

VHC Cardiac Catheterization Utilization 2023-2025

Cardiac Catheterization		2023		2024 ³⁶		2025 ³⁷	
Cardiac Catheterization Procedure Type	DEP Factor ³⁸	Procedures	DEPs	Procedures	DEPs	Procedures	DEPs
Diagnostic	1	1,198	1,198	1,260	1,260	1,486	1,486
Simple Therapeutic	2	262	524	209	418	234	468
Same Session	3	607	1,821	560	1,680	642	1,926
Complex Therapeutic	5	196	980	204	1,020	272	1,360
TOTAL		2,263	4,523	2,233	4,379	2,634	5,240
Average per Lab (4)		566	94.2%	558	91.2%	659	109.2%

³⁴ Inova Alexandria Hospital's ICU operated at 47% occupancy in 2023, Inova Mount Vernon Hospital's at 34%, and Stone Springs Medical Center's at 16%.

³⁵ Based on annualized internal VHC data for January – June 2025.

³⁶ Based on internal 2024 VHC data; see also Attachment V.B.

³⁷ Based on annualized internal VHC data January – June 2025.

³⁸ Reflects Diagnostic Equivalent Procedure ("DEP") per 12 VAC 5-230-10.

However, the cardiac catheterization procedure volumes do not illustrate the full extent of utilization of VHC's cardiac catheterization labs. VHC also provides within its cardiac catheterization laboratories a broad range of concomitant EP, PV, and structural heart procedures, all of which have experienced a sustained increase in volume and complexity in recent years, much like cardiac catheterization itself. These include procedures such as afib ablation, left atrial appendage occlusion device implant (EP and structural heart combo procedure), pulmonary vein procedures, and TAVR/TPVR/TMVR procedures. While these procedures do not constitute cardiac catheterization procedures and are thus not reported as such, they typically require equipment present in the cardiac catheterization laboratory. The proximity to life-saving equipment within the cardiac catheterization lab supports rapid response to cardiac emergencies (such as perforation or arrhythmia); cardiac catheterization laboratory staff are specifically trained in managing complex cardiovascular patients and complications. Thus, performing these procedures in the catheterization lab allows for shared infrastructure and imaging capabilities, safety and emergency readiness, and procedural efficiency and resource optimization. As a result, these procedures are routinely performed in the cardiac catheterization lab setting to optimize efficient planning of valuable physician time, resources, and staffing and unequivocally contribute to the labs' overall utilization.

The integration of those non-cardiac-catheterization procedures within the cardiac catheterization laboratories is critical to VHC's provision of timely and effective care to patients, to provider efficiency and scheduling, and to the efficient and effective management of scarce VHC hospital space. Although the SMFP does not assign a DEP value to these procedures, they contribute to the catheterization laboratories' utilization and impact access to cardiac catheterization procedures, as illustrated in the table below.

VHC Cardiac Catheterization Laboratory Utilization 2023-2025

Procedure Type	2023 Procedures	2024 ³² Procedures	2025 ³⁹ Procedures
Cardiac Catheterization Procedures	2,263	2,233	2,634
Other Procedures	2,471	1,369	1,334
Total Lab Utilization	4,734	3,602	3,968

Finally, based on 2023 utilization of its four existing cardiac catheterization laboratories, VHC ranked second among the PD 8 providers. Collectively, average utilization of the 23 authorized cardiac catheterization laboratories in PD 8 was 90%.

³⁹ Based on annualized internal VHC data for 2024 and January – June 2025 data.

2023 Existing Cardiac Cath Lab Utilization in PD 8

Facility	Labs	2023 Total DEPs	% SMFP Cardiac Cath
Inova Alexandria Hospital	2	1,844	77%
Inova Fairfax Hospital	7+1 ⁴⁰	12,909	154%
Inova Loudoun Hospital	2	1,951	81%
Reston Hospital Center	2	1,343	56%
Sentara Northern Virginia Medical Center	2	1,408	59%
StoneSprings Hospital Center	1	2	0.2%
UVA Health Prince William Medical Center	2	816	34%
Virginia Hospital Center	4	4,523	94%
Total	23	24,796	89.8%

4. Conclusion

Without adequate ICU and cardiac catheterization resources and space, VHC's patients face delayed care and suboptimal flow between care levels. Limited ICU bed availability often poses a barrier to scheduling high-acuity cases, particularly those that require overnight observation or cardiac monitoring. Bottlenecks in the cardiac catheterization laboratory schedule, recovery space saturation, and limited critical care beds all impact patient flow, staff efficiency, and ultimately patient outcomes. The proposed expansion is necessary to relieve capacity pressures across the entire critical care and VHC cardiovascular service lines and is an important investment in the hospital's infrastructure and clinical capabilities. At the same time, the application capitalizes on a range of efficiencies made possible by incorporating the project with the construction of the Corner Addition at VHC.

- E. Discuss the consistency of the proposed project with applicable Regional Health Plan, State Health Plan, State Medical Facilities Plan, or other plans promulgated by State Agencies.

See Attachment IV.E – SMFP Compliance.

- F. Show how the method and assumptions used in determining the need for additional beds, new services or deletion of service in the proposed project's service area.

⁴⁰ An eighth cardiac catheterization laboratory was approved for Inova Fairfax Hospital per COPN No. VA-04891 issued 6/24/2024.

Projected ICU Bed Occupancy	Year 1	Year 2
ICU Beds	43	43
Patient Days	8,307	8,722
SMFP %	52.9%	55.6%

Projected Cardiac Cath Utilization	Year 1		Year 2	
	Procedures	DEPs	Procedures	DEPs
Diagnostic Procedures	1,982	1,982	2,012	2,012
Simple Therapeutic Procedures	312	624	317	634
Same Session Procedures	856	2,569	869	2,607
Complex Therapeutic Procedures	363	1,818	368	1,841
Total	3,513	6,989	3,566	7,094
SMFP Utilization %		116%		118%

See also Response to Section III.C.

G. Coordination and Affiliation with Other Facilities.

Describe any existing or proposed formal agreements or affiliations to share personnel, facilities, services or equipment. (Attach copies of any formal agreements with another health or medical care facility.)

VHC has an agreement with Children's National Medical Center for the management of the hospital's NICU and neonatology team of physicians.

H. Attach copies of the following documents:

1. A map of the service area indicating:
 - a. Location of the proposed project.
 - b. Location of other existing medical facilities (by name, type, hospital, nursing home, outpatient clinic, etc.) and number of beds in each inpatient facility).

See Attachment IV.H.1—Maps of Existing Facilities.

2. Any material which indicates community and professional support for this project; i.e. letter of endorsement from physicians, community organizations, local government, Chamber of Commerce, medical society, etc.

Letters of support for the project will be submitted later in the review process.

3. Letters to other area facilities advising of the scope of the proposed project.

See Attachment IV.H.3 – Notification Letters.

SECTION V

FINANCIAL DATA

It will be the responsibility of the applicant to show sufficient evidence of adequate financial resources to complete construction of the proposed project and provide sufficient working capital and operating income for a period of not less than one (1) year after the date of opening:

- A. Specify the per diem rate for all existing negotiated reimbursement contracts and proposed contracts for patient care with state and federal governmental agencies, Blue Cross/Blue Shield Plans, labor organizations such as health and welfare funds and membership associations.

Per diem rates in contracts are proprietary and subject to contractual confidentiality provisions; however, the chart below lists VHC's publicly available reimbursement arrangements. For information regarding comparisons of VHC's charges, costs, and productivity/utilization, please refer to Attachment V.B—2024 VHI EPICS Report.

Payer	Type of Contract
Medicare	DRG
Medicaid	Per Diem/DRG
Virginia Bureaus (MCH, BCC, BFP)	Claim Agreement

- B. Does the facility participate in a regional program which provides a means for facilities to compare its costs and operations with similar institutions?

 X Yes No

If yes, specify program **Virginia Health Information**

Provide a copy of report(s) which provide(s) the basis for comparison.

See Attachment V.B—2024 VHI EPICS Report.

- C. Estimated Capital Costs

Please see “Instructions for Completing Estimated Capital Costs” Section of the Certificate of Need application for detailed instructions for completing this question (attached)

While only the ICU bed and cardiac catheterization components of the planned Corner Addition development are subject to COPN authorization, in the interest of comprehensiveness, VHC Health provides here the full capital costs associated with the entirety of the Corner Addition. This also reflects the fact that some costs, such as architectural and engineering costs related to the planning and development of the Corner Addition, are difficult to apportion to the individual COPN components. The total capital costs of developing the Corner Addition are \$67,949,353. The

construction and equipment costs related to the ICU renovation and expansion are \$9,656,291, and the construction and equipment costs related to the cardiac catheterization renovation and expansion are \$13,475,000. Allocating the remaining costs to the ICU and cardiac catheterization components based on the total square feet to be renovated and added results in a total capital cost of \$12,074,690 for the ICU component and \$16,872,887 for the cardiac catheterization component. (The total cost for the ED component is \$39,001,786.)

Part I – Direct Construction Costs

1.	Cost of materials	\$44,504,321
	ICU	\$6,928,000
	Cardiac Catheterization	\$8,010,000
	ED	\$29,566,321
2.	Cost of labor (included above)	\$ _____
3.	Equipment included in construction contract	\$ _____
4.	Builder's overhead	\$ _____
5.	Builder's profit	\$ _____
6.	Allocation for contingencies	\$6,048,974
7.	Sub-total (add lines 1 thru 6)	\$50,553,295

Part II – Equipment Not Included in Construction Contract

(List each separately) If leasehold, lease expense for the entire term of the initial lease

8.	a. ICU	\$2,728,291
	b. Cardiac Catheterization	\$5,465,000
	c. ED	\$4,096,432
	d. Contingency	\$572,415
	e. _____	\$ _____
	f. _____	\$ _____
9.	Sub-total (add lines 8a thru 8e)	\$12,862,138

Part III – Site Acquisition Costs

10.	Full purchase price	\$ _____
-----	---------------------	----------

- | | | |
|-----|--|----------|
| 11. | For sites with standing structures | \$ _____ |
| | a. purchase price allocable to structures | \$ _____ |
| | b. purchase price allocable to land | \$ _____ |
| 12. | Closing costs | \$ _____ |
| 13. | If leasehold, lease expense for the entire term of the initial lease | \$ _____ |
| 14. | Additional expenses paid or accrued: | |
| | a. _____ | \$ _____ |
| | b. _____ | \$ _____ |
| | c. _____ | \$ _____ |
| 15. | Sub-total (add lines 10 thru 14c) | \$ _____ |

Part IV – Site Preparation Costs

- | | | |
|-----|----------------------------------|----------|
| 16. | Earth work | \$ _____ |
| 17. | Site utilities | \$ _____ |
| 18. | Roads and walks | \$ _____ |
| 19. | Lawns and planting | \$ _____ |
| 20. | Unusual site conditions: | |
| | a. _____ | \$ _____ |
| | b. _____ | \$ _____ |
| 21. | Accessory structures | \$ _____ |
| 22. | Demolition costs | \$ _____ |
| 23. | Sub-total (add lines 16 thru 22) | \$ _____ |

Part V – Off-site Costs (List each separately)

- | | | |
|-----|-------|----------|
| 24. | _____ | \$ _____ |
| 25. | _____ | \$ _____ |

26. _____ \$ _____
27. _____ \$ _____
28. Sub-total (add lines 24 thru 27) \$ _____

Part VI – Architectural and Engineering Fees

29. Architect's design fee **\$3,976,876**
30. Architect's supervision fee \$ _____
31. Engineering fees **\$71,000**
32. Consultant's fees \$ _____
- Contingency \$202,394**
- Testing/Permits \$283,650**
33. Sub-total (add lines 29 thru 32) **\$4,533,920**

Part VII – Other Consultant Fees (List each separately)

34. a. _____ \$ _____
- b. _____ \$ _____
- c. _____ \$ _____
35. Sub-total (add lines 34a thru 34c) \$ _____

Part VIII – Taxes During Construction

36. Property taxes during construction \$ _____
37. List other taxes:
- a. _____ \$ _____
- b. _____ \$ _____
38. Sub-total (add lines 36 thru 37b) \$ _____

Part IX-A – HUD Section 232 Financing

39. Estimated construction time(in months) _____
40. Dollar amount of construction loan \$ _____
41. Construction loan interest rate _____ %
42. Estimated construction loan interest costs \$ _____
43. Term of financing (in years) _____
44. Interest rate on permanent loan _____ %
45. FHA mortgage insurance premium \$ _____
46. FHA mortgage fees \$ _____
47. Financing fees \$ _____
48. Placement fees \$ _____
49. AMPO (non-profit only) \$ _____
50. Title and recording fees \$ _____
51. Legal fees \$ _____
52. Total interest expense on permanent mortgage loan \$ _____
53. Sub-total Part IX-A HUD Section 232 Financing (add lines 42, 45, 46, 47, 48, 49, 50 and 51) \$ _____

Part IX-B – Industrial Development Authority Revenue and General
Obligation Bond Financing

(Circle selected method of financing)

54. Method of construction financing (construction loan, proceeds of bond sales, if other, specify) _____
If construction is to be financed from any source other than bond sale proceeds, answer question 56 through 58. Otherwise, proceed to question 59.
55. Estimated construction time (in months) _____
56. Dollar amount of construction loan \$ _____

57. Construction loan interest rate _____%
58. Estimated construction loan interest cost \$ _____
59. Nature of bond placement (direct, underwriter, if other, specify) _____
60. Will bonds be issued prior to the beginning of construction? _____ Yes _____ No
61. If the answer to question 60 is yes, how long before in months? _____
62. Dollar amount of bonds expected to be sold prior to the beginning of construction \$ _____
63. Will principal and interest be paid during construction or only interest? _____
64. Bond interest expense prior to the beginning of construction(in dollars) \$ _____
65. How many months after construction begins will last bond be sold? _____
66. Bond interest expense during construction \$ _____
67. What percent of total construction will be financed from bond issue? \$ _____
68. Expected bond interest rate _____%
69. Anticipated term of bond issued (in years) _____
70. Anticipated bond discount (in dollars) _____
71. Legal costs \$ _____
72. Printing costs \$ _____
73. Placement fee \$ _____
74. Feasibility study \$ _____
75. Insurance \$ _____

76. Title and recording fees \$ _____
77. Other fees (list each separately)
- a. _____ \$ _____
- b. _____ \$ _____
- c. _____ \$ _____
78. Sinking fund reserve account
(Debt Service Reserve) \$ _____
79. Total bond interest expenses (in dollars) \$ _____
80. Sub-total Part IX_B (add lines 58, 64, 66,
71, 72, 73, 74, 75, 76, 77a, b, c and 78) \$ _____

Part IX_C – Conventional Mortgage Loan Financing

81. Estimated construction time (in months) _____
82. Dollar amount of construction loan \$ _____
83. Construction interest rate _____ %
84. Estimated construction loan interest cost
(in dollars) \$ _____
85. Term of long term financing (in years) _____
86. Interest rate on long term loan _____ %
87. Anticipated mortgage discount (in dollars) \$ _____
88. Feasibility study \$ _____
89. Finder's fee \$ _____
90. Legal fees \$ _____
91. Insurance \$ _____
92. Other fees (list each separately)
_____ \$ _____

93. _____ \$ _____
94. Total permanent mortgage loan
interest expense (in dollars) \$ _____
95. Sub-total Part IX_C (add lines 84 & 88 thru 93) \$ _____

Financial Data Summary Sheet

96. Sub-total Part I Direct Construction Cost (line 7) **\$50,553,295**
97. Sub-total Part II Equipment not included in
construction contract (line 9) **\$12,862,138**
98. Sub-total Part III Site Acquisition Costs (line 15) \$ _____
99. Sub-total Part IV Site Preparation Cost (line 23) \$ _____
100. Sub-total Part V Off-Site Costs (line 28) \$ _____
101. Sub-total Part VI Architectural and Engineering
fees (line 33) **\$4,533,920**
102. Sub-total Part VII Other Consultant fees (line 35) \$ _____
103. Sub-total Part VIII Taxes During Construction (line 38) \$ _____
104. Sub-total Part IX-A HUD-232 Financing (line 53) \$ _____
105. Sub-total Part IX-B Industrial Development Authority
Revenue & General Revenue Bond
Financing (line 80) \$ _____
106. Sub-total Part IX-C Conventional Loan Financing
(line 95) \$ _____
107. **TOTAL CAPITAL COST** (lines 96 thru 106) **\$67,949,353**
108. Percent of total capital costs to be financed _____%
109. Dollar amount of long term mortgage (line 107 x 108) \$ _____
110. Total Interest Cost on Long Term Financing \$ _____
- a. HUD-232 Financing (line 53) \$ _____

	b. Industrial Development Authority Revenue & General Revenue Bond Financing (line 79)	\$ _____
	c. Conventional loan Financing (line 94)	\$ _____
111.	Anticipated Bond discount	
	a. HUD-232 Financing (line 53)	\$ _____
	b. Industrial Development Authority Revenue & General Revenue Bond Financing (line 70)	\$ _____
	c. Conventional Loan Financing (line 87)	\$ _____
112.	TOTAL CAPITAL AND FINANCING COST (ADD LINES 107, 110a, b or c AND 111a, b or c)	\$ _____
D.	1. Estimated costs for new construction (excluding site acquisition costs)	\$ _____
	2. Estimated costs of modernization and renovation (excluding site acquisition costs)	\$ _____
E.	Anticipated Sources of Funds for Proposed Project	<u>Amount</u>
	1. Public Campaign	\$ _____
	2. Bond Issue (Specify Type) _____	\$ _____
	3. Commercial Loans	\$ _____
	4. Government Loans (Specify Type) _____	\$ _____
	5. Grants (Specify Type) _____	\$ _____
	6. Bequests	\$ _____
	7. Private Foundations	\$ _____
	8. Endowment Income	\$ _____
	9. Accumulated Reserves	\$67,949,353
	10. Other (Identify) _____	\$ _____

- F. Describe in detail the proposed method of financing the proposed project, including the various alternatives considered. Attach any documents which indicate the financial feasibility of the project.

The proposed project will be financed from VHC's accumulated reserves.

- G. Describe the impact the proposed capital expenditure will have on the cost of providing care in the facility. Specify total debt service cost and estimated debt service cost per patient day for the first two (2) years of operation. (Total debt service cost is defined as total interest to be paid during the life of the loan (s). Estimate debt service cost per patient day by dividing estimated total patient days for year one into amount of debt service for that year. Repeat for year two.) Please attach an amortization schedule showing how the proposed debt will be repaid.

The capital expenditure will not result in increased costs of care for patients. The project will be financed from accumulated reserves and there is no debt service cost.

- H. Attach a copy of the following information of documents.

1. The existing and/or proposed room rate schedule, by type of accommodation.

See Attachment V.H.1—2025 Room and Board Charges.

2. The audited annual financial statements for the past two (2) years of the existing facility or if a new facility without operating experience, the financial state of the owner (s). Audited financial statements are required, if available.

See Attachment V.H.2—Audited Financial Statements.

3. Copy of the proposed facility's estimated income, expense and capital budget for the first two years of operation after the proposed project is completed.

See Attachment V.H.3—Pro Forma.

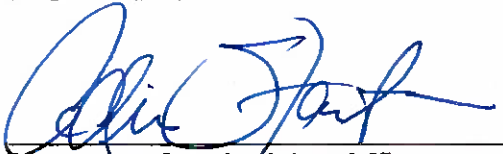
In the interest of comprehensiveness, the attached Pro Forma reflects the entirety of the Corner Addition, including the ICU beds and cardiac catheterization lab addition proposed in this application.

SECTION VI**ASSURANCES**

I hereby assure and certify that:

- a. The work on the proposed project will be initiated within the period of time set forth in the Certificate of Public Need; and
- b. completion of the proposed project will be pursued with reasonable diligence; and
- c. the proposed project will be constructed, operated and maintained in full compliance with all applicable local, State and Federal laws, rules, regulations and ordinances.

I hereby certify that the information included in this application and all attachments are correct to the best of my knowledge and belief and that it is my intent to carry out the proposed project as described.



Signature of Authorizing Officer

1701 N. George Mason Dr.

Address – Line1

Adrian Stanton

Type/Print Name of Authorizing Officer

Address – Line 2

Vice President
Real Estate Acquisition and Development
VHC Health

Title of Authorizing Officer

Arlington, VA 22205

City/State/Zip

7/31/25

Date

703-558-6319

Telephone Number

Copies of this request should be sent to:

- A. **Virginia Department of Health
Division of Certificate of Public Need
9960 Mayland Drive – Suite 401
Henrico, Virginia 23233**
- B. **The Regional Health Planning Agency if one is currently designated by the Board of Health to serve the area where the project would be located.**

Virginia Hospital Center Service Area



COPN Request No. VA-8827
Attachment V.H.3 – Pro Forma

	Year 1	Year 2
Incremental IP Gross Revenues	50,947,549	52,475,975
Incremental OP Gross Revenues	75,279,782	77,538,176
Total Incremental Gross Revenues	126,227,331	130,014,151
Bad Debt	1,893,410	1,950,212
Charity	4,417,957	4,550,495
Contractual Allowances	85,834,585	88,409,623
Total Deductions	92,145,952	94,910,330
Net Patient Service Revenue	34,081,379	35,103,821
Incremental Expense		
Salaries	5,170,710	5,325,832
Benefits	393,528	405,334
Contract Labor	612,027	630,388
Purchased Services	21,018	21,649
Supplies	9,660,644	9,950,463
Repairs & Maintenance	3,047	3,138
Depreciation/Amortization	1,698,734	1,698,734
Other Expenses	41,540	42,786
Total Incremental Expenses	\$17,601,248	\$18,078,324
Net Income	\$16,480,131	\$17,025,497

Assumptions:

- Gross and net revenues reflect incremental additions for the proposed services (beds, emergency department, and cardiac catheterization services), based on existing service line experience and utilization projections.
- Catheterization revenues include all procedures performed in catheterization labs.
- Revenue, payor mix, and inpatient-to-outpatient proportion is based on 2025 data.
- Gross patient service revenue assumes increase of 3% per year, and net patient service revenue assumes increase of 1% per year.
- Operating expenses are based on experience of expenses as a percentage of gross patient services revenue.
- Charity care reflects VHC's system-wide charity care condition of 3.0%
- Bad debt is based on historical experience for VHC.
- Depreciation assumes 40-year useful life for building, and seven-year useful life for equipment
- Payor mix:

Medicare	43.1%
Medicaid	6.8%
Blue Cross	18.9%
Other Managed Care & Commercial	25.5%
Charity Care	3.6%
Self-Pay	2.1%
Total	100.0%