

Andrew N. Pollak, MD  
CHAIRMAN

STATE OF MARYLAND



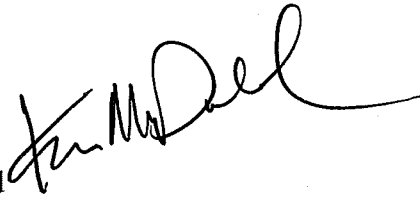
Ben Steffen  
EXECUTIVE DIRECTOR

## MARYLAND HEALTH CARE COMMISSION

4160 PATTERSON AVENUE – BALTIMORE, MARYLAND 21215  
TELEPHONE: 410-764-3460 FAX: 410-358-1236

### MEMORANDUM

**TO:** Commissioners

**FROM:** Kevin R. McDonald  
Chief, Certificate of Need 

**DATE:** August 20, 2020

**SUBJECT:** University of Maryland Medical Center Cancer Center Addition  
Docket No. 19-24-2438

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Enclosed is the staff report and recommendation regarding a Certificate of Need (CON) application filed by the University of Maryland Medical Center – Downtown Campus (UMMC), the teaching hospital for the University of Maryland School of Medicine.

UMMC seeks to consolidate all of the currently dispersed services of the Marlene and Stewart Greenebaum Comprehensive Cancer Center (GCCC) into four floors of a new nine-story addition constructed above the main hospital entrance on the east side of the North Hospital building. The proposed project will consist of approximately 155,000 square feet (SF) of new construction and about 73,000 SF in renovations to contiguous existing space. The nine level addition would include a two-story entry, two floors of shell space, four floors for the cancer program, and a floor for administrative and mechanical space.

The total estimated project cost is approximately \$194.4 million, which includes about \$130.6 million for construction and renovations, \$54 million for movable equipment, contingency allowance and gross interest during construction. The applicant will finance the cost of this project with \$95.8 million in grants from the State of Maryland, \$78.5 million in taxable bonds, \$20 million in philanthropic donations, and \$100,000 in cash.

Staff recommends that the Commission **APPROVE** the project based on staff's conclusion that the proposed project complies with the applicable standards in COMAR 10.24.10, the State Health Plan for Acute Care Hospital Services, and the CON review criteria at COMAR 10.24.01.08. Our recommendation includes the following three conditions:

- 1. Prior to its request for first use approval, UMMC will submit an assessment of the need for surge bed capacity at UMMC and its plan to maintain and deploy adequate surge bed capacity when needed.**
- 2. Any future change to the financing of this project involving adjustments in revenue must exclude \$2,210,850 in shell space-related costs, which includes the estimated new construction costs of the proposed shell space and portions of the contingency allowance, inflation allowance, and capitalized construction interest expenditure related to the estimated cost of the shell space.**
- 3. UMMC will not finish the shell space on either the third or fourth floor without giving notice to the Commission and obtaining all required Commission approvals. UMMC will not request any adjustment in budgeted revenue by the Health Services Cost Review Commission (HSCRC) that includes depreciation or interest costs associated with construction of the proposed shell space unless UMMC has obtained either CON approval for finishing the shell space or a determination of coverage from the Maryland Health Care Commission that CON approval is not required.**
- 4. In calculating any future adjustment to budgeted revenues related to the costs of this project, HSCRC shall exclude the capital costs associated with the shell space until the space is finished and put to use in a regulated activity. In calculating any revenue adjustment that includes an accounting for capital costs associated with the shell space, the rate shall only account for depreciation and interest expenses going forward through the remaining useful life of the space.**

**IN THE MATTER OF**

**UNIVERSITY OF MARYLAND**

**MEDICAL CENTER**

**DOCKET NO. 19-24-2438**

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**BEFORE THE**

**MARYLAND HEALTH**

**CARE COMMISSION**

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**STAFF REPORT AND RECOMENDATION**

August 20, 2020

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## **I. INTRODUCTION**

### **A. The Applicant**

The University of Maryland Medical Center (UMMC), located at 22 South Greene Street in Baltimore City, is an academic medical center serving as the teaching hospital for the University of Maryland School of Medicine and is the largest hospital within the 12-hospital University of Maryland Medical System, Inc. (UMMS). UMMC is the second largest hospital in the State, licensed to operate 806 acute care beds in FY 2020.<sup>1</sup> The hospital allocates 668 of these licensed beds to medical/surgical/gynecological/addictions (MSGA) services, 35 for obstetric services, 59 for pediatric services, and 44 for acute psychiatric care.<sup>2</sup>

### **B. The Project**

UMMC's Marlene and Stewart Greenebaum Comprehensive Cancer Center (GCCC) opened in 2008 and is described by the applicant as "integrat[ing] cutting-edge cancer treatment with leadership in cancer research and a commitment to medical education." (DI #10, p. 2). However, its diagnostic and treatment spaces are described as scattered throughout the medical center, occupying 10 different spaces across a number of floors in four buildings – the North Hospital, South Hospital, Gudelsky Building, and Weinberg Building. The cancer center operates 52 inpatient beds; 36 beds spread over two medical oncology units and 16 beds dedicated to blood and marrow transplant (BMT) patients. The BMT program is one of two that operate within the state. According to the applicant, GCCC also provides minimally invasive cancer treatment options such as stereotactic body radiation therapy, robot-assisted surgery, advanced thermal therapy, and targeted drug therapies. The applicant states that it is a trailblazer in new immunotherapy approaches that train a patient's own immune system to fight cancer and in cutting edge treatment approaches in chimeric antigen receptor-T or CAR-T cell therapy, proton therapy<sup>3</sup>, and Gamma Pod stereotactic radiotherapy for early stage breast cancers. (DI #10, p. 3).

The proposed project will consolidate all of the currently dispersed services of GCCC within four floors of a new nine-story addition to be constructed above the main hospital entrance on the east side of the North Hospital building at the corner of Greene and Baltimore streets. The proposed project will consist of approximately 155,000 square feet (SF) of new construction and renovation of about 73,000 SF of contiguous existing space within the North Hospital. The nine levels of the building addition are proposed to include a two-story entry, two floors of shell space, four floors for the cancer program, and a floor for administrative and mechanical space, distributed as follows:

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<sup>1</sup> Because of the Covid-19 State of Emergency, the Secretary of Health suspended the annual adjustment of licensed acute care hospital bed capacity. Thus, at this time, licensed acute care hospital bed capacity established in FY 2020 remains in effect for FY 2021, which began on July 1, 2020.

<sup>2</sup> MHCC Acute Care Hospital Inventory FY 2019

[https://mhcc.maryland.gov/mhcc/pages/hcfs/hcfs\\_hospital/documents/acute\\_care/chcf\\_Licensed\\_Acute\\_Care\\_Beds\\_by\\_Hospital\\_and\\_Service\\_%20Maryland\\_FY2020.pdf](https://mhcc.maryland.gov/mhcc/pages/hcfs/hcfs_hospital/documents/acute_care/chcf_Licensed_Acute_Care_Beds_by_Hospital_and_Service_%20Maryland_FY2020.pdf).

<sup>3</sup> The Maryland Proton Treatment Center is located near the campus of UMMC but is not a health care facility owned or operated by UMMC. The investor-owned center is affiliated with GCCC for medical direction.

- A two-story open air entrance covering the first and second floors;
- Shell space on the third and fourth floors;
- Outpatient infusion and oncology clinics on the fifth floor;
- A BMT program with four outpatient transplant rooms and 18 inpatient rooms on the sixth floor;
- Two 22-bed oncology units, located on the seventh and eighth floors, respectively; and
- GCCC administrative offices and mechanical/electrical space on the ninth floor.

Additionally, as part of the proposed project, the existing lobby and fifth floor of the main hospital will be renovated, and the project will also add two elevators and connect the new addition to the existing building on floors three through nine. The project will add 62 beds to the hospital's physical capacity, but still leave the facility's physical capacity below its current licensed capacity. The 52 oncology beds being vacated and replaced are expected to be "utilized as general medicine beds at some time in the future," though there is no immediate plan to place them in use; and the shell space proposed for the third and fourth floors are for future program growth. (DI #10, p. 4).

The total estimated project cost is approximately \$194.4 million, which includes approximately \$130.6 million for construction and renovations, \$54 million for movable equipment, a contingency allowance and gross interest during the construction period, \$9.4 million for an inflation allowance, and \$500,000 for loan placement fees (\$50,000), CON assistance cost (\$100,000), and non-CON legal and other consulting fees (\$350,000). (DI #2, pp.4-10). The applicant will finance the cost of this project with \$95.8 million in grants from the State of Maryland, \$78.5 million in taxable bonds, \$20 million in philanthropic donations, and \$100,000 in cash. (DI #35, Table E). UMMC expects the proposed project to take four years to implement and will involve phasing construction to mitigate disruption for patients, visitors, and staff. (DI#10, p.1).

### **C. Summary of Recommendation**

Staff recommends approval of the project based on its conclusion that the proposed project complies with the applicable State Health Plan standards, and that the need for the project, its cost effectiveness, and its viability have been demonstrated. Staff also concludes that the project will not have an adverse impact on other providers or the health care system. Patients and hospital staff should benefit from the facilities modernization and integration afforded by the proposed project. A summary of the basis for this recommendation with respect to key standards and criteria follows:

#### **Need for the Project and Bed Capacity**

UMMC has provided a thorough and data-based analysis of need to create expanded space for its cancer program, which has experienced significant growth over the last decade. It has demonstrated the need for additional space to accommodate expanding outpatient demand for services, demand that is occurring not only with population and market share growth, but also to accommodate new treatment modalities and clinical shifts toward outpatient treatment, initiatives that are currently constrained due to a lack of space or

overcrowding for these programs. Similarly, the applicant has experienced significant growth in blood and marrow transplants and Car-T Cell Therapy, supporting its request for a modest increase of 10 beds (to the current 52). In addition to the need for more space to accommodate growing demand, a major rationale for the project is to enable consolidating and congregating services to cancer patients that are currently dispersed throughout the facility and medical campus, increasing efficiency and improving the patient experience.

### **Availability of More Cost Effective Alternatives**

The applicant examined two alternatives to the proposed project. The first was to construct a comprehensive cancer center in a freestanding patient tower across from the south entrance to the medical center, which would consist of 72 inpatient beds and space for outpatient clinics, infusion, imaging, and space for a laboratory, pharmacy, and support services, connected to the main hospital by a bridge. The second option that UMMC considered was reassigning and renovating existing space within the hospital. This option would renovate the two existing inpatient cancer units, and reassign an additional floor in the hospital building to allow for the expansion of the clinic and infusion space.

UMMC rejected the freestanding option, stating that it would be detrimental to patient safety because this building would operate separately from the rest of the hospital and its code teams, operating rooms, and procedure areas. In addition, it would cost more to operate than would an approach that would keep oncology services within the existing hospital block as it would have to duplicate services such as laboratory, pharmacy, and support services.

UMMC deemed the option of reassigning and renovating space to be infeasible because: it would provide less than half of the space that is needed to meet the program's growth; and there is not enough space anywhere in the existing hospital to convert to cancer center use without creating significant adverse impacts on other programs.

### **Patient Safety**

The applicant identifies a number of ways that the project will improve patient safety, including: provide ongoing supportive care for patients in the ambulatory setting that will reduce inpatient admission and readmission, avoiding the risks inherent in an inpatient hospitalization; increase access and improve continuity of care, allowing more oncology patients to experience the specific expertise available on an inpatient oncology unit; mitigate chemotherapy exposure of staff and patients; and reduce the potential for errors caused by interruptions and distractions.

### **Financial Feasibility and Viability**

In reviewing this proposed project's financing plan, the Health Services Cost Review Commission (HSCRC) noted that the State grant identified as a major component of funding for this project should probably be viewed as a less certain funding source, given the fiscal impact of the Covid-19 pandemic on Maryland's revenue base. However, it also noted that, based on a review of key financial ratio projections and indicators for the University of Maryland's Obligated Group, the group is projected to have sufficient profitability, liquidity, and capital resources needed to maintain its current favorable credit



ratings. On that basis, HSCRC staff concludes that, with proper management, the GCCC expansion project as described in the CON is financially feasible. The total estimated project cost is approximately \$194.4 million.<sup>4</sup>

With regard to human resources, the applicant expects to hire an additional 162.6 FTEs, increasing the total number of personnel who staff the oncology programs in the Cancer Center to over 450 FTEs. UMMC expresses confidence in its ability to recruit these additional staff.

### **Impact**

The increased capacity planned for UMMC's BMT service is not expected to have a substantive negative impact on any other existing provider. The applicant claims that the growth it has experienced is not due to shifts in market share but arises from a growing market and clinical advances, such as the development of more effective drugs to reduce the complications associated with BMT and the introduction of a variety of transplant options that has expanded the patient population eligible to receive BMT, leading to higher demand for the service. UMMC projects that it will receive a slightly larger share of declining inpatient medical oncology volumes but expects that its gain of about 125 discharges will come from other providers proportional to their current volumes with no hospital other than Johns Hopkins – the market share leader at 20+ percent – losing more than eight discharges.

## **II. PROCEDURAL HISTORY**

### **A. Record of the Review**

Please see Appendix 1, Record of the Review.

### **B. Interested Party**

There are no interested parties in this review.

### **C. Local Government Review and Comment**

No comments regarding this project were received from local government.

### **D. Community Support**

The applicant provided letters expressing the need for the project and the benefit it would ring to GCCC. Most of the letters were from public officials and persons associated with UMMC or the UMMS, as identified below:

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<sup>4</sup> During HSCRC's review, UMMC revised the source of funds for the proposed project, lowering the amount of State-issued grants (\$95.8 million) and increasing the total amount of tax-exempt bonds (\$78.5 million) it would use to finance the project, with the balance funded by philanthropic donations and cash remaining unchanged.

- Eric T. Costello, Council Member, Baltimore City Council, 11<sup>th</sup> District
- The late Elijah E. Cummings, Member, US House of Representatives, 7<sup>th</sup> District, Maryland
- Mary Beth Haller, Esquire, former Interim Health Commissioner Baltimore City Health Department
- Catherine E. Pugh, former Mayor, City of Baltimore
- Reverend Dr. William C. Calhoun, Sr., Pastor Trinity Baptist Church
- Robert A. Chrencik, former President and CEO, University of Maryland Medical System
- Kevin J. Cullen, Director, University of Maryland Marlene and Stewart Greenebaum Comprehensive Cancer Center
- Stephen N. Davis, Chairman, University of Maryland School of Medicine
- Dana C. Deighton, patient
- Kris Kin, Executive Vice President, American Cancer Society
- Jay A. Perman, President, University of Maryland Baltimore
- E. Albert Reece, Executive Vice President for Medical Affairs, University of Maryland School of Medicine
- William F. Regine, Executive Director, Maryland Proton Treatment Center (DI #2, Exh.3).

### III. BACKGROUND

#### A. Service Area Population

While GCCC serves patients throughout the State and defines its service area as the whole State of Maryland, UMMC notes that the primary catchment area for UMMC's cancer program includes Baltimore, Anne Arundel, Prince George's, Harford, Howard, Montgomery, Frederick, Washington, Carroll, and Charles Counties, and Baltimore City. (DI #10, p. 3). These jurisdictions, with the exception of Washington County, constitute the suburban and exurban core of the Baltimore and Washington, D.C. metropolitan areas, include the eleven most populous jurisdictions in the state, and comprise over 85% of the State's total population.

**Table III-1: Projected Population of UMMC Cancer Program's Defined Primary Service Area<sup>5</sup>**

Jurisdiction	2010	2020	2030	2040	Change 2010-2040
Anne Arundel	537,656	573,231	596,715	622,270	15.7%
Baltimore	805,029	847,000	862,191	880,751	9.4%
Carroll	167,134	169,199	175,156	181,795	8.8%
Charles	146,551	167,042	194,667	218,569	49.1%
Frederick	233,385	260,780	303,580	332,148	42.3%
Harford	244,826	257,682	271,859	289,217	18.1%
Howard	287,085	336,921	366,814	371,847	29.5%

<sup>5</sup> As reported by Maryland Department of Planning's State Data Center for 2017 Total Population Projections (released January 2018).

Montgomery	971,777	1,052,027	1,128,821	1,197,132	23.2%
Prince George's	863,420	916,142	952,969	982,391	13.8%
Washington	147,430	156,797	175,402	189,951	28.8%
Baltimore City	620,961	616,292	625,084	643,403	3.6%
<b>Primary Service Area Total</b>	<b>5,025,254</b>	<b>5,353,113</b>	<b>5,653,258</b>	<b>5,909,474</b>	<b>17.6%</b>
<b>Maryland</b>	<b>5,773,552</b>	<b>6,141,808</b>	<b>6,518,798</b>	<b>6,834,512</b>	<b>18.4%</b>

Source: [https://planning.maryland.gov/MSDC/Pages/s3\\_projection.aspx](https://planning.maryland.gov/MSDC/Pages/s3_projection.aspx).

UMMC states that about 80 percent of its patients originate from its defined primary catchment area, with about a quarter of those being Baltimore City residents. Fifty-one percent are male; 57 percent are White; 36 percent are Black; three percent are Asian, and four percent are “other.” UMMC claims that the cancer center is a leader in addressing health care disparities, with research focused on improving access to care and treatment outcomes for minorities, who represent more than 35% of the patients in GCCC’s clinical trials, compared to 16 percent nationally (according to the National Cancer Institute). (DI #10, p.3).

## B. Utilization Trends

The proposed project will add space for the inpatient BMT unit, the inpatient medical oncology units, and the outpatient oncology program, which includes space for infusion therapy, pharmacy, clinical and staff support space. To provide background and context for its plans, UMMC provided utilization data for these services and programs, as reviewed below.

### *Blood and Marrow Transplant Program*

According to the applicant, UMMC and The Johns Hopkins Hospital are the only two facilities in Maryland that treat hematologic malignancies (i.e., cancers that most often begin in the bone marrow where blood is produced). UMMC documented that it treated 125% more patients in this disease category in 2017 than it had in 2006, as shown in the table immediately below. (DI #30, Exh. 39, p. E-8).

**Table III-2: UMMC Tumor Registry of New Patients, CY 2006 - CY 2017, Hematologic Malignancies**

	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
<b>Leukemia</b>	85	99	110	105	123	161	137	144	144	134	160	188
<b>Myeloma</b>	61	56	71	80	91	106	91	74	94	101	138	187
<b>Lymphoma</b>	97	128	127	114	109	126	154	137	122	121	155	172
<b>Total</b>	243	283	308	299	323	393	382	355	360	356	453	547

Source: DI #30, Exh. 39, Table S-14, p. E-8.

UMMC also provided data showing the number of patients discharged from the BMT programs in Maryland from 2015 to 2018.

**Table III-3: BMT Historical Discharge Volume in Maryland by Hospital, FY15 – FY18**

BMT Discharges	FY 2015	FY 2016	FY 2017	FY 2018
UMMC	132	148	134	195
JHH	105	125	111	115
Other	4	1	0	0
<b>TOTAL</b>	<b>241</b>	<b>274</b>	<b>245</b>	<b>310</b>
<b>BMT Discharges per 1,000 population</b>	<b>0.053</b>	<b>0.060</b>	<b>0.053</b>	<b>0.067</b>

Source: DI #30, Exh. 39, Tables S-3 & S-4, p. E-3.

The BMT unit will also serve patients receiving CAR-T cell therapy, described by the applicant as “genetic re-engineering of a patient’s cells and re-infusing them to attack cancer cells” (<https://www.cancer.gov/about-cancer/treatment/research/car-t-cells>).

### *Medical Oncology*

From 2015 to 2018, the use rate and number of discharges for medical oncology declined across Maryland’s hospitals. Inpatient discharges declined from 11,793 in 2015 to 10,913 in 2018, a drop of 7.5%, and the population’s use rate per thousand decreased from 2.62 discharges per thousand population in 2015 to 2.36 in 2018, a decline of 9.9%. (DI #30, Exh. 39, p. E-6). However, UMMC’s medical oncology unit bucked that trend, increasing from 971 discharges in 2015 to 1,159 in 2018, a 19% increase. (DI #30, Exh. 39, p. E-6). Further discussion on UMMC’s medical oncology utilization is discussed later in this staff report regarding COMAR 10.24.01.08G(3)(b), the Need criterion.<sup>6</sup>

**Table III-4: Medical Oncology Discharges and Use Rates, Maryland Hospitals, 2015-2018**

	2015	2016	2017	2018
Total Discharges – All Maryland Hospitals	11,793	11,030	10,872	10,913
Discharges per 1,000 population	2.62	2.43	2.37	2.36
Discharges - University of Maryland Medical Center	971	993	1,098	1,159

Source: DI #30, Exh. 39, Table S-11, p. E-6.

### *Outpatient Oncology*

UMMC provided data showing that the number of patients served and treated in its outpatient oncology programs increased by approximately 16% between 2010 and 2018.

**Table III-5: UMMC Outpatient Oncology Visit Volume (Unduplicated Count), FY 2010-FY 2018**

FY	Clinic Visits	Infusion Visits	Combined
2010	32,140	15,004	47,144
2011	39,083	16,362	55,445
2012	43,421	16,066	59,487
2013	44,767	17,053	61,820
2014	43,635	16,747	60,382

<sup>6</sup> See pages 26-33, *infra*.

FY	Clinic Visits	Infusion Visits	Combined
2015	44,592	17,514	62,106
2016	32,629	19,581	52,210
2017	35,479	21,408	56,887
2018	33,815	20,745	54,560

Source: DI #30, Exh. 39, Table S-19, pp. E-11 - E-12.

UMMC explained that after rising from about 47,000 visits (2010) to about 62,000 in 2015 – a 32% increase in five years – total visits declined between 2016 and 2018 because: (1) in FY 2016, the hospital’s phased implementation of a new EPIC electronic medical record system resulted in its need to limit the number of outpatient oncology appointments; and (2) UMMC moved several thousand outpatient surgical-related oncology patient visits from the outpatient center to an off-site location due to the lack of space at the Greenebaum Cancer Center. (DI #30, Exh. 39, p. E-11).

#### IV. REVIEW AND ANALYSIS

The Commission is required to make its decision in accordance with the general Certificate of Need review criteria at COMAR 10.24.01.08G (3) (a) through (f). The first of these six general criteria requires the Commission to consider and evaluate this application according to all relevant State Health Plan standards and policies. The State Health Plan chapter that applies is COMAR 10.24.10, Acute Care Hospital Services (“Acute Hospital Services Chapter”).

##### A. The State Health Plan

###### ***COMAR 10.24.01.08G(3)(a) State Health Plan.***

***An application for a Certificate of Need shall be evaluated according to all relevant State Health Plan standards, policies, and criteria.***

###### ***COMAR 10.24.10.04A — General Standards.***

***(1) Information Regarding Charges. Information regarding hospital charges shall be available to the public. After July 1, 2010, each hospital shall have a written policy for the provision of information to the public concerning charges for its services. At a minimum, this policy shall include:***

***(a) Maintenance of a Representative List of Services and Charges that is readily available to the public in written form at the hospital and on the hospital’s internet web site;***

The applicant provided a copy of its *Information Regarding Charges Policy* as part of completeness review. The policy provides that information on charges can be accessed by the public in written form available at the hospital’s business offices or online on UMMC’s website at <https://www.umms.org/ummc/patients-visitors/for-patients/hospital-charges>. (DI #26, Exh. 37).

***(b) Procedures for promptly responding to individual requests for current charges for specific services/procedures; and***

UMMC's Information Regarding Charges Policy states that the medical center will respond to individual patient requests for current charges regarding specific services/procedures within two days. (DI #26, Exh. 37). The UMMC website directs consumers with questions to the Patient Financial Services team and provides their contact information.

***(c) Requirements for staff training to ensure that inquiries regarding charges for its services are appropriately handled.***

The Information Regarding Charges Policy states staff training will occur to ensure inquiries regarding charges for services will be appropriately handled. UMMC complies with this standard through this policy. (DI #26, Exh.37).

***(2) Charity Care Policy Each hospital shall have a written policy for the provision of charity care for indigent patients to ensure access to services regardless of an individual's ability to pay.***

***(a) The policy shall provide:***

- (i) Determination of Probable Eligibility. Within two business days following a patient's request for charity care services, application for medical assistance, or both, the hospital must make a determination of probable eligibility.***

UMMC provided a copy of UMMS' Financial Assistance Policy and Financial Assistance Application. (DI #10, Exh. 20). The policy indicates that a patient need only provide information about family size and income in order to receive a determination of probable eligibility within two business days following a request for charity care services, medical assistance, or both. A final determination of eligibility requires completion of an application, which is provided by UMMC. (DI #14, p. 5).

***(ii) Minimum Required Notice of Charity Care Policy.***

- 1. Public notice of information regarding the hospital's charity care policy shall be distributed through methods designed to best reach the target population and in a format understandable by the target population on an annual basis;***
- 2. Notices regarding the hospital's charity care policy shall be posted in the admissions office, business office, and emergency department areas within the hospital; and***
- 3. Individual notice regarding the hospital's charity care policy shall be provided at the time of preadmission or admission to each person who seeks services in the hospital.***

Public notice of the financial assistance policy appears on the UMMC website<sup>7</sup> and is printed in the *Baltimore Sun*. (DI#2, p.17). A notice regarding the charity care policy is posted in the lobby, the admissions office, the business office, and the emergency department. (DI #12, p. 17). The applicant states individual notice regarding the financial assistance policy is provided at the time of pre-admission or admission to each person who seeks services. (DI #2, p.17).

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<sup>7</sup> Located at <https://www.umms.org/ummc/patients-visitors/for-patients/financial-assistance>.

***(b) A hospital with a level of charity care, defined as the percentage of total operating expenses that falls within the bottom quartile of all hospitals, as reported in the most recent Health Service Cost Review Commission Community Benefit Report, shall demonstrate that its level of charity care is appropriate to the needs of its service area population.***

UMMC does not fall in the bottom quartile for all Maryland acute care hospitals for charity care provision as reported in the updated 2018 HSCRC Community Benefit Report, which was analyzed and reviewed by the staff. (DI #2, p.18). For 2018, the HSCRC reported that UMMC provided charity care with a value equivalent to 1.4% of total operating expense, which placed the medical center in the third quartile.

### **(3) Quality of Care**

***An acute care hospital shall provide high quality care.***

***(a) Each hospital shall document that it is:***

- (i) Licensed, in good standing, by the Maryland Department of Health and Mental Hygiene;***
- (ii) Accredited by the Joint Commission; and***
- (iii) In compliance with the conditions of participation of the Medicare and Medicaid programs.***

UMMC provided a copy of its license by the Maryland Department of Health<sup>8</sup> and documentation of its Joint Commission accreditation (effective October 21, 2017 with accreditation valid for up to 36 months). (DI #2, Exh. 8, Exh. 9). OHCQ confirmed to MHCC staff that UMMC complies with the conditions of participation in the Medicare and Medicaid programs.

***(b) A hospital with a measure value for a Quality Measure included in the most recent update of the Maryland Hospital Performance Evaluation Guide that falls within the bottom quartile of all hospitals' reported performance measured for that Quality Measure and also falls below a 90% level of compliance with the Quality Measure, shall document each action it is taking to improve performance for that Quality Measure.***

Staff notes that Paragraph (b) of this standard has become outdated in recent years, as currently written. Although there is still a Maryland Hospital Performance Evaluation Guide (HPEG), which is the hospital consumer guide component of the MHCC website, the current format is different. While quality measures remain a component of that guide, it has been substantially expanded to include many more measures of hospital quality and performance. Moreover, the specific format of the quality measure component of the HPEG no longer consists of a set of measure values that conform with the format of this standard in which each measure is scored as a compliance percentage that can be ranked by quartile. The performance for most of the expanded number of quality measures is now in a comparative context, expressed as "Below Average, Average, or Better than Average." To comply with the spirit of this standard, applicants are asked to identify any "below average" rating and discuss their approach to upgrading performance.

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<sup>8</sup> Formerly known as the Department of Health and Mental Hygiene.

UMUC rated “below average” on 23 quality measures in the most recent update of the Maryland Hospital Performance Evaluation Guide. It provided an action plan for each. This information is contained in Appendix 3.

Staff concludes that the applicant has provided documentation that its license is in good standing, that it has achieved Joint Commission accreditation, and is in good standing with the Medicare and Medicaid programs. It submitted a performance improvement plan for each “below average” HPEG quality measure and, thus, meets the quality standard.

#### **COMAR 10.24.10.04B-Project Review Standards**

**(1) Geographic Accessibility** *A new acute care general hospital or an acute care general hospital being replaced on a new site shall be located to optimize accessibility in terms of travel time for its likely service area population. Optimal travel time for general medical/surgical, intensive/critical care and pediatric services shall be within 30 minutes under normal driving conditions for 90 percent of the population in its likely service area.*

This standard is not applicable as the applicant does not seek to build a new hospital or replace the existing hospital.

#### **(2) Identification of Bed Need and Addition of Beds**

*Only medical/surgical/gynecological/addictions (MSGA) beds and pediatric beds identified as needed and/or currently licensed shall be developed at acute care general hospitals.*

- (a) Minimum and maximum need for MSGA and pediatric beds are determined using the need projection methodologies in Regulation .05 of this Chapter.*
- (b) Projected need for trauma unit, intensive care unit, critical care unit, progressive care unit, and care for AIDS patients is included in the MSGA need projection.*
- (c) Additional MSGA or pediatric beds may be developed or put into operation only if:*
  - (i) The proposed additional beds will not cause the total bed capacity of the hospital to exceed the most recent annual calculation of licensed bed capacity for the hospital made pursuant to Health-General §19-307.2; or*
  - (ii) The proposed additional beds do not exceed the minimum jurisdictional bed need projection adopted by the Commission and calculated using the bed need projection methodology in Regulation .05 of this Chapter; or*
  - (iii) The proposed additional beds exceed the minimum jurisdictional bed need projection but do not exceed the maximum jurisdictional bed need projection adopted by the Commission and calculated using the bed need projection methodology in Regulation .05 of this Chapter and the applicant can demonstrate need at the applicant hospital for bed capacity that exceeds the minimum jurisdictional bed need projection; or*
  - (iv) The number of proposed additional MSGA or pediatric beds may be derived through application of the projection methodology, assumptions, and targets contained in Regulation .05 of this Chapter, as applied to the service area of the hospital.*

This project would increase UMMC’s MSGA physical bed capacity by 62 beds, from 550



to 612. However, that increase would not cause the facility's total bed capacity to exceed its most recent annual calculated licensed bed capacity, which at the time of the CON application in FY 2019 was 789 beds.<sup>9</sup> In FY 2020, UMMC's licensed acute care bed capacity increased to 806 beds.<sup>10</sup>

The 52 beds currently used for cancer center patients<sup>11</sup> will remain in the physical bed count, and would "most likely be utilized as general medicine beds at some point in the future." (DI #14, Q. #1). The hospital indicates that "the occupancy rates for the Medicine units are quite high ... at over 85%," hindering efficient patient flow throughout the hospital. If and when these beds are put back into service, physical capacity would likely decrease because most of the current medical oncology patient rooms are semi-private and would be converted to private rooms. (DI #14, p. 1).

Staff concludes that this standard is met because the proposed additional beds will not cause the total bed capacity of the hospital to exceed the most recent annual calculation of licensed bed capacity for the hospital made pursuant to Health-General §19-307.2. Staff anticipates that, if the 52 beds are not used for "general medicine beds at some point in the future" as noted, it is likely that they will remain as potential surge capacity beds. Because staff believes that knowledge of the State's surge capacity potential will be helpful to the Commission and to the State of Maryland, staff recommends that the following condition be included in any Certificate of Need that issues for this project:

1. Prior to its request for first use approval, UMMC will submit an assessment of the need for surge bed capacity at UMMC and its plan to maintain and deploy adequate surge bed capacity when needed.

**(3) Minimum Average Daily Census for Establishment of a Pediatric Unit**

*An acute care general hospital may establish a new pediatric service only if the projected average daily census of pediatric patients to be served by the hospital is at least five patients, unless:*

- (a) The hospital is located more than 30 minutes travel time under normal driving conditions from a hospital with a pediatric unit; or*
- (b) The hospital is the sole provider of acute care general hospital services in its jurisdiction.*

UMMC does not seek to establish a pediatric unit. This standard does not apply to this project.

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<sup>9</sup> Available at:

[https://mhcc.maryland.gov/mhcc/pages/hcfs/hcfs\\_hospital/documents/FY2019\\_Tables\\_Bed\\_Designation.pdf](https://mhcc.maryland.gov/mhcc/pages/hcfs/hcfs_hospital/documents/FY2019_Tables_Bed_Designation.pdf)

<sup>10</sup> Available at:

[https://mhcc.maryland.gov/mhcc/pages/hcfs/hcfs\\_hospital/documents/acute\\_care/chcf\\_Licensed\\_Acute\\_Care\\_Beds\\_by\\_Hospital\\_and\\_Service\\_%20Maryland\\_FY2020.pdf](https://mhcc.maryland.gov/mhcc/pages/hcfs/hcfs_hospital/documents/acute_care/chcf_Licensed_Acute_Care_Beds_by_Hospital_and_Service_%20Maryland_FY2020.pdf).

<sup>11</sup> A total of 36 beds operating in two medical oncology units and 16 beds for the blood and marrow transplant unit. (DI #10, p. 2).

#### **(4) Adverse Impact**

*A capital project undertaken by a hospital shall not have an unwarranted adverse impact on hospital charges, availability of services, or access to services. The Commission will grant a Certificate of Need only if the hospital documents the following:*

- (a) If the hospital is seeking an increase in rates from the Health Services Cost Review Commission to account for the increase in capital costs associated with the proposed project and the hospital has a fully-adjusted Charge Per Case that exceeds the fully adjusted average Charge Per Case for its peer group, the hospital must document that its Debt to Capitalization ratio is below the average ratio for its peer group. In addition, if the project involves replacement of physical plant assets, the hospital must document that the age of the physical plant assets being replaced exceed the Average Age of Plant for its peer group or otherwise demonstrate why the physical plant assets require replacement in order to achieve the primary objectives of the project; and*

UMMC states that it withdrew its HSCRC application that sought full rate relief. (DI #14, p.5). UMMC says that it reserves the right to seek a modification of its global budget revenue agreement with HSCRC. (DI #2, p. 23).

- (b) If the project reduces the potential availability or accessibility of a facility or service by eliminating, downsizing, or otherwise modifying a facility or service, the applicant shall document that each proposed change will not inappropriately diminish, for the population in the primary service area, the availability or accessibility to care, including access for the indigent and/or uninsured.*

The proposed project does not seek to downsize, eliminate, or diminish the availability or accessibility of oncology services in this service area. Therefore, staff concludes that this part of the standard is not applicable.

#### **(5) Cost-Effectiveness**

*A proposed hospital capital project should represent the most cost effective approach to meeting the needs that the project seeks to address.*

- (a) To demonstrate cost effectiveness, an applicant shall identify each primary objective of its proposed project and shall identify at least two alternative approaches that it considered for achieving these primary objectives. For each approach, the hospital must:*
  - (i) To the extent possible, quantify the level of effectiveness of each alternative in achieving each primary objective;*
  - (ii) Detail the capital and operational cost estimates and projections developed by the hospital for each alternative; and*
  - (iii) Explain the basis for choosing the proposed project and rejecting alternative*

***approaches to achieving the project's objectives.***

UMMC states that this project has a single objective – to expand the capacity of a single service line – and thus it may address the cost-effectiveness of the project without undertaking the analysis described in Paragraph (a) and that Paragraph (b) of this standard applies to the project.

***(b) An applicant proposing a project involving limited objectives, including, but not limited to, the introduction of a new single service, the expansion of capacity for a single service, or a project limited to renovation of an existing facility for purposes of modernization, may address the cost-effectiveness of the project without undertaking the analysis outlined in (a) above, by demonstrating that there is only one practical approach to achieving the project's objectives.***

UMMC states that the single objective of this project is to expand the capacity of its cancer center services, stating that patients are unable to obtain timely admission and have delayed outpatient treatment because the services and facilities have insufficient service capacity. (DI #2, p. 24). The applicant states that the proposed project will provide the space needed to support the growth of the cancer center program for “at least ten years” without displacing other clinical services or requiring the duplication of certain hospital functions. As will be discussed later in this staff report under 10.24.01.08G(3)(c), Availability of More Cost-Effective Alternatives,<sup>12</sup> the applicant examined several alternative approaches to meeting its objective before selecting this proposed project, which it deemed as the only practical approach to increase the capacity of its cancer center services. (DI #2, p.47).

UMMC states that the main advantages of this approach to meeting the project's objective include:

- It allows construction of new inpatient units and outpatient space while the hospital's existing services remain fully functional;
- The addition will connect to the existing hospital, allowing full support from existing hospital operations;
- The addition allows all cancer services to be vertically adjacent to each other stacked on floors 5 through 9, with two dedicated passenger elevators for patient and visitor convenience;
- The floorplan allows for nursing units large enough to meet the Facility Guidelines Institute (FGI) guidelines for 22-bed units; and
- The renovations on the fifth floor involves space that is currently occupied by offices, thus requiring no relocation of any non-cancer clinical services. (DI #2, p. 24).

UMMC states the proposed project will consolidate oncology services within four floors of the new addition. The new addition will provide the space needed to support program growth without requiring the duplication of support services or the displacement of other clinical services,

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<sup>12</sup> See pages 34-35, *infra*.

and maintains that “the proposed project is the only practical approach to increasing the capacity of its cancer service line.” (DI #2, p. 47).

Staff concludes that UMMC has demonstrated that there is only one practical approach to achieving the proposed project’s objectives and that, for this reason, the project satisfies Paragraph (b) of the standard, the only part of the standard that applies to this project. The proposed project is a cost-effective alternative that should meet the cancer center’s need for modernized space to deliver services to cancer patients and to increase service capacity.

*(c) An applicant proposing establishment of a new hospital or relocation of an existing hospital to a new site that is not within a Priority Funding Area as defined under Title 5, Subtitle 7B of the State Finance and Procurement Article of the Annotated Code of Maryland shall demonstrate:*

- (i) That it has considered, at a minimum, the two alternative project sites located within a Priority Funding Area that provide the most optimal geographic accessibility to the population in its likely service area, as defined in Project Review Standard (I);*
- (ii) That it has quantified, to the extent possible, the level of effectiveness, in terms of achieving primary project objectives, of implementing the proposed project at each alternative project site and at the proposed project site;*
- (iii) That it has detailed the capital and operational costs associated with implementing the project at each alternative project site and at the proposed project site, with a full accounting of the cost associated with transportation system and other public utility infrastructure costs; and*
- (iv) That the proposed project site is superior, in terms of cost-effectiveness, to the alternative project sites located within a Priority Funding Area.*

Since the applicant does not seek to establish a new hospital or relocate the cancer center to a new location, Paragraph (c) of the standard is not applicable.

**(6) Burden of Proof Regarding Need**

*A hospital project shall be approved only if there is demonstrable need. The burden of demonstrating need for a service not covered by Regulation .05 of this Chapter or by another chapter of the State Health Plan, including a service for which need is not separately projected, rests with the applicant.*

See the discussion under the need criterion, COMAR 10.24.01.08G(3)(b).<sup>13</sup> Commission staff recommends that the Commission find that UMMC met the burden of proof regarding the need for the proposed project.

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<sup>13</sup> See pages 26-33, *infra*.

(7) Construction Cost of Hospital Space

*The proposed cost of a hospital construction project shall be reasonable and consistent with current industry cost experience in Maryland. The projected cost per square foot of a hospital construction project or renovation project shall be compared to the benchmark cost of good quality Class A hospital construction given in the Marshall Valuation Service® guide, updated using Marshall Valuation Service® update multipliers, and adjusted as shown in the Marshall Valuation Service® guide as necessary for site terrain, number of building levels, geographic locality, and other listed factors. If the projected cost per square foot exceeds the Marshall Valuation Service® benchmark cost, any rate increase proposed by the hospital related to the capital cost of the project shall not include the amount of the projected construction cost that exceeds the Marshall Valuation Service® benchmark and those portions of the contingency allowance, inflation allowance, and capitalized construction interest expenditure that are based on the excess construction cost.*

This standard requires a comparison of the project's estimated construction cost with an index cost (i.e., essentially an expected cost or benchmark) derived from the Marshall Valuation Service (MVS) guide. Appendix 2 provides a detailed explanation of the methodology laid out in the MVS guide and how it is used to derive a benchmark value that can be used to assess the appropriateness of new construction costs in a proposed project.

Both UMMC and MHCC staff performed independent analyses to calculate the MVS benchmark for the 154,610 SF nine-story addition to the North Hospital Building at the corner of Greene and Baltimore Streets.<sup>14</sup> UMMC calculated an MVS benchmark value of \$344.14 per SF, while staff arrived at a slightly lower value of \$336.09 per SF. As explained in Appendix 2, the differing benchmarks calculated by UMMC and MHCC staff are attributable to the time period they were calculated, i.e., UMMC submitted its CON application in February 2019 and used the MVS base costs and multipliers that were available at that time, whereas MHCC staff incorporated the updated variables that went into effect in November 2019.

UMMC calculated the estimated new construction cost to be \$355.23 per SF, whereas Commission staff calculated it to be lower, at \$318.68 per SF. The difference is due primarily to staff's identification of an additional adjustment of \$6.9 million in allowable architectural and engineering fees that the applicant had failed to recognize. The respective calculations made by the applicant and Commission staff for allowable new construction costs measured against the MVS benchmark can be found at Appendix 2, Table 2.

Comparing the allowable new construction cost with the MVS benchmark values (as shown in Appendix 2, Table 2), shows that the total cost of new construction (\$318.68 per SF) is less than the MVS benchmark value (\$336.09 per SF). Thus, Commission staff concludes that the cost of constructing the nine-story Cancer Center does not exceed the MVS benchmark and that UMMC complies with this standard.

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<sup>14</sup> See Appendix 2, Table 1.

**(8) Construction Cost of Non-Hospital Space**

*The proposed construction costs of non-hospital space shall be reasonable and in line with current industry cost experience. The projected cost per square foot of non-hospital space shall be compared to the benchmark cost of good quality Class A construction given in the Marshall Valuation Service® guide for the appropriate structure. If the projected cost per square foot exceeds the Marshall Valuation Service® benchmark cost, any rate increase proposed by the hospital related to the capital cost of the non-hospital space shall not include the amount of the projected construction cost that exceeds the Marshall Valuation Service® benchmark and those portions of the contingency allowance, inflation allowance, and capitalized construction interest expenditure that are based on the excess construction cost. In general, rate increases authorized for hospitals should not recognize the costs associated with construction of non-hospital space.*

This standard is not applicable as the project does not include construction of non-hospital space.

**(9) Inpatient Nursing Unit Space**

*Space built or renovated for inpatient nursing units that exceeds reasonable space standards per bed for the type of unit being developed shall not be recognized in a rate adjustment. If the Inpatient Unit Program Space per bed of a new or modified inpatient nursing unit exceeds 500 square feet per bed, any rate increase proposed by the hospital related to the capital cost of the project shall not include the amount of the projected construction cost for the space that exceeds the per bed square footage limitation in this standard or those portions of the contingency allowance, inflation allowance, and capitalized construction interest expenditure that are based on the excess space.*

UMMC states that the proposed nursing unit program space is 494 square feet per bed and, thus, within the 500 SF per bed maximum. Staff concludes that the applicant complies with this standard.

**(10) Rate Reduction Agreement**

*A high-charge hospital will not be granted a Certificate of Need to establish a new acute care service, or to construct, renovate, upgrade, expand, or modernize acute care facilities, including support and ancillary facilities, unless it has first agreed to enter into a rate reduction agreement with the Health Services Cost Review Commission, or the Health Services Cost Review Commission has determined that a rate reduction agreement is not necessary.*

This standard is no longer applicable because HSCRC has replaced the rate reduction agreements referenced by this standard with a Global Budget Revenue (GBR) model. Commission staff will consider the ongoing validity and/or revision of this standard in its next iteration of the Acute Hospital Services Chapter, COMAR 10.24.10.

Staff notes that, in 2019, HSCRC staff developed “an integrated efficiency methodology” as an approach to incorporating per capita efficiency measures into overall efficiency analyses in line with the Total Cost of Care (TCOC) Model. The methodology uses “volume-adjusted interhospital cost comparisons” and Medicare TCOC growth calculations. HSCRC staff notes that

incorporating the traditional cost per case analysis with total cost of care growth analyses ensures that HSCRC still adheres to its statutory mandate to ensure that cost are reasonable and charges are reasonably related to costs, while at the same time incorporating new population based measures of reasonable cost in line with the per capita tests of both the All-Payer Model initiated in 2014 and the successor Total Cost of Care Model initiated in 2019.<sup>15</sup>

This methodology replaces the identification of “high-charge” hospitals, referenced in the standard and that was used under HSCRC’s former cost per case model of hospital rate regulation with identification of hospitals that are “relative efficiency outlier,” subject to lower inflation adjustments in annual updates of their GBR to bring their charges in line rather than the rate reduction agreements of the past.

The HSCRC’s October 2019 report on the new methodology identified UMMC as one of nine hospitals that met the initial categorization of “outliers.” However, UMMC was found to be one of three hospitals in this initial categorization that had an index of relative efficiency that was better than the 1.21 maximum level that HSCRC staff proposed for the application of formulaic revenue adjustments (slated, at that point in time, to be implemented in Rate Year 2021). Two other hospitals in the initial outlier group were removed from consideration for revenue adjustments because they already had preexisting arrangements with HSCRC to address their cost inefficiencies.<sup>16</sup> Thus, the “final cut” of efficiency outliers consisted of four hospitals.

## **(11) Efficiency**

***A hospital shall be designed to operate efficiently. Hospitals proposing to replace or expand diagnostic or treatment facilities and services shall:***

- (a) Provide an analysis of each change in operational efficiency projected for each diagnostic or treatment facility and service being replaced or expanded, and document the manner in which the planning and design of the project took efficiency improvements into account; and***
- (b) Demonstrate that the proposed project will improve operational efficiency when the proposed replacement or expanded diagnostic or treatment facilities and services are projected to experience increases in the volume of services delivered; or***
- (c) Demonstrate why improvements in operational efficiency cannot be achieved.***

UMMC states that a major purpose of the project is to enable UMMC to meet current

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<sup>15</sup> HSCRC, *Final Recommendation on Integrated Efficiency Policy for RY 2020: Withholding Inflation for Relative Efficiency Outliers and Potential Global Budget Revenue Enhancements* (October 16, 2019).

<sup>16</sup> LifeBridge Health System, which operates one of these latter hospitals, Grace Medical Center (formerly known as Bon Secours Medical Center), has notified MHCC that it will seek an exemption to convert the hospital to a freestanding medical facility in 2020.

demand for its cancer services, which the applicant states it is currently unable to do. Furthermore, it notes that demand for these services at UMMC is expected to increase over time, widening the gap between demand and capacity. The applicant states that the proposed project will allow the hospital to align the number of inpatient beds, infusion bays, and clinic exam rooms with projected volumes. (DI #10, p. 14). UMMC described a number of project features that it claims will contribute to efficiencies, such as:

- Broaden outpatient procedural access by allowing specialists to access patients in one setting, as well as create a more efficient environment for physicians and staff;
- Increase integration of interdisciplinary oncology support services with alternative medicine interventions such as acupuncture, massage therapies, music/art, and other therapies;
- Add integrated procedure rooms that do not tie-up regular exam rooms,
- Co-locate the investigative pharmacy and allogeneic transplant clinic in the cancer center;
- Increase the number of chemotherapy mixing hoods in the oncology pharmacy, speeding the mixing time and improving the wait times for patients to receive their chemotherapy and other drugs;
- Modernize patient flow information with the implementation of radio frequency identification (“RFID”) technology affixed to ID badges to monitor patient and staff flow within its outpatient facilities;
- Further the expansion of weekend hours and chemotherapy options to level-load patient volumes throughout the week, improve turnaround times for laboratory work necessary to start infusions, and expand nurse practitioner clinical triage and symptom management capabilities;
- Allow the applicant to design space around its electronic medical records (EMR) and electronic processes in both the inpatient and outpatient areas;
- Utilize the EMR to streamline the ordering of infusion drugs to provide real time results;
- Improve allocation and use of infusion chairs; and
- Expand the Evaluation and Treatment Center to provide important safety improvements and facilitate care that may mitigate unnecessary admissions.

(DI#2, pp.27-28; DI #10, p. 14).

Given the large increase in staffing (162.6 FTEs / 39%), the applicant was asked to provide documentation that the project *will improve operational efficiency when the proposed replacement or expanded diagnostic or treatment facilities and services are projected to experience increases in the volume of services delivered*. To demonstrate this, the applicant calculated the number of FTEs per Equivalent Inpatient Admission (EIPA)<sup>17</sup> currently employed to deliver cancer center services as well as the number that would be employed after the project is implemented, based on

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<sup>17</sup> As explained by the applicant, Equivalent Inpatient Admission (EIPA) is a measure of hospital workload, used to adjust the count of inpatient admissions to account for the volume of outpatient services. It is calculated by dividing total gross patient care revenues by gross inpatient care revenues and multiplying that number by admissions. (DI #, p.4).



projected volumes and charges. The result of that calculation – a very slight projected efficiency gain – is shown in the table below.

**Table IV-1: FTEs per Equivalent Inpatient Admission Before, After Project**  
(000, rounded)

	Actual FY19	Projected FY26	Percentage Change
<b>Cancer Center Admissions</b>	1,347	1,639	21.7%
<b>Revenue</b>			
<b>Inpatient Services Revenue</b>	\$90,602	\$105,099	16.0%
<b>Outpatient Services Revenue</b>	\$105,906	\$158,859	50.0%
<b>Gross Patient Service Revenue</b>	\$196,509	\$263,958	34.3%
<b>Cancer Center EIPAs</b>	2,921.50	4,116.40	40.9%
<b>FTEs: Cancer Center, Ancillary and Support</b>	419.5	582.2	38.8%
<b>FTEs/EIPA</b>	0.144	0.141	-2.1%

(DI #33, p. 2 & 4).

Based on the applicant's analysis and the assumptions it has employed in the analysis, the number of FTE staff per EIPA declines from an estimated 0.144 in FY 2019 to a projected 0.141 in FY 2026. Based on the applicant's projections, it does not expect to appreciably improve staffing efficiencies by integrating the oncology service capacity reconfigured and expanded by the proposed project or as a result of the projected increase in the scale of operations. At best, it does not project a reduction in the operational efficiency of GCCC which, of course, would be a counterintuitive outcome, given the substantial projected increase in service volume.

Staff concludes that the applicant has projected, as the standard requires for a project of this type, some improvement in operational efficiency, satisfying the requirements of this standard.

## **(12) Patient Safety**

*The design of a hospital project shall take patient safety into consideration and shall include design features that enhance and improve patient safety. A hospital proposing to replace or expand its physical plant shall provide an analysis of patient safety features included for each facility or service being replaced or expanded, and document the manner in which the planning and design of the project took patient safety into account.*

The applicant cited several examples of how the elements and design features of the proposed project will enhance patient safety. The grid below lists each feature and describes its expected safety benefits.

<b>Project element or design feature</b>	<b>Safety benefit</b>
Expanding the Oncology Evaluation and Treatment Center from four to six beds will enable the applicant to triage more patients for symptom management and avoid having to send these individuals to the Emergency Department.	Treating urgent conditions and providing ongoing supportive care for patients in the ambulatory setting seven days a week will reduce inpatient admission/ readmission.
The center would be co-located next to an inpatient unit with corresponding observation beds.	This will ensure continuity of care in an oncology care setting.
Development of an outpatient blood and marrow transplant service will allow a subset of patients to get their treatments in an outpatient setting.	This will allow these patients to avoid the risks inherent in an inpatient hospitalization such as exposure to hospital acquired infections, physical decompensation due to reduced mobility, risks of falls, and sleep deprivation.
Increasing the number of oncology-specific beds from 52 to 62. Because UMMC's current oncology unit is often full, hundreds of oncology patients a year have to be admitted to a general medicine unit.	Will increase patient access and improve continuity of care, allowing more oncology patients to experience the specific expertise available on an inpatient oncology unit. UMMC states that patients who have access to specially trained staffing on an oncology-dedicated unit have better outcomes.
Incorporation of evidence-based care into the design and use of patient rooms, with such features as: natural light; sufficient spaces for visitors; proper lifts for each patient room; multifunctional space for consultations and assessments; and separate isolation areas.	Reduced risk of infections.
Including advanced safety tools for the inpatient and outpatient units, such as enhanced monitoring technology (e.g., continuous non-invasive blood pressure and oxygen saturation monitoring on inpatient units; telemetry/EKG monitoring in the infusion clinic; and the build-out of the chemotherapy staging area for sign-off and double-checks.	Will mitigate chemotherapy exposure of staff and patients and reduce the potential for errors caused by interruptions and distractions.

(DI#2, pp.29-30).

Staff concludes that the enhancements provided to safety meet the standard and will aid in the prevention of errors and adverse effects to patients at UMMC's cancer center.

### **(13) Financial Feasibility**

***A hospital capital project shall be financially feasible and shall not jeopardize the long-term financial viability of the hospital.***

***(a) Financial projections filed as part of a hospital Certificate of Need application must be accompanied by a statement containing each assumption used to develop the projections.***

The applicant provided utilization projections that are consistent with observed historic trends. (DI #2, p. 31). Revenue estimates are consistent with utilization projections and based on current GBR, rates of reimbursement, contractual adjustments and discounts, bad debt, and charity care provision, as experienced by UMMC. Staffing and other expense projections are consistent

with utilization projections and based on current expenditure levels and reasonably anticipated future staffing levels as experienced by UMMC.

Staff concludes that UMMC provided the assumptions it used in developing its projections and has met the requirements of Paragraph (a) of the standard. Its assumptions regarding depreciation, interest, and other expenses are consistent with a project involving the construction for a new building and renovated space.

***(b) Each applicant must document that:***

***(i) Utilization projections are consistent with observed historic trends in use of the applicable service(s) by the service area population of the hospital or State Health Plan need projections, if relevant;***

As noted above, the applicant demonstrated that its utilization projections are consistent with historical inpatient utilization trends for the medical oncology and BMT programs, and the outpatient utilization trends for the oncology program at UMMC. Thus, staff concludes that UMMC has met the requirements of Subparagraph (b)(i) of the standard.

***(ii) Revenue estimates are consistent with utilization projections and are based on current charge levels, rates of reimbursement, contractual adjustments and discounts, bad debt, and charity care provision, as experienced by the applicant hospital or, if a new hospital, the recent experience of other similar hospitals;***

As noted, UMMC's assumptions indicate and MHCC staff verified that the revenue and expense projections are based on its current Global Budget Revenue (GBR), rates of reimbursement, contractual adjustments and discounts, bad debt, and charity care provision. Thus, staff concludes that UMMC has met the requirements of Subparagraph (b)(ii) of the standard.

***(iii) Staffing and overall expense projections are consistent with utilization projections and are based on current expenditure levels and reasonably anticipated future staffing levels as experienced by the applicant hospital, or, if a new hospital, the recent experience of other similar hospitals; and***

As noted, UMMC's assumptions indicate that the staff and other expense projections are consistent with utilization projections and based on current expenditure levels and reasonably anticipated future staffing levels as experienced by UMMC. Thus, staff concludes that UMMC has met the requirements of Subparagraph (b)(iii) of the standard.

***(iv) The hospital will generate excess revenues over total expenses (including debt service expenses and plant and equipment depreciation), if utilization forecasts are achieved for the specific services affected by the project within five years or less of initiating operations with the exception that a hospital may receive a Certificate of Need for a project that does not generate excess revenues over total expenses even if utilization forecasts are achieved for the services affected by the project when the hospital can demonstrate that overall hospital financial performance will be positive and that the services will benefit the hospital's primary service area population.***

UMMC's financial plan was revised late in the review process for this project with corresponding revision of financial projections. (DI #35). These final revisions conclude that UMMC will generate a net profit in FY 2024, the first year of operation following completion of the cancer center addition. UMMC projects that it will generate an operating margin of 3.2% or approximately \$66 million annually during the first three years following completion of the project, FY 2024 through FY 2026.

As previously noted, the HSCRC staff commented on the uncertainty of the State grant funding included in the project funding plan but also noted that, based on a review of key financial ratio projections and indicators for the University of Maryland's Obligated Group, the group is projected to have sufficient profitability, liquidity, and capital resources needed to maintain its current favorable credit ratings. On that basis, HSCRC staff believes that, with proper management, the GCCC expansion project as described in the CON is financially feasible.

Staff concludes that the applicant has demonstrated that it will produce excess revenues over expenses, and has satisfied Subparagraph (b)(iv) of the standard.

In summary, UMMC has shown that the project is financially feasible and will not jeopardize the long-term financial viability of the hospital.

**(14) Emergency Department Treatment Capacity and Space**

**(15) Emergency Department Expansion**

Neither of these standards is applicable. This project will not expand emergency department treatment capacity or space.

**(16) Shell Space**

- (a) Unfinished hospital space for which there is no immediate need or use, known as "shell space," shall not be built unless the applicant can demonstrate that construction of the shell space is cost effective.*
- (b) If the proposed shell space is not supporting finished building space being constructed above the shell space, the applicant shall provide an analysis demonstrating that constructing the space in the proposed time frame has a positive net present value that
  - (i) considers the most likely use identified by the hospital for the unfinished space and*
  - (ii) considers the time frame projected for finishing the space and*
  - (iii) demonstrates that the hospital is likely to need the space for the most likely identified use in the projected time frame.**
- (c) Shell space being constructed on lower floors of a building addition that supports finished building space on upper floors does not require a net present value analysis. Applicants shall provide information on the cost, the most likely uses, and the likely time frame for using such shell space.*
- (d) The cost of shell space included in an approved project and those portions of the*

***contingency allowance, inflation allowance, and capitalized construction interest expenditure that are based on the construction cost of the shell space will be excluded from consideration in any rate adjustment by the Health Service Cost Review Commission.***

UMMC seeks to construct two floors of shell space totaling 42,400 SF on the third and fourth floors of the cancer center addition, with finished construction dedicated to the cancer center program for the fifth through ninth floors. Since the shell space will support finished space, UMMC is not required to present a net present value analysis, but is required to provide information regarding the cost, the most likely use, and timeframe for finishing the shell space. The estimated cost of constructing the shell space for these two floors is \$1,700,000, and the applicant estimates that it will cost about \$20,000,000 to fit out both floors. (DI #2, p.33).

UMMC states that it expects to fit out the space within 48-72 months of the completion of the cancer center project, with their use directed by the overall campus strategic plan. UMMC anticipates that the third floor will be used for procedural space, and the fourth floor for inpatient clinical space. The applicant states that, based on UMMC's projected bed occupancy and future needs, constructing shell space as part of the project is a cost-effective approach as it takes advantage of economies of scale – i.e., the core and shell cost for all floors share the project general conditions, foundations, site work, first floor, and penthouse costs – and because it is more cost efficient to construct the shelled space as a part of the current project than as a separate project in the future due to the escalation of construction costs. The applicant points out that over the last five years, construction costs have escalated at three times the rate of the overall Consumer Price Index. (DI #2, pp.33-34).

The applicant has provided the required information concerning the most likely use and timeframe for finishing the space, and the cost to construct the shelled space as part of this project. UMMC has made a reasonable case for the cost effectiveness of constructing the shell space now rather than constructing this space in the future.

Staff concludes that UMMC meets the requirements of this standard. However, Subparagraph (d) of this standard requires that “the cost of the shell space included in an approved project and those portions of the contingency allowance, inflation allowance, and capitalized construction interest associated with such construction be excluded from consideration in any rate adjustment by the Health Services Cost Review Commission” until the time when UMMC applies to complete the shell space for rate regulated activities. The cost of the shell space is about 1.54% of the total cost of new construction (\$1,700,000/ \$110,625,169). Thus the amount excluded from any future rate adjustment request includes the following:

- \$1,700,000 for the cost of constructing the shell space on the third and fourth floors
- \$230,508 in contingency costs (\$15,000,000 x 1.54%)
- \$144,065 for future inflation (\$9,374,831 x 1.54%)
- \$136,276 in estimated capitalized construction interest (\$8,868,000 x 1.54%)
- \$2,210,850 total excluded costs for shell space

Thus, any request by UMMC for adjustment in budgeted revenue related to this project

should exclude \$2,210,850. As previously noted, UMMC has indicated that it may submit an application to HSCRC for an adjustment in its budgeted revenue related to the increased capital cost resulting from this project. HSCRC's current position indicates that it would not authorize such an adjustment without extraordinary justification based on maintaining the viability of UMMC.

Staff recommends that, if the Commission approves this project, the CON should include the following conditions, as is standard for hospital projects that include shell space:

2. Any future change to the financing of this project involving adjustments in revenue must exclude \$2,210,850 in shell space-related costs, which includes the estimated new construction costs of the proposed shell space and portions of the contingency allowance, inflation allowance, and capitalized construction interest expenditure related to the estimated cost of the shell space.
3. UMMC will not finish the shell space on either the third or fourth floor without giving notice to the Commission and obtaining all required Commission approvals. UMMC will not request any adjustment in budgeted revenue by the Health Services Cost Review Commission (HSCRC) that includes depreciation or interest costs associated with construction of the proposed shell space unless UMMC has obtained either CON approval for finishing the shell space or a determination of coverage from the Maryland Health Care Commission that CON approval is not required.
4. In calculating any future adjustment to budgeted revenues related to the costs of this project, HSCRC shall exclude the capital costs associated with the shell space until the space is finished and put to use in a regulated activity. In calculating any revenue adjustment that includes an accounting for capital costs associated with the shell space, the rate shall only account for depreciation and interest expenses going forward through the remaining useful life of the space.

**B. COMAR 10.24.01.08G(3)(b) Need**

*The Commission shall consider the applicable need analysis in the State Health Plan. If no State Health Plan need analysis is applicable, the Commission shall consider whether the applicant has demonstrated unmet needs of the population to be served and established that the proposed project meets those needs.*

An applicable need analysis for the addition of MSGA beds does exist in the State Health Plan. As discussed in the standard regarding identification of bed need,<sup>18</sup> the 62 beds that would be added in the proposed cancer center will not cause the total bed capacity of the hospital to exceed the most recent annual calculation of licensed bed capacity for the hospital that is made pursuant to Health-General §19-307.2. As such, the applicant does not need to make a case for the addition of this number of beds, and focused its explanation of need for the project on: a desire

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<sup>18</sup> See discussion of COMAR 10.24.10.04B(2), *supra*, pp. 11-12.

to gain efficiency and improve patient care and satisfaction by consolidating services to cancer patients who are now scattered throughout the facility and campus; the need for more outpatient treatment space; and the need for a combined ten-bed increase in beds dedicated to blood and marrow transplants and medical oncology.

### Overview

UMMC concisely summarizes the need for the project as follows, stating that the proposed project

is premised on the need to expand outpatient services...[in] a single, efficient location ... where UMMC can provide all inpatient and outpatient cancer services ... to improve the care delivery model for cancer patients, including wraparound support services...alleviating the currently confined space for cancer services and creat[ing] space that meets projected demand for oncology services. The ... project will allow immuno-compromised patients to access their cancer related health care needs in one, centralized location, and will reduce their significant wait times. This project will also allow UMMC to implement innovative cancer treatment services that it currently lacks the physical space to develop.

(DI #30, Exh. 39, p. E-1).

UMMC also presented a list of the problems that the proposed project is intended to alleviate and the improvements that would accrue from the implementation of the project, including:

- The oncology program's inpatient beds have, on average, high occupancy rates. The 16-bed BMT unit has an average annual occupancy rate of 85%, while the 36 beds on the two medical oncology units have an average annual occupancy rate of approximately 87%. The high occupancy rates often result in placing an oncology patient on a general medical unit, which is not ideal for either the patient or the staff. (DI #10, Table 22, and p. 6);
- New therapies such as CAR-T therapy<sup>19</sup> to treat leukemia patients requires the use of inpatient BMT beds. The expansion of the inpatient BMT unit from 16 to 18 beds will help address the need for an available acute care bed for patients receiving this innovative therapy. (DI #10, p. 6);
- Lack of space limits the hospital's ability to add such services as cardiovascular oncology, specialized high-risk breast disease services, and palliative consults, causing clinics to be re-located to other buildings, hindering and limiting the collaborative interactions and coordination of patient care among specialty providers. (DI #10, p. 7);
- Additional space will enable the oncology program to expand its offering of the services of the University of Maryland School of Medicine's Center for Integrative

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<sup>19</sup> UMMC states this therapy involves genetic re-engineering of a patient's cells and re-infusing them to attack cancer cells. (DI #30, Exh. 39, p. E-5).

Medicine, such as acupuncture, massage therapy, and dialogue therapy. (DI #14, p. 3);

- Outpatient staff offices are spread throughout an old inpatient infrastructure or located off-site. This is not only very inefficient for their workflow and fostering connections with other staff and patients, but can also mean longer wait times for patients as staff travels back and forth. (DI #30, Exh. 39, p. E-2);
- Because of space limitations in the current outpatient center, nurses and other members of clinical teams are required to share workstations. While some sharing is to be expected, the applicant states there are “too many people attempting to utilize workstations at one time,” causing delays for both staff and patients. (DI #30, Exh. 39, p. E-2). UMMC also states that there is not sufficient space for oncology teams, that can include a doctor, a nurse, fellows, research coordinators, and other staff, to easily collaborate; and
- The applicant states that “wait times (averaging 56 minutes) for drug delivery to infusion patients hinders UMMC’s ability to treat GCCC patients efficiently” because GCCC’s one chemotherapy pharmacy supports both the adult inpatient and outpatient oncology and the pediatric oncology programs. The construction of the new addition will provide additional floor space for the pharmacy to configure additional chemotherapy mixing hoods, which UMMC expects will “dramatically reduce the wait times of patients” and shorten the period of time that patients wait to start their infusions. (DI #14, p. 2). (DI #10, p. 6).

### **Outpatient Services Need and Improved Health Care Delivery for Cancer Patients**

UMMC states that the number of patients served and treatments provided in UMMC’s Cancer Center has increased significantly since 2010, rising from a combined 47,144 clinic and infusion visits in 2010 to approximately 63,463 combined visits in 2019 (+ 35%), while operating in roughly the same footprint. The applicant attributes this growth to several factors. In 2008, GCCC received its National Cancer Institute designation, and in 2015 it received “comprehensive” status from the National Cancer Institute. During the same period, the University of Maryland Cancer Network was established, spurring more collaboration between GCCC and partner cancer centers at UM Baltimore Washington Medical Center, UM St. Joseph Medical Center and UM Upper Chesapeake Medical Center. Figure 1 below illustrates the actual and projected growth of outpatient oncology at GCCC.

Citing predictions made by the consulting firm Sg2 (<https://www.sg2.com/>), the applicant predicts a 3% decline in inpatient cancer discharges that will result in a greater amount of outpatient care:

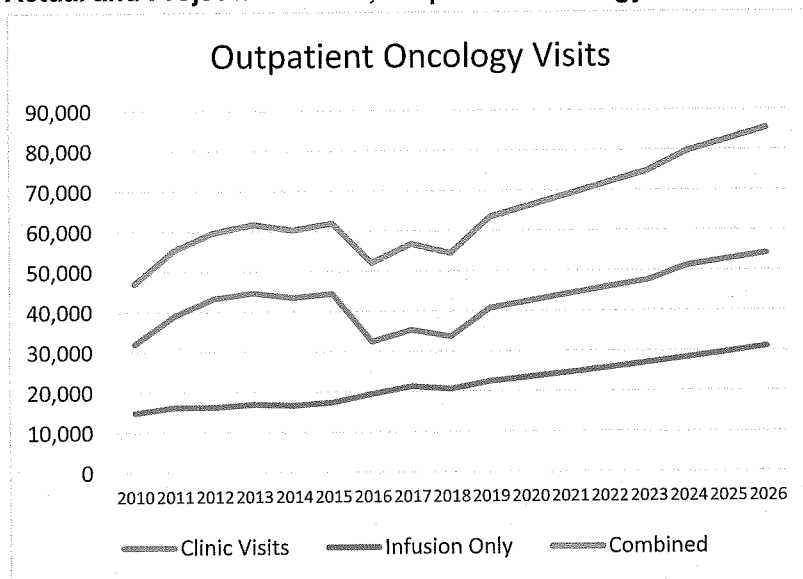
Although a growing aging and cancer survivor population, along with changing disease epidemiology, bolsters overall demand for cancer services and innovative technologies expand care to new patient populations, opportunities remain primarily in the outpatient setting...new genetic-based diagnostic tests...adoption of targeted therapies, improved care coordination, and...more utilization of



palliative care and hospice will lower treatment-related side effects and avoidable medical admissions. Similarly, the expansion of alternative care models and improved care coordination will also lower IP admissions for chemotherapy-related complications. While initial adoption of these types of care models is slow, expect some acceleration over the forecast period as payment structures continue to reward cost reduction through improved coordination and avoidance of unnecessary, high-cost inpatient care.

(Sg2 2018, *Impact of Change—National Disease-Based Forecast*, p. 1, cited in DI #10, Exh. 27).

**Figure 1: Actual and Projected Growth, Outpatient Oncology at UMMC**



Notes: UMMC states that FY 2010-2018 data are based on actual experience; FY 2019 forward includes a projected 4.68% annual growth rate. There was a dip in 2016 due to implementation of new electronic medical record systems in phases resulting purposely limiting appointments. In 2017 and 2018, UMMC moved several thousand surgical oncology patient visits to an off-site location due to lack of space, and experienced a slight decline in volumes in the main outpatient center. (DI #30, Exh. 39, p. E-11).

The following Table IV-2 reflects the detailed data illustrated in Figure 1, and projects a 35% increase between 2019 and 2026, following on a similar increase between 2010 and 2019. (DI #30, Exh. 39, pp. E-11 – E-12).

**Table IV-2: UMMC Actual (2010-2018) and Projected (2019-2026) Outpatient Oncology Volume**

FY Year	Clinic Visits Only	Infusion Only	Combined
2010	32,140	15,004	47,144
2011	39,083	16,362	55,445
2012	43,421	16,066	59,487
2013	44,767	17,053	61,820
2014	43,635	16,747	60,382
2015	44,592	17,514	62,106
2016	32,629	19,581	52,210

<b>FY Year</b>	<b>Clinic Visits Only</b>	<b>Infusion Only</b>	<b>Combined</b>
2017	35,479	21,408	56,887
2018	33,815	20,745	54,560
2019	40,851	22,612	63,463
2020	42,650	23,670	66,320
2021	44,388	24,778	69,166
2022	46,075	25,938	72,013
2023	47,713	27,152	74,865
2024	51,343	28,422	79,765
2025	52,861	29,752	82,613
2026	54,315	31,145	85,460

Source: DI #30, Exh. 39, Table S-19, pp. E-11-E-12.

Features and benefits of the outpatient space as designed for the proposed project are described below.

- The creation of the six-bed Evaluation and Treatment Center (ETC) and the addition of two short-stay bays will allow GCCC to evaluate patients prior to referral to the Emergency Department. The applicant expects that the ETC will help reduce both the number of patients admitted and the subsequent number of inpatient days by several thousand;
- UMMC estimates that the addition of an eight-room outpatient BMT space will accommodate 30% of its autologous transplant patients and projects that, by 2028, the outpatient program could serve 57 patients, and save nearly 1,200 inpatient days, turning them into 1,200 outpatient visits;
- The ten-room expansion of outpatient oncology clinic examination space will allow patients to be seen in one location by a multi-specialty team of oncologists across the medical, surgical, and radiation disciplines, facilitating and improving the collaboration and teamwork among the clinical providers;
- The number of outpatient infusion chairs will increase from 29 to 48 allowing for “right-sizing” capacity and the creation of appropriate spacing;
- Oncology related procedures are frequently performed in alternate locations due to lack of procedure room space. Sick/weak patients must traverse across the hospital to have procedures such as lumbar punctures, bone marrow biopsies, tunneled catheter, chest tubes, and cervical/vaginal biopsies. Increasing the number of procedure rooms from three to six will allow GCCC to accommodate the patients’ care in a single, central location and “provide a beneficial impact on the patient’s delivery of care experience;”
- The addition of two chemotherapy mixing hoods, doubling the number available for the preparation of chemotherapy, will decrease patients’ waiting time and “improve the

patient's experience with the overall delivery of care;"

- Addition of 2 apheresis rooms (plus right-sizing and privatization of all 6 rooms). Currently, the apheresis chairs are located in a single, undivided room that affords no privacy. The proposed project will add two apheresis rooms, needed additional capacity, and include walls to afford privacy as well as the inclusion of beds to accommodate patients who are unwell and need to lie down for what is a long procedure of several hours;
- Over time the capacity for phlebotomy services has increased from five to ten chairs, necessitating the abandonment of separate bays to re-purpose a hallway into ten mini-stations with curtains. The project will add two spaces, providing for 12 dedicated, private phlebotomy rooms with adequate spacing and equipment; and
- With only two conference rooms, GCCC is constrained in setting up new tumor boards, causing staff to schedule these meetings off-site or forego new meetings entirely. The proposed project will include five conference rooms to accommodate and provide sufficient space to accommodate these important meetings.  
(DI #30, Exh. 39, pp. E-3 – E-5).

### **Blood and Marrow Transplant Bed Need**

UMMC calculated a need for 18 beds to serve BMT and CAR-T cell therapy patients. This section discuss how the applicant arrived at that projection for each of these categories of patients.

As previously discussed in Part III under Utilization Trends,<sup>20</sup> the total number of patients discharged from Maryland's two inpatient BMT programs increased by 29% between 2015 and 2018. (DI #30, Exh. 39, pp. E-3). During that period, UMMC's discharges increased by 48%. (DI #30, Exh. 39, Table S-4, p. E-3). The previous Table III-2<sup>21</sup> detailed the growth of BMT volume at UMMC over a longer time horizon.

This longer-term analysis shows that in the ten years of 2007 to 2017, leukemia cases diagnosed at UMMC grew by 90%, myeloma cases diagnosed at UMMC grew by 233%, and lymphoma cases diagnosed at UMMC grew by 34%.

To project the number of beds needed for the BMT program the applicant presented the actual and projected number of BMT patients (Table IV-4 below).

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<sup>20</sup> See discussion at pp. 6-8, *supra*.

<sup>21</sup> See p. 6, *supra*.

**Table IV-3: Actual (2015-2018) and Projected (2023 & 2028)  
Bone Marrow Transplant Patient Volume**

Blood and Marrow Transplants	Actual				Projected		Projected, After Outpatient Shift *	
	2015	2016	2017	2018	2023	2028	2023	2028
UMMC	132	148	134	195	223	257	174	200
<b>MD TOTAL</b>	<b>241</b>	<b>274</b>	<b>245</b>	<b>310</b>	<b>355</b>	<b>409</b>	<b>355</b>	<b>409</b>

Source: DI #30, Exh. 39, Table S-4, p. E-3.

\* Assumes that, upon opening of the proposed project, UMMC will shift up to 30% of its BMT patients to outpatient transplants. (DI #30, Exh. 39, p. E-5). This is an outpatient service that academic medical centers such as Johns Hopkins Hospital currently offers, but UM GCCC is unable to accomplish without additional outpatient space

Future projections were based on applying an assumed rate of discharges/1000 population<sup>22</sup> to the projected future population and assume that UMMC's current 63% market share would continue into the future. The projection also assumes that 30% of the BMT patients would shift to outpatient treatment "an outpatient service that other academic medical centers, such as Johns Hopkins Hospital, currently offers, but GCCC is unable to accomplish without additional outpatient space." (DI #30, Exh. 39, p. E-5). The average length of stay for a BMT patient is assumed to be the current 21.26 days. (DI #30, Exh. 39, p. E-4). The calculation, shown in the table below, yields a need for 15 beds to service BMT patients.

**Table IV-4: BMT Bed Need Calculation**

	2018 actual (Base Year)	2023	2028
<b>Discharges</b>	195	174	200
<b>LOS</b>	21.26	21.26	21.26
<b>Patient days</b>	4,145	3,699	4,252
<b>UMMC Average Daily Census<sup>1</sup></b>	11.36	10.13	11.65
<b>Beds needed @ 80% occupancy</b>	15	13	15

Source: DI #30, Exh. 30, Table S-8, p. E-4.

UMMC also anticipates continued growth of CAR-T cell therapy, which requires use of the BMT unit, and projects that it will serve 40 inpatients annually. UMMC states that, because CAR-T cell therapy is a new treatment and future demand is difficult to project, it assumed flat volume over the 10-year projection. At an average length of stay of 25 days and an 80% occupancy rate assumption, CAR-T cell therapy patients would be projected to need an additional three beds on the BMT unit, as shown in the following table.

<sup>22</sup> The BMT use rate per 1000 population in Maryland grew from 0.053 in 2015 to 0.067 in 2018. UMMC assumes the use rate will be 0.074 in 2023 and 0.082 in 2028. Sg2 states that more effective drugs to combat complications and a variety of transplant options for patients (e.g., bone marrow, umbilical cord blood, and peripheral blood stem cells) have expanded the patient population eligible to receive a bone marrow transplant. (DI #30, Exh. 39, pp. E-1 – E-5).

**Table IV-5: UMMC Projected Five and Ten Year UMMC Bed Need for CAR-T Cell Therapy Patients**

<b>CAR-T cell therapy</b>	<b>Base Year</b>	<b>2023</b>	<b>2028</b>
Discharges <sup>(1)</sup>	40	40	40
Average length of stay (days) <sup>(1)</sup>	25	25	25
Total days <sup>(1)</sup>	1,000	1,000	1,000
Average daily census <sup>(2)</sup>	2.74	2.74	2.74
Bed need at 80% average annual occupancy <sup>(3)</sup>	3	3	3

Source: DI #30, Exh. 39, Table S-92, p. E-5.

(1) Source: UMMC internal data

Notes: (2) Calculation: (Total days/365), (3) Calculation: (Average daily census/0.8)

Thus, UMMC projects a need for 18 beds in the BMT unit, 15 beds to serve BMT patients and three to serve CAR-T cell therapy patients.

### **Medical Oncology Bed Need**

As previously discussed in Part III under Utilization Trends,<sup>23</sup> the use rate and number of discharges for medical oncology declined across Maryland's hospitals between 2015 and 2018. Discharges per thousand population dropped from 2.62 to 2.36, and total discharges declined from 11,793 to 10,913. This reflects the improvements to care, which allowed a greater proportion of treatment to shift to outpatient settings. During this period of contracting inpatient medical oncology care, however, UMMC's market share grew by 2.4 percentage points (to 10.6%) in 2018, as discharges grew by 19%, from 971 to 1,159 (Table IV-7).

**Table IV-6: Medical Oncology Discharges, UMMC and Maryland**

<b>Medical Oncology Discharges</b>	<b>2015</b>	<b>2016</b>	<b>2017</b>	<b>2018</b>
University of Maryland Medical Center	971	993	1,098	1,159
Maryland Hospitals Total	11,793	11,030	10,872	10,913

Source: HSCRC Statewide Inpatient Discharge Database (DI #30, Exh.39, pp. E-6 – E-7).

To project future medical oncology bed need, UMMC states that it used its 2018 experience as a base year, and calculated future need for two categories of medical oncology patients according to how their diagnoses were coded, following the steps in the table immediately below.

<sup>23</sup>See discussion at pp. 6-8, *supra*.

**Table IV-7: UMMC Medical Oncology Bed Need Calculation**

<b>(A) Projected Five and Ten Year UMMC Bed Need for Patients with Medical Oncology APR DRGs</b>	<b>2018 (Base Year)</b>	<b>2023</b>	<b>2028</b>
Maryland adult population (in millions)	4.63	4.82	4.98
Maryland discharges	10,913	10,753	10,586
Use rate per 1,000 population	2.36	2.22	2.10
UMMC market share	10.6%	11.8%	13.0%
UMMC discharges	1,159	1,204	1,249
UMMC average length of stay (held at 2018 actual)	8.70	8.70	8.70
UMMC total days	10,083	10,478	10,867
UMMC average daily census	27.6	28.7	29.8
<b>Bed need at 80% average annual occupancy rate</b>	<b>35</b>	<b>36</b>	<b>37</b>
<b>(B) Projected Five and Ten Year UMMC Bed Need for Other Cancer Patients without Medical Oncology APR DRGs</b>	<b>2018 (Base Year)</b>	<b>2023</b>	<b>2028</b>
UMMC discharges	286	280	274
UMMC average length of stay	7.75	7.75	7.75
UMMC total days	2,217	2,170	2,124
UMMC average daily census	6.07	5.95	5.82
<b>Bed need at 80% average annual occupancy rate</b>	<b>8</b>	<b>8</b>	<b>8</b>
<b>(C) Total Medical Oncology Bed Need (A + B)</b>	<b>43</b>	<b>44</b>	<b>45</b>

Sources: Maryland Department of Planning; HSCRC Statewide Inpatient Discharge Database; UMMC internal data (DI #30, Exh. 39, Tables S-16, S-17, and S-18, pp. E-9 – E-10).

### **Summation: Bed Need Projections**

Blood and Marrow Transplant Bed Need:	18
<u>Medical Oncology Bed Need:</u>	<u>45</u>
<b>Total</b>	<b>63</b>

UMMC's projections showed a need for 63 combined BMT and medical oncology beds. UMMC is proposing 62 such beds for this project, representing an increase of two BMT and eight medical oncology beds over its present bed complement.

Staff concludes that UMMC has provided a thorough and data-based analysis of need to create expanded space for its cancer program, which has experienced significant growth over the last decade. It has demonstrated the need for additional space to accommodate expanding outpatient demand for services, demand that is occurring not only with population and market share growth, but also to accommodate new treatment modalities and clinical shifts toward outpatient treatment. Similarly, the applicant has experienced significant growth in BMT and Car-T cell therapy service volume, supporting its request for ten additional beds.

In addition to the need for more space to accommodate growing demand, a major rationale for the project is to enable consolidation of services to cancer patients that are currently dispersed throughout the facility and medical campus, aimed at increasing efficiency and improving the patient experience.

Staff recommends that the Commission find that the Need criterion has been met.

### **C. Availability of More Cost-Effective Alternatives**

#### ***COMAR 10.24.01.08G(3)(c) Availability of More Cost-Effective Alternatives.***

***The Commission shall compare the cost effectiveness of the proposed project with the cost effectiveness of providing the service through alternative existing facilities, or through an alternative facility that has submitted a competitive application as part of a comparative review.***

The applicant states that the single objective of this project is to expand the capacity of its cancer center services, stating that patients are sometimes denied admission and have delayed outpatient treatment because the services and facilities are at maximum capacity. (DI #2, p. 24). UMMC identified two alternative approaches to the proposed project.

The first alternative considered was to construct a freestanding comprehensive cancer center. UMMC explored constructing a freestanding cancer care patient tower at a site on the southeast corner of Greene and Lombard Streets across from the south entrance to the medical center. (DI #10, pp. 13-14). This alternative would consist of a five-story building with 72 inpatient beds and space for outpatient clinics, infusion, imaging, and space for a laboratory, pharmacy, and support services, connected to the main hospital by a bridge. (DI #2, p.47). UMMC rejected this option, believing that it would be detrimental to patient safety because being located separately from the rest of the hospital would separate patients from code teams, operating rooms, and procedure areas. The applicant also found this option to be much more expensive to operate than an approach that would keep services within the existing hospital block as it would be "burdened with both the marginal capital and operating costs associated with duplicating lab, pharmacy, and support services." (DI #2, p.47). The applicant estimates this alternative would be 25 percent more expensive than the proposed project to operate due to duplication in facilities and resources. (DI #10, p.14). The applicant states the estimated cost of this option is \$251,600,000. (DI #10, p.17).

The second option UMMC considered was reassignment and renovation of existing space within the hospital. This option includes renovation of the two existing inpatient cancer units and reassignment of an additional floor in the hospital building to expand the clinic and infusion space, which would add a total of 56,500 departmental gross square feet. (DI #2, p.47). UMMC deemed this option to be infeasible because this alternative would provide less than half of the space that is needed to meet the program's growth. The applicant states that there is not enough space anywhere in the existing hospital to convert to cancer center use without creating significant adverse impacts on other programs. The second problem is logistical, i.e., there is not enough "swing" space to renovate other space without the loss of clinical service capacity during the renovation work. (DI #2, p.47). The applicant stated that there was no "feasible solution to creating sufficient space...for the inpatient units ... without re-blocking and stacking major areas of the existing hospital... [which] would be both unacceptably disruptive to ongoing patient care and not fiscally prudent." Since this option was deemed inadequate to meet the programming objectives its cost was not estimated. (DI #10, p. 18).

UMMC states the proposed project will provide the space needed to support program growth without requiring the duplication of support services or the displacement of other clinical services, and maintains that “the proposed project is the only practical approach to increasing the capacity of its cancer service line.” (DI #2, p. 47).

Commission staff concludes the construction of the new nine-story cancer center addition is the most cost-effective alternative, and recommends that the Commission find that the applicant complies with this criterion.

#### **D. Viability of the Proposal**

##### ***COMAR 10.24.01.08G(3)(d) Viability of the Proposal.***

*The Commission shall consider the availability of financial and nonfinancial resources, including community support, necessary to implement the project within the time frames set forth in the Commission’s performance requirements, as well as the availability of resources necessary to sustain the project.*

The proposed project received a number of letters from local government and community leaders who submitted comments as detailed previously under Community Support, supra pp. 4-5.

##### **Availability of Resources to Implement the Proposed Project**

The total estimated cost of the project is \$194,368,000. (DI #35, Table E). A detailed description is included in Appendix 4.

In its original application, UMMC stated the State would provide \$125 million in grant funding and about \$49.3 million in tax-exempt bond support for this proposed project. (DI #2, Exh. 1, Table E). UMMC stated that it “reasonably expects to receive grant funding from the State of Maryland through the State Capital Improvement Program (CIP).” (DI #17, Q. #1). The applicant stated that it “has routinely requested and received substantial State grants over the past 30 years through the CIP for a number of other multi-year projects.<sup>24</sup> Based on UMMC’s extensive history of applying for and receiving state grant funding for capital improvement projects and the State’s demonstrated commitment thus far ..., UMMC is confident that the State will provide additional funding in future years, with a total State contribution of \$125.0 million.” (DI #14, Q. #1). The applicant states that, “in the unlikely event the State fails to fund the entire \$125 million for this project, UMMC will seek to fund any shortage with bond financed debt.” (DI #22, p. 3).

With regard to the tax-exempt bonds, UMMC stated it is part of the University of Maryland Medical System Obligated Group (UMMS OG) which allows the applicant to utilize debt funding to support the project. The applicant states that UMMS OG has an investment grade rating which varies from A (Fitch and Standard and Poors) to A2 (Moody’s) (DI #2, p.48). The debt would be in the form of \$49.3 million in a 30-year, tax-exempt bond issue at an assumed 4.5% interest.

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<sup>24</sup> UMMC states it has successfully used the CIP process to receive funding for projects related to the Shock Trauma Center, the Gudelsky Building, the Weinberg Building, and others. (DI #17, Question #1).



The remaining source of funding would be in the form of philanthropy and cash reserves. UMMC states it expects to have collected the \$20 million in philanthropy by the start of construction. (DI #2, p.48). Finally, the applicant's audited financial statements indicate that UMMC has sufficient funds to provide \$100,000 in cash reserves for the project. (DI #2, Exh. 12).

The applicant withdrew the rate adjustment application it had submitted to HSCRC and states that it will not request a rate increase for costs associated with this project from HSCRC.<sup>25</sup>

In response to an April 22, 2020 request by MHCC staff, HSCRC staff performed a review of the financial projections provided in UMMC's CON application and subsequent filings, providing to MHCC "an opinion on the reliability of the grant funding" and advice on whether the proposed project is financially feasible. (DI #34). A copy of the HSCRC staff's review and opinion is in Appendix 5. HSCRC staff states that it utilized the applicant's CON application and the subsequent completeness responses for its review. Taking into account that UMMS removed any increase to its GBR related to the cost of this project, HSCRC staff stated that the revenue projections in these documents "seem reasonable and achievable." (DI #34, p. 2).

HSCRC next assessed the applicant's statement that the State would provide \$125 million in grant funding. While the State of Maryland has lived up to its pledges of providing State funding for prior UMMS' construction projects, HSCRC does not know whether the State would continue to fulfill its pledge due to the economic impact from the COVID-19 pandemic. Without speculating on the reliability of the State's commitment to fund this grant, HSCRC sought further details on the applicant's financial plans should the applicant not receive the full amount pledged for this project. UMMS' response is incorporated in HSCRC staff's review. (DI #34, pp. 2-3). In part, it states that, while

UMMC is confident that the State will provide the entire value of the grant, ... the timing of such funding is a function of the political and legislative processes inherent in State government .... UMMC management is planning for the potential of such State funding to be spread over a period that may go beyond the scheduled fiscal 2024 opening of the GCCC expansion project. Consistent with such planning, UMMS (the obligated group) is planning a \$120 million taxable bond issue in this calendar year that will include \$78.5 million for the cancer center, with an even greater share available to help bridge any funding gap that may result from deferred State provisions. In addition, UMMS has available lines of bank credit. The planned borrowing is an increase of \$29.2 million over the amount of debt initially included as a source component on Table E of the CON. (DI #2). The added interest expense if incurred would not put at risk the financial viability of this project.

As a result of its discussions with HSCRC staff, UMMC revised its assumed amount of State-issued grants and the total amount of tax-exempt bonds to indicate the following breakdown in the source of funding for the proposed project.

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<sup>25</sup> UMMC states it reserves the right to discuss rate relief and a capital adjustment to its rates with the HSCRC staff. (DI #14, p. 5).

**Table IV-8: Anticipated Project Funding**

<b>Source of Funding</b>	<b>Amount</b>
<b>Grant from the State of Maryland</b>	<b>\$95,768,000</b>
<b>Philanthropy</b>	<b>\$20,000,000</b>
<b>Authorized Bonds</b>	<b>\$78,500,000</b>
<b>Cash Reserves</b>	<b>\$100,000</b>
<b>Total</b>	<b>\$194,368,000</b>

Source: (DI #35, Table E. revised July 20, 2020)

UMMS also revised its Revenue and Expense statement to take into account the costs associated with the \$120 million taxable bond issue previously mentioned. Based on this updated Revenue and Expense statement, which is included in Appendix 4, HSCRC staff stated the following:

UMMC has incorporated a significant amount of Operational Performance Improvements to its cost structure in its updated financial projections received during July 2020 [that] ... are projected to yield a positive net operating margin of 3.2% or approximately \$66 million annually for the 3 years of operations ended fiscal 2026. UMMC will need to manage to these cost reductions. No additional increase to GBR revenue should be provided to UMMC if it is not able to accomplish these reductions.

[HSCRC staff] ... reviewed the projected key financial ratios and indicators for the University of Maryland's Obligated Group. This group will be responsible for the repayment of any bonds sold to finance this project. These projections show that ample profitability, liquidity, and capital resources should be available in order to maintain its current favorable rating of A2 with a Stable Outlook from Moody's Investors Services and A with a Stable Outlook from Standard and Poors Global throughout the projection period.

(DI #34, p. 3).

In conclusion, the HSCRC staff "believes that, with proper management, the GCCC expansion project as described in the CON is financially feasible." (DI #34, p. 3). Therefore, the applicant has demonstrated it has sufficient resources to financially sustain this project.

### **Resources to Sustain the Proposed Project**

The applicant states that a total of 287.6 FTEs currently support the 52 physical beds and oncology programs operating under the GCCC. The applicant states that with the start of operations, "the new Cancer Center will include expanded clinical, lab, pharmacy, and outpatient capacity and increases in service and/or outpatient volume over what UMMC currently provides or experiences." (DI #26, pp. 2-3). As a result, the applicant believes that the current staff complement will not be sufficient to support these additional facilities and support services in the new Cancer Center.

UMMC states that the proposed project will result in it hiring an additional 162.6 FTE staff who will work in the Cancer Center. UMMC states that approximately 55% of the additional staff

(approximately 89 FTEs) will handle the increase in utilization expected for outpatient services. (DI #30, Exh. 39, p. E-3). The applicant states that the number of additional inpatient staff hired (approximately 29 FTEs) is based on staffing guidelines for the 62 inpatient beds that GCCC will operate upon completion of the proposed project. (DI #17, p. Q. #4). The remaining additional FTEs will include clinical as well as maintenance, cleaning, and administrative support staff for the Cancer Center. The applicant notes that a total of 450+ FTEs will work for the inpatient and outpatient oncology programs and not be shared with other clinical programs within the medical center. (DI #17, Question #4). The breakdown in the current and additional staff for the Cancer Center is in Appendix 4. UMC it does not anticipate any difficulty in hiring these additional personnel.

Staff recommends a finding that UMMC has demonstrated viability of its proposed project.

#### **E. Compliance with Conditions of Previous Certificates of Need**

***COMAR 10.24.01.08G(3)(e) Compliance with Conditions of Previous Certificates of Need. An applicant shall demonstrate compliance with all terms and conditions of each previous Certificate of Need granted to the applicant, and with all commitments made that earned preferences in obtaining each previous Certificate of Need, or provide the Commission with a written notice and explanation as to why the conditions or commitments were not met.***

The Commission has reviewed and awarded three Certificates of Need to UMMC in the past 20 years. One was issued in 2001 for the construction of an ambulatory care building, which the applicant withdrew after partial completion. The second project was approved on March 18, 2010 to expand trauma, critical care, and emergency services at a cost of \$176,728,000 (Docket No. 09-24-2300). UMMC states that the Commission issued a Final Order indicating the applicant was compliant with the three conditions of that CON. (DI #2, Exh. 13).

Finally, the Commission awarded a CON with no conditions to UMMC on May 15, 2019 to establish acute psychiatric hospital services for adolescents (ages 13-18), and the creation of a new 16-bed acute psychiatric unit for children and adolescents at a cost of \$9,580,000 (Docket No. 18-24-2429). UMMC's quarterly status report for the period from November 14, 2019 to February 7, 2020 states that the applicant met the first performance requirement by signing a binding construction contract on December 3, 2019, and met the second performance requirement by initiating construction on the same date, well before these performance requirements were due.<sup>26</sup> The applicant has complied with the terms and conditions for this project to date.

Staff concludes that the applicant has complied with all terms and conditions of previous CON and has satisfied this criterion.

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<sup>26</sup> When it was awarded the CON, UMMC's first performance requirement permitted up to 12 months from CON approval for it to obligate 51 percent of its approved capital expenditure, or by May 16, 2020. The second performance requirement would have required it to initiate construction within four months of the effective date of the binding construction contract. Performance requirements have been stayed during the state of emergency related to the coronavirus pandemic.

## **F. Impact on Existing Providers and the Health Care Delivery System**

***COMAR 10.24.01.08G(3)(f) Impact on Existing Providers and the Health Care Delivery System. An applicant shall provide information and analysis with respect to the impact of the proposed project on existing health care providers in the service area, including the impact on geographic and demographic access to services, on occupancy, on costs and charges of other providers, and on costs to the health care delivery system.***

UMMC states that it expects the growth of its BMT service will not have an impact on other existing oncology providers, as the projected growth of this part of its oncology program is not due to a major shift. The projected growth instead comes from a growing market and from technological changes, such as the development of more effective drugs to lessen complications of BMT and the introduction of a variety of transplant options,<sup>27</sup> which have expanded the patient population eligible to receive BMT services, leading to higher demand for that service. (DI #2, p. 51).

UMMC projects that it will receive a slightly larger share of declining inpatient medical oncology volumes. It projects that those discharges will decline over the next ten years,<sup>28</sup> from a statewide total of 10,913 in 2018 to 10,586 in 2028. In 2015, there were 11,793 inpatient medical oncology discharges. UMMC projects that its market share of medical oncology discharges will grow by 1.2 percent from 2019 to 2028, which would bring its share to 11.8%. (DI#2, pp. 52, 53).

UMMC expects that its gain of about 125 discharges will come from other providers proportional to their current volumes with no hospital other than Johns Hopkins, the market share leader at 20+ percent, losing more than eight discharges.<sup>29</sup> (DI #2, p. 53). UMMC expects its oncology program will continue to maintain its market share due to the strengthened brand recognition of GCCC, the strengthening of the University of Maryland Cancer Network, and the expansion of UMMS into Prince George's County. (DI #2, p. 53). With the minimal impact and the even re-distribution of the medical oncology patients across the state to UMMC's Cancer Center, the applicant expects that no one Maryland hospital will experience an adverse impact as a result of the proposed project. (DI #2, pp.53-54).

Staff concludes that the proposed project will not cause any significant negative impact on

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<sup>27</sup> UMMC states that these options include bone marrow, umbilical cord blood, and peripheral blood stem cells. (DI #2, p. 51).

<sup>28</sup> UMMC's consultant, Sg2, in its *National-Disease Based Forecast, Service Line Expert Analysis*, states: The use of new genetic-based diagnostic tests combined with the adoption of targeted therapies, improved care coordination, and more utilization of palliative care and hospice will lower treatment-related side effects and avoidable medical admissions. Similarly, the expansion of alternative care models and improved care coordination will also lower IP admissions for chemotherapy-related complications. While initial adoption of these types of care models is slow, expect some acceleration over the forecast period as payment structures continue to reward cost reduction through improved coordination and avoidance of unnecessary, high-cost inpatient care. (DI #10, p.19; Exh. 27, p.1).

<sup>29</sup> The applicant's projections state that the hospital most affected is The Johns Hopkins Hospital, with a projected loss of 0.3% in market share and a loss of 28 medical oncology discharges.

other providers and will have a positive impact on the availability, accessibility, and quality of care that UMMC will be able to provide to cancer patients.

## V. SUMMARY AND STAFF RECOMMENDATION

Based on its review of the proposed project and the project's compliance with the applicable review criteria and standards, Commission staff concludes that the project complies with the applicable standards in the Acute Hospital Services Chapter of the State Health Plan. The applicant has demonstrated the need for the project, the cost-effectiveness of the project in light of available alternatives, the viability of the project, and the primarily positive impact of the project.

Accordingly, staff recommends that the Commission **APPROVE** the University of Maryland Medical Center's application for a CON to construct a nine-story building addition that will house the Greenebaum Comprehensive Cancer Center on the east side of the North Hospital at the corner of Greene and Baltimore Streets, through the new construction of 154,610 square feet and the renovation of 72,670 square feet of contiguous space, at a cost of \$194,368,000, with the following conditions:

1. Prior to its request for first use approval, UMMC will submit an assessment of the need for surge bed capacity at UMMC and its plan to maintain and deploy adequate surge bed capacity when needed.
2. Any future change to the financing of this project involving adjustments in revenue must exclude \$2,210,850 in shell space-related costs, which includes the estimated new construction costs of the proposed shell space and portions of the contingency allowance, inflation allowance, and capitalized construction interest expenditure related to the estimated cost of the shell space.
3. UMMC will not finish the shell space on either the third or fourth floor without giving notice to the Commission and obtaining all required Commission approvals. UMMC will not request any adjustment in budgeted revenue by the Health Services Cost Review Commission (HSCRC) that includes depreciation or interest costs associated with construction of the proposed shell space unless UMMC has obtained either CON approval for finishing the shell space or a determination of coverage from the Maryland Health Care Commission that CON approval is not required.
4. In calculating any future adjustment to budgeted revenues related to the costs of this project, HSCRC shall exclude the capital costs associated with the shell space until the space is finished and put to use in a regulated activity. In calculating any revenue adjustment that includes an accounting for capital costs associated with the shell space, the rate shall only account for depreciation and interest expenses going forward through the remaining useful life of the space.

IN THE MATTER OF  
  
UNIVERSITY OF MARYLAND  
  
MEDICAL CENTER  
  
DOCKET NO. 19-24-2438

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BEFORE THE  
  
MARYLAND HEALTH  
  
CARE COMMISSION

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### FINAL ORDER

Based on the analysis and conclusions in the Staff Report and Recommendation, it is, this 20<sup>th</sup> day of August, 2020:

**ORDERED**, that the application for a Certificate of Need by the University of Maryland Medical Center to build a cancer center addition of 154,610 square feet and renovate 72,670 square feet of contiguous space in the medical center at an estimated project cost of \$194,368,000, be **APPROVED**, subject to the following conditions:

1. Prior to its request for first use approval, UMMC will submit an assessment of the need for surge bed capacity at UMMC and its plan to maintain and deploy adequate surge bed capacity when needed.
2. Any future change to the financing of this project involving adjustments in revenue must exclude \$2,210,850 in shell space-related costs, which includes the estimated new construction costs of the proposed shell space and portions of the contingency allowance, inflation allowance, and capitalized construction interest expenditure related to the estimated cost of the shell space.
3. UMMC will not finish the shell space on either the third or fourth floor without giving notice to the Commission and obtaining all required Commission approvals. UMMC will not request any adjustment in budgeted revenue by the Health Services Cost Review Commission (HSCRC) that includes depreciation or interest costs associated with construction of the proposed shell space unless UMMC has obtained either CON approval for finishing the shell space or a determination of coverage from the Maryland Health Care Commission that CON approval is not required.
4. In calculating any future adjustment to budgeted revenues related to the costs of this project, HSCRC shall exclude the capital costs associated with the shell space until the space is finished and put to use in a regulated activity. In calculating any revenue adjustment that includes an accounting for capital costs associated with the shell space, the rate shall only account for depreciation and interest expenses going forward through the remaining useful life of the space.

**MARYLAND HEALTH CARE COMMISSION**

## **APPENDIX 1**

### **RECORD OF REVIEW**

Docket Item #	Description	Date
1	MHCC acknowledges receipt of Letter of Intent.	12/8/18
2	Dana Farrakhan submits on behalf of University of Maryland Medical Center (UMMC) a Certificate of Need (CON) application for construction of new Cancer Center addition.	2/8/19
3	MHCC acknowledges receipt of CON application.	2/12/19
4	Staff requests <i>Baltimore Sun</i> publish notice of receipt of CON application.	2/12/19
5	Staff requests <i>Maryland Register</i> publish notice of receipt of CON application.	2/12/19
6	<i>Baltimore Sun</i> sends notice of receipt of CON application as published in the <i>Baltimore Sun</i>	2/20/19
7	Following completeness review, Commission staff submits request for completeness and additional information.	4/18/19
8	Ella R. Aiken, Esq., requests on behalf of UMMC, and MHCC grants extension, to file completeness information.	5/1/19
9	Ella R. Aiken, Esq. makes additional request and MHCC grants extension, to file completeness information until 5/20/19.	5/6/19
10	Thomas C. Dame, Esq., and Ella R. Aiken, Esq., submit response to request for additional information.	5/20/19
11	Ella R. Aiken, Esq., informs via e-mail that remainder of completeness information will be filed by 6/5/19.	5/21/19
12	Thomas C. Dame, Esq., and Ella R. Aiken, Esq., submit remainder of completeness information.	6/3/19
13	Commission staff submits second request for additional information.	6/25/19
14	Thomas C. Dame, Esq., and Ella R. Aiken, Esq., submit second response to request for additional response.	7/15/19
15	Commission staff submits third request for additional information	8/21/19
16	Thomas C. Dame, Esq., requests via e-mail extension and UMMC grants extension to file response for additional information until 9/13/19.	9/5/19
17	Thomas C. Dame, Esq., and Ella R. Aiken, Esq., submit third response to request for additional information.	9/13/19
18	Commission staff informs formal start of review will be 10/11/19 and submits request for additional information.	9/26/19
19	Commission staff requests <i>Baltimore Sun</i> publish notice of formal start of the review.	9/26/19



20	Commission staff requests <i>Maryland Register</i> publish notice of formal start of the review.	9/26/19
21	Staff sends a copy of the CON application to the Baltimore City Health Department for review and comment.	9/26/19
22	Commission staff submits request for additional information	1/14/20
23	Commission staff submits revisions to questions submitted in Jan. 14 <sup>th</sup> request for additional information	1/31/20
24	Ella R. Aiken, Esq., responds via e-mail that UMMC will submit response to Jan. 31 <sup>st</sup> request for additional information this week.	3/11/20
25	Ella R. Aiken, Esq., submits response to Jan 31, 2020 request for additional information.	3/13/20
26	Commission staff submits request for additional information.	3/23/20
27	Ella R. Aiken, Esq., responds via e-mail that she will contact and provide status on response to request for additional information.	4/7/20
28	Ella R. Aiken, Esq., responds via e-mail that UMMC will submit response to March 23 <sup>rd</sup> request for additional information this week.	4/13/20
29	Ella R. Aiken, Esq., submits response to March 23, 2020 request for additional information	4/17/20
30	Commission staff submits request for HSCRC comments on UMMC project	4/22/20
31	Commission staff sends request to HSCRC for comments regarding UMMC's Cancer Center project.	4/22/20
32	Ella R. Aiken, Esq., submits amendment to April 22 <sup>nd</sup> response to March 23, 2020 request for additional information	4/27/20
33	Ella R. Aiken, Esq., submits an efficiency analysis for Ancillary and support FTEs per EIPA with respect to the cancer center at the University of Maryland Medical Center.	7/6/2020
34	Katie Wunderlich and Jerry Schmith, Health Services Cost Review Commission, submits HSCRC staff's memorandum regarding its review and opinion of the University of Maryland Medical Center's CON application.	7/31/2020
35	Joseph E. Hoffman, III, UMMC, submits revised financial Tables E, G, H, J, and K.	7/21/2020

## **APPENDIX 2**

### **MARSHALL VALUATION SERVICE REVIEW**

## **Appendix 2**

### **MHCC Staff Calculation of the MVS Benchmark Cost Per Square Foot for UMMC's Proposed New Nine-Story Addition**

#### **The Marshall Valuation System – what it is, how it works**

In order to compare the cost of a proposed construction project to that of similar projects as part of a cost-effectiveness analysis, a benchmark cost is typically developed using the Marshall Valuation Service (MVS). MVS cost data includes the base cost per square foot for new construction by type and quality of construction for a wide variety of building uses.

The base cost reported in the MVS guide are based on the actual final costs to the owner and include all material and labor costs, contractor overhead and profit, average architect and engineering fees, nominal building permit costs and processing fees or service charges and normal interest on building funds during construction. It also includes: normal site preparation costs including grading and excavation for foundations and backfill for the structure; and utilities from the lot line to the structure figured for typical setbacks.

The MVS costs do not include costs of buying or assembling land, piling or hillside foundations (these can be priced separately), furnishings and fixtures not found in a general contract, general contingency set aside for some unknown future event such as anticipated labor and material costs increases. Also not included in the base MVS costs are site improvements such as signs, landscaping, paving, walls, and site lighting. Offsite costs such as roads, utilities, and jurisdictional hook-up fees are also excluded from the base costs.<sup>30</sup>

MVS allows staff to develop a benchmark cost using the relevant construction characteristics of the proposed project and the calculator section of the MVS guide. In developing the MVS benchmark costs, the base costs are adjusted for a variety of factors. The MVS cost data includes the base cost-per-square-foot for new construction by type and quality of construction for a wide variety of building uses including general hospitals. The MVS guide also includes a variety of adjustment factors, including adjustments of the base costs to the costs for the latest month, the locality of the construction project, as well as factors for the number of building stories, the height per story, the shape of the building (such as the relationship of floor area to perimeter), and departmental use of space. The MVS guide identifies costs that should not be included in the MVS calculations. These exclusions include costs for buying or assembling land, making improvements to the land, costs related to land planning, discounts or bonuses paid for through financing, yard improvements, costs for off-site work, furnishings and fixtures, marketing costs, and funds set aside for general contingency reserves.<sup>31</sup>

The MVS methodology does not offer data for renovation projects; thus, any effort to compare proposed renovation costs to a benchmark can only be made to the benchmarks for new construction. (In general, the MVS benchmarks are typically much higher than the costs estimated by applicants for the renovation portion of projects.) Thus, UMMC's MVS benchmark developed for the renovation portion of the project is much higher than UMMC's estimated costs of \$272.48

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<sup>30</sup> Marshall Valuation Service Guidelines, Section 1, p 3 (February 2020).

<sup>31</sup> Id.

per SF for the proposed renovations.

### **Developing the MVS Benchmark Cost per Square Foot for the Proposed Project**

Both UMMC and MHCC staff performed independent analyses to arrive at the MVS benchmark value calculated for the proposed project. In this project UMMC proposes the new construction of a nine-story, 154,610 SF addition. UMMC calculated an MVS value of \$344.14 per SF (DI #2, Exh. 11 and DI #12, Exh. 28), while Commission staff arrived at an MVS value of \$336.09 per SF. Both UMMC and Commission staff used the base cost for a good quality, Class A construction for a general hospital. UMMC submitted its CON application in February 2019 and used the MVS base costs and multipliers that were available at that time. MHCC staff updated the MVS figures to those available in November 2019. The differences in these figures are highlighted in yellow in the table below.

**Table 1: Calculation of Marshall Valuation Service Benchmark  
For UMMC Cancer Center - April 2020**

Type Structure	UMMC Calculated Construction Costs	Commission Calculated Construction Costs
Class	A	A
Quality	Good	Good
Total Square Footage	154,610	154,610
Average Perimeter	634	634
Weighted Average Wall Height	12.5	12.5
Stories	8	8
Average Area Per Floor	19,326	19,326
Base Cost	\$ 374.00	\$ 398.00
Elevator Add-on or Deduction	incl. above	incl. above
Adjusted Base Cost	\$ 374.00	\$ 398.00
Adjustment for Dept. Cost Differential	0.85	0.85
Gross Base Cost	\$ 316.51	\$ 336.82
Perimeter Multiplier	0.931	0.931
Height Multiplier	1.03	1.0115
Multi-story Multiplier*	1.03	1.03
Multipliers	0.987237907	0.969505964
Refined Square Foot Cost	\$ 312.70	\$ 326.55
Sprinkler Add-on	\$ 2.80	\$ 2.96
Adjusted Refined Square Foot Cost	\$ 315.50	\$ 329.50
Current Cost Modifier	1.08	1.02
Local Multiplier	1.01	1.00
CC & Local Multipliers	1.091	\$ 1.02
MVS Building Cost Per Square Foot	\$ 344.14	\$ 336.09
Building Square Footage	154,610	154,610
MVS Building Costs	\$ 53,207,485.40	\$ 51,962,927
Final MVS Cost Per Square Foot	\$ 344.14	\$ 336.09

DI #2, Exh. 11 and DI #12, Exh. 28

UMMC calculated an estimated cost of **\$355.23 per SF** for the new construction, whereas Commission staff calculated the cost at **\$318.68 per SF**, a difference of \$36.55 (about 10.3%). Please see Table 2 below, which provides UMMC's and Commission staff's analysis comparing the new construction budget with the MVS benchmark value.

**Table 2: UMMC and Commission Comparison of New Construction Budget to Marshall Valuation Service Benchmark**

<b>Project Budget Item</b>	<b>UMMC Calculated Construction Costs</b>	<b>Commission Calculated Construction Costs</b>
Building	\$ 84,625,169	\$ 84,625,169
Normal Site Prep.	\$ 13,000,000	\$ 13,000,000
Arch./Eng. Fees	\$ 12,000,000	\$ 12,000,000
Permits	\$ 1,000,000	\$ 1,000,000
<b>Subtotal</b>	<b>\$ 110,625,169</b>	<b>\$ 110,625,169</b>
<b>Adjustments</b>		
<b>Total Adjustments</b> (minus)	<b>\$ (56,712,789)</b>	<b>\$ (56,712,789)</b>
Proportional A + E adjustment (minus)	\$ -	\$ (6,900,404)
Net Project Costs	\$ 53,912,380	\$ 47,011,976
Allocated Financing Exp. (plus)	\$ 1,009,474	\$ 2,259,716
<b>Project Cost for MVS Comparison</b>	<b>\$ 54,921,854</b>	<b>\$ 49,271,693</b>
Square Footage	154,610.00	154,610
Cost Per Square Ft.	<b>\$ 355.23</b>	<b>\$ 318.68</b>
<b>Adj. MVS BENCHMARK Cost/Square Foot</b>	<b>\$ 344.14</b>	<b>\$ 336.09</b>
Over(Under)	\$ 11.09	\$ (17.41)
Over(Under) Costs	\$ 1,714,368.60	\$ (2,691,235)

**DI #2, Exh. 11 and DI #12, Exh. 28**

Table 2 shows that UMMC and Commission staff both calculated the cost of new construction at \$110,625,169 and the total adjustment of costs excluded from MVS benchmark valuation at \$56,712,789. However, Commission staff arrived at a lower **Project Cost for MVS Comparison** because staff identified an additional adjustment of \$6.9 million in allowable architectural and engineering fees that the applicant had failed to recognize. In addition, Commission staff calculated a slightly larger proportion of financing expense costs for the MVS comparison.

Therefore, while UMMC calculated that the total cost to construct the nine-story cancer center addition (\$355.23 per SF) **exceeds** its MVS benchmark value (\$344.14 per SF) by \$11.09 per SF, or by \$1,714,369, Commission staff found that the total cost of new construction (\$318.68 per SF) is **less than** the MVS benchmark value (\$336.09 per SF) by \$2,691,235.

## **APPENDIX 3**

### **UMMC'S ACTION PLANS FOR QUALITY MEASURES THAT RATED BELOW AVERAGE**

### UMMC Quality Measures

Measure	Risk-Adjusted Rates	Action Plan
<b>Patients who died in the hospital after having one of six common conditions.</b>	1.2384	This measure refers to a medical condition or major surgery resulting in death. Cases reviewed by quality department are then available for the quality representatives to follow up.
<b>How often were the patients' rooms and bathrooms always kept clean?</b>	59%	UMMC has contracted with an outside vendor in an effort to improve hospital cleanliness. The applicant implemented a process where the nurse manager and environmental services supervisor perform inspections on every room after discharge cleaning has occurred. Initiatives to build a more collaborative relationship with staff is underway. The applicant gives surveys to patients for their comments on cleanliness and the data is reviewed/monitored monthly with medical center leadership.
<b>How often did patients always receive help quickly from hospital staff?</b>	58%	Data shared will improve responsiveness of staff by using a team approach to answer call bells and ensuring the call bell is within reach at all times. Nurses will engage in a bedside shift change hand-off at each transfer of care from one shift to another, including an introduction of nurse for the shift, and specific patient needs/goals for the day.
<b>How often was the area around patients' rooms always kept quiet at night?</b>	51%	To improve quietness at night and accountability of staff on off shifts to maintain a restful environment, the applicant plans to work with facilities personnel to reduce the amount of unnecessary activity at night.
<b>How long patients spent in the ED before leaving for their hospital room?</b>	678 minutes	Re-evaluate priorities/ performance of Medical Admitting Officer role enhance real-time access/ flow data analytics, monthly reporting of departmental metrics to leadership in the Emergency Department (ED) and other key departmental leaders.
<b>How long patients spent in the ED after the doctor decided the patient would stay in the hospital before leaving for their hospital room?</b>	384 minutes	Re-work process/ outcomes to enhance flow of appropriate transfers to Midtown Campus and to increase bed capacity at the hospital. There are monthly reporting of departmental metrics.
<b>How long patients spent in the ED before being sent home?</b>	272 minutes	The hospital has a revised process that prioritizes up-front flow in the ED. The intent by ED leaders is to reduce the wait for discharge for homebound patients. There will be monthly reporting will monitor results.
<b>How long patients spent in the ED before they were seen by a healthcare professional?</b>	54 minutes	New ED up-front process change intended to reduce time to see a provider, monthly reporting of departmental metrics to leadership in the ED and other key departmental heads.
<b>Patients who left the ED without being seen?</b>	4%	Implement alternative destination processes for ED patients, further augmentation of process flow to Urgent Care and Care Coordination Centers.
<b>Patients in the hospital who got the flu vaccine if they were likely to get flu</b>	88%	The hospital will use a banner to provide a real time alert in the flu season. The Quality Department will offer concurrent support to ensure all identified patients receive vaccine and targeted flu education in September before initiation of flu season.
<b>How often patients die in the hospital after heart attack?</b>	9.2614	Heart attack cases are reviewed, Deaths are reviewed by the quality department and sent to service line quality representatives where trends are identified and quality improvement initiatives are developed to ensure door to balloon time of <90 minutes. Quality staff meets monthly to review each case to identify trends for process improvement opportunities, and monitor performance.
<b>How often patients die in the hospital after heart failure?</b>	4.5321	The hospital plans to increase volume of advanced heart failure therapies to include Heart Transplantation.

<p><b>Patients who had a low-risk surgery and received a heart-related test, such as an MRI, at least 30 days prior to their surgery though they do not have a heart condition.</b></p> <p><b>Patients who came to the hospital for a scan of their brain and also got a scan of their sinuses?</b></p> <p><b>How often the hospital accidentally makes a hole in a patient's lung?</b></p> <p><b>How many returning to the hospital for any unplanned reason within 30 days after being discharged?</b></p> <p><b>Percentage of patients who received appropriate care for severe sepsis and septic shock.</b></p> <p><b>How often patients die in the hospital after fractured hip?</b></p> <p><b>How often patients who came in after having stroke subsequently died in the hospital?</b></p> <p><b>Death rate for Stroke patients</b></p> <p><b>How often patients die in the hospital during or after a surgery to fix the artery that carries blood to the lower body when it gets too large?</b></p> <p><b>How often surgical patients die in the hospital because a serious condition was not identified and treated?</b></p> <p><b>How often patients in the hospital had to use a breathing machine after surgery because they could not breathe on their own?</b></p>	11.10%	The UMMC Heart and Vascular Center Leadership are reviewing cases to determine appropriate utilization of heart related tests for low-risk surgeries.
	5.40%	Any scans of this type go through a review by the quality department and followed up as needed.
	0.9250	Any incidents of this type go through a review by quality department and followed up as needed.
	16.5%	Between CY13 and CY16 UMMC reduced its all-hospital risk adjusted readmission rate by 11.95 percent, a reduction that was 11 percent greater than the state average. Between CY16 and CY17 the readmission rate increased slightly by 2 percent. Since then UMMC has launched a number of initiatives that focus on steps taken before readmission, after readmission, before discharge and after discharge, as well as working with nationally recognized expert in readmissions Dr. Amy Boutwell to continue progress in reducing potentially avoidable utilization and monitoring performance.
	39%	In 2017, a council began work on the reduction of sepsis. The initiatives taken on by the group include improvements in documentation, coding, and quality. The educational initiatives focused on sepsis and disease state recognition. Other implementations include an antibiotic stewardship program, creation of a discharge checklist which contains all the sepsis specific discharge processes, and creation of a system-wide sepsis educational program.
	9.6711	The falls committee reviews each fall including those that are fatal. The falls committee develops quality improvement initiatives that address findings.
	12.6482	The comprehensive stroke center team reviews each death to determine if it is preventable, holds a weekly case review with interdisciplinary team members, reviews criteria for patient transport, and completes a review of all deaths to determine if preventable.
	21	The comprehensive stroke center team reviews each death to determine if it is preventable, holds a weekly review with interdisciplinary team members, reviews criteria for patient transport, and completes a review of all deaths to determine if preventable.
	100.0000	Unexpected deaths for any patient are subject to review by the quality department.
	263.2969	Every case identified undergoes case review and/or practice change. In FY 2018, the rate for this measure improved to 234.68.
	9.8603	Every case identified undergoes case review and/or practice change. In FY 2018, the rate for this measure improved to 7.98.

Source: (DI#2, Exh.10).



**APPENDIX 4**

**PROJECT BUDGET,  
REVENUE AND EXPENSE PROJECTIONS  
AND  
WORKFORCE INFORMATION TABLES**

### UMMC Cancer Center Project Budget

New Construction	
Building	\$84,625,169
Site and Infrastructure	\$13,000,000
Architect/Engineering Fees	\$12,000,000
Permits (Building, Utilities, Etc.)	\$1,000,000
<i>SUBTOTAL New Construction</i>	<i>\$110,625,169</i>
Renovations	
Building	\$20,000,000
<i>SUBTOTAL Renovations</i>	<i>\$20,000,000</i>
Other Capital Costs	
Movable Equipment	\$30,000,000
Contingency Allowance	\$15,000,000
Gross interest during construction period	\$8,868,000
<i>SUBTOTAL Other Capital Costs</i>	<i>\$53,868,000</i>
<i>TOTAL CURRENT CAPITAL COSTS</i>	<i>\$184,493,169</i>
Inflation Allowance	\$9,374,831
<i>TOTAL CAPITAL COSTS</i>	<i>\$193,868,000</i>
Financing Cost and Other Cash Requirements	
Loan Placement Fees	\$50,000
CON Application Assistance	\$100,000
Legal Fees	\$200,000
Other	\$150,000
<i>SUBTOTAL Fin. Costs and Other Cash Require.</i>	<i>\$500,000</i>
<b>Total Project Cost</b>	<b>\$194,368,000</b>

Source: DI #35, Table E (Revised July 20, 2020)

# UMMC Revenue and Expense – Entire Medical Center, FY 2017 – FY 2026

Table G – Uninflated (Revised July 20, 2020)

Uninflated	Two Most Recent Years (Actual)			Current Year Projected	Projected Years (ending at least two years after project completion and full occupancy)						
Fiscal Year (000)	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	
1. REVENUE											
Inpatient Services	\$1,099,703	\$1,182,504	\$1,212,884	\$1,277,493	\$1,320,056	\$1,325,996	\$1,331,963	\$1,337,957	\$1,343,978	\$1,350,026	
Outpatient Services	\$528,085	\$539,758	\$621,880	\$648,854	\$671,567	\$666,261	\$669,662	\$673,087	\$676,535	\$678,914	
Gross Patient Service Revenues	\$1,627,788	\$1,722,262	\$1,834,764	\$1,926,347	\$1,991,623	\$1,992,258	\$2,001,625	\$2,011,044	\$2,020,512	\$2,028,940	
Allowance For Bad Debt	\$63,508	\$45,098	\$60,547	\$65,703	\$68,034	\$68,055	\$68,375	\$68,697	\$69,021	\$69,308	
Contractual Allowance	\$20,308	\$22,056	\$23,852	\$25,883	\$26,801	\$26,810	\$26,936	\$27,062	\$27,190	\$27,303	
Charity Care	\$134,737	\$186,287	\$179,232	\$194,495	\$201,393	\$201,457	\$202,405	\$203,357	\$204,315	\$205,167	
Net Patient Services Revenue	\$1,409,235	\$1,468,821	\$1,571,133	1,640,265	\$1,695,395	\$1,695,935	\$1,703,910	\$1,711,927	\$1,719,987	\$1,727,161	
Other Operating Revenues	\$103,393	\$100,118	\$97,998	\$132,814	\$137,877	\$137,877	\$137,877	\$137,877	\$137,877	\$137,877	
NET OPERATING REVENUE	\$1,512,628	\$1,568,939	\$1,669,131	\$1,773,079	\$1,833,272	\$1,833,812	\$1,841,786	\$1,849,804	\$1,857,864	\$1,865,038	
2. EXPENSES											
Salaries & Wages (including benefits)	\$591,338	\$606,439	\$622,948	\$638,320	\$663,138	\$665,487	\$667,855	\$682,336	\$685,071	\$687,827	
Contractual Services	\$268,691	\$285,267	\$318,219	\$325,386	\$336,630	\$337,927	\$339,227	\$340,529	\$341,834	\$342,141	
Interest on Current Debt	\$31,385	\$30,378	\$30,126	\$26,614	\$24,738	\$27,408	\$26,593	\$25,295	\$26,225	\$25,338	
Interest on Project Debt								\$2,217	\$2,170	\$2,071	
Current Depreciation	\$96,108	\$98,237	\$103,451	\$102,361	\$100,560	\$102,525	\$101,941	\$100,003	\$105,570	\$107,134	
Project Depreciation								\$6,167	\$6,167	\$6,167	
Project Amortization								\$296	\$296	\$296	
Supplies	\$344,288	\$360,946	\$392,176	\$412,330	\$439,891	\$441,586	\$443,294	\$448,071	\$451,967	\$455,862	
Professional Fees	\$134,767	\$136,537	\$140,753	\$139,537	\$152,870	\$152,870	\$152,870	\$152,870	\$152,870	\$152,870	
Other Expense	\$16,054	\$25,073	\$27,140	\$48,497	\$47,706	\$47,706	\$47,706	\$47,706	\$47,706	\$47,706	
TOTAL OPERATING EXPENSES	\$1,482,631	\$1,542,877	\$1,634,813	\$1,693,045	\$1,765,533	\$1,775,509	\$1,779,487	\$1,805,489	\$1,819,875	\$1,827,412	
3. INCOME											
Income From Operation	\$29,997	\$26,062	\$34,318	\$80,034	\$67,739	\$58,302	\$62,299	\$44,314	\$37,989	\$37,626	
Non-Operating Income	\$109,321	\$64,847	\$10,610	\$13,103	\$13,381	\$13,672	\$13,961	\$14,339	\$14,672	\$14,920	
NET INCOME (LOSS)	\$139,318	\$90,909	\$44,928	\$93,137	\$81,120	\$71,974	\$76,260	\$58,652	\$52,661	\$52,546	

e: DI #35, Table G – Uninflated (Revised July 20, 2020)

**UMMC Workforce Information**

Job Category	CURRENT ENTIRE FACILITY		PROJECTED CHANGES AS A RESULT OF THE PROPOSED PROJECT		OTHER EXPECTED CHANGES IN OPERATIONS		PROJECTED ENTIRE FACILITY THROUGH THE LAST YEAR OF PROJECTION	
	Current Year FTEs	Current Year Total Cost	FTEs	Total Cost	FTEs	Total Cost	FTEs	Total Cost
<b>1. Regular Employees</b>								
Total Administration	365.3	\$ 40,678,347	0.0	\$ -	4.7	\$ 526,675	370.0	\$ 41,205,022
Total Direct Care	5,669.0	\$ 414,290,278	125.3	\$ 10,429,017	73.4	\$ 5,363,947	5,867.7	\$ 430,083,242
Total Support	1,218.6	\$ 47,708,855	37.3	\$ 1,523,680	15.8	\$ 617,702	1,271.7	\$ 49,850,237
<b>REGULAR EMPLOYEES TOTAL</b>	<b>7,252.9</b>	<b>\$ 502,677,479</b>	<b>162.6</b>	<b>\$ 11,952,697</b>	<b>93.9</b>	<b>\$ 6,508,325</b>	<b>7,509.4</b>	<b>\$ 521,138,501</b>
<b>2. Contractual Employees</b>								
Total Direct Care Staff	35.2	\$ 4,409,450	0.0	\$ -	0.5	\$ 57,091	35.6	\$ 4,466,541
Total Support Staff	75.1	\$ 2,619,817		\$ -	1.0	\$ 33,920	76.1	\$ 2,653,737
<b>CONTRACTUAL EMPLOYEES TOTAL</b>	<b>110.3</b>	<b>\$ 7,029,267</b>	<b>0.0</b>	<b>\$ -</b>	<b>1.4</b>	<b>\$ 91,010</b>	<b>111.7</b>	<b>\$ 7,120,277</b>
Benefits*		\$ 112,293,254		\$ 2,605,688		\$ 1,446,280		\$ 116,345,221
<b>TOTALS</b>	<b>7,363.1</b>	<b>\$ 622,000,000</b>	<b>162.6</b>	<b>\$ 14,558,385</b>	<b>95.33</b>	<b>\$ 8,045,665</b>		<b>\$ 644,604,000</b>

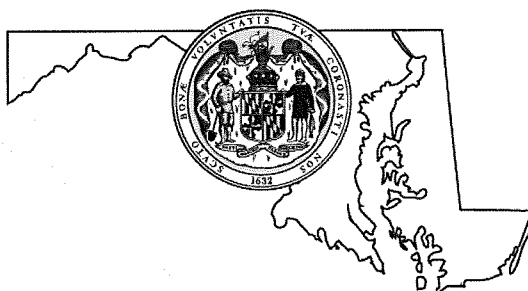
Source: DI #12, Table L.

\*22.81% of regular employee salaries

## **APPENDIX 5**

# **HEALTH SERVICES COST REVIEW COMMISSION STAFF'S REVIEW AND OPINION**

State of Maryland  
Department of Health



Adam Kane  
Chairman

Joseph Antos, PhD  
Vice-Chairman

Victoria W. Bayless

Stacia Cohen

John M. Colmers

James N. Elliott, M.D.

Sam Malhotra

**Health Services Cost Review Commission**

4160 Patterson Avenue, Baltimore, Maryland 21215  
Phone: 410-764-2605 • Fax: 410-358-6217  
Toll Free: 1-888-287-3229  
[hscrc.maryland.gov](http://hscrc.maryland.gov)

Katie Wunderlich  
Executive Director

Allan Pack, Director  
Population Based  
Methodologies

Chris Peterson, Director  
Payment Reform &  
Provider Alignment

Gerard J. Schmith, Director  
Revenue & Regulation  
Compliance

William Henderson, Director  
Medical Economics &  
Data Analytics

**MEMORANDUM**

**TO:** Kevin McDonald, Chief, Certificate of Need Division, MHCC

**FROM:** Katie Wunderlich, Executive Director, HSCRC  
Jerry Schmith, Director, Revenue & Regulation Compliance, HSCRC

**DATE:** July 31, 2020

**RE:** UMMC  
Construction of Addition for Cancer Center  
Docket No. 19-24-2438

\*\*\*\*\*

This memo is in response to your request dated April 22, 2020. The University of Maryland Medical Center ("UMMC") has submitted a Certificate of Need application proposing a capital expenditure of approximately \$194.4 million to construct a nine-story addition on the east side of the existing main entrance to UMMC's North Hospital building at the corner of Greene and Baltimore Streets. The project will consolidate and centralize services for cancer patients of the Greenebaum Comprehensive Cancer Center (GCCC) and consolidate services that the applicant states are currently scattered among 10 separate areas throughout the UMMC complex.

The project will consist of approximately 155,000 square feet (SF) of new construction and renovation of about 73,000 SF. The total estimated project cost is approximately \$194.4 million, which includes about \$130.6 million for construction and renovations; \$54 million for movable equipment, contingency allowance and gross interest during construction; \$9.4 million for inflation allowance; and \$500,000 for financing, consulting, and legal fees.

UMMC states that the primary financing for the project will be \$125 million in State grants awarded to UMMC through Maryland's annual Capital Improvement Plan funding. That main source will be supplemented by \$20 million in philanthropic gifts and about \$49.3 million from the issuance of bonds.

MHCC requests that HSCRC staff review the financial projections provided in the CON application and subsequent filings, and advise MHCC whether the project is financially feasible. MHCC staff believes that the utilization projections presented in the application are reasonable, and that HSCRC staff can rely upon them in its analysis concerning the revenue and expense projections and financial feasibility of the proposed project.

MHCC also specifically requests HSCRC opinion on the reliability of the grant funding, for which there is apparently an initial commitment that is contingent on annual appropriations. MHCC believes that the HSCRC staff may have more experience with this mechanism than MHCC staff possesses. We have attached UMMS' initial description of the financing plan as stated in the CON application, as well as two exchanges of questions related to the grant.

### **HSCRC Review and Opinion**

HSCRC staff has reviewed the CON application dated February 8, 2019, and the subsequent UMMC Completeness Responses dated May 20, 2019, July 15, 2019, and September 20, 2019, and UMMC Additional Information Responses dated October 10, 2019, and March 13, 2020, and the related UMMC responses to HSCRC inquiries and requests for revised and updated financial projections dated July 1, 2020 and July 6, 2020.

We have reviewed the estimates of revenues. UMMS has removed any increase to the GBR revenue to finance the additional cost of this project. Based on this information and the volumes included, the revenue projection seem reasonable and achievable.

However, UMMS has assumed additional revenue from the State of Maryland to pay for a major portion of the project. In the past, the State of Maryland has lived up to its pledges to UMMS. However, during these times, HSCRC staff does not know whether the State will be able to fulfill its pledge as indicated. HSCRC staff has had discussion with UMMC management regarding the realizability of the \$125 million grant or appropriation from the State of Maryland as included as a material component of the sources of funding for this project. It is our understanding that UMMC is confident that the State will provide the entire value of the grant. However, the timing of such funding is a function of the political and legislative processes inherent in State government. Such processes will likely be influenced by the economic impacts of the current pandemic. UMMC management is planning for the potential of such State funding to be spread over a period that may go beyond the scheduled fiscal 2024 opening of the GCCC expansion project. Consistent with such planning, UMMS (the obligated group) is planning a \$120 million taxable bond issue in this calendar year that will include \$78.5 million for the cancer center, with an even greater share available to help bridge any funding gap that may result from deferred State provisions. In addition, UMMS has available lines of bank credit. The planned borrowing is an increase of \$29.2 million over the amount of debt initially included as a source component on Table E of the CON. The added interest expense if incurred would not put at risk the financial viability of this project. Beyond this understanding, HSCRC staff cannot speculate on the reliability of the State's commitment to fund this grant, or timing of the funding.

We have reviewed the cost projections as revised and presented. UMMC has incorporated a significant amount of Operational Performance Improvements to its cost structure in its updated

financial projections received during July, 2020. Such Operational Performance Improvements are projected to yield a positive net operating margin of 3.2% or approximately \$66 million annually for the 3 years of operations ended fiscal 2026. UMMC will need to manage to these cost reductions. No additional increase to GBR revenue should be provided to UMMC if it is not able to accomplish these reductions.

We have reviewed the projected key financial ratios and indicators for the University of Maryland's Obligated Group. This group will be responsible for the repayment of any bonds sold to finance this project. These projections show that ample profitability, liquidity, and capital resources should be available in order to maintain its current favorable rating of A2 with a Stable Outlook from Moody's Investors Services and A with a Stable Outlook from Standard and Poors Global throughout the projection period.

Based upon staff's review of all information as presented, the HSCRC believes that, with proper management, the GCCC expansion project as described in the CON is financially feasible.