

## **ATTACHMENT - REQUIRED STATE AGENCY FINDINGS**

### **“CORRECTED” FINDINGS**

C = Conforming

CA = Conditional

NC = Nonconforming

NA = Not Applicable

Decision Date: February 12, 2019

Findings Date: February 12, 2019

Project Analyst: Celia C. Inman

Assistant Chief: Lisa Pittman

Project ID #: F-11618-18

Facility: Atrium Health Union West

FID #: 180514

County: Union

Applicant: The Charlotte-Mecklenburg Hospital Authority

Project: Develop a new satellite campus of CHS Union by relocating 40 acute care beds, two ORs, one dedicated C-Section OR, one GI endoscopy room, and one CT scanner from CHS Union

### **REVIEW CRITERIA FOR NEW INSTITUTIONAL HEALTH SERVICES**

N.C. Gen. Stat. §131E-183(a) The Agency shall review all applications utilizing the criteria outlined in this subsection and shall determine that an application is either consistent with or not in conflict with these criteria before a certificate of need for the proposed project shall be issued.

- (1) The proposed project shall be consistent with applicable policies and need determinations in the State Medical Facilities Plan, the need determination of which constitutes a determinative limitation on the provision of any health service, health service facility, health service facility beds, dialysis stations, operating rooms, or home health offices that may be approved.

CA

The Charlotte-Mecklenburg Hospital Authority, “the applicant”, proposes to develop a new satellite campus of CHS Union by relocating 40 acute care beds, two operating rooms (ORs), one dedicated C-Section OR, one GI endoscopy room, and one computed tomography (CT) scanner from CHS Union. The new hospital campus, Atrium Health Union West (AHUW), will be located in Stallings, Union County.

**Need Determination**

The proposed project does not involve the addition of any new health service facility beds, services, or equipment for which there is a need determination in the 2018 State Medical Facilities Plan (SMFP). Therefore, there are no need determinations applicable to this review.

**Policies**

*Policy AC-5: Replacement of Acute Care Bed Capacity* (Pages 21-22 of the 2018 SMFP) is applicable to this review. *Policy AC-5* states:

*“Proposals for either partial or total replacement of acute care beds (i.e., construction of new space for existing acute care beds) shall be evaluated against the utilization of the total number of acute care beds in the applicant’s hospital in relation to the utilization targets found below. For hospitals **not** [emphasis in original] designated by the Centers for Medicare & Medicaid Services as Critical Access Hospitals, in determining utilization of acute care beds, only acute care bed ‘days of care’ shall be counted. For hospitals designated by the Centers for Medicare & Medicaid Services as Critical Access Hospitals, in determining utilization of acute care beds, only acute care bed “days of care” **and** [emphasis in original] swing bed days (i.e., nursing facility days of care) shall be counted in determining utilization of acute care beds. Any hospital proposing replacement of acute care beds must clearly demonstrate the need for maintaining the acute care bed capacity proposed within the application. Additionally, if the hospital is a Critical Access Hospital and swing bed days are proposed to be counted in determining utilization of acute care beds, the hospital shall also propose to remain a Critical Access Hospital and must demonstrate the need for maintaining the swing bed capacity proposed within the application. If the Critical Access Hospital does not propose to remain a Critical Access Hospital, only acute care bed “days of care” shall be counted in determining utilization of acute care beds and the hospital must clearly demonstrate the need for maintaining the acute care bed capacity proposed within the application.*

<i>Facility Average Daily Census</i>	<i>Target Occupancy of Licensed Acute Care Beds (Percent)</i>
<i>1 – 99</i>	<i>66.7%</i>
<i>100 – 200</i>	<i>71.4%</i>
<i>Greater than 200</i>	<i>75.2%</i>

In Section B.5, pages 24-25, the applicant projects acute care bed days of care, average daily census (ADC) and occupancy rates for the licensed acute care (AC) beds at the proposed AHUW campus, the CHS Union Monroe campus and the total Atrium Health Union County facility (both campuses) for the first three full fiscal years (FFY) after project completion, calendar years (CY) 2022-2024, as summarized below.

**Projected Atrium Health Union West  
 Total Inpatient Utilization**

	<b>FFY1 CY2022</b>	<b>FFY2 CY2023</b>	<b>FFY3 CY2024</b>
Days of Care	4,781	7,296	9,899
ADC	13	20	27
Licensed AC Beds	40	40	40
<b>Occupancy Rate</b>	<b>32.7%</b>	<b>50.0%</b>	<b>67.8%</b>

Totals may not sum and calculations may not be precise due to rounding

**Projected CHS Union (Monroe)  
 Total Inpatient Utilization**

	<b>FFY1 CY2022</b>	<b>FFY2 CY2023</b>	<b>FFY3 CY2024</b>
Days of Care	37,409	37,851	38,298
ADC	102	104	105
Licensed AC Beds	142	142	142
<b>Occupancy Rate</b>	<b>72.2%</b>	<b>73.0%</b>	<b>73.9%</b>

Totals may not sum and calculations may not be precise due to rounding

**Projected Atrium Health Union County (both campuses)  
 Total Inpatient Utilization**

	<b>FFY1 CY2022</b>	<b>FFY2 CY2023</b>	<b>FFY3 CY2024</b>
Days of Care	42,190	45,148	48,197
ADC	116	124	132
Licensed AC Beds	182	182	182
<b>Occupancy Rate</b>	<b>63.5%</b>	<b>68.0%</b>	<b>72.6%</b>

Totals may not sum and calculations may not be precise due to rounding

As shown in the tables above, Atrium Health’s 182 beds will have an ADC between 100 and 200 and will exceed the applicable utilization target of 71.4% in CY2024, the third project year of the proposed project. As such, the proposed project is in compliance with Policy AC-5.

*Policy GEN-4: Energy Efficiency and Sustainability for Health Service Facilities* (page 33 of the 2018 SMFP) is applicable to this review. *Policy GEN-4* states:

*“Any person proposing a capital expenditure greater than \$2 million to develop, replace, renovate or add to a health service facility pursuant to G.S. 131E-178 shall include in its certificate of need application a written statement describing the project’s plan to assure improved energy efficiency and water conservation.*

*In approving a certificate of need proposing an expenditure greater than \$5 million to develop, replace, renovate or add to a health service facility pursuant to G.S. 131E-178, Certificate of Need shall impose a condition requiring the applicant to develop and implement an Energy Efficiency and Sustainability Plan for the project that conforms to or exceeds energy efficiency and water conservation standards incorporated in the latest*

*editions of the North Carolina State Building Codes. The plan must be consistent with the applicant's representation in the written statement as described in paragraph one of Policy GEN-4.*

*Any person awarded a certificate of need for a project or an exemption from review pursuant to G.S. 131E-184 are required to submit a plan of energy efficiency and water conservation that conforms to the rules, codes and standards implemented by the Construction Section of the Division of Health Service Regulation. The plan must be consistent with the applicant's representation in the written statement as described in paragraph one of Policy GEN-4. The plan shall not adversely affect patient or resident health, safety or infection control."*

The proposed capital expenditure for this project is greater than \$5 million; therefore, Policy GEN-4 is applicable to this review. In Section B.11, pages 31-32, the applicant provides a written commitment to assuring improved energy efficiency and water conservation in its construction projects. The applicant states:

*"CHS will work with experienced architects and engineers to develop this proposed project to ensure energy efficient systems are an inherent part of the proposed project."*

In Section K.4(c), pages 112-113, the applicant lists the guiding principles to be incorporated as energy saving features into the proposed plans, and discusses how the design team and hospital will seek to be energy efficient, including:

- meet or exceed the NC Building Code requirements,
- use United States Green Building Council LEED guidelines,
- use EPA Energy Star for Hospitals rating system to compare performance for benchmarking performance,
- design to exceed an Energy Star score of 75,
- use Atrium Health's Standard Control Sequences to maximize energy efficiency in the BAS and HVAC systems,
- select plumbing fixtures to maximize water efficiency and life cycle benefits, and
- design new HVAC systems and select equipment that maximize water efficiency and life cycle benefits.

The applicant adequately demonstrates that the application includes a written statement describing the project's plan to assure improved energy efficiency and water conservation.

### **Conclusion**

The Agency reviewed the:

- application, and
- exhibits to the application.

Based on that review, the Agency concludes that the application is conforming to this criterion.

- (2) Repealed effective July 1, 1987.
- (3) The applicant shall identify the population to be served by the proposed project, and shall demonstrate the need that this population has for the services proposed, and the extent to which all residents of the area, and, in particular, low income persons, racial and ethnic minorities, women, handicapped persons, the elderly, and other underserved groups are likely to have access to the services proposed.

### C

The applicant proposes to develop a new satellite campus of CHS Union by relocating 40 acute care beds, two ORs, one dedicated C-Section OR, one GI endoscopy room, and one CT scanner from CHS Union to AHUW in Union County.

In Section C.1, pages 33-40, the applicant describes the proposed project to develop a new acute care satellite campus of CHS Union in order to bring high quality, convenient access to care for the residents of western Union County. The new hospital campus, AHUW, composed of relocated regulated assets from CHS Union, will be located in Stallings, Union County and will be licensed as part of CHS Union's existing license.

The proposed project does not involve an increase to the inventory of any assets regulated by the Division of Health Service Regulation (DHSR) as set forth in the 2018 SMFP, including acute care beds, ORs, GI endoscopy rooms, or regulated diagnostic imaging equipment such as CT or Magnetic Resonance Imaging (MRI).

AHUW will offer emergency, inpatient, and outpatient care. The proposed project involves the relocation of the following assets from CHS Union to AHUW:

- 40 licensed acute care beds,
- two shared ORs,
- one GI endoscopy room,
- one dedicated C-Section OR, and
- one fixed CT scanner.

The applicant provides line drawings in Exhibit C.1-1 of the existing and proposed CHS Union floor plans, identifying the existing location of the services listed above and being relocated to develop the proposed campus, and showing the floor plans at CHS Union after the relocation of the services. Exhibit C.1-2 contains line drawings for the proposed satellite campus, AHUW.

On page 35, the applicant provides a summary table showing the impact of the relocation of the proposed services to AHUW and the re-designation of bed types at CHS Union.

	<b>Current CHS Union</b>	<b>Proposed AHUW</b>	<b>Proposed CHS Union</b>	<b>Proposed Total Union County</b>
<b>Acute Care Beds</b>				
ICU Beds	14	4	14	18
Med Surg Beds	140	30	100	130
Neonatal Level III	4	0	4	4
LDRPs	24	6	24	30
<b>Total Acute Care Beds</b>	<b>182</b>	<b>40</b>	<b>142</b>	<b>182</b>
<b>Operating Rooms</b>				
Dedicated C-Section	2	1	1	2
Shared ORs	6	2	4	6
<b>GI Endoscopy Rooms</b>	<b>2</b>	<b>1</b>	<b>1</b>	<b>2</b>
<b>CT Scanners</b>	<b>3</b>	<b>1</b>	<b>2</b>	<b>3</b>

On page 36, the applicant states that in addition to the assets and services discussed above, the proposed project also involves the development of:

- eight observation beds,
- one procedure room,
- 10 emergency department (ED) bays and four ED observation bays, and
- Additional imaging and ancillary services including:
  - X-ray/fluoro,
  - Ultrasound,
  - Nuclear medicine,
  - Mobile MRI (from a contracted provider),
  - Other diagnostics,
  - Lab, and
  - Physical and other therapies.

**Patient Origin**

On page 38, the 2018 SMFP defines the service area for acute care services as:

*“An acute care bed’s service area is the acute care bed planning area in which the bed is located. The acute care bed planning areas are the single and multicounty groupings shown in Figure 5.1”*

CHS Union and AHUW are located in Union County. Figure 5.1 shows Union County as a single acute care bed planning area. Therefore the service area for the proposed project is Union County. Facilities may also serve residents of counties not included in their service area.

AHUW is not an existing hospital or campus and thus has no historical patient origin. However, in Section C.2, page 41, the applicant provides the historical patient origin for CHS Union acute care beds, as shown below.

**Historical Patient Origin  
 CHS Union Acute Care Beds  
 CY2017**

<b>County</b>	<b># of Patients</b>	<b>% of Total</b>
Union	5,535	62.7%
Anson	1,349	15.3%
Chesterfield (SC)	909	10.3%
Lancaster (SC)	377	4.3%
Mecklenburg	269	3.0%
York (SC)	45	0.5%
Other*	351	4.0%
<b>Total</b>	<b>8,834</b>	<b>100.0%</b>

Source: Atrium Health internal data

\*Other includes 32 NC counties and other states

Totals may not sum due to rounding

On page 42, the applicant provides the historical patient origin for CHS Union’s entire facility, as shown below.

**Historical Patient Origin CY2017  
 CHS Union Entire Facility^**

<b>County</b>	<b># of Patients</b>	<b>% of Total</b>
Union	101,286	67.0%
Chesterfield (SC)	14,944	9.9%
Anson	13,638	9.0%
Lancaster (SC)	9,340	6.2%
Mecklenburg	5,397	3.6%
York (SC)	949	0.6%
Other*	5,661	3.7%
<b>Total</b>	<b>151,215</b>	<b>100.0%</b>

Source: Atrium Health internal data

^Includes the freestanding emergency department at Carolinas HealthCare System Waxhaw, which is licensed as part of CHS Union

\*Other includes 83 NC counties and other states

Totals may not sum due to rounding

On page 43, the applicant provides the projected patient origin for acute care beds at AHUW for the first three full fiscal years, CY2022 – CY2024, as summarized in the table below.

**Projected Patient Origin for AHUW Acute Care Beds**

County	FFY1 CY2022		FFY2 CY2023		FFY3 CY2024	
	# Patients	Percent	# Patients	Percent	# Patients	Percent
Union	1,118	84.7%	1,706	84.7%	2,314	84.7%
Lancaster (SC)	98	7.4%	149	7.4%	203	7.4%
Mecklenburg	94	7.1%	144	7.1%	195	7.1%
York (SC)	10	0.8%	16	0.8%	21	0.8%
<b>TOTAL</b>	<b>1,320</b>	<b>100.0%</b>	<b>2,015</b>	<b>100.0%</b>	<b>2,734</b>	<b>100.0%</b>

Totals may not sum due to rounding

On pages 43-45, the applicant provides the projected patient origin for the AHUW ORs, the C-Section OR, the GI Endoscopy room, the procedure room, and the ED for the first three project years, CY2022 – CY2024, as summarized in the following tables.

**Projected Patient Origin for AHUW ORs**

County	FFY1 CY2022		FFY2 CY2023		FFY3 CY2024	
	# Patients	Percent	# Patients	# Patients	Percent	# Patients
Union	653	74.7%	1,032	75.7%	1,447	76.5%
Mecklenburg	131	15.0%	198	14.5%	264	14.0%
Lancaster (SC)	64	7.3%	96	7.1%	129	6.8%
York (SC)	25	2.9%	38	2.8%	51	2.7%
<b>TOTAL</b>	<b>874</b>	<b>100.0%</b>	<b>1,364</b>	<b>100.0%</b>	<b>1,890</b>	<b>100.0%</b>

Totals may not sum due to rounding

**Projected Patient Origin for AHUW C-Section OR**

County	FFY1 CY2022		FFY2 CY2023		FFY3 CY2024	
	# Patients	Percent	# Patients	# Patients	Percent	# Patients
Union	39	84.7%	60	84.7%	81	84.7%
Lancaster (SC)	3	7.4%	5	7.4%	7	7.4%
Mecklenburg	3	7.1%	5	7.1%	7	7.1%
York (SC)	0	0.8%	1	0.8%	1	0.8%
<b>TOTAL</b>	<b>46</b>	<b>100.0%</b>	<b>71</b>	<b>100.0%</b>	<b>96</b>	<b>100.0%</b>

Totals may not sum due to rounding



**Projected Patient Origin for AHUW GI Endoscopy room**

County	FFY1 CY2022		FFY2 CY2023		FFY3 CY2024	
	# Patients	Percent	# Patients	# Patients	Percent	# Patients
Union	97	87.2%	148	87.2%	201	87.2%
Mecklenburg	14	12.8%	22	12.8%	29	12.8%
<b>TOTAL</b>	<b>111</b>	<b>100.0%</b>	<b>170</b>	<b>100.0%</b>	<b>230</b>	<b>100.0%</b>

Totals may not sum due to rounding

**Projected Patient Origin for AHUW Procedure Room**

County	FFY1 CY2022		FFY2 CY2023		FFY3 CY2024	
	# Patients	Percent	# Patients	# Patients	Percent	# Patients
Union	119	74.7%	189	75.7%	265	76.5%
Mecklenburg	24	15.0%	36	14.5%	48	14.0%
Lancaster (SC)	12	7.3%	18	7.1%	24	6.8%
York (SC)	5	2.9%	7	2.8%	9	2.7%
<b>TOTAL</b>	<b>160</b>	<b>100.0%</b>	<b>249</b>	<b>100.0%</b>	<b>346</b>	<b>100.0%</b>

Totals may not sum due to rounding

**Projected Patient Origin for AHUW Emergency Department**

County	FFY1 CY2022		FFY2 CY2023		FFY3 CY2024	
	# Patients	Percent	# Patients	Percent	# Patients	Percent
Union	6,052	86.3%	9,199	86.3%	12,475	86.3%
Mecklenburg	573	8.2%	871	8.2%	1,181	8.2%
Lancaster (SC)	353	5.0%	536	5.0%	727	5.0%
York (SC)	32	0.5%	49	0.5%	67	0.5%
<b>TOTAL</b>	<b>7,010</b>	<b>100.0%</b>	<b>10,656</b>	<b>100.0%</b>	<b>14,449</b>	<b>100.0%</b>

Totals may not sum due to rounding

On page 45, the applicant provides the projected patient origin for the entire AHUW campus for the first three full fiscal years, CY2022 – CY2024, as summarized in the table below.

**Projected Patient Origin for the Entire AHUW Campus**

County	FFY1 CY2022		FFY2 CY2023		FFY3 CY2024	
	# Patients	Percent	# Patients	# Patients	Percent	# Patients
Union	8,079	84.8%	12,334	84.9%	16,782	85.0%
Mecklenburg	840	8.8%	1,275	8.8%	1,724	8.7%
Lancaster (SC)	530	5.6%	805	5.5%	1,089	5.5%
York (SC)	73	0.8%	111	0.8%	149	0.8%
<b>TOTAL</b>	<b>9,522</b>	<b>100.0%</b>	<b>14,524</b>	<b>100.0%</b>	<b>19,745</b>	<b>100.0%</b>

Totals may not sum due to rounding

On pages 45-46, the applicant discusses the assumptions and methodology for projecting services, stating:

- projected patient origin for acute care beds is based on the number of patients projected to originate from the assumed geographies as identified in Form C Utilization-Assumptions and Methodology (Form C A&M),
- projected patient origin for ORs is based on the combined projected patient origin for inpatient surgical cases (assumed to be consistent with the projected patient origin for acute care beds) and for outpatient surgical cases,
- outpatient surgical cases and ED visits are based on the assumed patient origin geographies, adjusted for the impact of the projected shift of patients from Atrium Mecklenburg County facilities, as identified in Form C A&M,
- projected patient origin for the C-Section room is assumed to be consistent with that of the acute care beds,
- projected patient origin for the procedure room is assumed to be consistent with the ORs,
- projected patient origin for the entire AHUW campus is the sum of the projected number of patients by county of origin for each identified service above, and
- projected patient origin for imaging and other ancillary and support services is assumed to be consistent with the patient origin for the entire AHUW campus.

The applicant's assumptions are reasonable and adequately supported.

### **Analysis of Need**

In Section C.4, beginning on page 46, the applicant explains why it believes the population projected to utilize the proposed services needs the proposed services. The applicant states that the overall need for the project is based on the following factors:

- The evolution of healthcare services in western Union County (pages 47-48),
- The dynamic growth of the Union County population, particularly the western area of the county (pages 48-57),
- The need for hospital-based services in western Union County (pages 57-61), and
- The need to provide appropriate community hospital services for Union County residents in their home county (pages 61-70).

The applicant fully discusses the above factors and their impact upon Union County residents' access to the proposed services in the pages as outlined above.

The information provided by the applicant is reasonable and adequately supported for the following reasons:

- the applicant uses historical data that is clearly cited, reasonable demographical data, and credible national data to make assumptions with regard to identifying the population to be served, its growth and aging, and the need the identified population has for the proposed services; and

- the applicant provides reasonable information to support the need for the satellite campus in western Union County, in order to provide services closer to home for the Atrium Health patients living near there, and to meet Atrium Health's planned initiatives.

Projected Utilization

AHUW will offer emergency, inpatient, and outpatient care. The proposed project involves the relocation of the following assets from CHS Union to AHUW:

- 40 licensed acute care beds,
- two shared ORs,
- one GI endoscopy room,
- one dedicated C-Section OR, and
- one fixed CT scanner.

On page 36, the applicant states that in addition to the assets and services to be relocated from CHS Union, the proposed project also involves the development of:

- eight observation beds,
- one procedure room,
- 10 emergency department bays and four ED observation bays, and
- Additional imaging and ancillary services including:
  - X-ray/fluoro,
  - Ultrasound,
  - Nuclear medicine,
  - Mobile MRI (from a contracted provider),
  - Other diagnostics,
  - Lab, and
  - Physical and other therapies.

In Section Q, Forms C, the applicant provides the projected utilization at AHUW through the first three years of operation following completion of the project, as summarized below.

**Projected Utilization at Atrium Health Union West  
 Hospital Beds**

	<b>FFY1 CY2022</b>	<b>FFY 2 CY2023</b>	<b>FFY3 CY2024</b>
<b>Obstetrics Beds</b>			
# of Beds	6	6	6
# of Patient Days	482	736	998
<b>ICU Beds</b>			
# of Beds	4	4	4
# of Patient Days	430	656	890
<b>Total Acute Care Beds</b>			
# of Beds	40	40	40
# of Patient Days	4,781	7,296	9,899
<b>Observation Beds</b>			
# of Beds	8	8	8
# of Patient Days	614	937	1,271
ALOS	1.12	1.12	1.12

Totals may not sum due to rounding

**Projected Utilization at Atrium Health Union West  
 Hospital Services**

	<b>FFY1 CY2022</b>	<b>FFY 2 CY2023</b>	<b>FFY3 CY2024</b>
<b>Laboratory</b>	60,478	92,306	125,231
<b>Therapy/Other</b>	5,023	7,667	10,402
<b>CT Scanner</b>			
# of Units	1	1	1
# of Scans	3,492	5,330	7,231
# of HECT Units	5,489	8,378	11,367
<b>MRI Scanner</b>			
# of Units	Mobile	Mobile	Mobile
# of Procedures	873	1,333	1,808
# of Weighted Procedures	1,052	1,605	2,178
<b>Fixed Xray</b>			
# of Units	2	2	2
# of Procedures	6,224	9,500	12,889
<b>Ultrasound</b>			
# of Units	3	3	3
# of Procedures	1,708	2,607	3,537
<b>Nuclear Medicine</b>			
# of Units	1	1	1
# of Procedures	309	471	639
<b>Emergency Department</b>			
# of Treatment Rooms	10	10	10
# of Visits	7,010	10,656	14,449

Totals may not sum due to rounding

**Projected Utilization at Atrium Health Union West  
 Surgical Services**

	<b>FFY1 CY2022</b>	<b>FFY 2 CY2023</b>	<b>FFY3 CY2024</b>
<b>GI Endoscopy Rooms</b>			
# of Rooms	1	1	1
# of Procedures	145	222	301
# of Procedures/Room	145	222	301
<b>Operating Rooms (1)</b>			
Dedicated C-Section ORs	1	1	1
Shared ORs	2	2	2
Total # of ORs	3	3	3
<b>Surgical Cases</b>			
# of C-Sections in Dedicated C-S	46	71	96
# of Inpatient Cases, excluding C-Secs in Dedicated C-Sec Room	167	256	347
# of Outpatient Cases	707	1,108	1,543
Total # Surgical Cases, excluding C-Secs in Dedicated C-Sec Room	874	1,364	1,890
<b>Case Times</b>			
Inpatient	127.6	127.6	127.6
Outpatient	68.2	68.2	68.2
<b>Surgical Hours</b>			
Inpatient (2)	356	544	738
Outpatient (3)	803	1,260	1,754
Total Surgical Hours	1,160	1,803	2,492
<b># of ORs Needed</b>			
Group Assignment (4)	4	4	4
Standard Hours per OR per Year (5)	1,500	1,500	1,500
ORs Needed (total hours/1,500)	0.8	1.2	1.7
<b>Procedure Rooms</b>			
# of Rooms	1	1	1
# of Total Procedures	160	249	346

Totals may not sum due to rounding

- (1) If the proposal results in an increase in the # of ORs in the service area, complete a separate Form C for each facility in the applicant's health system
- (2) Inpatient Cases (exclude C-Sections performed in dedicated C-Section ORs) x Inpatient Case Time
- (3) Outpatient Cases x Outpatient Case Time
- (4) From Section C, Question 9(a)
- (5) From Section C, Question 9(b)

In Section Q, Form C A&M, pages 1-38, the applicant provides the detailed methodology and assumptions used to project utilization, as summarized below.

- The applicant first projects services for the Atrium Health Union County system as a whole, prior to determining the utilization at the proposed AHUW facility and the CHS Union Hospital.

*Acute Care Beds Atrium Health Union County*

- Some Union County residents who currently seek services in Mecklenburg County hospitals will shift to Atrium Union County hospitals (2018 days of care = 23,627). The applicant projects 43% of the 2018 days of care (10,172 patient days) will shift to CHS Union or AHUW in future years at an annual growth rate of 1.75%, based on the Union County projected population growth according to the North Carolina Office of State Budget and Management (NC OSBM). The shift will begin in CY2019 and ramp up to a 100% shift of the identified days (11,289) in CY2024. (pages 3-5 of Section Q Form C A&M)
- The applicant projects that CHS Union’s acute care days will also grow by the annual rate of population growth of 1.75%, reaching 36,907 days of care in CY2024. (page 6 of Section Q Form C A&M)
- Total Atrium Health Union County days of care in CY2024 = 48,197 (11,289 + 36,907). (page 7 of Section Q Form C A&M)
- Total Atrium Health Union County discharges are projected based on a 4.27 ALOS for the days shifted from Mecklenburg County (11,289) in CY2024 and a 3.73 ALOS for the CY2024 36,907 days of care at Atrium Health Union County hospitals. (pages 7-8 of Section Q, Form C A&M)

	<b>INTERIM CY2019</b>	<b>INTERIM CY2020</b>	<b>INTERIM CY2021</b>	<b>FFY1 CY2022</b>	<b>FFY 2 CY2023</b>	<b>FFY3 CY2024</b>
Total Days Shifted from Mecklenburg	1,035	2,106	3,215	6,542	8,876	11,289
Total Atrium Health Hospital Days	33,837	34,430	35,033	35,647	36,272	36,907
Total Days Served by Atrium Health Union County Hospitals	34,872	36,536	38,248	42,190	45,148	48,197
Average Daily Census	96	100	105	116	124	132
Acute Care Beds	182	182	182	182	182	182
Percent Occupancy	52.5%	55.0%	57.6%	63.5%	68.0%	72.6%
Total Discharges Served by Atrium Health Union County Hospitals	9,312	9,722	10,143	11,086	11,800	12,535

Totals may not sum due to rounding

*Atrium Health Union West Acute Care Beds*

- To determine the projected number of acute care days to be served at AHUW, the applicant determines “*Atrium Health Union West-appropriate*” acute care utilization by first assuming that any patient days related to services that are not proposed to be provided at AHUW will be provided at CHS Union only. Second, the applicant assumes that AHUW would serve only patients with a Primary or Secondary Acuity Level MS-DRG, as defined by Atrium Health. The applicant then limits the utilization at AHUW to a percent of the CY2018 patient days from geographies identified as convenient to the proposed AHUW campus, growing by 1.75% annually through 2024, resulting in the following potential days of care, ramped up from 50% in CY2022 to 100% in CY2024. (pages 18-20 of Section Q, Form C A&M)

	<b>CY2018</b>	<b>INTERIM CY2019</b>	<b>INTERIM CY2020</b>	<b>INTERIM CY2021</b>	<b>FFY1 CY2022</b>	<b>FFY 2 CY2023</b>	<b>FFY3 CY2024</b>
Potential Days of Care based on AHUW-Appropriate Services	8,919	9,076	9,235	9,396	9,561	9,729	9,899
Ramp-up					50%	75%	100%
Acute Care Days of Care at AHUW					4,781	7,296	9,899

Totals may not sum due to rounding

*Atrium Health Union West Obstetrics Beds*

- To determine AHUW’s obstetric bed utilization, the applicant applied the CHS Union’s historical assumptions on obstetrics. In CY2018, obstetrics days comprised 10.1% of total AHUW-appropriate acute care utilization and obstetrics patients within this group had a 2.43 ALOS, resulting in the following obstetrics projections. (page 21 of Section Q Form C A&M)

	<b>FFY1 CY2022</b>	<b>FFY 2 CY2023</b>	<b>FFY3 CY2024</b>
AHUW Total Days of Care	4,781	7,296	9,899
Obstetrics as % of Total	10.1%	10.1%	10.1%
Obstetrics Days of Care at AHUW	482	736	998
ALOS	2.43	2.43	2.43
Obstetrics Discharges	198	303	411
Obstetrics ADC	1.3	2.0	2.7
Obstetrics Beds	6	6	6
Obstetrics Occupancy	22.0%	33.6%	45.6%

Totals may not sum due to rounding

*ICU Beds Atrium Health Union County*

- Based on historical utilization, the applicant projects ICU days as a percentage of total days at 10.2%. As shown in the following table, the applicant projects Atrium Health’s Union County total ICU beds occupancy will be 75% in FFY3. (page 9 of Section Q, Form C A&M),

	<b>INTERIM CY2019</b>	<b>INTERIM CY2020</b>	<b>INTERIM CY2021</b>	<b>FFY1 CY2022</b>	<b>FFY 2 CY2023</b>	<b>FFY3 CY2024</b>
Total Days Served by Atrium Health Union County Hospitals	34,872	36,536	38,248	42,190	45,148	48,197
ICU Days as % of Total Days	10.2%	10.2%	10.2%	10.2%	10.2%	10.2%
Total ICU Days Served by Atrium Health Union County Hospitals	3,568	3,738	3,913	4,316	4,619	4,931
ICU ADC	10	10	11	12	13	14
ICU Beds	14	14	14	18	18	18
ICU Occupancy	69.8%	73.1%	76.6%	65.7%	70.3%	75.0%

Totals may not sum due to rounding



*Atrium Health Union West ICU Beds*

- To determine AHUW ICU days, the applicant first calculates AHUW combined medical/surgical and ICU utilization by subtracting obstetrics days of care projected above. The applicant then assumes ICU days will be 10% of combined Med/Surg and ICU days, based on history. (page 22 of Section Q Form C A&M)

	<b>FFY1 CY2022</b>	<b>FFY 2 CY2023</b>	<b>FFY3 CY2024</b>
AHUW Total Days of Care	4,781	7,296	9,899
Obstetrics Days of Care at AHUW	482	736	998
Combined Med/Surg and ICU Days	4,298	6,560	8,901
ICU Days as % of Combined Med/Surg and ICU Days (10%)	430	656	890
ICU ADC	1.2	1.8	2.4
ICU Beds	4	4	4
ICU Occupancy	29.4%	44.9%	61.0%

Totals may not sum due to rounding

*Atrium Health Union West Observation Beds*

- The applicant assumes that AHUW’s observation bed utilization will be a ratio of 14% of its acute care days and have an ALOS of 1.12 days, based on CHS Union’s experience. The following table shows projected AHUW observation days. (page 23 of Section Q Form C A&M)

	<b>FFY1 CY2022</b>	<b>FFY 2 CY2023</b>	<b>FFY3 CY2024</b>
AHUW Total Patient Days of Care	4,781	7,296	9,899
Observation Days (at 14% of Total Days)	689	1,051	1,426
Observation ADC	1.9	2.9	3.9
Observation Beds	8	8	8
Observation Occupancy	23.6%	36.0%	48.8%
Observation ALOS	1.12	1.12	1.12
Observation Patients	614	937	1,271

Totals may not sum due to rounding

*Operating Rooms Atrium Health Union County*

- Based on historical Atrium Health utilization, the applicant projects potential surgical cases that will shift along with the 10,172 CY2018 patient days at 785 inpatient surgical cases for CY2018, projected forward at the same 1.75% growth rate and a slow Atrium Health Union County ramp up rate (10%, 20%, 30%, 60%,80% to 100% in years 2019-2024, respectively), resulting in the following surgical case shift from Mecklenburg. The applicant assumes the outpatient surgical shift will be at a ratio of 1.22 outpatient cases for every 1.0 inpatient surgical case. (pages 10-12)

	<b>CY2018</b>	<b>INTERIM CY2019</b>	<b>INTERIM CY2020</b>	<b>INTERIM CY2021</b>	<b>FFY1 CY2022</b>	<b>FFY 2 CY2023</b>	<b>FFY3 CY2024</b>
Potential Inpatient Surgical Cases to Shift	785	798	812	826	841	856	871
Ramp up		10%	20%	30%	60%	80%	100%
Inpatient Surgical Cases to Shift to Atrium Health Union County		80	162	248	505	685	871
Outpatient Surgical Case based on a 1.22 Ratio to Inpatient Cases		97	198	302	615	835	1,062

Totals may not sum due to rounding

- Historical Atrium Health surgical cases have grown at a compound annual growth rate (CAGR) of 1.9% for inpatient cases and -4.6% for outpatient cases. The applicant assumes the inpatient cases will grow at the same 1.75% annual growth rate as the Union County population and the outpatient cases will remain constant at CY2018 levels through 2024, resulting in the following projection for surgical cases historically performed by CHS Union. The applicant states that it believes holding the outpatient surgical utilization constant is reasonable considering the past utilization combined with the projected population growth and the planned initiatives underway to increase utilization. The inpatient and outpatient shift from Mecklenburg County (table above) is then added to the projected inpatient and outpatient CHS Union cases and converted to surgical hours to determine ORs needed, as shown in the table below. (pages 12-14)

	<b>INTERIM CY2019</b>	<b>INTERIM CY2020</b>	<b>INTERIM CY2021</b>	<b>FFY1 CY2022</b>	<b>FFY 2 CY2023</b>	<b>FFY3 CY2024</b>
Inpatient Surgical Cases CHS Union	1,513	1,540	1,567	1,594	1,622	1,650
Outpatient Surgical Cases CHS Union	4,246	4,246	4,246	4,246	4,246	4,246
Total Inpatient Surgical Cases	1,593	1,702	1,815	2,099	2,307	2,521
Total Outpatient Surgical Cases	4,344	4,444	4,549	4,862	5,081	5,308
Total Inpatient Surgical Hours @127.6/case	3,388	3,620	3,860	4,464	4,906	5,361
Total Outpatient Surgical Hours @68.2/case	4,937	5,051	5,170	5,527	5,776	6,034
Total Surgical Hours	8,325	8,672	9,030	9,989	10,681	11,395
Standard Hours per OR (Group 4)	1,500	1,500	1,500	1,500	1,500	1,500
ORs Needed	5.6	5.8	6.0	6.7	7.1	7.6
OR Capacity	6	6	6	6	6	6
Atrium Health Union County OR Deficit / (Surplus)	-0.4	-0.2	0.0	0.7	1.1	1.6

Totals may not sum due to rounding

*Atrium Health Union West Operating Rooms*

- Surgical Cases at AHUW were projected based on inpatient and outpatient surgical cases appropriate for AHUW. The applicant uses the CHS Union 2018 ratio of surgical discharges to total AHUW-appropriate acute care discharges (12.7%) to project inpatient surgical cases at AHUW. The applicant assumes that an inpatient surgical case will be performed for each inpatient surgical discharge. To determine outpatient surgical cases, the applicant identifies the historical CY2018 CHS Union outpatient surgical cases from the applicant defined appropriate patient areas (1,235 held constant through CY2024) and adds the outpatient surgical cases that are expected to shift from Mecklenburg County back to AHUW adjusted to reflect the shift from Mecklenburg County (114%, 120% and 125% in FFY1 through FFY3, respectively). (Page 24-27 in Section Q Form C A&M)

	<b>FFY1 CY2022</b>	<b>FFY 2 CY2023</b>	<b>FFY3 CY2024</b>
AHUW Total Discharges	1,320	2,015	2,734
Inpatient Surgical Cases (at 12.7% of Discharges)	167	256	347
Potential CHS Union Outpatient Surgical Cases	1,235	1,235	1,235
Adjustment for Shift from Mecklenburg County*	114%	120%	125%
Potential Outpatient Surgical Cases	1,414	1,477	1,543
Ramp-up	50.0%	75.0%	100.0%
Total Outpatient Surgical Cases	707	1,108	1,543
Inpatient Case Time @ 127.6 minutes	357	544	738
Outpatient Case Time @ 68.2 minutes	804	1,259	1,754
Total Surgical Hours	1,160	1,803	2,492
Standard Hours per OR	1,500	1,500	1,500
ORs Needed at AHUW	0.8	1.2	1.7
Proposed OR Capacity at AHUW	2	2	2

Totals may not sum due to rounding

\*Based on the projected shift of surgical cases from Atrium Health Mecklenburg County hospitals, outpatient surgical cases served at AH hospitals in Union County are expected to be 114%, 120%, and 125% of the historical number of CHS Union outpatient surgical cases in the first three years of AHUW operations, respectively. (Page 25 in Section Q Form C A&M)

*C-Section Atrium Health Union County*

- Using the same methodology as with the surgical shift from Mecklenburg County above, the applicant identifies C-Sections to shift from Mecklenburg (using the same percent ramp-up as Atrium Health Union county inpatient surgical cases) to add to the CHS Union historical C-Section utilization. The applicant grows utilization for both groups of cases at the same 1.75% annual growth rate as the Union County population to project total C-Sections at Atrium Health Union County hospitals, as shown in the table below. (pages 14-15 of Section Q Form C-A&M)

	<b>INTERIM CY2019</b>	<b>INTERIM CY2020</b>	<b>INTERIM CY2021</b>	<b>FFY1 CY2022</b>	<b>FFY 2 CY2023</b>	<b>FFY3 CY2024</b>
Potential Atrium Health C-Sections Performed in Mecklenburg County to Shift to CHS Union	98	100	102	104	105	107
Ramp-up	10%	20%	30%	60%	80%	100%
C-Sections to Shift from Mecklenburg	10	20	31	62	84	107
C-Sections Projected for CHS Union	297	302	308	313	318	324
Total C-Section Cases Atrium Health Union County Hospitals	307	322	338	375	403	431

Totals may not sum due to rounding

*Atrium Health Union West C-Section*

- The applicant then determines the C-Section room utilization at the proposed AHUW facility, using the CHS Union historical ratio of C-Sections to obstetrics discharges (23.4%), as shown below. (page 27 of Section Q Form C-A&M)

	<b>FFY1 CY2022</b>	<b>FFY 2 CY2023</b>	<b>FFY3 CY2024</b>
AHUW Obstetrics Discharges (calculated on page 21 of Form C-A&M)	198	303	411
CHS Union C-Sections as % of Obstetrics Discharges	23.4%	23.4%	23.4%
AHUW C-Section Cases	46	71	96

Totals may not sum due to rounding

*GI Endoscopy Atrium Health Union County*

- For conservatism, the applicant states it projects that the Atrium Health Union County hospitals will serve only GI endoscopy patients historically served by CHS Union with no shift of cases from Mecklenburg County. The applicant assumes the same 1.75% annual growth rate as the Union County population and 1.3 procedures per case, as shown in the table below. (pages 15-16 of Section Q Form C-A&M)

	<b>INTERIM CY2019</b>	<b>INTERIM CY2020</b>	<b>INTERIM CY2021</b>	<b>FFY1 CY2022</b>	<b>FFY 2 CY2023</b>	<b>FFY3 CY2024</b>
Atrium Health Union County Hospitals GI Endoscopy Cases	1,231	1,253	1,275	1,297	1,320	1,343
Procedures per Case*	1.3	1.3	1.3	1.3	1.3	1.3
Atrium Health Union County Hospitals GI Endoscopy Procedures	1,609	1,638	1,666	1,695	1,725	1,755

\*Procedures per case is 1.307, computer rounded to one decimal place 1.3.

*Atrium Health Union West GI Endoscopy*

- The applicant then determines the GI endoscopy room utilization at the proposed AHUW facility, using the CHS Union historical GI endoscopy room utilization in the same geographies identified on page 18 of Section Q Form C-A&M, resulting in 207 potential AHUW GI cases in 2018, projected forward at the county annual growth rate of 1.75%. The applicant then uses the AHUW ramp up rate of 50%, 75%, and 100% for FFY1-FFY3, respectively, and a procedure to case ratio of 1.3 to project the GI endoscopy cases for the first three operating years, as shown below. (pages 27-29 of Section Q Form C-A&M)

	CY2018	INTERIM CY2019	INTERIM CY2020	INTERIM CY2021	FFY1 CY2022	FFY 2 CY2023	FFY3 CY2024
AHUW Potential GI Endoscopy Cases at 1.75% CAGR	207	211	215	218	222	226	230
Ramp-up					50%	75%	100%
AHUW GI Endoscopy Room Cases					111	170	230
Procedures per Case					1.3	1.3	1.3
AHUW GI Endoscopy Procedures					145	222	301

Totals may not sum due to rounding

*Atrium Health Union West Procedure Room*

- The applicant applies CHS Union’s historical ratio of procedure room procedures to operating room cases (18%) to the projected AHUW OR cases to determine projected procedure room utilization, as shown below. (Page 29 in Section Q Form C A&M)

	FFY1 CY2022	FFY 2 CY2023	FFY3 CY2024
AHUW OR Cases (calculated on page 26 of Form C-A&M)	874	1,364	1,890
Ratio Procedure Room Procedures to OR Cases	18%	18%	18%
AHUW Procedure Room Procedures	160	249	346

Totals may not sum due to rounding

*Atrium Health Union West Emergency Department*

- To determine emergency department utilization, the applicant examined CHS Union’s historical emergency department utilization, excluding the freestanding emergency department at CHS Waxhaw in the same geographies identified for AHUW patient origin and assumed the same consistent shift of utilization from those areas from AH Union County to AHUW, along with the 1.75% CAGR increase. Additionally, the applicant expects some patients’ ED care to shift from Mecklenburg County to AHUW at the historical rate of 2% of total CHS Union ED visits, resulting in the following potential ED visits at AHUW. (pages 29-30 of Section Q Form C-A&M)

	CY2018	INTERIM CY2019*	INTERIM CY2020	INTERIM CY2021	FFY1 CY2022	FFY 2 CY2023	FFY3 CY2024
Projected CHS Union Potential ED Visits to AHUW @ 1.75% CAGR	13,366	13,756	13,997	14,242	14,492	14,746	15,004
Projected ED Visits Shifted to AHUW from Mecklenburg County @ 2% of CHS Union ED Visits at AHUW					220	224	228
Total Potential ED Visits at AHUW					14,712	14,970	15,232

Totals may not sum due to rounding

\*The ED Visits at AHUW from CHS Union increased by 2.9% from CY2018 to CY2019, with no explanation in the assumptions; however, the 1.75% CAGR was used for growth CY2019-CY2024. The over-projection for CY2019 ultimately results in a 1% total over-statement of ED visits at AHUW, a negligible amount.

- The following table includes the impact of the previously approved CHS Project ID #F-8740-11, expected to be completed in 2019, in which the applicant projected ED visits would shift from CHS Union to CMC-Providence. Because of proximity, the applicant projects those ED visits will impact AHUW’s utilization, as opposed to CHS Union’s. The applicant assumes the same 50% to 100% ramp-up for the first three years of operation, resulting in 14,695 ED visits in FFY3, exceeding the ACEP guidelines of 909 to 1,250 visits per ED bed. (pages 30-32 of Section Q Form C-A&M)

	FFY1 CY2022	FFY 2 CY2023	FFY3 CY2024
Total Potential ED Visits at AHUW	14,712	14,970	15,232
Impact of Project ID #F-8740-11 CMC-Providence on ED Visits at AHUW	-504	-520	-537
Adjusted Potential ED Visits at AHUW	14,208	14,449	14,695
Ramp-up	50%	75%	100%
ED Visits at AHUW*	7,104	10,837	14,695
ED Visits per Room @ 10 ED Rooms	701	1,084	1,469

Totals may not sum due to rounding

\*The applicant erroneously applied the ramp-up percentages to the ED visits for CY2021, 2022, and 2023 when they should have been applied to CY2022, 2023, and 2024, as FFY1, FFY2 and FFY3, respectively. The table above reflects the proper years in the calculation.

*CT Atrium Health Union County*

- Historically, CHS Union performed 0.20 inpatient CT scans for each inpatient discharge on average. To project inpatient CT scans, the applicant applies this 0.20 ratio to the projected discharges for Atrium Health Union County hospitals. The outpatient CT projection is based on the historical CHS Union outpatient CT scans to inpatient scans (12.44), as shown below. CHS union’s ratio of HECT units to CT scans is 1.57 per the 2018 LRA. (pages 16-17 of Section Q Form C-A&M)

	<b>INTERIM CY2019</b>	<b>INTERIM CY2020</b>	<b>INTERIM CY2021</b>	<b>FFY1 CY2022</b>	<b>FFY 2 CY2023</b>	<b>FFY3 CY2024</b>
Projected Discharges	9,312	9,722	10,143	11,086	11,800	12,535
Ratio Inpatient CT Scans to Discharges (20%)	0.2	0.2	0.2	0.2	0.2	0.2
Projected Inpatient CT Scans	1,832	1,913	1,995	2,181	2,321	2,466
Ratio of Outpatient CT Scans to Inpatient CT Scans (12.44:1)	12.44	12.44	12.44	12.44	12.44	12.44
Projected Outpatient CT Scans	22,799	23,802	24,833	27,143	28,890	30,690
Total Atrium Health Union County Hospitals CT Scans	24,631	25,715	26,829	29,324	31,211	33,156
HECT Units per Scan	1.57	1.57	1.57	1.57	1.57	1.57
HECT Units	38,722	40,425	42,176	46,099	49,066	52,123

Totals may not sum due to rounding

*Atrium Health Union West Imaging and Ancillary, Including CT*

- To determine utilization of CT, ultrasound, X-ray, nuclear medicine and mobile MRI services, the applicant analyzes CHS Union’s historical utilization of the services and compared CHS Union’s total inpatient discharges to its inpatient and outpatient volumes for each service, excluding the utilization attributable to CHS Waxhaw Health Pavilion. For inpatients, the applicant assumes that AHUW’s ratio of inpatient procedures to inpatient discharges will equal that of CHS Union. For outpatient imaging and ancillary services, the applicant assumes that AHUW’s ratio of outpatient procedures to inpatient procedures would equal that of CHS Union. The following tables summarize AHUW’s projected imaging and ancillary services. (pages 32-33 of Section Q Form C-A&M)

**Projected AHUW Inpatient Imaging and Ancillary Services**

	<b>CHS UNION CY2017</b>	<b>RATIO TO DISCHARGES</b>	<b>FFY1 CY2022</b>	<b>FFY 2 CY2023</b>	<b>FFY3 CY2024</b>
Discharges	8,834		1,320	2,015	2,734
Inpatient CT	1,738	0.20	260	396	538
Inpatient Ultrasound	1,158	0.13	173	264	358
Inpatient X-ray	4,752	0.54	710	1,084	1,470
Inpatient Nuclear Medicine	214	0.02	32	49	66
Inpatient MRI	1,391	0.16	208	317	430
Inpatient Other Diagnostics	5,622	0.64	840	1,282	1,740
Inpatient Lab	186,589	21.12	27,883	42,557	57,737
Inpatient PT/OT/ST/Other	33,616	3.81	5,023	7,667	10,402

Totals may not sum due to rounding

**Projected AHUW Outpatient Imaging and Ancillary Services**

	<b>RATIO TO IP PROCEDURES</b>	<b>FFY1 CY2022</b>	<b>FFY 2 CY2023</b>	<b>FFY3 CY2024</b>
Outpatient CT	12.44	3,232	4,933	6,693
Outpatient Ultrasound	8.87	1,535	2,343	3,179
Outpatient X-ray	7.77	5,514	8,416	11,418
Outpatient Nuclear Medicine	8.65	277	422	573
Outpatient MRI	3.20	665	1,016	1,378
Outpatient Other Diagnostics	3.84	3,226	4,924	6,681
Outpatient Lab	1.17	32,595	49,749	67,495

Totals may not sum due to rounding

*Atrium Health Union West CT HECT Units*

- The applicant applies the CHS Union 2018 License Renewal Application (LRA) HECT units to CT scan ratio of 1.57 to project AHUW HECT units, as shown below. (page 34 of Section Q Form C-A&M)

**AHUW CT SCANS AND HECT UNITS**

	<b>FFY1 CY2022</b>	<b>FFY 2 CY2023</b>	<b>FFY3 CY2024</b>
Inpatient CT Scans	260	396	538
Outpatient CT Scans	3,232	4,933	6,693
Total CT Scans	3,492	5,330	7,231
Total HECT Units @1.57 ratio	5,489	8,378	11,367

Totals may not sum due to rounding

*Atrium Health Union West Weighted MRI Procedures*

- The applicant applies the CHS Union 2018 LRA ratio of MRI contrast/sedation procedures to total MRI procedures to project AHUW inpatient and outpatient MRI utilization, as shown below. (page 34 of Section Q Form C-A&M)



**AHUW MRI UTILIZATION**

	<b>FFY1 CY2022</b>	<b>FFY 2 CY2023</b>	<b>FFY3 CY2024</b>
Inpatient MRI Procedures	208	317	430
Inpatient % Contrast/Sedation	16.5%	16.5%	16.5%
Inpatient with Contrast/Sedation	34	52	71
Inpatient without Contrast /Sedation	174	265	359
Weighted Inpatient Procedures	305	465	630
Outpatient MRI Procedures	665	1,016	1,378
Outpatient % Contrast/Sedation	30.7%	30.7%	30.7%
Outpatient with Contrast/Sedation	204	312	423
Outpatient without Contrast /Sedation	461	704	955
Weighted Outpatient Procedures	747	1,141	1,547
Total Weighted MRI Procedures*	1,052	1,605	2,178

Totals may not sum due to rounding

\*Weighted based on the weights as provided in the 2018 SMFP MRI methodology:

- Inpatient with Contrast/Sedation = 1.8
- Inpatient without Contrast/Sedation = 1.4
- Outpatient with Contrast/Sedation = 1.4
- Outpatient without Contrast/Sedation = 1.0

Projected utilization is reasonable and adequately supported for the following reasons:

- the applicant bases future utilization on historical CHS Union County utilization, combined with the Union County Atrium Health patients served in Mecklenburg County,
- the applicant uses an inpatient growth rate equal to the Union County projected population growth rate to adjust for pent-up demand,
- the applicant holds the outpatient utilization constant based on the past utilization combined with the projected population growth, planned initiatives to increase outpatient utilization, and the need for services in western Union County,
- the applicant uses the historical CHS Union HECT unit factor for projecting CT HECT units,
- the applicant uses the applicable weighting factors to project MRI weighted procedures,
- the applicant uses the applicable OR Group, minutes per case, and standard hours per OR for OR utilization projections, and
- the applicant provides adequate information to evaluate the total projected Atrium Health Union County utilization, the projected Atrium Health Union West utilization and the remaining CHS Union hospital utilization.

**Access**

In Section C.11, page 76, the applicant discusses access to the proposed services. The applicant states:

*“CHS Union provides services to all persons in need of medical care, regardless of race, color, religion, national origin, sex, age, disability, or source of payment.”*

The applicant provides its non-discrimination policy documentation in Exhibit C.11 and financial assistance policy documentation in Exhibit L.4. The applicant also refers to CHS Union’s policies promoting bilingual hiring practices and its adherence to the North Carolina State Building Code and federal guidelines for Americans with Disabilities Act.

In Section L, page 121, the applicant provides the historical payor mix for the proposed services during CY2017, as shown in the table below.

**CHS Union Payor Sources  
 CY2017**

<b>Payor Category</b>	<b>Acute Care Days</b>	<b>Med/ Surg Beds</b>	<b>ICU Beds</b>	<b>Obstetrics Beds</b>	<b>Surgical Services</b>	<b>ED</b>	<b>Imaging</b>	<b>Lab/ Therapy /Other</b>
Self-Pay	6.1%	6.7%	6.7%	2.1%	5.1%	20.7%	3.6%	4.3%
Medicare*	53.3%	65.5%	65.5%	1.6%	48.3%	22.9%	46.5%	41.0%
Medicaid*	22.6%	12.2%	12.2%	65.0%	10.8%	30.6%	11.3%	21.4%
Insurance*	16.6%	14.0%	14.0%	30.4%	32.6%	23.2%	36.5%	31.3%
Other (Other Govt, Worker’s compensation)	1.4%	1.6%	1.6%	0.9%	3.2%	2.7%	2.0%	2.0%
<b>Total</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>

Source: Atrium Health internal data

\*Including any managed care plans

Totals may not sum due to rounding

In Section L.1, page 120, the applicant provides a table of the percentage of categories of underserved patients served at CHS Union during CY2017 as compared to those percentages of the total Union County population, as summarized below.

	<b>Percentage of Total Patients Served by the Facility or Campus during the Last Full FY</b>	<b>Percentage of the Population of the Service Area</b>
Female	57.5%	51.0%
Male	42.5%	49.0%
Unknown	0.0%	0.0%
64 and Younger	73.7%	84.3%
65 and Older	26.3%	15.7%
American Indian	1.0%	0.0%
Asian	0.3%	2.6%
Black or African-American	26.3%	12.0%
Native Hawaiian or Pacific Islander	0.0%	0.7%
White or Caucasian	63.6%	82.6%
Other Race	7.8%	2.0%
Declined / Unavailable	0.9%	0.0%

On page 120, the applicant states:

*“While the table above accurately shows the comparison of patients served at the facility in the last year and the percentage in the service area, it does not show the*

*percentage of the population in the service area in need of the services offered at the facility. Specifically, the available population data by age, race and gender does not include information on the number of elderly, minorities, women or handicapped persons that need health services provided at the facility. For example, the elderly utilize health services at a higher rate than the younger population, thus the percentage of elderly patients at CHS Union is higher than the percentage of the population.”*

## **Conclusion**

The Agency reviewed the:

- application,
- exhibits to the application,
- written comments,
- remarks made at the public hearing,
- responses to written comments, and
- information publicly available during the review and used by the Agency.

Based on the review, the Agency concludes that the application is conforming to this criterion for the following reasons:

- The applicant adequately identifies the population to be served for all the reasons discussed above.
- Projected utilization is based on reasonable and adequately supported assumptions for all the reasons discussed above.
- The applicant adequately demonstrates the need the population to be served has for the proposed project for all the reasons discussed above.
- The applicant projects the extent to which all residents, including underserved groups, will have access to the proposed services (payor mix) and adequately supports its assumptions for all the reasons discussed above.

- (3a) In the case of a reduction or elimination of a service, including the relocation of a facility or a service, the applicant shall demonstrate that the needs of the population presently served will be met adequately by the proposed relocation or by alternative arrangements, and the effect of the reduction, elimination or relocation of the service on the ability of low income persons, racial and ethnic minorities, women, handicapped persons, and other underserved groups and the elderly to obtain needed health care.

## C

The applicant proposes to develop a new satellite campus of CHS Union by relocating 40 acute care beds, two ORs, one dedicated C-Section OR, one GI endoscopy room, and one CT scanner from CHS Union to Atrium Health Union West in western Union County. The applicant adequately demonstrates the need to establish the satellite campus based in part on the need for hospital-based healthcare services in western Union County for its Atrium

Health patients. The applicant assumes that the AHUW campus will open in January 2022 and that some acute care and surgical patients will shift from the CHS Union Monroe campus to the new campus, as identified by the applicant in Section Q Form C Assumptions and Methodology.

In Section D, pages 86-87, the applicant states that CHS Union's Monroe campus will continue to offer acute care inpatient services, surgical services, C-Section services, and CT services following completion of the proposed project. The applicant further states that while it believes that it could maintain the existing capacity of its Monroe campus and develop additional capacity at AHUW and that both could be effectively utilized, *"it is constrained by the Certificate of Need law and the criteria and standards for these services."* The applicant states that the concentration of the county's population in the west makes it necessary to relocate services to develop the satellite campus to *"ensure that the needs of its patients are optimally met at both its Monroe campus and Atrium Health Union West."*

In Section Q Forms D and Form C-A&M, pages 35-38, the applicant provides the projected utilization, for acute care inpatient services, inpatient and outpatient surgical services, ICU services, C-Section services, GI endoscopy services and CT services at CHS Union Monroe after completion of the proposed relocation of services to AHUW, as summarized in the following table.

**Historical, Interim, and Projected Utilization at CHS Union**

	<b>PRIOR CY2018</b>	<b>INTERIM CY2019</b>	<b>INTERIM CY2020</b>	<b>INTERIM CY2021</b>	<b>FFY1 CY2022</b>	<b>FFY 2 CY2023</b>	<b>FFY3 CY2024</b>
<b>Total Acute Care Beds</b>							
# of Patient Days	33,255	34,872	36,536	38,248	37,409	37,851	38,298
# of Beds	182	182	182	182	142	142	142
ADC					102	104	105
% Occupancy					72.2%	73.0%	73.9%
<b>ICU Beds</b>							
# of Patient Days	3,402	3,568	3,738	3,913	3,886	3,963	4,041
# of Beds	14	14	14	14	14	14	14
ADC					11	11	11
% Occupancy					76.1%	77.5%	79.1%
<b>CT Scanner</b>							
# of Units	3	3	3	3	2	2	2
# of Scans	24,486	24,631	25,715	26,829	25,832	25,882	25,925
# of HECT Units	38,494	38,722	40,425	42,176	40,609	40,688	40,756
<b>GI Endoscopy Rooms</b>							
# of Rooms	2	2	2	2	1	1	1
# of Procedures	1,582	1,609	1,638	1,666	1,550	1,503	1,454
# of Procedures/Room	791	805	819	833	1,550	1,503	1,454
<b>Operating Rooms</b>							
Dedicated C-Section ORs	2	2	2	2	1	1	1
Shared ORs	6	6	6	6	4	4	4
Total # of ORs	8	8	8	8	5	5	5
<b>Surgical Cases</b>							
# of C-Sections in Dedicated C-S	292	307	322	338	329	332	335
# of Inpatient Cases, excluding C-Secs in Dedicated C-Sec	1,487	1,593	1,702	1,815	1,931	2,021	2,174
# of Outpatient Cases	4,246	4,344	4,444	4,549	4,155	3,973	3,765
Total # Surgical Cases	5,734	5,937	6,147	6,363	6,086	6,024	5,939
<b>Case Times</b>							
Inpatient	127.6	127.6	127.6	127.6	127.6	127.6	127.6
Outpatient	68.2	68.2	68.2	68.2	68.2	68.2	68.2
<b>Surgical Hours</b>							
Inpatient	3,163	3,388	3,620	3,859	4,107	4,362	4,624
Outpatient	4,827	4,937	5,052	5,170	4,723	4,516	4,279
Total Surgical Hours	7,990	8,325	8,672	9,030	8,830	8,878	8,903
<b># of ORs Needed</b>							
Group Assignment	4	4	4	4	4	4	4
Standard Hours per OR per Year	1,500	1,500	1,500	1,500	1,500	1,500	1,500
Total Surgical Hours / Operating Room / Year	5.3	5.6	5.8	6.0	5.9	5.9	5.9
<b>OR Deficit (Surplus)</b>		(0.4)	(0.2)	0.0	1.9	1.9	1.9

Totals may not sum due to rounding

The applicant provides the methodology and assumptions in Section Q Form C A&M, as outlined and discussed in Criterion (3) Projected Utilization. Projected utilization is reasonable and adequately supported for the following reasons:

- the applicant bases future utilization on historical CHS Union County utilization,
- the applicant uses an inpatient growth rate equal to the Union County projected population growth rate,
- the applicant holds the outpatient utilization constant based on the past utilization combined with the projected population growth and planned initiatives to increase outpatient utilization,
- the applicant uses historical CHS Union HECT unit factor for projecting CT HECT units,
- the applicant uses the accurate weighting factors to project MRI weighted procedures,
- the applicant uses the accurate OR Group, minutes per case, and standard hours per OR for OR utilization projections, and
- the applicant provides adequate information to evaluate the total projected Atrium Health Union County utilization, the projected Atrium Health Union West utilization and the remaining CHS Union hospital utilization.

On page 36 of the Section Q Form C-A&M, the applicant states:

*“Consistent with the projected utilization shown in the Surgical Services Utilization of Atrium Health Hospitals in Union County section above, the project utilization at CHS Union demonstrates a deficit of operating rooms beginning in CY 2022. Given the population growth in Union County and expected increase in operating room utilization, Atrium Health anticipates that additional operating room capacity will be needed in future years.”*

In Section D, page 87, the applicant states:

*“If utilization increases sufficiently to permit the development of additional capacity, CHS Union may propose to do so to ensure that the needs of its patients are optimally met at both its Monroe campus and Atrium Health Union West.”*

In Section D, page 90, the applicant further states:

*“For services regulated by the SMFP, CHS Union will apply for those need determinations as they are generated if it needs additional capacity to meet the needs of the patients it serves.”*

### **Conclusion**

The Agency reviewed the:

- application,
- exhibits to the application,

- written comments,
- remarks made at the public hearing,
- responses to written comments, and
- information publicly available during the review and used by the Agency.

Based on the review, the Agency concludes that the applicant adequately demonstrates that:

- The needs of the population currently using the services to be relocated will be adequately met following project completion.
- The project will not adversely impact the ability of underserved groups to access these services following project completion.

- (4) Where alternative methods of meeting the needs for the proposed project exist, the applicant shall demonstrate that the least costly or most effective alternative has been proposed.

#### CA

The applicant proposes to develop a new satellite campus of CHS Union by relocating 40 acute care beds, two ORs, one dedicated C-Section OR, one GI endoscopy room, and one CT scanner from CHS Union to AHUW in western Union County.

In Section E.2, pages 91-92, the applicant describes the alternatives considered and explains why each alternative is either more costly or less effective than the alternative proposed in this application to meet the need. The alternatives considered were:

1. Maintain the status quo: continue to operate one inpatient hospital in Union County - the applicant states that given the Union County population growth, particularly in the western portion, and the increased need for hospital-based services, the status quo fails to expand geographic and temporal access to the patients in the western part of the county; therefore, this was not considered an effective alternative.
2. Develop the satellite hospital at another location – the applicant states that the eastern portion of Union County also lacks proximate access to a hospital; however, the size of the population and its need for hospital-based services is too small to support a hospital at this time. The applicant also states that the particular site selected in western Union County met all the applicant’s criteria for a new satellite location, including improving access.
3. Develop the satellite hospital with a different number of beds and/or services – the applicant states that a smaller facility would likely not meet the need of the local physicians and their patients and though the applicant believes a hospital with more beds could be supported, it believes a more conservatively-sized (and less costly) hospital is a more effective approach. The applicant also states that the proposed number of ORs, equipment and services are what is needed to complement the 40 acute care beds.

The applicant adequately demonstrates that the alternative proposed in this application is the most effective alternative to meet the identified need for the following reasons:

- the applicant adequately demonstrates that the proposed alternative meets the identified need for the project,
- the applicant provides adequate documentation regarding the development of the proposed project, including all related costs, and
- the data cited is reasonable and supports the assumptions made with regard to the least costly or most effective alternative for development of the proposed project.

### **Conclusion**

The Agency reviewed the:

- application,
- exhibits to the application,
- written comments,
- remarks made at the public hearing,
- responses to written comments, and
- information publicly available during the review and used by the Agency.

Based on that review, the Agency concludes that the application is conforming to this criterion for the reasons stated above. Therefore, the application is approved subject to the following conditions:

- 1. The Charlotte-Mecklenburg Hospital Authority shall materially comply with all representations made in the certificate of need application.**
- 2. The Charlotte-Mecklenburg Hospital Authority shall develop a new satellite campus of CHS Union by relocating no more than 40 acute care beds, two ORs, one dedicated C-Section OR, one GI endoscopy room, and one CT scanner from CHS Union to Atrium Health Union West.**
- 3. Upon completion of the project, Atrium Health Union West shall be licensed as a satellite campus of CHS Union, License #H0050, with no more than 40 acute care beds, two ORs, one dedicated C-Section OR, one GI endoscopy room, and one CT scanner. CHS Union Hospital, License #H0050, shall be licensed for no more than 182 acute care beds, six ORs, two dedicated C-Section ORs, two GI endoscopy rooms, and three CT scanners.**
- 4. The Charlotte-Mecklenburg Hospital Authority shall not acquire as part of this project any equipment that is not included in the project's proposed capital expenditures in Section Q of the application and that would otherwise require a certificate of need.**



5. **The Charlotte-Mecklenburg Hospital Authority shall develop and implement an Energy Efficiency and Sustainability Plan for the project that conforms to or exceeds energy efficiency and water conservation standards incorporated in the latest editions of the North Carolina State Building Codes.**
  
  6. **No later than three months after the last day of each of the first three full years of operation following initiation of the services authorized by this certificate of need, The Charlotte-Mecklenburg Hospital Authority shall submit, on the form provided by the Healthcare Planning and Certificate of Need Section, an annual report containing the:**
    - a. **Payor mix for the services authorized in this certificate of need.**
    - b. **Utilization of the services authorized in this certificate of need.**
    - c. **Revenues and operating costs for the services authorized in this certificate of need.**
    - d. **Average gross revenue per unit of service.**
    - e. **Average net revenue per unit of service.**
    - f. **Average operating cost per unit of service.**
  
  7. **The Charlotte-Mecklenburg Hospital Authority shall acknowledge acceptance of and agree to comply with all conditions stated herein to the Agency in writing prior to issuance of the certificate of need.**
- (5) Financial and operational projections for the project shall demonstrate the availability of funds for capital and operating needs as well as the immediate and long-term financial feasibility of the proposal, based upon reasonable projections of the costs of and charges for providing health services by the person proposing the service.

C

The applicant proposes to develop a new satellite campus of CHS Union by relocating 40 acute care beds, two ORs, one dedicated C-Section OR, one GI endoscopy room, and one CT scanner from CHS Union to AHUW in western Union County.

### **Capital and Working Capital Costs**

In Section Q, Form F.1a, the applicant states the total capital cost for the proposed project is projected to be as follows:

#### **Atrium Health Union West Capital Cost**

<b>Cost Category</b>	<b>Projected Capital Cost</b>
Site Costs	\$14,859,879
Construction/Renovation	\$64,964,447
Miscellaneous	\$36,389,005
<b>TOTAL CAPITAL COST</b>	<b>\$116,213,331</b>

Source: Section Q, Form F.1a of the application.

In Section Q, Form F.1a, the applicant provides the assumptions used to project the capital costs. Exhibit F.1 contains an October 10, 2018 statement from a licensed North Carolina architect documenting the above capital costs.

In Section F.3, pages 95-96, the applicant states that the proposed project does not involve any start-up or initial operating expenses because the proposed hospital will be licensed as a satellite campus of CHS Union; therefore the expenses incurred prior to the opening of the facility will be operational costs to CHS Union.

### **Availability of Funds**

In Section F.2, page 94, the applicant states:

*“The proposed project will be funded with accumulated reserves of CMHA d/b/a Atrium Health.”*

Exhibit F.2-1 contains a letter from the Chief Financial Officer of Atrium Health documenting the availability of \$116,213,331 in accumulated reserves for the proposed project. The availability of the funds is reflected in The Charlotte-Mecklenburg Hospital Authority (d/b/a Atrium Health) 2017 Audited Financial Statements provided in Exhibit F.2-2, showing cash and cash equivalents of \$131,540,000, current assets of \$1,124,103,000, and a net position of \$5,153,843. The applicant adequately demonstrates that sufficient funds will be available for the capital needs of the project.

**Financial Feasibility**

The applicant projects that total proposed revenues will exceed operating expenses in the third full fiscal year of operation for the satellite campus, including medical/surgical beds, ICU beds, obstetrical beds, OR services, GI Endoscopy services, emergency services, and all other imaging and ancillary services. The following table shows the projected total revenues and total expenses for the AHUW satellite campus, as summarized below from Section Q.

**Atrium Health Union West  
 Projected Revenue and Expenses  
 Entire Satellite Campus**

	<b>FFY1 CY2022</b>	<b>FFY2 CY2023</b>	<b>FFY3 CY2024</b>
Total Hospital Days of Care*	4,781	7,296	9,899
Total Gross Revenues (Charges)	\$116,573,499	\$184,032,560	\$258,426,442
Total Contractual Adjustments**	\$91,586,616	\$145,281,007	\$204,993,662
Total Net Patient Revenue	\$24,986,883	\$38,751,554	\$53,432,781
Other Revenue	\$111,110	\$175,407	\$246,314
Total Revenue	\$25,097,993	\$38,926,961	\$53,679,095
Average Net Revenue per Admission	\$5,226	\$5,311	\$5,398
Total Operating Expenses (Costs)	\$31,540,984	\$39,782,840	\$49,313,237
Average Operating Expense per Hospital Days of Care	\$6,597	\$5,453	\$4,982
Net Income	(\$6,442,991)	(\$855,880)	\$4,365,858

\*Hospital Days of Care include days of care in Medical/Surgical beds, ICU beds and obstetrics beds. Other services contributing to the total revenue and total expenses for AHUW are as follows:

	<b>FFY1</b>	<b>FFY2</b>	<b>FFY3</b>
Total Surgical Services Cases (OR/GI/PR)	1,145	1,783	2,466
Total ED Visits	7,010	10,656	14,449
Total Imaging Procedures	16,673	25,447	34,524
Total Therapy/Lab/Other Tests	65,501	99,973	135,633

\*\* Includes Charity Care and Bad Debt

The assumptions used by the applicant in preparation of the pro forma financial statements are reasonable, including projected utilization, costs and charges. See Section Q of the application for the assumptions used regarding costs and charges. The discussion regarding projected utilization found in Criterion (3) is incorporated herein by reference.

The assumptions for the Atrium Health Union West financials are provided in Section Q.

**Conclusion**

The Agency reviewed the:

- application,
- exhibits to the application,
- written comments, and
- responses to written comments.

Based on the review, the Agency concludes that the application is conforming to this criterion for the following reasons:

- the applicant adequately demonstrates that the capital costs are based on reasonable and adequately supported assumptions,
  - the applicant adequately demonstrates availability of sufficient funds for the capital needs of the proposal, and
  - the applicant adequately demonstrates sufficient funds for the operating needs of the proposal and that the financial feasibility of the proposal is based upon reasonable projections of costs and charges.
- (6) The applicant shall demonstrate that the proposed project will not result in unnecessary duplication of existing or approved health service capabilities or facilities.

C

The applicant proposes to develop a new satellite campus of CHS Union by relocating 40 acute care beds, two ORs, one dedicated C-Section OR, one GI endoscopy room, and one CT scanner from CHS Union to Atrium Health Union West in western Union County.

Pages 38 and 57 of the 2018 SMFP define the service area for acute care beds and operating rooms, respectively. Both are defined as the planning area in which the bed or operating room is located. The acute care bed planning areas are the single and multicounty groupings shown in Figure 5.1. The operating room planning areas are the single and multicounty groupings shown in Figure 6.1. The existing CHS Union facility and the proposed AHUW satellite campus are located in Union County. Thus, the service area for the proposed satellite campus consists of Union County. Facilities may also serve residents of counties not included in their service area.

The 2018 SMFP provides the following information relative to acute care hospital and operating room services in Union County.

**Acute Care Beds**

Provider	Licensed & Adjustments for CONs	2016 Acute Care Days
Carolinas HealthCare System Union	182	33,358

Source: 2018 SMFP, page 49

**Operating Rooms**

<b>Provider</b>	<b>Inpatient ORs*</b>	<b>Ambulatory ORs</b>	<b>Shared ORs</b>	<b>2016 Inpatient Cases</b>	<b>2016 Ambulatory Cases</b>	<b>2016 Surgical Hours</b>
Union West Surgery Center (Group 5)	0	2	0	0	2,744	1,372.0
CHS Union (Group 4)	2		6	1,453	4,987	8,758.6
Presbyterian SameDay Surgery Center-Monroe (closed)	0	1	0	0	0	0

Source: 2018 SMFP, pages 70 and 77

\*The two CHS Union Inpatient ORs are two excluded C-Section ORs

**GI Endoscopy Procedure Rooms**

<b>Provider</b>	<b>Adjusted Planning Inventory</b>	<b>Endoscopy Cases</b>	<b>Endoscopy Procedures</b>
Carolina Endoscopy Center-Monroe	2	4,359	4,752
Carolinas HealthCare System Union	2	1,060	1,702

Source: 2018 SMFP, page 91

The 2018 SMFP does not provide utilization of the other types of services or assets proposed at the AHUW satellite campus: observation beds, procedure rooms, emergency department, imaging (including CT and leased mobile MRI services), or other diagnostic or therapy services.

In Section G, pages 101-102, the applicant explains why it believes its proposal would not result in the unnecessary duplication of existing or approved acute care services in the Union County service area. On page 101, the applicant states:

*“CHS Union is the only provider of acute care beds, dedicated C-Section rooms, CT equipment, or emergency department services in Union County.*

*In addition to CHS Union, there are two other facilities with operating rooms in Union County: Union West Surgery Center and Presbyterian Same Day Surgery Center at Monroe, which are both ambulatory surgery centers. Please note that Presbyterian Same Day Surgery Center at Monroe has been closed since 2013. There is one other GI endoscopy provider in Union County: Carolina Endoscopy Center at Monroe.”*

The proposed project includes acute care beds (medical/surgical, obstetrics and ICU), operating rooms, including one C-Section room, a GI endoscopy room and a procedure room, emergency department services, CT and other imaging services, ancillary and other services needed to support the proposed hospital. On page 102, the applicant states:

*“The majority of these services involve the relocation of existing regulated assets from CHS Union to the proposed Atrium Health Union West. Specifically, acute care beds, operating rooms, a GI endoscopy room, and CT scanner will be relocated from CHS Union and will not be new to the county.”*

The applicant further states that while the services will be new to the western part of Union County and the proposed hospital site, the proposed patient population needs and currently utilizes these services, either at CHS Union or elsewhere and the relocation of the services will improve accessibility to the services for those patients. The applicant also references other counties with even smaller populations than Union, such as Iredell and Johnston, that have multiple hospitals in the county, stating:

*“Just as these facilities are not unnecessarily duplicative of each other, the proposed hospital is needed by the population it proposes to serve, will largely be developed through the relocation of existing beds and other regulated assets, and will not unnecessarily duplicate existing health services in Union County.”*

The applicant adequately demonstrates that the proposal would not result in an unnecessary duplication of existing or approved services in the service area for the following reasons:

- the applicant adequately demonstrates that the relocation of the existing CHS Union regulated services and equipment will not increase the total inventory of services and equipment at Atrium Health or in the service area of Union County, and
- the applicant adequately demonstrates the need the population to be served has for the relocation of the regulated services/equipment, and the additional unregulated services/equipment needed for the development of a new CHS Union satellite campus in the western part of the county.

### **Conclusion**

The Agency reviewed the:

- application,
- exhibits to the application,
- written comments,
- remarks made at the public hearing,
- responses to written comments, and
- information publicly available during the review and used by the Agency.

Based on that review, the Agency concludes that the application is conforming to this criterion for all the reasons stated above.

- (7) The applicant shall show evidence of the availability of resources, including health manpower and management personnel, for the provision of the services proposed to be provided.

C

The applicant proposes to develop a new satellite campus of CHS Union by relocating 40 acute care beds, two ORs, one dedicated C-Section OR, one GI endoscopy room, and one CT scanner from CHS Union to AHUW in western Union County. In Section Q, the applicant

provides a Form H for the proposed staffing at AHUW, showing full-time equivalent (FTE) positions, as summarized in the following table.

**AHUW Service Components Staffing**

<b>Position</b>	<b>CY2022 FTE</b>	<b>CY2023 FTE</b>	<b>CY2024 FTE</b>
<b>Medical/Surgical</b>			
RN	12.60	16.80	16.80
NA II	4.20	4.20	4.20
Total Med/Surg	16.80	21.00	21.00
<b>ICU</b>			
RN	10.50	10.50	12.60
Total ICU	10.50	10.50	12.60
<b>Obstetrics</b>			
RN	12.60	12.60	12.60
Scrub Tech I	4.20	4.20	4.20
Unit Coordinator	4.20	4.20	4.20
Lactation Consultant	0.25	0.25	0.25
Total OB	21.25	21.25	21.25
<b>Operating Room</b>			
RN	6.50	7.50	8.50
Surg Tech I	2.50	3.00	4.50
CRNA	5.00	5.00	5.00
Total OR	14.00	15.50	18.00
<b>Emergency Department</b>			
RN	10.50	10.50	12.60
NA II	0.00	2.10	2.10
Total ED	10.50	12.60	14.70
<b>Imaging</b>			
Diag/CT Tech	4.20	4.20	4.20
Ultrasound Tech	4.20	4.20	4.20
Nuclear Med Tech	1.50	1.50	2.00
ECHO Tech	0.50	1.00	1.00
EEG Tech	0.50	0.50	0.50
Total Imaging	10.90	11.40	11.90
<b>PT/OT/Other Diagnostic</b>			
Physical Therapist	0.90	0.90	0.90
Occupational therapist	0.25	0.25	0.50
Speech Therapist	0.50	0.50	0.50
Pharmacist	1.00	1.00	1.00
Pharm Tech II	1.50	1.50	1.50
Total PT/OT/Other Diagnostic	4.15	4.15	4.40
<b>Other Staff</b>	76.90	84.10	94.75
<b>Total Staffing</b>	<b>165.00</b>	<b>180.50</b>	<b>198.60</b>

The assumptions and methodology used to project staffing are provided in Section Q. Adequate costs for the health manpower and management positions proposed by the applicant are budgeted in the Forms F.4 for the service components, which are found in Section Q. In Section H.2-3, pages 104-105, the applicant describes Atrium Health's experience and process for recruiting and retaining staff and its proposed training and continuing education programs. In Section H.4, pages 105-106, the applicant discusses physician coverage needed for the project. On page 105, the applicant identifies Shawn Morrow, M.D., as the current Chief of Staff for CHS Union. A letter expressing support and willingness to continue to serve in this role is included in Exhibit H.4. In Section H.4, page 106, the applicant refers to Section C.4 for a description of CHS Union's physician recruitment plans. In Section C.4, pages 63-70, the applicant describes its planned initiatives for Union County, including physician recruitment.

The applicant adequately demonstrates the availability of sufficient health manpower and management personnel to provide the proposed services.

### **Conclusion**

The Agency reviewed the:

- application, and
- exhibits to the application.

Based on that review, the Agency concludes that the application is conforming to this criterion for the reasons stated above.

- (8) The applicant shall demonstrate that the provider of the proposed services will make available, or otherwise make arrangements for, the provision of the necessary ancillary and support services. The applicant shall also demonstrate that the proposed service will be coordinated with the existing health care system.

### C

In Section I.1, page 107, the applicant states that the necessary ancillary and support services for the proposed services include, but are not limited to:

- radiology and diagnostic imaging,
- laboratory,
- pharmacy,
- physical/occupational/speech/respiratory/rehabilitation therapy,
- dietary/nutritional services,
- administration,
- housekeeping, plant operations, and maintenance, and
- human resources, patient coding, and accounting.



In Section I.1(b), pages 107-108, the applicant explains how the necessary services will be made available. Exhibit I.1 contains a letter from the President of CHS Union, documenting that all ancillary services necessary to support the proposed project will be available on site.

The applicant adequately demonstrates that necessary ancillary and support services are available and that the proposed services will be coordinated with the existing health care system.

### **Conclusion**

The Agency reviewed the:

- application, and
- exhibits to the application.

Based on that review, the Agency concludes that the application is conforming to this criterion.

- (9) An applicant proposing to provide a substantial portion of the project's services to individuals not residing in the health service area in which the project is located, or in adjacent health service areas, shall document the special needs and circumstances that warrant service to these individuals.

NA

The applicant does not project to provide the proposed services to a substantial number of persons residing in Health Service Areas (HSAs) that are not adjacent to the HSA in which the services will be offered. Furthermore, the applicants do not project to provide the proposed services to a substantial number of persons residing in other states that are not adjacent to the North Carolina county in which the services will be offered. Therefore, this criterion is not applicable to this review. Therefore, Criterion (9) is not applicable to this review.

- (10) When applicable, the applicant shall show that the special needs of health maintenance organizations will be fulfilled by the project. Specifically, the applicant shall show that the project accommodates: (a) The needs of enrolled members and reasonably anticipated new members of the HMO for the health service to be provided by the organization; and (b) The availability of new health services from non-HMO providers or other HMOs in a reasonable and cost-effective manner which is consistent with the basic method of operation of the HMO. In assessing the availability of these health services from these providers, the applicant shall consider only whether the services from these providers:
- (i) would be available under a contract of at least 5 years duration;
  - (ii) would be available and conveniently accessible through physicians and other health professionals associated with the HMO;
  - (iii) would cost no more than if the services were provided by the HMO; and
  - (iv) would be available in a manner which is administratively feasible to the HMO.

NA

The applicant is not an HMO. Therefore, Criterion (10) is not applicable to this review.

- (11) Repealed effective July 1, 1987.
- (12) Applications involving construction shall demonstrate that the cost, design, and means of construction proposed represent the most reasonable alternative, and that the construction project will not unduly increase the costs of providing health services by the person proposing the construction project or the costs and charges to the public of providing health services by other persons, and that applicable energy saving features have been incorporated into the construction plans.

C

The applicant proposes to develop a new satellite campus of CHS Union by relocating 40 acute care beds, two ORs, one dedicated C-Section OR, one GI endoscopy room, and one CT scanner from CHS Union to AHUW in western Union County. In Section K, page 111, the applicant states that the project involves constructing 150,000 square feet of new hospital space. Exhibit C.1-2 contains the proposed line drawings for AHUW. Exhibit C.1-1 contains CHS Union line drawings, as the facility exists today, and the proposed line drawings for CHS Union after the relocation of the proposed services.

On page 112, the applicant adequately explains how the cost, design and means of construction represents the most reasonable alternative for the proposal and provides supporting documentation in Section Q and Exhibits C.2, F, and K.

On page 112, the applicant adequately explains why the proposal will not unduly increase the costs to the applicants of providing the proposed services or the costs and charges to the public for the proposed services and provides supporting documentation in Section Q and Exhibit F.

On pages 112-113, the applicant identifies any applicable energy saving features that will be incorporated into the renovation plans. In accordance with Policy GEN-4, the applicant states:

*“Atrium Health is committed to energy efficiency and sustainability that balances the need for healthcare services and environmental sustainability in the communities it serves.”*

The applicant further states that CHS Union has demonstrated its commitment to a higher standard of excellence and will continue to do so relative to the proposed project, working with experienced architects and engineers to develop the proposed project to ensure energy efficient systems are an inherent part of the proposed project.

On pages 114-116, the applicant identifies the proposed site and provides information about the current owner, zoning and special use permits for the site, and the availability of water, sewer and waste disposal and power at the site.

### **Conclusion**

The Agency reviewed the:

- application, and
- exhibits to the application.

Based on that review, the Agency concludes that the application is conforming to this criterion for the reasons stated above.

- (13) The applicant shall demonstrate the contribution of the proposed service in meeting the health-related needs of the elderly and of members of medically underserved groups, such as medically indigent or low income persons, Medicaid and Medicare recipients, racial and ethnic minorities, women, and handicapped persons, which have traditionally experienced difficulties in obtaining equal access to the proposed services, particularly those needs identified in the State Health Plan as deserving of priority. For the purpose of determining the extent to which the proposed service will be accessible, the applicant shall show:
- (a) The extent to which medically underserved populations currently use the applicant's existing services in comparison to the percentage of the population in the applicant's service area which is medically underserved;

### C

The applicant proposes to develop a new satellite campus of CHS Union by relocating 40 acute care beds, two ORs, one dedicated C-Section OR, one GI endoscopy room, and one CT scanner from CHS Union to AHUW in western Union County. In Section L.1(b), page 121, the applicant provides the historical CY2017 payor mix for the CHS Union, as a whole, and for each of the project's service components, as shown below.

Payor Source	CHS Union Total Acute Care Days	Med/Surg Beds	ICU Beds	Obstetrics Beds	Surgical Services	ED	Imaging	Lab/Therapy/Other
Self-Pay	6.1%	6.7%	6.7%	2.1%	5.1%	20.7%	3.6%	4.3%
Charity Care^								
Medicare*	53.3%	65.5%	65.5%	1.6%	48.3%	22.9%	46.5%	41.0%
Medicaid*	22.6%	12.2%	12.2%	65.0%	10.8%	30.6%	11.3%	21.4%
Insurance*	16.6%	14.0%	14.0%	30.4%	32.6%	23.2%	36.5%	31.3%
Workers Comp^^								
Tricare^^								
Other^^	1.4%	1.6%	1.6%	0.9%	3.2%	2.7%	2.0%	2.0%
<b>TOTAL</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>

\*Including managed care plans

^Charity care is not considered a separate payor source for Atrium Health

^^Other includes Workers Compensation and TRICARE

Totals may not sum due to rounding

In Section L.1, page 120, the applicants provide the following comparison of CHS Union's percentage of total patients to the percentages of population totals of the service area.

	Percentage of Total Patients Served by CHS Union during CY2017	Percentage of the Population of the Union County Service Area
Female	57.5%	51.0%
Male	42.5%	49.0%
Unknown	0.0%	0.0%
64 and Younger	73.7%	84.3%
65 and Older	26.3%	15.7%
American Indian	1.0%	0.0%
Asian	0.3%	2.6%
Black or African-American	26.3%	12.0%
Native Hawaiian or Pacific Islander	0.0%	0.7%
White or Caucasian	63.6%	82.6%
Other Race	7.8%	2.0%
Declined / Unavailable	0.9%	0.0%

Exhibit L.4 includes Atrium Health's financial policies including a copy of Atrium Health's EMTALA Compliance, and Patient Transfers Policy.

The Agency reviewed the:

- application, and
- exhibits to the application.

Based on that review, the Agency concludes that the applicant adequately documents the extent to which medically underserved populations currently use the applicant's existing services in comparison to the percentage of the population in the applicant's

service area which is medically underserved. Therefore, the application is conforming to this criterion.

- (b) Its past performance in meeting its obligation, if any, under any applicable regulations requiring provision of uncompensated care, community service, or access by minorities and handicapped persons to programs receiving federal assistance, including the existence of any civil rights access complaints against the applicant;

C

Regarding any obligation to provide uncompensated care, community service or access by minorities and persons with disabilities, in Section L.2, page 122, the applicant states that CHS Union is not obligated under any applicable federal regulations to provide uncompensated care, community service, or access by minorities and handicapped persons. The applicant states that CHS Union provides and will continue to provide services to all persons in need of medical care, regardless of race, color, religion, national origin, sex, age, disability, or source of payment. The applicant provides copies of its charity care and financial assistance policies in Exhibit L.4.

In Section L.2(c), page 122, the applicant states that no complaints regarding civil rights equal access have been filed against any affiliated entity of CHS Union in the last five years.

The Agency reviewed the:

- application, and
- exhibits to the application.

Based on that review, the Agency concludes that the application is conforming to this criterion.

- (c) That the elderly and the medically underserved groups identified in this subdivision will be served by the applicant's proposed services and the extent to which each of these groups is expected to utilize the proposed services; and

C

In Exhibit L.3, page 123, the applicant provides a table showing the projected payor mix for the AHUW campus and the project's service components in the second full fiscal year, CY2023, as summarized below.

Payor Source	AHUW Total Acute Care Days	Med/Surg Beds	ICU Beds	Obstetrics Beds	Surgical Services	ED Services	Imaging Services	Lab/Therapy/Other
Self-Pay	6.8%	7.4%	7.4%	1.9%	6.5%	21.5%	3.9%	4.3%
Charity Care^								
Medicare*	48.4%	53.7%	53.7%	1.5%	46.8%	22.0%	43.8%	41.0%
Medicaid*	22.7%	18.3%	18.3%	61.9%	9.3%	30.6%	11.3%	21.5%
Insurance*	20.8%	19.3%	19.3%	33.9%	34.4%	23.0%	38.9%	31.3%
Workers Comp^^								
Tricare^^								
Other^^	1.3%	1.3%	1.3%	0.8%	2.9%	2.8%	2.1%	1.9%
<b>TOTAL</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>

\*Including managed care plans

^Charity care is not considered a separate payor source for Atrium Health

^^Other includes Workers Compensation and TRICARE

Totals may not sum due to rounding

As shown in the table above, during the second full fiscal year of operation, the applicant projects 6.8% of proposed AHUW Hospital services will be provided to self-pay, 48.4% to Medicare patients and 22.7% to Medicaid patients. For Med/Surg and ICU services, the applicant projects self-pay of 7.4%, Medicare of 53.7% and Medicaid of 18.3%. For surgical services, the applicant projects self-pay of 6.5%, Medicare of 46.8% and Medicaid of 9.3%. ED services are expected to be 21.5% self-pay, 22.0% Medicare and 30.6% Medicaid.

On page 123, the applicant states:

*“Projected payor mix for each service is based on CHS Union CY2017 payor mix for the patients from the geographies identified in the Form C Methodology and Assumptions for the services to be provided at the proposed facility.”*

Exhibit L.4 includes Atrium Health’s financial assistance policies. The projected payor mix is reasonable and adequately supported for the following reasons:

- the projected payor mix is based on the historical payor mix of patients in the applicant’s defined service area, and
- the applicant adequately demonstrates that medically underserved populations will have access to the proposed services.

The Agency reviewed the:

- application,
- exhibits to the application,
- written comments, and
- responses to written comments.

Based on that review, the Agency concludes that the application is conforming to this criterion.

- (d) That the applicant offers a range of means by which a person will have access to its services. Examples of a range of means are outpatient services, admission by house staff, and admission by personal physicians.

C

In Section L.5, page 124, the applicant describes the range of means by which a person will have access to the proposed services.

The Agency reviewed the:

- application, and
- exhibits to the application.

Based on that review, the Agency concludes that the application is conforming to this criterion.

- (14) The applicant shall demonstrate that the proposed health services accommodate the clinical needs of health professional training programs in the area, as applicable.

C

In Section M, pages 126-128, the applicant describes the extent to which health professional training programs in the area have access to the facility for training purposes. The applicant lists the professional training programs it affiliates with on pages 126-127. The applicant states:

*“These existing relationships will extend to the proposed Atrium Health Union West as well. CHS Union is committed to accommodating clinical needs of health professionals as evidenced by the number of affiliations currently in existence.”*

The Agency reviewed the:

- application,
- exhibits to the application, and
- remarks made at the public hearing.

Based on that review, the Agency concludes that the applicant adequately demonstrates the proposed services will accommodate the clinical needs of health professional training programs in the area. Therefore, the applicant adequately demonstrates that the application is conforming to this criterion.

- (15) Repealed effective July 1, 1987.
  - (16) Repealed effective July 1, 1987.
  - (17) Repealed effective July 1, 1987.
  - (18) Repealed effective July 1, 1987.
- (18a) The applicant shall demonstrate the expected effects of the proposed services on competition in the proposed service area, including how any enhanced competition will have a positive impact upon the cost effectiveness, quality, and access to the services proposed; and in the case of applications for services where competition between providers will not have a favorable impact on cost-effectiveness, quality, and access to the services proposed, the applicant shall demonstrate that its application is for a service on which competition will not have a favorable impact.

C

The applicant proposes to develop a new satellite campus of CHS Union by relocating 40 acute care beds, two ORs, one dedicated C-Section OR, one GI endoscopy room, and one CT scanner from CHS Union to Atrium Health Union West in western Union County.

Pages 38 and 57 of the 2018 SMFP define the service area for acute care beds and operating rooms, respectively. Both are defined as the planning area in which the bed or operating room is located. The acute care bed planning areas are the single and multicounty groupings shown in Figure 5.1. The operating room planning areas are the single and multicounty groupings shown in Figure 6.1. The existing CHS Union facility and the proposed Atrium Health Union West satellite campus are located in Union County. Thus, the service area for the proposed satellite campus consists of Union County. Facilities may also serve residents of counties not included in their service area.

The 2018 SMFP provides the following information relative to acute care hospital and operating room services in Union County.

**Acute Care Beds**

Provider	Licensed & Adjustments for CONs	2016 Acute Care Days
Carolinas HealthCare System Union	182	33,358

Source: 2018 SMFP, page 49



**Operating Rooms**

<b>Provider</b>	<b>Inpatient ORs*</b>	<b>Ambulatory ORs</b>	<b>Shared ORs</b>	<b>2016 Inpatient Cases</b>	<b>2016 Ambulatory Cases</b>	<b>2016 Surgical Hours</b>
Union West Surgery Center (Group 5)	0	2	0	0	2,744	1,372.0
CHS Union (Group 4)	2		6	1,453	4,987	8,758.6
Presbyterian SameDay Surgery Center-Monroe (closed)	0	1	0	0	0	0

Source: 2018 SMFP, pages 70 and 77

\*The two CHS Union Inpatient ORs are two excluded C-Section ORs

**GI Endoscopy Procedure Rooms**

<b>Provider</b>	<b>Adjusted Planning Inventory</b>	<b>Endoscopy Cases</b>	<b>Endoscopy Procedures</b>
Carolina Endoscopy Center-Monroe	2	4,359	4,752
Carolinas HealthCare System Union	2	1,060	1,702

Source: 2018 SMFP, page 91

The 2018 SMFP does not provide utilization of the other types of services or assets proposed at the AHUW satellite campus: observation beds, procedure rooms, emergency department, imaging (including CT and mobile MRI), or other diagnostic services.

In Section N, pages 129-132 of the application, the applicant describes the expected effects of the proposed services on competition in the service area and discusses how any enhanced competition in the service area will promote the cost-effectiveness, quality and access to the proposed services. On page 129, the applicant states:

*“In particular, the proposed project is being developed in an effort to appropriately balance access, quality and cost-effectiveness. Unlimited access is too costly, but the least expensive method of providing care may too severely restrict access and may not always result in the highest quality of care.”*

The applicant further states that the project is intended to balance the need for improved access with the cost of developing another inpatient campus in Union County. On pages 129-131, the applicant states:

*“As part of Atrium Health, the proposed hospital - and its patients – will benefit from the cost savings available to it as part of a larger system.*

...

*Atrium Health, including CHS Union, is known for providing high quality services and the proposed project is expected to expand access to acute care services while bolstering its high quality reputation.*

...

*The proposed project is designed to expand and improve access to all patients, including the medically underserved, particularly geographic and temporal access to the hospital-based services proposed in the application..”*

The applicant adequately describes the expected effects of the proposed services on competition in the service area and adequately demonstrate:

- the cost-effectiveness of the proposal (see Sections F and Q of the application and any referenced exhibits),
- quality services will be provided (see Section O of the application and any referenced exhibits), and
- access will be provided to underserved groups (see Section L of the application and any referenced exhibits).

### **Conclusion**

The Agency reviewed the:

- application,
- exhibits to the application,
- written comments,
- remarks made at the public hearing, and
- information publicly available during the review and used by the Agency.

Based on that review, the Agency concludes that the application is conforming to this criterion for the reasons stated above.

- (19) Repealed effective July 1, 1987.
- (20) An applicant already involved in the provision of health services shall provide evidence that quality care has been provided in the past.

### C

In Exhibit O.3, the applicant lists the health care facilities currently owned, operated, or managed by Atrium Health in North Carolina, including numerous acute care hospitals, ambulatory surgery centers, GI Endoscopy centers, imaging centers, clinics, and physician practices. The applicant states in Section O.3 (b and c), page 136, that none of Atrium Health's acute care hospitals have been deemed out of compliance with any Medicare Conditions of Participation during the 18-month look-back period.

According to the files in the Acute and Home Care Licensure and Certification Section, DHSR, incidents related to quality of care occurred at four of the Atrium Health related facilities, all of which were back in compliance at the time of the submission of the project under review. After reviewing and considering information provided by the applicants and by the Acute and Home Care Licensure and Certification Section and considering the quality

of care provided at all Atrium Health owned, operated, and managed facilities, the applicant provided sufficient evidence that quality care has been provided in the past. Therefore, the application is conforming to this criterion.

- (21) Repealed effective July 1, 1987.
- (b) The Department is authorized to adopt rules for the review of particular types of applications that will be used in addition to those criteria outlined in subsection (a) of this section and may vary according to the purpose for which a particular review is being conducted or the type of health service reviewed. No such rule adopted by the Department shall require an academic medical center teaching hospital, as defined by the State Medical Facilities Plan, to demonstrate that any facility or service at another hospital is being appropriately utilized in order for that academic medical center teaching hospital to be approved for the issuance of a certificate of need to develop any similar facility or service.

The applicant proposes to develop a new satellite campus of CHS Union by relocating 40 acute care beds, two ORs, one dedicated C-Section OR, one GI endoscopy room, and one CT scanner from CHS Union to AHUW in Stallings.

The Criteria and Standards for Acute Care Beds as promulgated in 10A NCAC 14C .3800 are not applicable because the applicant does not propose to develop new acute care beds. The applicant does not propose to increase the number of acute care beds in the service area; rather the applicant proposes to relocate existing Atrium Health Union County acute care beds.

The Criteria and Standards for Computed Tomography Equipment promulgated in 10A NCAC 14C .2300 are not applicable to this review. The applicant does not propose to increase the CT equipment in the service area; rather the applicant proposes to relocate an existing unit of Atrium Health Union County CT equipment.

The Criteria and Standards for Gastrointestinal Endoscopy Procedure Rooms in Licensed Health Service Facilities promulgated in 10A NCAC 14C .3900 are not applicable to this review. The applicant does not propose to develop an ambulatory surgery facility or increase the number of GI endoscopy procedure rooms in the service area; rather the applicant proposes to relocate one existing Atrium Health Union County GI endoscopy procedure room within Union County.

The application submitted by Atrium Health is conforming with all applicable Criteria and Standards for Intensive Care Services promulgated in 10A NCAC 14C .1200. The specific criteria are discussed below.

**SECTION .1200 – CRITERIA AND STANDARDS FOR INTENSIVE CARE SERVICES**

**10A NCAC 14C .1203 PERFORMANCE STANDARDS**

(a) *The applicant shall demonstrate that the proposed project is capable of meeting the following standards:*

(1) *the overall average annual occupancy rate of all intensive care beds in the facility, excluding neonatal and pediatric intensive care beds, over the 12 months immediately preceding the submittal of the proposal, shall have been at least 70 percent for facilities with 20 or more intensive care beds, 65 percent for facilities with 10-19 intensive care beds, and 60 percent for facilities with 1-9 intensive care beds; and*

-C- On pages 79-80, the applicant provides data showing CHS Union’s 14 ICU beds operated at 66.1% occupancy for the 12 months immediately preceding this application (July 1, 2017 - June 30, 2018), as summarized below. This exceeds the 65% average annual occupancy rate required for facilities operating with 10-19 intensive care beds.

**CHS Union  
7/1/17 – 6/30/18**

ICU Days	3,380.0
ICU ADC	9.3
ICU Beds	14.0
Occupancy	66.1%

(2) *the projected occupancy rate for all intensive care beds in the applicant's facility, exclusive of neonatal and pediatric intensive care beds, shall be at least 70 percent for facilities with 20 or more intensive care beds, 65 percent for facilities with 10-19 intensive care beds, and 60 percent for facilities with 1-9 intensive care beds, in the third operating year following the completion of the proposed project.*

-C- On page 80, the applicant provides a table which illustrates that the 18 Atrium Health Union County ICU beds (14 at CHS Union and 4 at AHUW) are projected to operate at 75% occupancy in the third operating year following the completion of the proposed project, as summarized below. This exceeds the 65% average annual occupancy rate required for facilities operating with 10-19 intensive care beds.

**Atrium Health Union County  
(CHS Union Monroe and AHUW)  
CY2024**

ICU Days	4,931.0
ICU ADC	13.5
ICU Beds	18.0
Occupancy	75.0%

(b) *All assumptions and data supporting the methodology by which the occupancy rates are projected shall be provided.*

-C- The applicant’s assumptions and data supporting the methodology by which the ICU occupancy rates were determined are provided in Section Q Form C Methodology and Assumptions. The discussion regarding utilization in Criterion (3) is incorporated herein by reference.

The application submitted by Atrium Health is conforming with all applicable Criteria and Standards for Surgical Services and Operating Rooms promulgated in 10A NCAC 14C .2100 and all applicable. The specific criteria are discussed below.

**SECTION .2100 – CRITERIA AND STANDARDS FOR SURGICAL SERVICES AND OPERATING ROOMS**

**.2103 PERFORMANCE STANDARDS**

*.2103(a) A proposal to establish a new ambulatory surgical facility, to establish a new campus of an existing facility, to establish a new hospital, to increase the number of operating rooms in an existing facility (excluding dedicated C-section operating rooms), to convert a specialty ambulatory surgical program to a multispecialty ambulatory surgical program, or to add a specialty to a specialty ambulatory surgical program shall demonstrate the need for the number of proposed operating rooms in the facility that is proposed to be developed or expanded in the third operating year of the project based on the Operating Room Need Methodology set forth in the 2018 State Medical Facilities Plan. The applicant is not required to use the population growth factor.*

-C- This proposal would develop a new satellite campus for CHS Union in Union County, by relocating select services, including two operating rooms. The applicant projects sufficient surgical cases and hours to demonstrate the need for two ORs in the third operating year of the project based on the Operating Room Need Methodology in the 2018 SMFP, as summarized below. The discussion regarding projected utilization found in Criterion (3) is incorporated herein by reference.

**Atrium Health Union West  
CY2024**

Total Surgical Hours Projected	2,492
ORs Needed (Surgical Hours /1,500*)	1.7
ORs Needed (rounded)	2.0
Proposed Relocated ORs	2.0

\*Group 4 = 1,500 Standard hours per OR per Yr  
Totals may not sum due to rounding

- .2103(b) *A proposal to increase the number of operating rooms (excluding dedicated C-section operating rooms) in a service area shall demonstrate the need for the number of proposed operating rooms in addition to the existing and approved operating rooms in the applicant's health system in the third operating year of the proposed project based on the Operating Room Need Methodology set forth in the 2018 State Medical Facilities Plan. The applicant is not required to use the population growth factor.*
- NA- The applicant does not propose to increase the number of operating rooms in the services area.
- .2103(c) *An applicant that has one or more existing or approved dedicated C-section operating rooms and is proposing to develop an additional dedicated C-section operating room in the same facility shall demonstrate that an average of at least 365 C-sections per room were performed in the facility's existing dedicated C-section operating rooms in the previous 12 months and are projected to be performed in the facility's existing, approved, and proposed dedicated C-section rooms during the third year of operation following completion of the project.*
- NA- The applicant does not propose to develop an additional dedicated C-section room.
- .2103(d) *An applicant proposing to convert a specialty ambulatory surgical program to a multispecialty ambulatory surgical program or to add a specialty area to a specialty ambulatory surgical program shall:*
- (1) *provide documentation to show that each existing ambulatory surgery program in the service area that performs ambulatory surgery in the same specialty area as proposed in the application is currently utilized an average of at least 1,312.5 hours per operating room per year; and*
  - (2) *demonstrate the need in the third operating year of the project based on the Operating Room Need Methodology set forth in the 2018 State Medical Facilities Plan. The applicant is not required to use the population growth factor.*

- NA- The applicant does not propose to convert a specialty ambulatory surgical program to a multispecialty ambulatory surgical program or to add a specialty area to a specialty ambulatory surgical program.
- .2103(e) *The applicant shall document the assumptions and provide data supporting the methodology used for each projection in this Rule.*
- C- In Section Q Form C Methodology Assumptions and Data, pages 10-16 and 24-27, the applicant provides the assumptions and methodology used in the development of the projections required by this Rule. The discussion regarding analysis of need, including projected utilization, found in Criterion (3) is incorporated herein by reference.