

VIRGINIA DEPARTMENT OF HEALTH

Office of Licensure and Certification

Division of Certificate of Public Need

Staff Analysis

September 18, 2023

**RE: COPN Request No. VA-8710
Chippenham & Johnston-Willis Hospitals, Inc.
Richmond, Virginia
Establish a Specialized Center for CT Imaging via Relocation and Replacement of
Swift Creek ER**

Applicant

Chippenham & Johnston-Willis Hospitals, Inc. (CJW) will have 100% ownership of Magnolia ER (Emergency Room). CJW wholly or partially owns CJW Wound Health Care Center, LLC, Crewe Outpatient Imaging, LLC, and Imaging Services of Richmond, LLC. CJW's ultimate corporate parent is HCA Healthcare, Inc. (HCA). CJW proposes to establish computed tomography (CT) services at Magnolia ER, to be located at 18201 Hull Street Road, Moseley, Virginia 23231, located in Planning District (PD) 15, nested further within Health Planning Region (HPR) IV.

Background

Planning District 15 Population and Demographics

PD 15 is located in central Virginia and includes the counties of Charles City, Chesterfield, Goochland, Hanover, Henrico, New Kent, and Powhatan as well as the City of Richmond. The overall population in PD 15 in 2020 was 1,120,304, making PD 15 representative of approximately 13% of the statewide population (**Table 1**).

PD 15 is projected to experience a population growth of 6.6% between 2020-2030, which is greater than the statewide average of 5.3% for Virginia (**Table 1**). This trend of population growth at a rate faster than the statewide average was also seen between 2010-2020, with growth rates of 9.1% and 7.4%, respectively (**Table 1**).

The growth in the age 65+ cohort between 2020 and 2030 is also projected to be higher for PD 15 than the statewide average; PD 15 is projected to have a 25.1% increase in the 65+ population, while the statewide average projection for this age group is 21.5% (**Table 1**). The growth in the senior population for PD 15 is relevant due to the use of ER services for seniors being greater than the use of ER services for other age groups.

Table 1. PD 15 Population Data

| Locality Name | 2010 | 2020 | % Change 2010-2020 | 2030 | % Change 2020-2030 | 2020 65+ | 2030 65+ | % Change 2020-2030 65+ |
|----------------------------|------------------|------------------|-----------------------|------------------|-----------------------|------------------|------------------|------------------------------|
| Charles City County | 7,256 | 6,773 | -7.1% | 6,200 | -9.2% | 1,773 | 2,189 | 19.0% |
| Chesterfield County | 316,236 | 364,548 | 13.3% | 406,942 | 10.4% | 55,297 | 72,476 | 23.7% |
| Goochland County | 21,717 | 24,727 | 12.2% | 27,339 | 9.6% | 5,420 | 7,421 | 27.0% |
| Hanover County | 99,863 | 109,979 | 9.2% | 118,374 | 7.1% | 19,807 | 27,456 | 27.9% |
| Henrico County | 306,935 | 334,389 | 8.2% | 356,656 | 6.2% | 53,255 | 68,003 | 21.7% |
| New Kent County | 18,429 | 22,945 | 19.7% | 27,067 | 15.2% | 4,303 | 6,663 | 35.4% |
| Powhatan County | 28,046 | 30,333 | 7.5% | 32,152 | 5.7% | 6,041 | 8,552 | 29.4% |
| Richmond city | 204,214 | 226,610 | 9.9% | 245,437 | 7.7% | 26,352 | 31,657 | 16.8% |
| PD 15 Total | 1,002,696 | 1,120,304 | 9.1% | 1,220,168 | 6.6% | 172,249 | 224,417 | 25.1% |
| Virginia, Statewide | 8,001,024 | 8,644,727 | 7.4% | 9,129,002 | 5.3% | 1,352,448 | 1,723,382 | 21.5% |

Source: Weldon-Cooper Data

PD 15 is an area with a varied composition of income levels. The City of Richmond had a poverty rate of 26.2% in 2016 (most recent data published by the Virginia Department of Health), while the surrounding areas had an average poverty rate of 7.6% (**Table 2**). Contrarily, Chesterfield County has a poverty rate of 7.0%, which is much lower than the average PD rate of 10.0% and the statewide average of 11.0% (**Table 2**).

Table 2. PD 15 Poverty Rates, 2016

| Locality Name | Poverty Rate |
|------------------------------------|--------------|
| Charles City County | 12.4% |
| Chesterfield County | 7.0% |
| Goochland County | 6.4% |
| Hanover County | 5.8% |
| Henrico County | 9.2% |
| New Kent County | 5.9% |
| Powhatan County | 6.6% |
| Richmond city | 26.2% |
| PD 15 Average | 10.0% |
| Virginia, Statewide Average | 11.0% |

Source: vdh.virginia.gov/data/social-determinants-of-health/poverty/

Computed Tomography and Freestanding Emergency Facilities

A CT scan is a diagnostic imaging tool that utilizes x-ray technology to produce imaging of the inside of the body and can show bones, muscles, organs, and blood vessels. CT scans are more detailed than x-rays; rather than the standard straight-line x-ray beam, CT imaging uses an x-ray beam that moves in a circle around the body to show structures in much greater detail.¹ The scans can be used to help diagnose tumors, investigate internal bleeding, or investigate other

¹ <https://www.hopkinsmedicine.org/health/treatment-tests-and-therapies/computed-tomography-ct-scan#:~:text=Computed%20tomography%20is%20commonly%20referred,fat%2C%20organs%20and%20blood%20vessels.>

possible injuries or damage. The scans can be done with or without contrast, a substance taken orally or injected within the body, that causes a particular organ or tissue to be seen more clearly.²

Chippenham & Johnston-Willis Hospitals, Inc. and Swift Creek ER

HCA is the parent corporation of all three facilities (CJW, Swift Creek ER, and Magnolia ER). Chippenham & Johnston-Willis Hospitals, Inc. operates both Chippenham and Johnston-Willis Hospitals, which are acute care hospitals that provide a variety of diagnostic, medical, and surgical services including diagnostic imaging, orthopedics, joint care, cancer care, neurological care, behavioral health services at the Tucker Pavilion, and cardiovascular services at the Levinson Heart Institute. In 2022, Chippenham Hospitals was recognized as one of the country's Top 20 Large Community Hospitals by Fortune/Merative (formerly IBM/Watson Health)³. Chippenham Hospital is designated as a Level I Trauma Center⁴ which requires for all:

Level I trauma centers have an organized trauma response and are required to provide total care for every aspect of injury, from prevention through rehabilitation. These facilities must have adequate depth of resources and personnel with the capability of providing leadership, education, research, and system planning.⁵

The applicant provides that "Swift Creek ER has been highly utilized and has outgrown its physical space."⁶ The applicant proposes relocating and replacing Swift Creek ER with Magnolia ER due to the physical limitations of expansion possible at the smaller Swift Creek ER site. Swift Creek ER reports providing the following services on their webpage:

- 24/7 full-service emergency care, including pediatrics; advanced cardiology services; comprehensive pediatric services; dedicated Fast Track program; extensive imaging equipment, including CT scanner, digital ultrasound, digital diagnostic and portable X-rays; Hoppymobiles for pediatrics; mental health care; neurological services; onsite laboratory offerings; respiratory care; stroke triage and treatment; and telemedicine technology.

Furthermore, the Swift Creek ER webpage also states that they are able to treat "a wide range of conditions, both life threatening and urgent, in our emergency center and Fast Track program. They include..."

- Any life-threatening condition; asthma; behavioral health conditions; broken or fractured bones; bronchitis; burns and severe wounds; cardiac arrest; chest pain; and congestive heart failure; chronic obstructive pulmonary disease (COPD); drug overdose; falls; gynecological conditions; migraines; minor head injuries; minor illness and injury; persistent cough; pneumonia; respiratory arrest and shortness of breath; seizure; sepsis; strains and sprains; stroke; urinary tract infections (UTIs)⁷

² <https://www.hopkinsmedicine.org/health/treatment-tests-and-therapies/computed-tomography-ct-scan#:~:text=Computed%20tomography%20is%20commonly%20referred,fat%2C%20organs%20and%20blood%20vessels.>

³ <https://fortune.com/2022/06/30/top-community-hospitals-2022-merative/>

⁴ <https://www.vdh.virginia.gov/emergency-medical-services/trauma-critical-care/virginia-trauma-centers/>

⁵ <https://www.vdh.virginia.gov/content/uploads/sites/23/2017/06/TraumaDesignationLevelInfo-3-2017-revised61417.pdf>

⁶ COPN Request No. VA-8710, page 9.

⁷ <https://www.hcavirginia.com/locations/swift-creek-er>

Proposed Project

CJW proposes to relocate Swift Creek ER and replace it with Magnolia ER, including the one diagnostic CT scanner currently operational at Swift Creek ER. Following completion of the project (anticipated to occur 30 months after approval of the COPN), Swift Creek ER will be closed. HCA owns the Swift Creek ER building and land the building is on; HCA has not yet determined the best use for this building following the completion of Magnolia ER.

Magnolia ER is to be located approximately 4.1 miles from the existing Swift Creek ER. The following schedule for completion is anticipated:

- Date of Final Drawings: COPN + 8 months
- Date of Construction Begins: COPN + 14 months
- Date Construction is Completed: COPN + 29 months
- Target Date of Opening: COPN + 30 months

Project Definition

Section 32.1-102.1:3 of the Code of Virginia defines a project, in part, as the “[e]stablishment of a medical care facility described in subsection A [including] “[a]ny specialized center or clinic or that portion of a physician's office developed for the provision of outpatient or ambulatory [...] computed tomographic (CT) scanning...”

Required Considerations -- § 32.1-102.3, of the Code of Virginia

In determining whether a public need exists for a proposed project, the following factors shall be taken into account when applicable.

- 1. The extent to which the proposed service or facility will provide or increase access to needed services for residents of the area to be served, and the effects that the proposed service or facility will have on access to needed services in areas having distinct and unique geographic, socioeconomic, cultural, transportation, and other barriers to access to care.**

At present, “[n]early 90% of Swift Creek ER’s frontage from the street view is occluded by protected wetlands and heavy foliage, creating significant visibility challenges from the main thoroughfare of Hull Street Road.”⁸ The relocation will be approximately 4.1 miles away from the current location. “The proposed site is approximately 1.5 miles from the anticipated Powhite Parkway State Route 76 extension planned for 2030,”⁹ and will offer increased visibility from the highway.

Being relocated within the same service area, the patient population to be served by Magnolia ER is anticipated to remain the same as at Swift Creek. Chesterfield County has a lower than statewide average (11%) and PD 15 average (10%) of residents living in poverty, with 7% of Chesterfield residents living in poverty (**Table 2**). Powhatan County, which neighbors the town of Moseley (Chesterfield County), has an even lower percentage of residents living in poverty at 6.6% (**Table 2**).

⁸ COPN Request VA-8710

⁹ COPN Request VA-8710

There is not a public transportation stop located near the proposed site of 18201 Hull Street Road N, Moseley, Virginia 23120. The closest GRTC (Greater Richmond Transit System) stop to the proposed location is approximately 12.9¹⁰ miles away, where Hull Street and the World War II Veterans Memorial Highway (288) intersect. The same stop is 3.2 miles from the current location of Swift Creek ER. Neither the proposed Magnolia ER nor Swift Creek ER are reasonably accessible by public transportation.

2. The extent to which the project will meet the needs of the residents of the area to be served, as demonstrated by each of the following:

(i) The level of community support for the project demonstrated by citizens, businesses, and governmental leaders representing the area to be served.

DCOPN did not receive any letters of opposition and received letters of support for the proposed project from the local medical community, a multitude of providers within the CJW system, two state Delegates, and various leaders in the Chesterfield County local government. Collectively, these letters articulate several benefits of the project, including:

- The proposed site is in Matoaca, in western Chesterfield as well as the Matoaca Managerial District, which is “a broad geographic area larger in size than Henrico County.... Much of Chesterfield County’s recent and anticipated growth is being absorbed into the Matoaca District.”¹¹
- The fastest growing demographic in Chesterfield is the 65 years of age and older residents, the county’s overall population is projected to exceed 400,000 in the next few years, and there only being two hospitals in the county have prompted the need for strategically placed medical services, including freestanding ERs.¹²
- “Chesterfield Fire & EMS (CFEMS) continues to experience robust increases in service demands each year. Over the last five fiscal years, CFEMS averaged year-over-year increases in total incidents and patient transports at rates of 3.6% and 3.1% respectively. Over 80% of the 50,000+ incidents handled annually are EMS related and will account for nearly 25,000 patient transports to medical facilities throughout the region by the end of the current fiscal year. ... Fifty-seven percent of CFEMS patients are also HCA Healthcare patients and transports to the Swift Creek Freestanding Emergency Center over the past five fiscal years have doubled, reaching a total of 1,454 patients during FY-2022 making Swift Creek the 4th busiest destination for CFEMS transports.”¹³
- “In the last year alone, ER volume through the Swift Creek FSER has jumped by +12% from YTD 2022 to 2023. ... My colleagues practicing at the ER their state that the physical space constraints will unquestionably become a larger issue as the area continues to grow around it.”¹⁴

¹⁰ The proposed site is considerably further than common sense would estimate due to a U-turn being necessary to reach the new location from the closest public transportation stop.

¹¹ Support letter from Chesterfield County Board of Supervisors, Kevin P. Carroll

¹² Support letter from Chesterfield County Administrator, Joseph P. Casey, Ph.D.

¹³ Support letter from Chesterfield County Fire & EMS Chief, Edward L. Senter, Jr.

¹⁴ Support letter from Medical Director of Trauma Services for Chippenham Hospital, Stanley J. Kurek, DP, FACS

- A larger freestanding ER is essential to support the residential expansion in western Chesterfield.
- “For decades, Chippenham Hospital has been the bedrock of Richmond cardiovascular care. ...heart disease remains, by far, the most prevalent and deadliest of diseases throughout the US. Thoughtfully-located emergency departments located across the region equate to lower mortality rates through expeditious delivery of life-saving interventions. ... The Swift Creek Freestanding Emergency Center has seen volumes grow over the last 2-3 years to nearly 70-80 patients per day – many of which require cardiac interventions and follow-up care.”¹⁵
- The Powhite Parkway extension project has been approved and is expected to be complete by 2030, which would extend the highway very near the proposed location, making it an ideal location for EMS personnel to access quickly for patient transports.
- The current Swift Creek ER location is “landlocked with maximized bed capacity and [is] unable to allow for [expansion of the existing building] in its current location.”¹⁶
- “As Chesterfield County grows, access points such as the proposed Magnolia ER will allow [Virginia Cardiovascular Specialists’] cardiologists to meet more completely the commitment to our community to provide immediate, life-saving interventions during the most critical moments. Magnolia ER will offer this community a larger emergency center facility, with more patient capacity, without removing these services from the immediate area. ... HCA has already outgrown the Swift Creek space, and this facility is not positioned for physical expansion.”¹⁷

Section 32.1-102.6 B of the Code of Virginia directs DCOPN to hold one public hearing on each application in a location in the county or city in which the project is proposed or a contiguous county or city in the case of competing applications, or in response to a written request by an elected local government representative, a member of the General Assembly, the Commissioner, the applicant, or a member of the public. COPN Request No. VA-8710 is not competing with another project in this batch cycle and DCOPN did not receive a request to conduct a public hearing for the proposed project. Thus, no public hearing was held.

(ii) The availability of reasonable alternatives to the proposed service or facility that would meet the needs of the population in a less costly, more efficient, or more effective manner.

DCOPN is tasked with analyzing the COPN regulated service of CT and is not a regulatory authority for freestanding ERs; however, this project intertwines the two healthcare services. Maintaining the status quo would appear sufficient to meet the needs of the CT services, especially with consideration for the Chesterfield Imaging Center currently under construction (an HCA affiliated imaging center) also located on Hull Street Road. But when

¹⁵ Support letter from President of Virginia Arrhythmia Consultants (practice located on Chippenham Hospital campus), Saumil Shah, MD, FHRS

¹⁶ Support letter from President & Managing Partner of Radiology Associates of Richmond, Inc., W. Scott Conrad, MD

¹⁷ Support letter from Executive Director of Virginia cardiovascular Specialists, Ann Honeycutt

considering the entirety of the project, to include the non-DCOPN regulated services that are provided in a free-standing ER, maintaining the status quo appears to be limiting with regard to those non-DCOPN regulated services.

Moving Swift Creek ER and establishing Magnolia ER is costly in terms of construction; however, the proposed site is approximately 4.1 miles farther west than the current site, has a larger footprint for expanding as the geographic area grows, and is not too far from the current location that an adverse impact on other area providers would be likely. The relocation will also be an opportunity for a more equitable distribution of CT imaging by relocating the imaging services further from other CT imaging providers.

(iii) Any recommendation or report of the regional health planning agency regarding an application for a certificate that is required to be submitted to the Commissioner pursuant to subsection B of § 32.1-102.6.

Currently there is no organization in HPR IV designated by the Virginia Department of Health to serve as the Health Planning Agency for PD 15. Therefore, this consideration is not applicable to the review of the proposed project.

(iv) Any costs and benefits of the project.

The total capital cost of the project is listed as \$22,280,000, of which \$3,899,000 is dedicated to the Equipment Not Included in the Construction Contract; approximately \$556,000 of the capital cost is attributable to the CT space. The proposed site is large enough to allow for future expansion as needed without requiring additional relocations in the future. The project does not add any additional CT scanning capacity to the PD, fostering efficient and cost-effective healthcare planning. Due to the relatively remote nature of the project in relation to other area providers and the inventory-neutral aspect of this project, DCOPN finds it unlikely the relocation will have any negative impacts on other providers.

(v) The financial accessibility of the project to the residents of the area to be served, including indigent residents.

The applicant has provided assurances that CT services will be accessible to all patients, regardless of financial considerations. In 2021, the most recent data available, CJW reports 0.98% of their gross revenues to be charity, which is less than the average of HPR IV of 1.0% (**Table 3**). Furthermore, the Pro Forma Income Statement provided by the applicant anticipates a charity care contribution equal to 0.96% of gross revenues derived from CT services at Magnolia ER, an amount nearly consistent with the average HPR IV contribution. However, recent changes to §32.16-102.4B of the Code of Virginia now require DCOPN to place a charity care condition on all applicants seeking a COPN. For this reason, DCOPN recommends that the proposed project, if approved, be subject to a 1.0% charity care condition, to be derived from total CT gross patient services revenues, consistent with the HPR IV average. DCOPN again notes that its recommendation includes a provision allowing for the reassessment of the charity care rate at such time as more reliable data becomes available regarding the full impact of Medicaid expansion in the Commonwealth.

Table 3. HPR IV 2021 Charity Care Contributions

| Health Planning Region IV | | | |
|---|--------------------------|------------------------------------|----------------------------------|
| 2021 Charity Care Contributions at or below 200% of Federal Poverty Level | | | |
| Hospital | Gross Patient Revenues | Adjusted Charity Care Contribution | Percent of Gross Patient Revenue |
| Encompass Health Rehab Hosp of Petersburg | \$ 26,851,240 | \$ 1,046,165 | 3.90% |
| Southern Virginia Regional Medical Center | \$ 193,424,382 | \$ 6,462,541 | 3.34% |
| Sentara Halifax Regional Hospital | \$ 305,216,000 | \$ 5,567,790 | 1.82% |
| Bon Secours St. Francis Medical Center | \$ 1,075,574,864 | \$ 15,314,171 | 1.42% |
| Southside Regional Medical Center | \$ 2,000,593,397 | \$ 27,695,403 | 1.38% |
| Bon Secours Richmond Community Hospital | \$ 991,036,257 | \$ 11,039,087 | 1.11% |
| CJW Medical Center | \$ 8,975,939,621 | \$ 87,710,457 | 0.98% |
| Henrico Doctors' Hospital | \$ 5,763,604,659 | \$ 52,734,748 | 0.91% |
| VCU Health System | \$ 6,809,570,615 | \$ 61,295,221 | 0.90% |
| Bon Secours St. Mary's Hospital | \$ 2,358,088,813 | \$ 20,998,912 | 0.89% |
| TriCities Hospital | \$ 1,324,643,208 | \$ 9,600,576 | 0.72% |
| Sheltering Arms Institute | \$ 137,252,572 | \$ 970,918 | 0.71% |
| Bon Secours Memorial Regional Medical Center | \$ 1,614,325,924 | \$ 9,753,218 | 0.60% |
| Community Memorial Hospital | \$ 343,583,756 | \$ 1,572,169 | 0.46% |
| Encompass Health Rehab Hosp of Virginia | \$ 25,150,781 | \$ 107,359 | 0.43% |
| Southside Community Hospital | \$ 383,098,711 | \$ 1,431,006 | 0.37% |
| Cumberland Hospital for Children and Adolescents | \$ 39,513,361 | \$ - | 0.00% |
| Select Speciality Hospital - Richmond | \$ 141,742,321 | \$ - | 0.00% |
| Total Inpatient Hospitals: | | | 18 |
| HPR IV Inpatient Hospital Median | | | 0.9% |
| HPR IV Total Inpatient \$ & Mean % | \$ 32,509,210,482 | \$ 313,299,741 | 1.0% |

Source: VHI 2021 Charity Care Data

(vi) At the discretion of the Commissioner, any other factors as may be relevant to the determination of public need for a project.

DCOPN has identified the following discretionary factors to bring to the attention of the Commissioner as may be relevant in determining a public need for the proposed project:

Freestanding ERs are not currently regulated by the Certificate of Public Need (COPN) process. The often-cited reasoning for applicants seeking CT services at a freestanding ER originate from the Adjudication Officer’s Recommendation Report associated with COPN No. VA-04554 (COPN Req. No. VA-8192). Specifically, the Adjudication Officer states:

“...complementing Tyson’s Corner EC [Emergency Center] with a CT scanner would improve access to CT services by placing an iteration of CT technology in a planned freestanding emergency department, where precise and timely diagnostic decisions are often crucial.”¹⁸

Additionally, the same Adjudication Officer’s report referenced previously considers witness physician testimony, including the following:

“...RHC’s [Reston Hospital Center] emergency department director stated that the Tyson’s Corner EC project would benefit the ability of emergency medical services... to respond, and ‘improve the speed and timeliness of emergency care....,’ and that

¹⁸ COPN No. VA-04554 (Project COPN Req. No. VA-8192), Adjudication Officer’s Report, page 11

‘time is of the essence in an emergency,’ such as in the case of stroke (in which case a rapid CT scan is crucial to determine whether a stroke is ischemic, hemorrhagic or transient ischemic and to ensure a detrimental medication is not administered), heart attack and chest pain, appendicitis, head trauma, pulmonary embolism, abdominal perforation, spinal cord injury and sepsis...”

Contrary to this often-cited report, an Informal Fact-Finding Conference (IFFC) held on July 19, 2023, regarding the construction of a hospital in Ashland (the applicant for that project being HCA), the applicant and witnesses argued for the ineffectiveness of freestanding emergency facilities. The testimony given during the COPN VA-8687 IFFC regarding freestanding ERs can be summarized as follows:

Other applications for new and established freestanding emergency departments (ED) were brought up more than 11 times during the IFFC for COPN Req. VA-8687¹⁹. The arguments were indicating that freestanding EDs “statistically [are] not the appropriate choice”²⁰ and “a full-fledged hospital is what is needed, not more free-standings or additional free-standings in that area (in PD 15).”²¹

DCOPN brings this information to attention during the review for the Magnolia ER project due to the generally antithetical arguments brought forth by the applicant regarding the efficacy of freestanding emergency facilities and whether having CT services at these locations is of actual benefit to residents in the area. DCOPN will be reviewing the project based upon its own merits; however, it is imperative that DCOPN acknowledges both arguments provided surrounding diagnostic imaging services in freestanding ERs brought forth during the COPN Req. VA-8687 IFFC in order to maintain departmental objectivity in addition to providing the Commissioner with the entirety of the circumstances in which the project is being reviewed.

3. The extent to which the application is consistent with the State Medical Facilities Plan.

Section 32.1-102.2:1 of the Code of Virginia calls for the State Health Services Plan Task Force to develop, by November 1, 2022, recommendations for a comprehensive State Health Services Plan (SHSP). In the interim, these regulations provide the best available criteria and DCOPN will consider the consistency of the proposed project with the predecessor of the SHSP, the State Medical Facilities Plan (SMFP).

12VAC-5-230 Part I, Article 1
Criteria and Standards for Computed Tomography

12VAC5-230-90. Travel time.

CT services should be within 30 minutes driving time one way under normal conditions of 95% of the population of the health planning district using a mapping software as determined by the commissioner.

The light blue shaded area in **Figure 1** illustrates the areas in PD 15 that have CT services available within 30 minutes driving distance. The dark blue illustrates CT coverage within 30 minutes from providers outside of the PD. The three towns not within the shaded area include

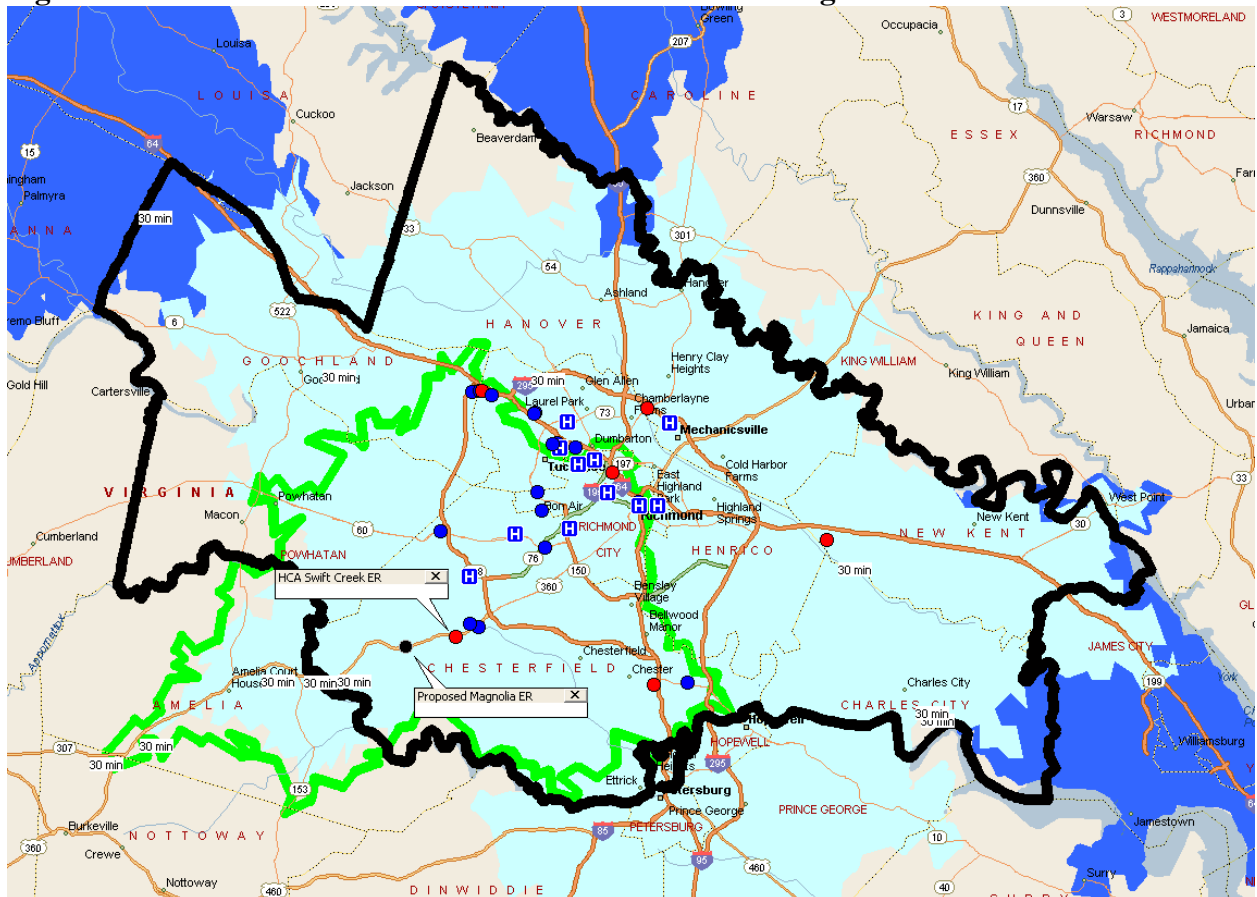
¹⁹ IFFC COPN VA-8687 transcript pages 28, 45, 52, 53, 69, 70, 79, 81, 85, 86, 87, and 96

²⁰ IFFC transcript page 45, lines 12-13

²¹ IFFC transcript page 45, 14-16

Cartersville (population 1,434 per 2020 Census), Beaverdam (population 14,374 per 2020 Census), and Macon (population 28,696 per 2020 Census), with a total population for the three being approximately 44,504 in 2020. The total PD 15 population was 1,140,301 in 2020, meaning the three towns not within 30 minutes driving distance from CT services make up approximately 3.9% of the PD population, or that 96.1% of the PD is within the appropriate driving time from CT services according to the SMFP standard. The black dot illustrates the proposed project, while “H” symbols with blue backgrounds are hospital-based CT scanners. Blue dots are freestanding CT sites not in FSEDs and red dots are those in FSEDs.

Figure 1. PD15 CT Services Locations and 30 Minutes Driving Distance



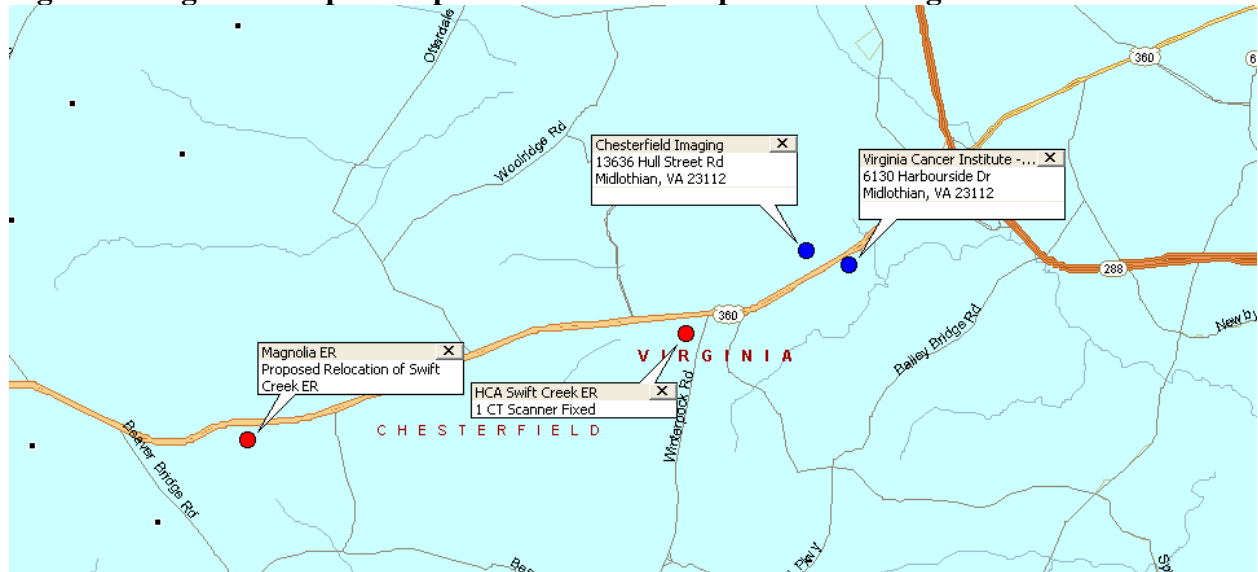
Source: DCOPN Records and Microsoft Streets & Maps

***Note:** The red dots indicate free-standing ERs, the blue dots are outpatient imaging centers, the blue “H”s are hospitals with CTs, and the black dot is the proposed site.

The green outline is the 30 minutes radial driving distance from the proposed site; as evidenced in **Figure 1**, it does not appear that the relocation will increase access to CT scanning in any meaningful way for residents of PD 15. Although, the relocation will place the current CT services further from competing providers as the relocation is from the location of the red dot titled “HCA Swift Creek ER” to the black dot location. In **Figure 2**, the other providers are presented near the proposed Magnolia ER and current Swift Creek ER locations. While the applicant is proposing to move the CT services further down Hull Street and away from other

providers, it is important to note that Chesterfield Imaging Center is an HCA company and the Virginia Cancer Institute CT services are dedicated to diagnostic imaging for cancer patients.

Figure 2. Magnified Map of Proposed Location Extrapolated from Figure 1



Source: Figure 1

12VAC5-230-100. Need for new fixed site or mobile service.

- A. No new fixed site or mobile CT service should be approved unless fixed site CT services in the health planning district performed an average of 7,400 procedures per existing and approved CT scanner during the relevant reporting period and the proposed new service would not significantly reduce the utilization of existing providers in the health planning district. The utilization of existing scanners operated by a hospital and serving an area distinct from the proposed new service site may be disregarded in computing the average utilization of CT scanners in such health planning district.**
- B. Existing CT scanners used solely for simulation with radiation therapy treatment shall be exempt from the utilization criteria of this article when applying for a COPN. In addition, existing CT scanners used solely for simulation with radiation therapy treatment may be disregarded in computing the average utilization of CT scanners in such health planning district.**

The project is described by the applicant as an inventory-neutral relocation of existing services. While this project is a relocation, the site to be established will be a new site and DCOPN will consider the procedural volumes and public need at the proposed site within this provision's segment of the analysis.

According to 2021 VHI data, the most recent available data, there were 42 CT scanners in PD 15 with an average utilization of 8,242 scans, exceeding the SMFP standard at 111% percent of the SMFP threshold (**Table 4**). Several CT scanners have been authorized in PD 15 since the latest VHI data were published. The current DCOPN inventory accounts for 60 CT scanners, 53 of which are for diagnostic imaging use (see **Table 5**). At utilization of the SMFP standard of 7,400 scans per year, the 346,165 scans performed in PD 15 in 2021 would represent 47 fully utilized CT scanners, six fewer than are currently authorized.

Needed CT units = 346,165 scans in 2021 ÷ 7,400 scans = 47 (46.8) scanners

Table 4: Utilization Percentage in 2021: 111% (excludes dedicated intraoperative scanners)

Table 5: Current number of PD 15 authorized CT units: 53 (excluding dedicated intraoperative scanners)

CT unit surplus = 6

Table 4. PD 15 CT Scanners' Utilization, VHI 2021

| Facility Name | Total Stationary Units | Total CT Procedures | Procs. per Scanner | % of Utilization Threshold |
|--|------------------------|---------------------|--------------------|----------------------------|
| Acute Hospital | | | | |
| Bon Secours Memorial Regional Medical Center | 3 | 36,693 | 12,231 | 165% |
| Bon Secours Richmond Community Hospital | 1 | 5,566 | 5,566 | 75% |
| Bon Secours St. Francis Medical Center | 2 | 26,099 | 13,050 | 176% |
| Bon Secours St. Mary's Hospital | 4 | 43,597 | 10,899 | 147% |
| Chippenham Hospital | 4 ¹ | 43,744 | 10,936 | 148% |
| Henrico Doctors' Hospital - Forest | 4 | 33,354 | 8,339 | 113% |
| Henrico Doctor's Hospital - Parham | 1 | 12,836 | 12,836 | 173% |
| Henrico Doctor's Hospital - Retreat | 1 | 4,093 | 4,093 | 55% |
| Johnston-Willis Hospital | 3 | 30,834 | 10,278 | 139% |
| VCU Medical Center | 7 | 73,359 | 10,480 | 142% |
| Vibra Hospital of Richmond LLC (LTAC) | 1 | 288 | 288 | 4% |
| Acute Hospital Total | 31 | 310,463 | 10,015 | 135% |
| Freestanding | | | | |
| Bon Secours Imaging Center Innsbrook | 1 | 1,213 | 1,213 | 16% |
| Bon Secours Westchester Imaging Center | 1 | 6,687 | 6,687 | 90% |
| Chesterfield Imaging | 1 | 5,281 | 5,281 | 71% |
| Independence Park Imaging | 1 | 3,265 | 3,265 | 44% |
| MEDARVA Imaging | 1 | 192 | 192 | 3% |
| NOW Neuroscience, Orthopaedic and Wellness Center | 1 | 3,761 | 3,761 | 51% |
| Richmond Ear Nose and Throat | 1 | 0 | 0 | 0% |
| VCU Medical Center at Stony Point Radiology | 1 | 7,518 | 7,518 | 102% |
| Virginia Cancer Institute - Discovery Drive | 1 | 6,509 | 6,509 | 88% |
| Virginia Cancer Institute - Harbourside | 1 | 3,912 | 3,912 | 53% |
| Virginia Cardiovascular Specialists / Forest Medical Plaza | 1 | 4,214 | 4,214 | 57% |
| Virginia Ear Nose & Throat - Chesterfield | 1 | 528 | 528 | 7% |
| Virginia Ear Nose & Throat - Henrico | 1 | 514 | 514 | 7% |
| Virginia Urology | 2 | 8,554 | 4,277 | 58% |
| Freestanding Total | 11 | 35,702 | 3,246 | 44% |
| PD 15 Totals and Percent of Threshold | 42 | 346,165 | 8,242 | 111% |

Source: DCOPN Records and VHI 2021 Data

Note: **Table 4** lists those scanners that were operational and reporting data to VHI in 2021 while **Table 5** shows the total authorized and diagnostic CT scanners in the DCOPN inventory.

¹Swift Creek ER is included in the Chippenham inventory for VHI reporting.

VHI reported data on 42 CT scanners in PD 15 for 2021, the latest year for which such data are available. Thirty-one of these were reported by acute care hospitals (one was a long-term care acute care hospital) and 11 were freestanding facilities. The hospital-based CT scanners averaged 10,015 procedures per CT scanner, 135% of the State Medical Facilities Plan (SMFP) threshold, and freestanding scanners averaged 3,246 procedures per scanner (44% of the SMFP threshold). In aggregate, CT scanners in PD 15 reported volumes equal to 111% of the SMFP standard in 2021 (**Table 4**).

There are a total of 60 CT scanners now authorized in PD 15. Five of these are used for CT simulation only and two are intraoperative scanners such that their restricted use should remove their volume from consideration. Only the 53 diagnostic scanners are included in this analysis (**Table 5**). There are seven authorized CT sites in PD 15 that are in or with freestanding emergency departments (FSEDs) (**Table 6**). Two of them are not yet operational. Their volumes are reported to VHI with the hospitals with which they are affiliated (**Table 6**).

Table 5. Inventory of CT Scanners in PD 15

| Facility Name | Authorized Diagnostic Scanners | Operational Diagnostic Scanners |
|---|--------------------------------|---------------------------------|
| Acute Hospitals | | |
| Bon Secours Memorial Regional Medical Center | 3 | 3 |
| Bon Secours Richmond Community Hospital | 1 | 1 |
| Bon Secours St. Francis Medical Center | 2 | 2 |
| Bon Secours St. Mary's Hospital ²² | 3 | 3 |
| Chippenham Hospital | 3 | 3 |
| Henrico Doctor's Hospital - Parham Doctors' Hospital | 1 | 1 |
| Henrico Doctor's Hospital - Retreat | 1 | 1 |
| Henrico Doctors' Hospital - Forest | 2 | 2 |
| Johnston-Willis Hospital ²³ | 3 | 3 |
| VCU Health System ²⁴ | 8 | 8 |
| Vibra Hospital of Richmond, LLC | 1 | 1 |
| West Creek Medical Center ²⁵ | 0 | 0 |
| Acute Hospital Total | 28 | 28 |
| Freestanding | | |
| Bon Secours Chester Emergency and Imaging Center ²⁶ | 1 | 1 |
| Bon Secours Imaging Center at Reynolds Crossing ²⁷ | 1 | 1 |
| Bon Secours Short Pump Emergency/Imaging Center | 1 | 1 |
| Bon Secours Westchester Imaging Center | 1 | 1 |
| Buford Road Imaging ²⁸ | 1 | 1 |
| Chester Imaging Center ²⁹ | 1 | 0 |
| Chesterfield ER ³⁰ | 1 | 0 |
| Chesterfield Imaging | 1 | 1 |
| Hanover Emergency Center | 1 | 1 |
| Independence Park Imaging ³¹ | 1 | 1 |
| Virginia Cardiovascular Specialists | 1 | 1 |
| Richmond Ear, Nose & Throat | 1 | 1 |
| Richmond Eye & Ear Healthcare Alliance d/b/a Medarva Healthcare | 1 | 1 |
| Richmond Radiation Oncology Center | 0 | 0 |
| Scott's Addition ER ³² | 1 | 0 |
| Short Pump, LLC ³³ | 1 | 0 |
| Swift Creek ER | 1 | 1 |
| VCU Health Neuroscience, Orthopedic and Wellness Center | 1 | 1 |
| VCU Massey Cancer Center at Hanover Medical Park | 0 | 0 |
| VCU Medical Center Adult Outpatient Pavilion ³⁴ | 0 | 0 |
| VCU Medical Center at Stony Point Radiology | 1 | 1 |
| VCU Health Emergency Center at New Kent | 1 | 1 |
| Virginia Cancer Institute - Harbourside | 1 | 1 |
| Virginia Cancer Institute - Dominion Drive | 1 | 1 |
| Virginia Ear Nose & Throat - Chesterfield | 1 | 1 |
| Virginia Ear Nose & Throat - Henrico | 1 | 1 |
| Virginia Urology | 2 | 2 |
| Freestanding Total | 25 | 21 |
| Total CT Scanners in PD 15 Inventory | 53 | 49 |

Source: DCOPN Records

²² COPN No. VA-04683; added intraoperative CT scanner January 2021

²³ COPN No. VA-04657; 3rd CT scanner added at Brain and Spine Center on JWH campus, operational May 2021.

²⁴ COPN No. VA-04760; additional CT Scanner dedicated to pediatric care; not yet operational.

²⁵ COPN No. VA-04179; relocating to Scott's Addition ER. West Creek Medical Center was authorized as a hospital but only operated as a freestanding ER.

²⁶ COPN No. VA-04656, operational May 2022.

²⁷ COPN No. VA-04743, operational April 2022, relocated CT from Bon Secours Imaging Center Innsbrook.

²⁸ Did not report data to VHI in 2021.

²⁹ COPN No. VA-04655 not yet operational.

³⁰ COPN No. VA-04840; not yet operational.

³¹ Did not report data to VHI in 2021.

³² COPN No. VA-04811; to relocate CT Scanner from West Creek Medical Center, not yet operational.

³³ COPN No. VA-04823; to relocate CT Scanner from Independence Park Imaging; not yet operational.

³⁴ COPN No. VA-04717; not yet operational.

Table 6. CTs in Freestanding Emergency Departments

| Facility | CT Scanners | COPN No. | Notes | Volumes reported with Affiliated Hospital |
|--|--------------------|-----------------|--|---|
| Bon Secours Chester Emergency and Imaging Center | 1 | VA-04656 | Opened May 2022 | Bon Secours St. Francis |
| Bon Secours Short Pump Emergency/Imaging Center | 1 | VA-04496 | Opened September 2018 | Bon Secours St. Mary's |
| Chesterfield ER | 1 after completion | VA-04840 | Expected complete July 2025 | Chippenham and Johnston-Willis Hospitals |
| Hanover Emergency Center | 1 | VA-04312 | Opened June 2014 | Henrico Doctor's Hospital |
| Scott's Addition ER | 1 after completion | VA-04811 | Relocating CT from West Creek; expected completion November 2024 | Henrico Doctor's Hospital-Forest |
| Swift Creek ER | 1 | VA-04379 | Opened March 2016 | Chippenham |
| VCU Health Emergency Center at New Kent | 1 | VA-04598 | Opened June 2020 | VCU Health System |

Source: DCOPN Documentation

Although there is a calculated surplus of CT scanners in the PD (2021 patient volume and 2023 authorized inventory), this project will not increase the number of CT units in the PD as it is a relocation. In 2021, the most recent data available, Chippenham Hospital's 4 CT scanners operated at approximately 148% and Johnston-Willis Hospital's 3 CT scanners operated at approximately 139% (**Table 4**). This data indicates a high utilization but does not account for the not-yet-operational Chesterfield Imaging Center nor does it provide data for Swift Creek ER alone.

Magnolia ER projects 10,896 CT procedures for Year 1 (2027) and 12,057 CT procedures for Year 2 (2028); these volumes are approximately 147% and 163% of the SMFP threshold of 7,400 procedures, respectively. It appears the CT unit is anticipated to be well-utilized, likely resulting in lower costs to the healthcare system for both patients and payors.

The applicant provides the following 2022 procedural volumes and patient service area:

Table 7. Swift Creek ER Procedures and Patient Origin

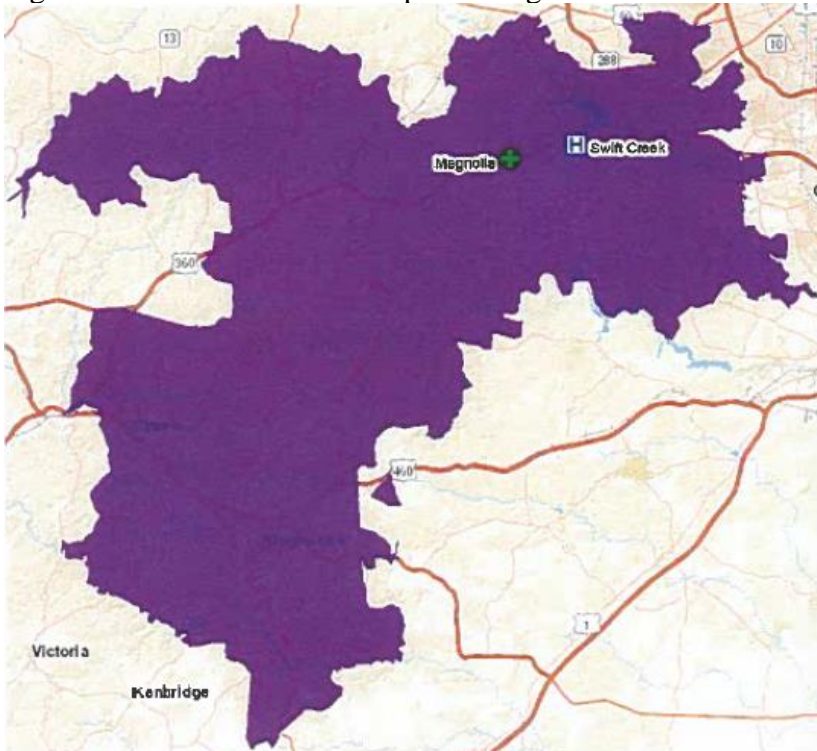
CJW - Swift Creek CT Patients
 2022 CT Procedures by Zip Code
 COPN Request No. VA - 8710 Chippenham & Johnston-Willis Hospitals
 Establish a Specialized Center for CT Services with One CT Scanner at Magnolia ER
 IV.B

| ZIP code | City | 2022 | | |
|--------------------|--------------------|--------------|----------------|---------------|
| | | Procedures | % of Total | Running Total |
| 23112 | Midlothian | 1,515 | 23.07% | 23.07% |
| 23832 | Chesterfield | 1,100 | 16.75% | 39.82% |
| 23002 | Amelia Court House | 684 | 10.42% | 50.24% |
| 23838 | Chesterfield | 557 | 8.48% | 58.72% |
| 23120 | Moseley | 489 | 7.45% | 66.16% |
| 23824 | Blackstone | 278 | 4.23% | 70.40% |
| 23930 | Crewe | 243 | 3.70% | 74.10% |
| 23236 | Richmond | 112 | 1.71% | 75.80% |
| All Other | | 1,589 | 24% | 100.00% |
| Grand Total | | 6,567 | 100.00% | |

Source: COPN Req. No. VA-8710 Application

The applicant also provides the following graphic illustrating the service area and the relocation of Swift Creek ER being further towards some of their extended geographic area:

Figure 3. Swift Creek ER & Proposed Magnolia ER Service Area



Source: COPN Req. No. VA-8710 Application

12VAC5-230-110. Expansion of fixed site service.

Proposals to expand an existing medical care facility's CT service through the addition of a CT scanner should be approved when the existing services performed an average of 7,400 procedures per scanner for the relevant reporting period. The commissioner may authorize placement of a new unit at the applicant's existing medical care facility or at a separate location within the applicant's primary service area for CT services, provided the proposed expansion is not likely to significantly reduce the utilization of existing providers in the health planning district.

This provision of the SMFP is not applicable as the applicant is not proposing to expand a fixed site service.

12VAC5-230-120. Adding or expanding mobile CT services.

A. Proposals for mobile CT scanners shall demonstrate that, for the relevant reporting period, at least 4,800 procedures were performed and that the proposed mobile unit will not significantly reduce the utilization of existing CT providers in the health planning district.

B. Proposals to convert authorized mobile CT scanners to fixed site scanners shall demonstrate that, for the relevant reporting period, at least 6,000 procedures were performed by the mobile scanner and that the proposed conversion will not significantly reduce the utilization of existing CT providers in the health planning district.

This provision is not applicable as the applicant is not proposing to add or expand mobile CT services.

12VAC5-230-130. Staffing.

CT services should be under the direction or supervision of one or more qualified physicians.

The applicant provides assurances that the CT services will be under the direction or supervision of one or more qualified physicians.

Required Considerations Continued

- 4. The extent to which the proposed service or facility fosters institutional competition that benefits the area to be served while improving access to essential health care services for all persons in the area to be served.**

The proposed project would be located in a growing area of PD 15 that has a relatively low density of CT providers. There are several existing CT sites within a 30-minute drive time of the proposed site that are affiliated with HCA, Bon Secours, VCU and independent specialty practices. No monopoly exists and competition appears to be healthy, which is corroborated by a lack of opposition letters submitted in response to the project. The proposed project may foster beneficial institutional competition, as well as decant volumes from over-utilized CJW facilities; however, it is not likely to decrease utilization of other existing CT providers substantially.

5. The relationship of the project to the existing health care system of the area to be served, including the utilization and efficiency of existing services or facilities.

CJW reported volumes to VHI in 2021 that are well over the SMFP threshold for their CT scanners even as COVID restrictions were in place. The proposed project is likely to continue to decant volumes from these highly utilized hospital-based sites. HCA Healthcare, Inc. is the parent company of CJW and operates hospitals, FSEDs, and an outpatient imaging center (Chesterfield Imaging Center) currently under construction nearby. Chester Imaging Center’s CT services authorized by COPN No. VA-04655 and issued May 21, 2019, is located approximately 11.2 miles, or 20 minutes driving distance, from the proposed site for Magnolia ER, further down the congested Hull Street Road. The proposed site would move the Swift Creek ER distally from Chesterfield Imaging Center, which is an arguably better distribution of resources.

6. The feasibility of the project, including the financial benefits of the project to the applicant, the cost of construction, the availability of financial and human resources, and the cost of capital.

The total capital cost of the project is \$22,280,00 with a direct construction cost of \$13,506,000 (Table 8). The total square footage of the project is to be 16,081 square feet (sq. ft.) of new construction. The construction cost ultimately is approximately \$840 per sq. ft. Approximately \$556,000 of the total capital cost of the project is attributable directly to the CT unit space.

Table 8. Total Capital Cost Summary

| | | |
|---|----------------------------------|---------------------|
| Direct Construction Costs | | |
| | Cost of materials | \$4,891,200 |
| | Cost of Labor | \$7,336,800 |
| | Allocation for contingencies | \$1,278,000 |
| | <i>Sub-Total</i> | <i>\$13,506,000</i> |
| Equipment Not Included in Construction Contract | | |
| | Medical Equipment | \$2,109,000 |
| | Information Systems | \$1,430,000 |
| | Communications | \$360,000 |
| | <i>Sub-Total</i> | <i>\$3,899,000</i> |
| Site Acquisition Costs | | |
| | Pro rata share of purchase price | \$1,200,000 |
| | <i>Sub-Total</i> | <i>\$1,200,000</i> |
| Site Preparation Costs | | |
| | Earth Work | \$2,500,000 |
| | <i>Sub-Total</i> | <i>\$2,500,000</i> |
| Off-Site Costs | | |
| | Testing | \$202,000 |
| | Building fees | \$128,000 |
| | <i>Sub-Total</i> | <i>\$330,000</i> |
| Architectural and Engineering Fees | | |
| | Architect’s Design Fee | \$422,500 |
| | Engineering Fees | \$422,500 |
| | <i>Sub-Total</i> | <i>\$845,000</i> |
| Total Capital Cost (Internal Revenues, No Financing Cost Associated) | | \$22,280,000 |
| *Estimated Cost for new construction, minus site acquisition | | \$21,080,000 |

Source: COPN Req. VA-8710

Table 9. Total Capital Cost per Square-Foot of Construction for Comparable Projects

| Owner and Facility | Project Description | Construction Cost | Construction Cost per Square-foot |
|--|--|--------------------------------|-----------------------------------|
| Chippenham & Johnston-Willis Hospitals, Inc.; Chesterfield ER (COPN VA-04840) | Establish a 12,860 sq. ft. specialized center for CT imaging with one CT scanner for a total capital cost of \$16,010,208. COPN issued April 11, 2023. | \$8,914,000 (new construction) | \$694 |
| HCA Health Services of Virginia, Inc.; Scott's Addition ER (COPN VA-04811) | Establish a 12,729 sq. ft. specialized center for CT imaging with one CT scanner for a total capital cost of \$17,159,645. COPN issued October 24, 2022. | \$7,903,000 (renovation) | \$621 |
| Montgomery Regional Hospital d/b/a LewisGale Hospital Montgomery; Christiansburg ER (COPN VA-04803) | Establish a 12,760 sq. ft. specialized center for CT imaging with 1 CT scanner with a total capital cost of \$14,130,000. COPN issued August 22, 2022. | \$8,714,000 (new construction) | \$683 |
| Average | 12,783 | \$8,510,333 | \$666 |

Sources: DCOPN Records for COPN Nos. VA-04840, VA-04811, and VA-04803

Compared to the project construction costs of approximately \$840 per sq. ft. for Magnolia ER, the individual and average construction costs per sq. ft. of similar projects (**Table 9**) the project is approximately \$174 higher than the average or is approximately 126% of the average cost per sq. ft. of the average calculated in **Table 9**. According to one construction group, APX, the construction costs for medical office buildings can range from \$451-\$1018³⁵; the Magnolia ER project is within this range. Also worthy of consideration is the Consumer Price Index (CPI) Inflation differences in cost.

- The Chesterfield ER project approved in April 2023 with \$8,914,000 allocated for direct construction costs has been impacted by inflation between April 2023 and the most recent month available, July 2023. The July 2023 buying power for direct construction costs is \$8,982,505.
- Similarly, the Scott's Addition ER project, with \$7,903,000 approved for direct construction costs in October 2022 has the same buying power as \$8,106,640.
- The Christiansburg ER project, with \$8,714,000 approved for direct construction costs in August 2022 has the same buying power as \$8,994,100.

Adjusting for inflation, the average construction cost per sq. ft. of the three projects used for comparison would be \$680 per sq. ft. using July 2023's CPI inflation rate, or approximately 123% of the current cost. Even with inflation being considered, the construction cost per sq. foot is higher than recent, similar projects approved by the Commissioner; however, DCOPN does not find the higher costs to be egregiously high.

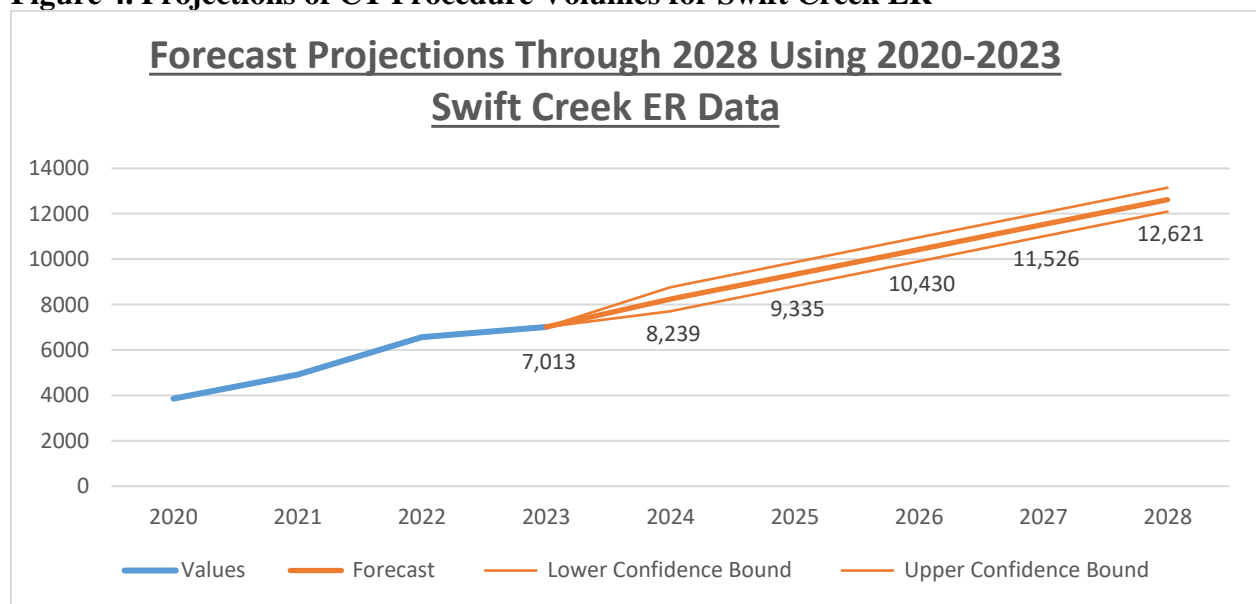
³⁵ <https://apxconstructiongroup.com/how-to-calculate-commercial-construction-cost-per-square-foot-in-2022/>

Table 10. Pro Forma Summary

| | Year 1 | Year 2 |
|--|--------------------|--------------------|
| CT Scan Volume | 10,896 | 12,057 |
| Gross Revenue | \$73,892,314 | \$81,765,751 |
| Net Revenue (Gross Revenue minus contractual adjustments, charity, and bad debt) | \$4,197,083 | \$4,644,295 |
| Total Operating Expense (Total Operating Expense includes salaries, employee benefits, drugs & medical supplies, contract services, repairs & maintenance, utilities, insurance, non-income taxes, depreciation, various other, federal and state income taxes) | \$2,056,940 | \$2,232,919 |
| Net Income | \$2,140,143 | \$2,411,376 |

Source: COPN Req. VA-8710 Pro Forma

Figure 4. Projections of CT Procedure Volumes for Swift Creek ER



Sources: Applicant-provided utilization data for 2020-2023 and Excel Forecasting Analysis

Table 11. Forecast Values and Corresponding Upper & Lower Confidence Boundaries Associated with Figure 4

| Timeline | CT Procedures | Forecasted Procedural Volume | Lower Confidence Bound | Upper Confidence Bound |
|----------|---------------|------------------------------|------------------------|------------------------|
| 2020 | 3,857 | | | |
| 2021 | 4,910 | | | |
| 2022 | 6,567 | | | |
| 2023 | 7,013 | 7,013 | 7,013 | 7,013 |
| 2024 | | 8,239 | 7,712 | 8,766 |
| 2025 | | 9,335 | 8,808 | 9,862 |
| 2026 | | 10,430 | 9,903 | 10,957 |
| 2027 | | 11,526 | 10,999 | 12,053 |
| 2028 | | 12,621 | 12,094 | 13,148 |

Sources: Applicant-provided utilization data for 2020-2023 and Excel Forecasting Analysis

The Pro Forma summary (**Table 10**) shows the relocated CT services are anticipated to be financially fruitful upon relocation. DCOPN utilized data provided by the applicant for years 2020-2023 to construct a Forecasting Analysis in Excel, illustrated pictorially in **Figure 4** with the raw data and upper and lower confidence bounds can be seen in **Table 11**, above.

The numbers along the orange forecast lines on **Figure 4** are the average forecasted procedural volume, and the confidence bounds in **Table 11** illustrating the upper and lower estimates for the forecast. Using this simple analysis (limited to using procedural volume input and neglecting any confounding variables, such as traffic patterns, population growth, etc.), the applicant has projected volumes lower than the lower confidence bounds anticipated in the analysis.

7. **The extent to which the project provides improvements or innovations in the financing and delivery of health services, as demonstrated by: (i) The introduction of new technology that promotes quality, cost effectiveness, or both in the delivery of health care services. (ii) The potential for provision of services on an outpatient basis. (iii) Any cooperative efforts to meet regional health care needs. (iv) At the discretion of the Commissioner, any other factors as may be appropriate.**

The proposed project does not offer the introduction of new technology that promotes quality, cost effectiveness, or both in the delivery of health care services. The services would be provided solely on an outpatient basis and would likely continue to decant outpatient volumes from CJW. No cooperative efforts were identified. DCOPN did not identify any other discretionary factors, not discussed elsewhere in this staff analysis report, to bring to the attention of the Commissioner as may be relevant in determining the extent to which the project provides improvements or innovations in the financing and delivery of health services.

8. **In the case of a project proposed by or affecting a teaching hospital associated with a public institution of higher education or a medical school in the area to be served. (i) The unique research, training, and clinical mission of the teaching hospital or medical school. (ii) Any contribution the teaching hospital or medical school may provide in the delivery, innovation, and improvement of health care for citizens of the Commonwealth, including indigent or underserved populations.**

Not applicable. The applicant does not describe affiliations with a teaching hospital associated with a public institution of higher education or a medical school in the area to be served with regard to the proposed project.

DCOPN Staff Summary and Findings

Both the overall population of Chesterfield County and the 65+ cohort of Chesterfield County are growing at rates greater than that of PD 15 and the statewide averages (**Table 1**). Neither the proposed location nor the Swift Creek ER location have public transportation access; however, the poverty rate in Chesterfield County is substantially lower than the PD 15 and statewide averages, making the need for public transportation less dire than areas such as Richmond city, with exponentially higher rates of poverty (**Table 2**).

The project will not increase CT services in the PD as the project is a relocation of existing services and the project does not appear as though it will meaningfully alter the patient population served. HCA has an imaging center with CT services close to Swift Creek ER; the relocation will allow for CT services to be distributed equitably as the proposed site farther west than its current location (where there are not CT providers as concentrated as the Swift Creek ER location).

The project received substantial support from CJW-affiliated providers, the local area medical community, and County and State representatives and leadership. DCOPN did not receive any opposition to the project, further suggesting that the relocation is not anticipated to inflict harm on area providers.

The CT service at the Swift Creek ER, as a standalone analysis, would likely continue to provide the services needed to the community. However, when acknowledging the under-construction Chester Imaging Center's CT services that will be present within a short distance from Swift Creek ER as well as the non-COPN regulated services offered in a freestanding ER, the relocation appears more advantageous than maintaining the status quo.

Although a recent IFFC brought to light the drawbacks of a freestanding ER compared to an emergency department in a full-scale hospital, Chesterfield County's Fire & EMS Chief stated that the 4th most utilized patient-transport receiver for Chesterfield Fire & EMS is Swift Creek ER. This statement contradicts the statements condemning freestanding ERs presented at a recent IFFC where the freestanding ERs were considered not substantially useful for Fire & EMS transport. Moreover, the project would not be adding another CT scanner to the PD, but rather would be moving an existing, authorized CT scanner.

The applicant did report a charity care that was consistent with the 2021 HPR IV Inpatient Hospital Median; however, DCOPN recommends a Charity Care Condition consistent with the HPR IV average.

The CT services for both hospitals of CJW are utilized well above the SMFP threshold (**Table 4**). The applicant-provided and forecast-corroborated projection of CT procedure volumes for the first two years of operation appear reasonable and above the SMFP threshold. Furthermore, the project will efficiently utilize services already authorized and relocate them to an area that makes the distribution of resources more geographically equitable.

The associated capital cost, size, and construction cost for Magnolia ER are higher than that of similar projects that have been approved. For example, the construction cost per sq. ft. for Magnolia ER is approximately 126% of the average of three comparable projects. However, this amount is not to an egregious amount more than the average of comparable projects. The projections for volume appear reasonable (**Figure 4 & Table 11**) and the projected revenue over expenses indicate that the project will be financially viable.

DCOPN Staff Recommendations

COPN Request No. VA-8710 – Chippenham & Johnston-Willis Hospitals, Inc.

The Division of Certificate of Public Need recommends the **conditional approval** of COPN Request No. VA-8710, Chippenham & Johnston-Willis Hospitals, Inc.’s request to establish a specialized center for CT imaging for the following reasons:

1. The proposal to establish a specialized center for CT imaging at Magnolia ER is generally consistent with the applicable standards and criteria of the State Medical Facilities Plan and the 8 Required Considerations of the Code of Virginia.
2. The proposal is inventory neutral with regard to CT imaging capacity in PD 15.
3. There does not appear to be any less costly alternative to the proposed project.
4. The capital costs of the proposed project are reasonable.
5. The proposed project is unlikely to have a significant negative impact upon the utilization, costs, or charges of other providers of CT services in PD 15.
6. The proposed project appears to be financially viable in the immediate and long-term.
7. There is no known opposition to the project.

Charity Conditions

DCOPN’s recommendation is contingent upon Chippenham & Johnston-Willis Hospitals, Inc.’s agreement to the following charity care condition:

Chippenham & Johnston-Willis Hospitals, Inc. will provide computed tomography (CT) services to all persons in need of this service, regardless of their ability to pay, and will provide as charity care to all indigent persons free services or rate reductions in services and facilitate the development and operation of primary care services to medically underserved persons in an aggregate amount equal to at least 1.0% of Chippenham & Johnston-Willis Hospitals, Inc.’s total patient services revenue derived from CT services as valued under the provider reimbursement methodology utilized by the Centers for Medicare and Medicaid Services for reimbursement under Title XVIII of the Social Security Act, 42 U.S.C. § 1395 et seq. Compliance with this condition will be documented to the Division of Certificate of Public Need annually by providing audited or otherwise appropriately certified financial statements documenting compliance with the preceding requirement. Chippenham & Johnston-Willis Hospitals, Inc. will accept a revised percentage based on the regional average after such time regional charity care data valued under the provider reimbursement methodology utilized by the Centers for Medicare and Medicaid Services for reimbursement under Title XVIII of the Social Security Act, 42 U.S.C. § 1395 et seq. is available from Virginia Health Information. The value of charity care provided to individuals pursuant to this condition shall be based on the provider reimbursement methodology utilized by the Centers for Medicare and Medicaid Services for reimbursement under Title XVIII of the Social Security Act, 42 U.S.C. § 1395 et seq.

Chippenham & Johnston-Willis Hospitals, Inc. will provide CT services to individuals who are eligible for benefits under Title XVIII of the Social Security Act (42 U.S.C. § 1395 et seq.), Title XIX of the Social Security Act (42 U.S.C. § 1396 et seq.), and 10 U.S.C. § 1071 et seq. Additionally, Carilion Roanoke Memorial Hospital will facilitate the development and operation of primary and specialty medical care services in designated medically underserved areas of the applicant's service area.