

# VIRGINIA DEPARTMENT OF HEALTH

## Office of Licensure and Certification

### Division of Certificate of Public Need

#### Staff Analysis

January 20, 2026

#### **COPN Request No. VA-8856**

Carilion Medical Center (CMC) d/b/a “Carilion Roanoke Memorial Hospital,” (“CRMH”)  
Roanoke, Virginia

Add one fixed CT scanner and one fixed MRI unit

#### **Applicant**

Carilion Medical Center (CMC) is a 501(c)(3) Virginia non-stock corporation. CMC is a tertiary care center located in Roanoke, Virginia, Planning District (PD) 5, Health Planning Region (HPR) III. CMC’s campus has two hospitals – Carilion Roanoke Memorial Hospital (CRMH) and Carilion Roanoke Community Hospital (CRCH). CMC is a wholly owned subsidiary of Carilion Clinic, a 501(c)(3) Virginia non-stock corporation located in Roanoke, Virginia.

#### **Background**

##### Computed Tomography (CT) Scanners and Utilization in PD 5

There are 17 authorized CT scanners in PD 5, all of which are fixed-site scanners (**Table 1**). More specifically, 11 of the authorized scanners are located within acute care hospitals, while 6 are located within freestanding facilities. According to 2024 Virginia Health Information (VHI) data, the most recent year for which such data is available, all reporting CT scanners in PD 5 operated at a collective utilization of 114% based on the State Medical Facilities Plan (SMFP) expansion threshold of 7,400 CT procedures per CT scanner per year. DCOPN observes that utilization of hospital-based CT scanners varies significantly from that of CT scanners at freestanding facilities. Specifically, hospital-based CT scanners in PD 5 operated at a collective utilization of 144% in 2024, while CT scanners located at freestanding facilities operated at a collective utilization of only 60% for the same period.

**Table 1. 2024 VHI Utilization Data, CT Scanners in PD 5**

<b>Hospital-Based Facility</b>	Units	Scans	Scans/Unit	Utilization
Carilion Roanoke Memorial Hospital	8	83,436	10,429	141%
Lewis Gale Medical Center	3	34,118	11,372	154%
<b>Hospital-Based TOTAL and Average</b>	<b>11</b>	<b>117,554</b>	<b>10,687</b>	<b>144%</b>
<b>Freestanding Facility</b>	Units	Scans	Scans/Unit	Utilization
Carilion Imaging Services - Daleville	1	2,409	2,409	33%
ED - Lewis Gale Blue Hills	1	4,268	4,268	58%
ED - Lewis Gale Cave Spring	1	5,125	5,125	69%
Insight Imaging Roanoke	1	3,968	3,968	54%
Lewis Gale Hospital Alleghany	1	8,717	8,717	118%
Lewis Gale Imaging At Brambleton	1	1,944	1,944	26%
<b>Freestanding TOTAL and Average</b>	<b>6</b>	<b>26,431</b>	<b>4,405</b>	<b>60%</b>
<b>Fixed CT Unit Grand Total and Average</b>	<b>17</b>	<b>143,985</b>	<b>8,470</b>	<b>114%</b>

Source: VHI (2024)

With respect to the PD 5 CMC CT inventory, in 2024, CMC reported 11 CT scanners, which operated at a collective utilization of 129%, which far exceeds the SMFP threshold for expansion (Table 2).

**Table 2. Authorized CT Scanners in PD 5**

Facility Name	Authorized Diagnostic CT Scanners
Carilion Imaging Services-Botetourt CT	1
Carilion Roanoke Memorial Hospital	10
Insight Imaging - Roanoke	1
LewisGale Hospital - Alleghany	1
LewisGale Medical Center	3
LewisGale Medical Center - Blue Hills ED	1
LewisGale Medical Center - Cave Spring ED	1
LewisGale Imaging At Brambleton	1
<b>Total Diagnostic CT Scanners, PD 5</b>	<b>19</b>

Source: DCOPN records

Magnetic Resonance Imaging (MRI) Scanners and Utilization in PD 5

According to DCOPN records, to date, there are 11 fixed-site MRI scanners in PD 5 (Table 3). More specifically, 8 of the authorized fixed-site MRI scanners are located within acute care hospitals, while 3 are located within freestanding facilities. According to 2024 VHI data, all then-

existing fixed-site MRI scanners in PD 5 operated at a collective utilization of 79% of the SMFP expansion threshold of 5,000 MRI procedures per MRI scanner per year. DCOPN observes that utilization of hospital-based MRI scanners varies from that of MRI scanners at freestanding facilities. Specifically, hospital-based MRI scanners in PD 5 operated at a collective utilization of 89% in 2024, while MRI scanners located at freestanding facilities operated at a collective utilization of 53% for the same period. DCOPN notes that MRI scanners located at both hospital-based and freestanding facilities operated slightly beneath the SMFP expansion threshold in 2024.

**Table 3. 2024 VHI Utilization Data, MRI Scanners in PD 5**

<b>Fixed MRI Units</b>				
<b>Acute Hospital</b>	Units	Scans	Scans/Unit	Utilization
Carilion Roanoke Memorial Hospital	5 <sup>1</sup>	24,069	4,814	96%
Lewis Gale Hospital Alleghany	2	9,453	4,727	95%
Lewis Gale Medical Center	1	1,978	1,978	40%
<b>Hospital-Based TOTAL and Average</b>	8	35,500	4,438	89%
<b>Freestanding</b>	Units	Scans	Scans/Unit	Utilization
Insight Imaging Roanoke	1	1,177	1,177	24%
Lewis Gale Imaging At Brambleton	2	6,809	3,405	68%
<b>Freestanding TOTAL and Average</b>	3	7,986	2,662	53%
<b>PD 5 MRI TOTAL and Average</b>	11	43,486	3,953	79%

Source: VHI (2024)

In 2024, CMC’s five existing MRI scanners operated at a combined utilization rate of 96%, falling just short of the SMFP threshold for expansion (Table 3).

**Table 4. Authorized MRI Inventory PD 5**

<b>Facility Name</b>	<b>Authorized Scanners</b>
Carilion Roanoke Memorial Hospital	6 <sup>1</sup>
Insight Imaging - Roanoke	2
Lewis Gale Imaging at Brambleton	1
LewisGale Hospital - Alleghany	1
LewisGale Medical Center	2
<b>Total authorized fixed MRI scanners</b>	<b>13</b>

Source: DCOPN Records

<sup>1</sup> COPN No. VA-04779 certificate was approved by DCOPN in 2022

Proposed Project

Carilion proposes to add a CT scanner and MRI unit at CMC, CMC’s 11<sup>th</sup> CT scanner and 7<sup>th</sup> MRI. The proposed CT scanner will be located within the Emergency and Trauma Services Department. The additional MRI unit will be located in the Crystal Spring Tower of CRMH, in a space that already houses one MRI unit (COPN No. VA-04779), which was approved in February 2022.

Carilion is currently authorized to operate 11 CT scanners in PD 5, all at the CRMH campus, including one located at the Carilion Imaging Center in Daleville. Carilion is also authorized to operate five MRI units in PD 5, all of which are located at CRMH. The applicant asserts an institutional need to add a ninth CT scanner and a sixth MRI unit in PD 5.

Capital costs are projected to be \$7,602,665 (**Table 5**), funded by accumulated reserves, such that no financing costs will be incurred. Should the proposed project be approved, CRMH’s target dates of opening are September 14, 2026, for the CT and December 21, 2026, for the MRI, respectively.

**Table 5. Capital Costs, CRMH’s addition of a CT and MRI**

Direct Construction Costs	\$1,115,435
Equipment not included in construction costs	\$6,399,230
<b>Total</b>	<b>\$7,602,665</b>

Source: COPN Request No VA-8856

Project Definition

Section 32.1-102.1:3 of the Code of Virginia defines a project, in part, as the “[t]he addition by an existing medical care facility described in subsection A of any new medical equipment for the provision of ... computed tomographic (CT) scanning [or] magnetic resonance imaging (MRI)...” and “[e]stablishment of a medical care facility described in subsection A.” A medical care facility includes “[a]ny facility licensed as a hospital, specialized center, or clinic, or that portion of a physician's office developed for the provision of ... computed tomographic (CT) scanning [or] magnetic resonance imaging (MRI)...”

**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.**

PD 5 had a population of 281,734 in 2020 and is projected to decrease by nearly 4,000 to 277,947 by 2030. Its projected growth rate of -1.3% by the end of the decade is lower than that projected for Virginia’s population, 5.8% (**Table 6**). The City of Roanoke, where the proposed project is located, is projected to decrease by 0.9%, similar to the decline in growth rate of PD 5. Roanoke is projected to experience a population decrease of nearly 1,000 residents between 2020 and 2030 (**Table 6**).

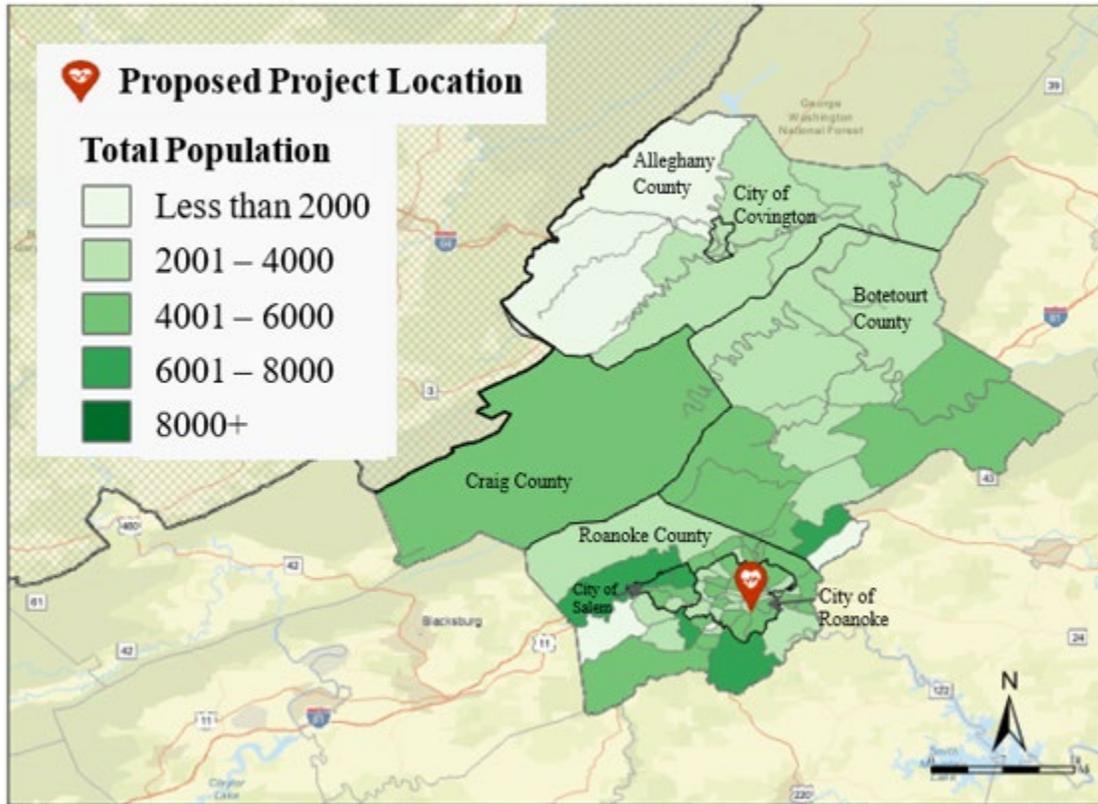
People aged 65 and older have a higher utilization rate for advanced imaging services than younger individuals, so they are an important demographic in projects involving CT and MRI imaging. Though the population over age 65 is expected to grow at a lower rate in PD 5 (17%) than that of Virginia (26.3%), this age cohort is projected to grow in Roanoke by 20%, slower than in Virginia, however, faster than in PD 5. Roanoke is projected to add 3,539 people over age 65 between 2020 and 2030 through aging and in-migration (**Table 6**).

**Table 6. PD 5 Population Data Projection (2020-2030)**

Locality	2020 Population	2030 Population	Growth 2020-2030	Percent Growth 2020-2030	65+ 2020 Population	65+ 2030 Population	Growth 65+	Percent Growth 65+
Alleghany County	15,223	14,295	-928	-6%	3,933	4,207	+274	+7%
Botetourt County	33,596	33,074	-522	-2%	7,882	9,528	+1,646	+21%
City of Covington	5,737	5,282	-455	-8%	1,201	1,317	+116	+10%
Craig County	4,892	4,539	-353	-7%	1,124	1,280	+156	+14%
Roanoke County	96,929	96,811	-118	-0.1%	21,449	25,494	+4,045	+19%
City of Roanoke	100,011	99,086	-925	-0.9%	17,899	21,438	+3,539	+20%
City of Salem	25,346	24,860	-486	-2%	5,328	6,324	+996	+19%
<b>PD 5</b>	<b>281,734</b>	<b>277,947</b>	<b>-3,787</b>	<b>-1.3%</b>	<b>58,816</b>	<b>68,588</b>	<b>+9,772</b>	<b>+17%</b>
<b>Virginia</b>	<b>8,631,393</b>	<b>9,129,002</b>	<b>497,609</b>	<b>5.8%</b>	<b>1,395,291</b>	<b>1,762,641</b>	<b>367,350</b>	<b>26.3%</b>

Source: Weldon Cooper Intercensal Estimates

**Map 1: PD 5 Population and location of Proposed Project**



Source: ArcGIS, DCOPN Inventory, VHI Records

**Table 7** shows that PD 5 has a poverty rate of 12.3% above that of Virginia (10.7%), but the poverty rate in Roanoke is almost double that of Virginia or PD 5 at 18.4%. As to transportation barriers, none were identified.

The CMC campus is situated just off Interstate 581, providing easy access for residents of Southwest Virginia and nearby communities, which make up the region’s broad health planning area.

Public transportation in the Roanoke Valley is provided by Valley Metro, based at 3rd Street Station. Its services include fixed bus routes, specialized transportation for people with disabilities, and special shuttle services. Valley Metro also operates the **Smart Way Bus**, which connects Roanoke and the New River Valley for a \$4 fare each way.

Within Roanoke, the **Star Line Trolley** provides free service every 20 minutes from 7 a.m. to 7 p.m., linking Downtown Roanoke, where major Amtrak and Valley Metro stops are located, to the CMC campus. The trolley stops at both Carilion Roanoke Community Hospital and Carilion Roanoke Memorial Hospital, as well as the Carilion Riverside Clinic situated between the hospitals, facilitating easy access for patients and visitors.

For regional rail access, the **Northeast Regional Amtrak** offers daily roundtrips between Roanoke and Washington, D.C., stopping in Lynchburg, Charlottesville, Culpeper, Manassas, Burke Centre, and Alexandria. The Roanoke stop starts service at 6:20 a.m. on Norfolk Avenue SW, approximately 2 miles from Carilion Roanoke Memorial Hospital. From there, the Valley Metro Bus Station is a short two-minute walk, providing onward bus or trolley connections to the CMC campus.

**Table 7. PD 5 Poverty Rates**

<b>Geographic Name</b>	<b>Poverty Rate</b>
Alleghany County	13.9%
Botetourt County	6.3%
City of Covington	17.7%
Craig County	12.3%
Roanoke County	7.2%
City of Roanoke	18.4%
City of Salem	10.4%
<b>PD 5</b>	<b>12.3%</b>
<b>Virginia</b>	<b>10.7%</b>

Source: [https://www.census.gov/data-tools/demo/saige/#/?s\\_state=51&s\\_county=&s\\_district=&s\\_geography=county](https://www.census.gov/data-tools/demo/saige/#/?s_state=51&s_county=&s_district=&s_geography=county)

**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 received four letters of support for the proposed project to add a CT scanner and MRI unit at CRMH. The letter was jointly written by the organized medical staff at Carilion Medical Center. It states overwhelming support for the need to add a CT scanner and MRI to continue providing and meeting the healthcare needs of the community.

Public Hearing

§32.1-102.6B of the Code of Virginia directs DCOPN to hold one public hearing on each application 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-8856 is not competing with another project and DCOPN did not receive a request to conduct a public hearing for the proposed project. Thus, no public hearing was held. DCOPN provided notice to the public regarding this project, inviting public comment on November 10, 2025. The public comment period closed on December 25, 2025. Other than the letter of support referenced above, no members of the public commented. There is no known opposition to the project.

**(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.**

There is no alternative to the project that is more reasonable, efficient, or effective and that will adequately meet the population's needs. Collectively, CMC is conducting more CT and MRI scans well beyond the SMFP standards of 7,400 procedures (CT) and 5,000 procedures (MRI) in a reporting year, respectively. If the proposed project is approved, adding one MRI and one CT scanner will benefit the growing population of individuals aged 65 and above and will assist with the overwhelming number of scans already being conducted annually. Carilion has demonstrated an institutional need for additional CT capacity, as well as MRI capacity.

The applicant, along with letters of support from physicians at Virginia Tech Carilion School of Medicine and Blue Ridge Cancer Care, has made the case that both CT and MRI imaging are necessary to help meet the increasing demand for advanced diagnostic imaging amid the rising volume of examinations. The support letters highlight a need for more complex imaging procedures, such as coronary CTA, brain CT perfusion, and spectral CT imaging, as well as more advanced MRI techniques, including spectroscopy, functional MRI, cardiac MRI, and MRI protocols for rectal and prostate cancer staging.

**(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 III designated by the Virginia Department of Health to serve as the Health Planning Agency for PD 5. Therefore, this consideration does not apply to the review of the proposed project.

**(iv) Any costs and benefits of the project.**

The total projected capital cost of the proposed project is \$7,602,665 and will be funded entirely through accumulated reserves; therefore, no financing costs are associated with the project. The estimated costs fall within the range of other recently approved projects to establish CT and MRI imaging centers. For example, COPN No. VA-04951 was issued to the University of Virginia Medical Center with a capital cost of \$300,000, while COPN No. VA-04952 was issued to the Children's Hospital of the King's Daughters with a capital cost of \$10,106,088. However, the proposed project's total cost and direct cost per square foot are significantly higher than those of similar projects authorized in recent years.

The applicant has identified several key benefits of the proposed project, including improved timeliness and access to imaging services to address the growing demand for CT and MRI examinations. Increased imaging capacity is expected to reduce scheduling delays, support timely diagnosis and treatment, and enhance overall patient care.

CMC is an academic medical center whose mission encompasses clinical care, research, and education. In addition to supporting patient services, sufficient CT and MRI capacity is critical to the conduct of clinical research and to the education and training of future physicians,

technologists, and other healthcare professionals. Accordingly, the proposed project will strengthen CMC's ability to fulfill its clinical, research, and educational missions.

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

CMC accepts all patients regardless of their ability to pay or other considerations. It provided charity care at 0.8% of gross patient revenues in 2024, the latest year for which such data are available. This is just above the HPR III average of 0.5% that year (**Table 8**). The proforma provided by the applicant (**Table 9**) assumes charity care of 0.5% for the proposed project, consistent with the HPR III charity care contribution average in 2024.

In accordance with section 32.1-102.4.B of the Code of Virginia, should the proposed project receive approval, the project will be conditioned to provide a level of charity care based on gross patient revenues derived from CT and MRI imaging that is no less than the equivalent average for charity care contributions in HPR III of 0.5%. Pursuant to Code of Virginia language any COPN issued for this project will also be conditioned on the applicant's agreement to accept patients who are the recipients of Medicare and Medicaid.

**Table 8. HPR III Charity Care Contributions: 2024**

<b>HPR III</b>	<b>Gross Pt Rev</b>	<b>Total Charity Care Provided Below 200%</b>	<b>%</b>
<b>Inpatient Facilities</b>			
Rehabilitation Hospital of Bristol, LLC	21,074,983	594,048	2.8%
Centra Specialty Hospital	49,629,337	1,151,183	2.3%
Carilion Franklin Memorial Hospital	291,774,472	4,126,513	1.4%
Carilion Tazewell Community Hospital	97,063,289	1,035,463	1.1%
Carilion Medical Center	5,523,913,586	43,089,656	0.8%
Carilion New River Valley Medical Center	1,045,584,847	8,284,749	0.8%
LewisGale Hospital-Montgomery	1,028,863,817	8,035,905	0.8%
Carilion Giles Memorial Hospital	241,763,245	1,965,594	0.8%
Lewis-Gale Medical Center	3,633,204,645	25,020,978	0.7%
LewisGale Hospital Pulaski	557,969,215	3,462,675	0.6%
LewisGale Hospital - Alleghany	307,838,577	1,894,786	0.6%
Bedford Memorial Hospital	220,261,406	1,156,200	0.5%
Johnston Memorial Hospital	939,082,042	3,526,000	0.4%
Centra Health	3,572,261,352	12,125,268	0.3%
Wellmont Lonesome Pine Mountain View Hospital	852,382,429	2,640,163	0.3%
Smyth County Community Hospital	216,722,529	604,993	0.3%
Lee County Community Hospital	43,608,193	118,721	0.3%
Dickenson Community Hospital	28,200,560	54,209	0.2%
Russell County Medical Center	137,892,582	161,769	0.1%
Buchanan General Hospital	127,118,204	137,889	0.1%
Sovah Health-Danville	1,253,164,239	288,678	0.0%
Sovah Health-Martinsville	917,943,082	268,214	0.0%
DLP Twin County Regional Healthcare	363,954,973	128,136	0.0%
Clinch Valley Medical Center	829,913,180	191,054	0.0%
Wythe County Community Hospital	415,798,563	100,166	0.0%
Ridgeview Pavilion (Bristol Region)	8,928,438	0	0.0%
Norton Community Hospital			
Total Inpatient Hospitals:			26
<b>HPR III Inpatient Hospital Median</b>			<b>0.4%</b>
<b>HPR III Total Inpatient \$ &amp; Mean %</b>			<b>0.5%</b>
	\$ 22,725,911,785	\$ 120,163,010	

**HPR III Charity Care Contributions -cont.-**

<b>HPR III</b>	<b>Gross Pt Rev</b>	<b>Total Charity Care Provided Below 200%</b>	<b>%</b>
<b>Outpatient Facilities</b>			
Roanoke Valley Center for Sight at Oak Grove	4,950,351	48,540	1.0%
Surgery Center of Lynchburg	84,680,369	838,248	1.0%
Fairlawn Surgery Center, LLC	6,315,595	48,203	0.8%
New River Valley Surgery Center	13,367,660	79,443	0.6%
Roanoke Valley Center for Sight	24,325,070	132,333	0.5%
Southwest Virginia Center for Sight	7,344,412	20,058	0.3%
Martinsville Center for Sight	5,961,587	15,172	0.3%
Blue Ridge Surgery Center	143,386,304	26,210	0.0%
Roanoke Ambulatory Surgical Center	58,874,618	4,927	0.0%
Eye Surgery Center of Central Virginia, LLC	10,073,938	0	0.0%
Piedmont Day Surgery Center	4,172,183	0	0.0%
Total Outpatient Hospitals:			11
<b>HPR III Outpatient Hospital Median</b>			<b>0.3%</b>
<b>HPR III Total Outpatient Hospital \$ &amp; Mean %</b>	\$ 363,452,087	\$ 1,213,134	<b>0.3%</b>
<b>Total Hospitals:</b>			
			37
<b>HPR III Hospital Median</b>			<b>0.3%</b>
<b>HPR III Total Hospital \$ &amp; Mean %</b>	\$ 23,089,363,872	\$ 121,376,144	<b>0.5%</b>

Source: VHI 2024

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

There are no other factors, not addressed elsewhere in the analysis, relevant to the determination of a public need for the project.

**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 recommendations for a comprehensive State Health Services Plan (SHSP). In the interim, DCOPN will consider the consistency of the proposed project with the predecessor of the SHSP, the SMFP.

The SMFP contains criteria and standards for CT services. They are as follows:

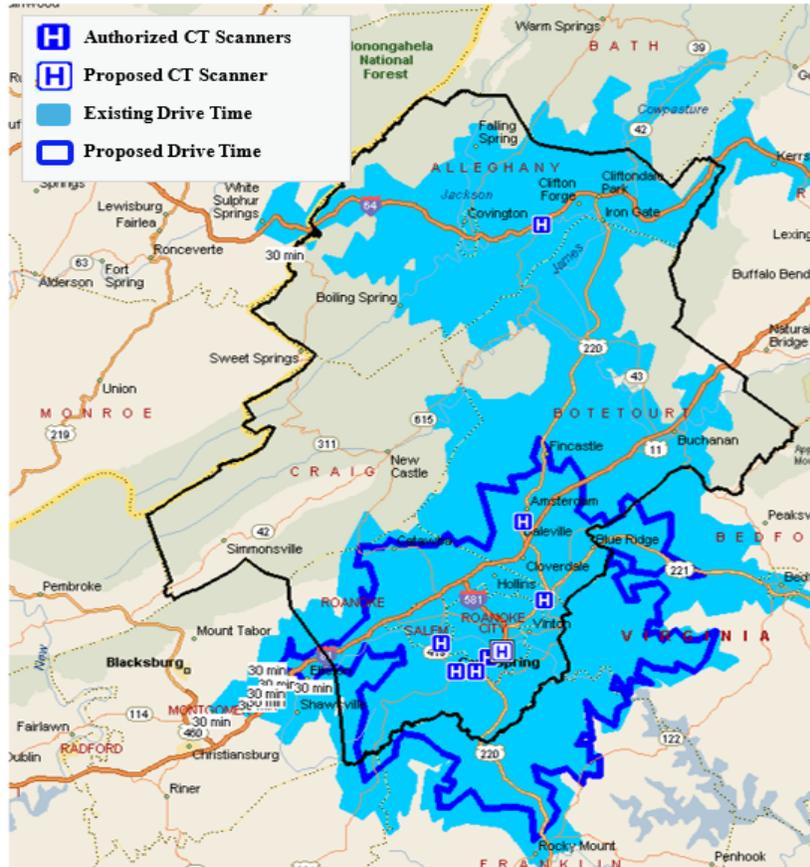
**12VAC-5-230 Part I, Article 1**  
**Criteria and Standards for Computed Tomography**

**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.**

On this map, the black border outlines PD 5. The white **H** icon indicates the location of the proposed CT scanner. The blue **H** icons represent other CT scanners within PD 5. The light blue shaded areas show the surrounding regions within a 30-minute drive time of each existing hospital, and the blue outlined area highlights the proposed 30-minute drive-time coverage for CMC. There is a large area of PD 5 not accessible within a 30-minute drive time of a CT scanner, primarily in Craig County, which is rural and mountainous, and represents only 1.6% of the population of the PD, so over 95% of the PD 5 population is within 30 minutes of a CT service, despite the large unshaded geography

Map 2: Drive Time from Authorized CT Scanners (PD 5)



Source: Microsoft Streets and Trips (2008), DCOPN Inventory, VHI Records

**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.**

This is not applicable to the proposed project because CMC is not proposing a new service. But for the sake of thoroughness, below is the needed calculation for PD 5. According to 2024 VHI data, the most recent available, there were 17 CT scanners in PD 5 with an average utilization of 8,470 scans per unit, 114% percent of the SMFP threshold (**Table 1**). Two CT scanners have been authorized in PD 5 since the latest VHI data were published, and there are currently 19 diagnostic CT scanners authorized (see **Table 2**). Using the SMFP, 7,400 CT scans per year, the 143,985 scans performed in 2024 will equate to 19.5(20) fully utilized CT scanners.

Needed CT units =  $143,985 \div 7,400 = 19.5(20)$

Utilization Percentage in 2023: 114%

Current number of authorized diagnostic CT units in PD 5 = 19 (excludes CT simulators and dedicated intraoperative scanners)

**CT deficit = 1 CT Scanners**

**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.**

According to VHI, 143,985 CT scans were performed in PD 5 in 2024. With the current inventory of 19 authorized CT scanners in PD 5, this equates to 7,578 scans per authorized scanner or 102% of the SMFP standard. The proposed project is intended to care for CMC patients, particularly those seeking care at the Carilion Memorial Center. If CMC's 10 CT scanners are currently authorized, performed at its procedure volume in 2024, 85,845 CT scans, they will average 8,584 scans per CT unit, 116% of the SMFP threshold.

**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 direct supervision of one or more qualified physicians.**

The applicant provides assurances that the CT imaging service will be under the direct supervision of one or more qualified physicians.

**12VAC5-230-80. When institutional expansion is needed.**

**A. Notwithstanding any other provisions of this chapter, the commissioner may grant approval for the expansion of services at an existing medical care facility in a health planning district with an excess supply of such services when the proposed expansion can be justified on the basis of a facility's need having exceeded its current service capacity to provide such service or on the geographic remoteness of the facility.**

**B. If a facility with an institutional need to expand is part of a health system, the underutilized services at other facilities within the health system should be reallocated, when appropriate, to the facility with the institutional need to expand before additional services are approved for the applicant. However, underutilized services located at a health system's geographically remote facility may be disregarded when determining institutional need for the proposed project.**

**C. This section is not applicable to nursing facilities pursuant to § 32.1-102.3:2 of the Code of Virginia.**

**D. Applicants shall not use this section to justify a need to establish new services.**

The applicant asserts an institutional need for the approval of its 11th CT scanner. With the addition of the 11th CT scanner, this will address current delays in CT scans, improve access to CT scans for CMC's emergency and trauma patients, and reduce wait times for specialized patients in need of CT scans. CMC's ten CT scanners operational in 2025 performed 80,537 CT scans, averaging 8,054 scans per CT unit, which exceeds the CT service expansion threshold at 109% of the SMFP standard of 7,400.

The SMFP contains the criteria and standards for MRI services. They are as follows:

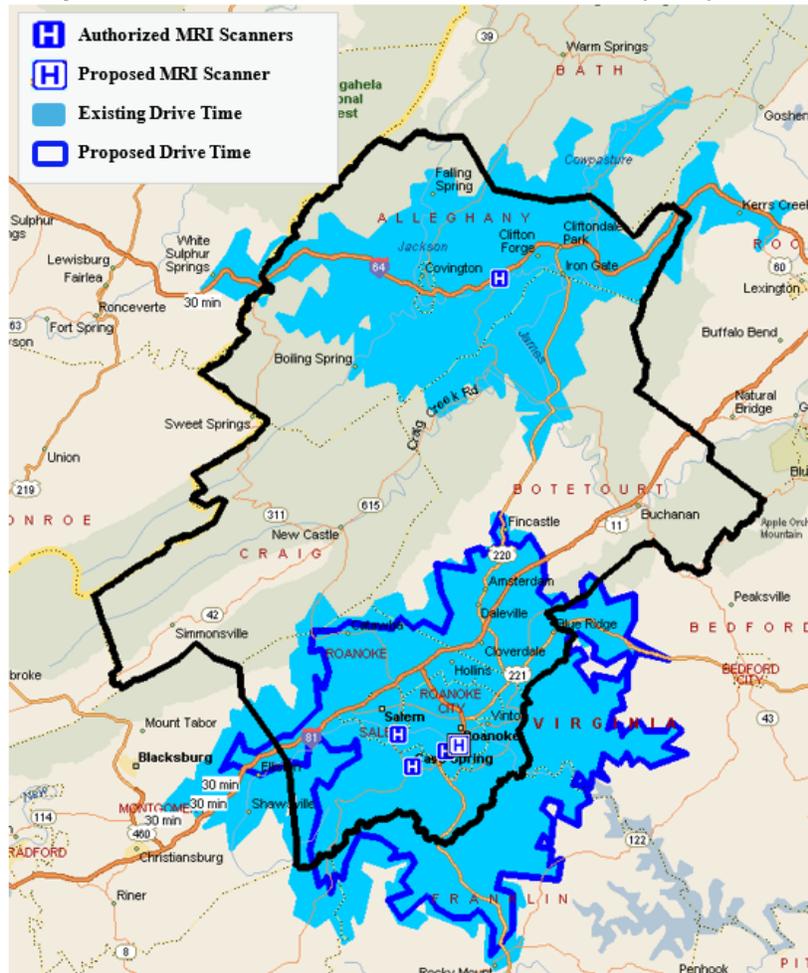
12VAC5-230 Part I, Article 2

Criteria and Standards for Magnetic Resonance Imaging

**12VAC5-230-140. Travel time.**

**MRI 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.**

Map 3: Drive Time from Authorized MRI Scanners (PD 5)



Source: Microsoft Streets and Trips (2008), DCOPN Inventory, VHI Records

The light blue shaded area in **Map 2** illustrates the areas in PD 5 that have MRI services available within 30 minutes' driving distance. There is a large amount of PD which is not within a 30-minute drive time access of MRI scanners, indicating less than 95% of the PD's population has the required geographic access within the time frame. The proposed project will not increase geographical access to MRI services; however, as the location is already authorized for 6 diagnostic scanners and is providing services. The uncovered area is mostly Craig and Botetourte Counties which represent about 13.5% of the PD 5 population, confirming that less than 95% of the population is within 30 minutes' drive from an MRI service.

**12VAC5-230-150. Need for a new fixed site service.**

No new fixed site MRI services should be approved unless fixed site MRI services in the health planning district performed an average of 5,000 procedures per existing and approved fixed site MRI scanner during the relevant reporting period and the proposed new service would not significantly reduce the utilization of existing fixed site MRI 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 MRI scanners in such health planning district.**

This is not applicable, since the proposal is no for a new MRI service, but for the sake of thoroughness, the MRI need calculation for PD 5 is below. According to 2024 VHI data, the most recent available, 11 fixed MRI scanners in PD 5 performed 43,486 MRI scans (**Table 3**), an average of 3,953 MRI scans per unit, which is 79% of the SMFP standard of 5,000 procedures per scanner:

$$43,486/11 = 3,953$$
$$(3,953/5000) \times 100 = 79\%$$

The 43,486 MRI scans operating at the SMFP standard of 5,000 scans per unit will fully-utilize 8.69 (9) fixed site MRI scanners. With 11 fixed site MRI scanners now in the PD 5 inventory (**Table 4**), there is a calculated surplus of 2 fixed site scanners in PD 5.

$$\text{Needed MRI units} = 43,486 \div 5,000 = 8.69 (9)$$

$$\text{Current number of authorized fixed site MRI units in PD 5} = 11$$

$$\text{MRI surplus} = 2 \text{ MRI Scanners}$$

**12VAC5-230-160. Expansion of fixed site service.**

**Proposals to expand an existing medical care facility's MRI services through the addition of an MRI scanner may be approved when the existing service performed an average of 5,000 MRI procedures per scanner during the relevant reporting period. The commissioner may authorize placement of the new unit at the applicant's existing medical care facility, or at a separate location within the applicant's primary service area for MRI services, provided the proposed expansion is not likely to significantly reduce the utilization of existing providers in the health planning district.**

According to 2024 VHI data, the most recent available, 11 fixed MRI scanners in PD 5 performed 43,486 MRI scans (**Table 3**), an average of 3,953 MRI scans per unit, which is 79% of the SMFP standard of 5,000 procedures per scanner. The applicant proposes to expand its MRI service with one MRI scanner at the Carilion Medical Center based on an institutional need.

**12VAC5-230-170. Adding or expanding mobile MRI services.**

**A. Proposals for mobile MRI scanners shall demonstrate that, for the relevant reporting period, at least 2,400 procedures were performed and that the proposed mobile unit will not significantly reduce the utilization of existing MRI providers in the health planning district.**

**B. Proposals to convert authorized mobile MRI scanners to fixed site scanners shall demonstrate that, for the relevant reporting period, 3,000 procedures were performed by**

**the mobile scanner and that the proposed conversion will not significantly reduce the utilization of existing MRI providers in the health planning district.**

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

**12VAC5-230-180. Staffing.**

**MRI services should be under the direct supervision of one or more qualified physicians.**

The applicant has provided assurances that its proposed additional MRI scanners will be under the direct supervision of one or more qualified physicians.

**12VAC5-230-80. When institutional expansion is needed.**

- A. Notwithstanding any other provisions of this chapter, the commissioner may grant approval for the expansion of services at an existing medical care facility in a health planning district with an excess supply of such services when the proposed expansion can be justified on the basis of a facility's need having exceeded its current service capacity to provide such service or on the geographic remoteness of the facility.**
- B. If a facility with an institutional need to expand is part of a health system, the underutilized services at other facilities within the health system should be reallocated, when appropriate, to the facility with the institutional need to expand before additional services are approved for the applicant. However, underutilized services located at a health system's geographically remote facility may be disregarded when determining institutional need for the proposed project.**

The applicant submitted utilization data demonstrating that in 2025, its six authorized MRI scanners performed 29,183 scans, averaging 4,864 scans per scanner annually representing 97% of the SMFP threshold of 5,000 scans per year. This level of utilization reflects near-maximum capacity and supports CMC's demonstrated institutional need for approval of a seventh MRI unit to address ongoing capacity constraints, prolonged patient wait times and increasing demand for complex and specialized MRI services. Despite extensive operating hours, including multiple scanners operating 24/7, CMC continues to experience delays for critical examinations such as MR enterography; pediatric and adult MRI with anesthesia; fetal, cardiac, and pacemaker-compatible MRI—many of which are not available elsewhere in the region.

As the region's only Level One Trauma Center, primary stroke center, and home to the only Inflammatory Bowel Disease (IBD) Center, CMC must prioritize urgent emergencies and inpatient cases, which further restricts access for scheduled patients and contributes to delayed treatment and avoidable hospital admissions. Additionally, MRI downtime exceeded 108 hours in the past year, significantly impairing emergency department and inpatient throughput; an additional MRI unit will provide essential redundancy and improve patient flow and access. Even with the proposed seventh MRI, CMC is projected to exceed the SMFP utilization threshold within two years, underscoring sustained unmet demand. Accordingly, approval of the

proposed advanced 3T MRI system is essential to reducing wait times, supporting highly specialized clinical programs, and ensuring timely, high-quality care for the region. Although the applicant has not fully demonstrated institutional need based on MRI volumes alone, DCOPN recommends that, in this instance, the Commissioner allow an exception to this provision and approve the requested MRI unit in light of the clear patient access benefits and compelling clinical justification.

**C. This section is not applicable to nursing facilities pursuant to § 32-102.3:2 of the Code of Virginia.**

**D. Applicants shall not use this section to justify a need to establish new services.**

The proposed project is not a nursing facility nor is it being used to justify need for a new service.

### **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.**

There are multiple providers of both CT and MRI services in PD 5 such that there is no unhealthy market concentration of these imaging services. The applicant has demonstrated an institutional need for CT services and its MRI units are highly utilized as well. The applicant intends that the proposed CT and MRI scanners will care for CMC's existing patient base.

**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.**

The applicant is an academic medical center and asserts that it plays an essential role in bringing advanced clinical care and clinical research to patients across Virginia. CMC seeks to create a comprehensive outpatient cardiovascular center for its patients to access services more efficiently. CMC is authorized for 10 of the 17 diagnostic CT scanners in PD 5, and the applicant's CT units operated above the SMFP threshold in the past two years. There is no deficit of CT scanners across PD 5. CMC is authorized for 6 of the 13 MRI scanners in PD 5. The applicant's outpatient and hospital-based MRI scanners operated slightly below the SMFP threshold in the past two years.

**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 capital cost of the proposal is \$7,602,665, which is relatively high compared with other similar projects recently authorized. The applicant will fund the proposed project using accumulated reserves and will therefore incur no financing costs. CMC’s proforma for the CT and MRI additions is expected to generate a positive net income of \$37,899 in year one and \$38,173 in year two for CT, and \$7,128 in year one and \$7,264 in year two for MRI (Tables 9 and 10). The proposal requires an additional 16 FTEs. Recruiting this number of staff at a medical center that trains these professionals is considered fully feasible.

**Table 9. Proforma, CT, CMC**

	<b>Year 1</b>	<b>Year 2</b>
Gross Revenue	\$268,824	\$285,066
Charity Care	(1,344)	(1,425)
Other Deductions	(207,970)	(222,497)
<b>Total Net Revenue</b>	<b>\$59,510</b>	<b>\$61,144</b>
<b>Total Expenses</b>	<b>\$21,611</b>	<b>\$22,971</b>
<b>Net Income Before Taxes</b>	<b>\$37,899</b>	<b>\$38,173</b>

Source: COPN-8856

**Table 10. Proforma, MRI, CMC**

	<b>Year 1</b>	<b>Year 2</b>
Gross Revenue	\$169,163	\$184,359
Charity Care	(846)	(922)
Other Deductions	(146,762)	(160,356)
<b>Total Net Revenue</b>	<b>\$21,555</b>	<b>\$23,081</b>
<b>Total Expenses</b>	<b>\$14,427</b>	<b>\$15,817</b>
<b>Net Income Before Taxes</b>	<b>\$7,128</b>	<b>\$7,264</b>

Source: COPN-8856

**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.**

The proposed project includes the addition of a Siemens NAEOTOM Alpha Peak CT scanner, which will represent the most advanced imaging equipment installed at CMC. The proposed MRI unit will help reduce long wait times and expand access to fetal MRI services, for which CMC is the only provider in the region.

**(ii) The potential for provision of services on an outpatient basis.**

This project represents the only way to meet MRI facility-specific need for additional MRI capacity and to meet CT community and facility need for additional CT capacity. Approval of

this project is important to the efficient provision of MRI and CT services to PD5 and the further reaches of Southwest Virginia.

**(iii) Any cooperative efforts to meet regional health care needs.**

The applicant states that it has transfer agreements with dozens of hospitals across Virginia and is engaged in cooperative efforts with other providers.

**(iv) At the discretion of the Commissioner, any other factors may be appropriate.**

There are no other factors not discussed elsewhere for the Commissioner's consideration.

**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 make may provide in the delivery, innovation, and improvement of health care for citizens of the Commonwealth, including indigent or underserved populations.**

CMC is a southwestern region provider with medical school training via the Virginia Tech Carilion School of Medicine (VTCSOM) and the Fralin Biomedical Research Institute at VTC(FBRI). VTCSOM offers 28 accredited resident and fellow training programs, and the Via College of Osteopathic Medicine (VCOM). Additionally, Radford University Carilion educates and trains students in 20 health science programs from associates to doctoral levels including nursing and other ancillary health services. CMC medical training focuses on tertiary services such as hospitals, medical specialties, outpatient services, family medicine sites, urgent care centers, wellness, outpatient therapies, retail pharmacies and Life-Guard locations.

**DCOPN Staff Findings and Conclusions**

Carilion Medical Center (CMC) proposes to add one fixed CT scanner and one fixed MRI unit at Carilion Roanoke Memorial Hospital (CRMH). The proposed site is located at 1906 Belleview Ave SE in Roanoke. Project costs are reasonable and will be funded entirely through accumulated reserves.

DCOPN finds that the proposal 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. There are no identified alternatives to the proposed project, costs are reasonable, and the proposal is more beneficial than the status quo. CRMH has a clear institutional need for expansion for both their CT and MRI services, and an expansion of these services will be beneficial in expanding access and reducing wait times for residents of Planning District (PD) 5. There is no known opposition to the proposed project.

### **DCOPN Staff Recommendations**

The Division of Certificate of Public Need recommends **conditional approval** of Carilion Medical Center's COPN Request number VA-8856 to add one fixed CT scanner and one fixed MRI unit at Carilion Roanoke Memorial Hospital (CRMH), for following reasons:

1. The proposal 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. Since CRMH is an established provider, the proposed project is unlikely to have a significant impact upon the utilization, costs, or charges of other providers of CT and MRI services in PD 5.
3. The capital costs of the proposed project are reasonable, and it is viable in the immediate and long term.
4. There is no identified alternative to the proposed project, and it is more beneficial than the status quo.
5. There is no known opposition to the project.

DCOPN's recommendation is contingent upon Carilion Medical Center's agreement to the following charity care condition:

#### **Recommended Condition**

Carilion Medical Center d/b/a Carilion Roanoke Memorial Hospital will MRI and CT services to all persons in need of these services, 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 0.5% of Carilion Medical Center d/b/a Carilion Roanoke Memorial Hospital's total patient services revenue derived from MRI and 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 Carilion Medical Center d/b/a Carilion Roanoke Memorial Hospital 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.

Carilion Medical Center d/b/a Carilion Roanoke Memorial Hospital will provide CT and MRI 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 Medical Center d/b/a 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.