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MEMORANDUM

TO: Commissioners

FROM: Kevin R. McDonald
Chief, Certificate of Need

DATE: November 17, 2016

SUBJECT: Calvert Memorial Hospital
Docket No. 15-04-2370

Enclosed is the staff report and recommendation for a Certificate of Need ("CON") application filed by Calvert Memorial Hospital (CMH).

CMH proposes to construct a 43,575 SF three story addition as part of a project whose primary objectives are to increase the number of private patient rooms and to create an observation unit. The project will also involve the renovation of 32,910 SF on the existing second and third floors, allowing the hospital to repurpose existing space for alternate uses.

The total project cost is estimated to be $51,654,138, and is anticipated to take 44 months to complete. CMH anticipates funding the project with $46,654,138 in cash and $5,000,000 in philanthropy. The hospital does not anticipate a need to seek an expansion of its global budget revenue in order to undertake the project.

Commission staff analyzed the proposed project's compliance with the applicable State Health Plan standards and the other applicable CON review criteria at COMAR 10.24.01.08 and recommends that the project be APPROVED with the following conditions:

1. That Calvert Memorial Hospital will not routinely use any room on an MSGA nursing unit including the ICU and CCU units for more than one patient without approval of MHCC.

2. Any future change to the financing of this project involving adjustments in rates set by the Health Services Cost Commission must exclude $2,017,244. This figure includes the estimated new construction costs that exceeds the Marshall Valuation Service guideline and cost and portions of the contingency allowance and inflation allowance that are based on the excess construction cost.

IN THE MATTER OF	*	**BEFORE THE**
	*	
CALVERT MEMORIAL HOSPITAL	*	**MARYLAND HEALTH**
	*	
DOCKET NO. 15-04-2370	*	**CARE COMMISSION**
	*	

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Staff Report and Recommendation

November 17, 2016

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I. INTRODUCTION

A. Background

Calvert Memorial Hospital ("CMH" or "Calvert"), located at 100 Hospital Road in Prince Frederick, Maryland, is the only acute care hospital in Calvert County. It is currently licensed for 76 acute care beds and is co-located with an 18-bed comprehensive care facility ("CCF"). Its 76 licensed acute care beds are used to provide four services: medical.surgical/gynecological/addictions ("MSGA") inpatient care (60 beds), obstetric ("OB") inpatient services (6 beds), pediatric inpatient services (one bed) and acute psychiatric hospitalization (9 beds).

B. Project Description

CMH states that the project's primary objectives are to expand the number of private patient rooms for MSGA patients and to create an observation unit. (DI#4, p.8) Another objective is to to expand the first floor footprint of the Hospital to provide more space for outpatient, ancillary and support services.

The prposed project involves 32,910 square feet ("SF") of renovation and the addition of 43,575 SF of hospital space. CMH describes the expansion component of the project as an "infill" structure that would be grafted onto the existing hospital. It is described as being designed to preserve as much of the existing facility as possible, while providing additional space to accommodate state-of-the-art inical features, and preserve existing functional adjacencies.

The project would demolish 10,225 SF of the hospital's first floor to make way for construction of the three story addition. The ground floor of the addition will house an expanded Infusion Therapy Center ("ITC") and the second and third floors will each house two all-private 20-room MSGA units.

The renovation component (approximately 33,000 SF) will include:

- Necessary interfaces between the existing building and the addition;
- Conversion of the existing third floor MSGA unit into an 18-bed observation unit;
- Conversion of existing MSGA patient rooms on the second floor to space for staff support, administration, and outpatient services; and
- Renovation of existing first floor space for clinical and administrative functions following completion of the building addition.

The demolition and renovation of the existing first floor space involves a number of temporary relocations. At the conclusion of the project, the first floor (including both existing and new space) will hold the lobby, obstetric and perinatal services, cardiac rehabilitation, a vascular lab, infusion therapy center, gift shop, chapel, and administration.

The renovation of the second floor MSGA unit would convert seven patient rooms (nine beds) into an inpatient dialysis unit (relocated from its current location on the third floor of the

hospital), office space, staff support space and ancillary services. Following the renovation and the addition of the new 20-bed unit, the bed capacity on this floor would increase from 50 to 61.

Renovation of the existing third floor would convert a 31-bed MSGA unit (nine private and 11 semi-private rooms) to an all-private-room 18-bed observation unit. At the completion of the project, the only general medical/surgical inpatient unit located on the hospital's third floor would be the 20-bed MSGA unit which would be located in the new construction.

The net result would be a hospital with 76 MSGA rooms that could physically accommodate 91 beds. However, operationally, the hospital intends to operate all of these rooms as private rooms, one of which will be used for pediatric patients when needed. (DI#4, p.80) The hospital will continue to operate its existing 12-room psychiatric unit (seven private and five semi-private rooms) that is currently licensed for nine beds and an OB unit with 12 private rooms that is currently only licensed for six beds. These two nursing units will not be affected by the project. Table I-1 below summarizes the changes in physical bed capacity and compares these changes to CMH's current licensed beds.

Table I-1: Current and Proposed Bed Capacity and Distribution
Calvert Memorial Hospital

	CURRENT				PROPOSED		
Hospital Service	**Licensed Beds**	**Private Patient Rooms**	**Total Patient Rooms**	**Physical Bed Capacity**	**Private Patient Rooms**	**Total Patient Rooms**	**Physical Bed Capacity**
General Medical Surgical	56	25	53	81	51	66	81
ICU/CCU	4	10	10	10	10	10	10
MSGA total	**60**	**35**	**63**	**91**	**61**	**76**	**91**
OB	6	12	12	12	12	12	12
Peds*	1	--	0	0	0	0	0
Psych	9	7	12	17	7	12	17
TOTAL ACUTE	**76**	**54**	**87**	**120**	**80**	**100**	**120**
CCF Beds (Post acute skilled nursing facility)							
CCF	18	10	15	20	10	15	20
Observation Beds (an outpatient service)							
Observation	0	0	0	0	18	18	18

* The one licensed pediatric bed is not assigned to a particular patient room
Sources: MHCC Interim FY 2017 Licensed Acute Care Hospital Bed Annual Report; CON application, Exhibit 5, Table A.

The total project cost is estimated to be $51,654,138. CMH anticipates funding the project with $46,654,138 in cash and $5,000,000 in philanthropy. This project cost, arguably, is the sole basis for this CON application. The hospital could have requested a determination of coverage and forgone the need for obtaining a CON by "taking the pledge," a term used to describe a feature of Maryland's CON law by which a hospital may avoid the need to obtain CON approval for a capital project that only requires review because its estimated cost exceeds a capital spending threshold established in law. (This threshold is currently just under $12 million). The hospital bypasses CON review by "pledging" not to seek more than $1.5 million in additional revenue to account for project-related capital cost over the life of the project. The applicant has chosen not to exercise this option,

indicating a desire to preserve its ability to seek consideration of larger revenue adjustments in the future.

The hospital has stated that this is the only major capital construction project in its master facility plan at this time. (DI#4, p.9)

C. Summary of the Recommendation

Criteria/Standard	Conclusions
Need and Capacity	The project will not change operational bed capacity at the hospital or the health system. It will add 13 total patient rooms to gain 26 additional private rooms. Private patient rooms are a desired modernization of the hospital's design and moving to dedicated observation beds in converted older inpatient space is in line with recent use trends. The first floor expansion supporting the new inpatient units on the upper floors will allow for upgraded space and more space in areas experiencing growth, such as infusion therapy.
Cost Effectiveness	Calvert considered several alternatives to achieve its primary objectives - more private rooms, an observation unit, and additional space on the first floor for outpatient, ancillary, and support services. This project, combining new construction and renovation to transition to private rooms and convert older space to meet new demands is a logical approach when these objectives must be achieved while maintaining ongoing hospital operation.
Financial Feasibility and Viability	The project is proposed to be funded with cash and philanthropy. The applicant is not requesting a revenue budget adjustment for the increase in capital costs associated with the project. The hospital's audited financials demonstrated CMH's financial wherewithal to fund this project and its financial projections show ongoing positive financial performance. Both MHCC and HSCRC staff concluded that the assumptions underlying the financial projections are reasonable.
Construction Cost	The estimated costs associated with this project exceed the MVS benchmark incorporated by reference in the State Health Plan ("SHP"). Adjusting to the benchmark yields an adjustment of 3.4% of the estimated total current capital cost of the project. Although the applicant stated that the hospital will not request a rate adjustment to cover the capital costs associated with the project, this "excess cost," as defined by the SHP, necessitates attaching a condition to an approved CON that any future change to the financing of this project involving adjustments in rates set by the Health Services Cost Review Commission must exclude approximately $2 million, which also includes a proportion of estimated contingency and inflation allowances.
Impact	This modernization of the existing hospital will allow all medical/surgical patients to stay in private rooms, with rare exceptions. The project should make the hospital safer and better aligned with contemporary patient

	expectations. It should also improve the flow of patients into the hospital and to inpatient units, allowing for more efficient use of beds. The project will eliminate mixed use of inpatient beds for both inpatients and observation. CMH does not anticipate any increases in patient charges directly related to or associated with this project. CMH is the only hospital in the jurisdiction and is not proposing any new services; the project is not expected to affect other providers.

Staff is recommending approval with conditions related to the use of converted semi-private rooms, future use of and reimbursement of excess construction costs. These recommended conditions are specified in **Part V, SUMMARY AND STAFF RECOMMENDATION** of this report.

II. PROCEDURAL HISTORY

A. Review of the Record

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

Laurence Polsky, MD, Health Officer for the Calvert County Health Department submitted a letter of support for this project.

D. Community Support

The Maryland Health Care Commission received 35 letters of support. Among them were letters from: Calvert County's Health Roundtable, the Calvert County Chamber of Commerce and the Calvert County Board of County Commissioners; five churches or religious organizations; and six elected representatives, including Rep. Steny H. Hoyer, Maryland State Senate President Thomas V. "Mike" Miller, Jr., Maryland House of Delegates members Anthony J. O'Donnell and Mark N. Fischer. There were also 21 letters from various parties associated with Calvert Memorial Hospital, including its Medical Executive Committee and individual members of that committee, the hospital Foundation's Board of Trustees, and James Xinis, Retired President and CEO of Calvert Health Systems.

III. BACKGROUND

A. Population Change, Race, and Income

Population Projections

Calvert Memorial Hospital is located in the center of the Calvert County peninsula, which is bounded by the Chesapeake Bay on the east and the Patuxent River on the west. Although it is the smallest Maryland county in land mass, measuring 213 square miles, it is more populous than nine of Maryland's 24 jurisdictions.

The County grew more slowly than the state as a whole between 2010 and 2015. That trend is projected to reverse briefly between 2015 and 2020, before reverting to a rate of growth slower than that of the state. The age distribution of Calvert County is very similar to the statewide population distribution, a situation forecasted to continue.

Table III-1: 2014 Population and Population Growth Rate Projections, Calvert County and Maryland

Year	Population		Growth Rates at 5 Year Intervals	
	Calvert	Maryland	Calvert	Maryland
2010	88,737	5,773,552	--	--
2015	91,650	6,010,141	3.3%	4.1%
2020	95,600	6,224,511	4.3%	3.6%
2025	98,350	6,429,749	2.9%	3.3%
2030	100,200	6,612,191	1.9%	2.8%
2035	101,050	6,762,303	0.9%	2.3%
2040	101,450	6,889,692	0.4%	1.9%
Change 2010-2040	12,713	1,116,140	14.3%	19.3%

Source: Maryland Department of Planning, 2014 Total Population Projections by Age, Sex and Race

Table III-2: Age Distribution of Calvert County and Maryland's Populations, 2010-2040

Year	Jurisdiction	0-14	15-44	45-64	65-74	75+
2010	Calvert	20.9%	37.4%	30.8%	6.3%	4.6%
	Maryland	19.2%	40.8%	27.7%	6.7%	5.6%
2020	Calvert	17.7%	36.3%	29.8%	9.9%	6.3%
	Maryland	18.0%	40.0%	26.2%	9.4%	6.4%
2030	Calvert	18.6%	35.1%	23.2%	13.4%	9.6%
	Maryland	17.9%	39.3%	23.1%	11.0%	9.0%
2040	Calvert	17.4%	33.3%	24.8%	10.3%	14.2%
	Maryland	17.4%	38.4%	23.8%	9.3%	11.2%

Source: Maryland Department of Planning, 2014 Total Population Projections by Age, Sex and Race

Racial Composition

With more than 80% of the population listed as Caucasian, the racial composition of Calvert County is significantly whiter than that of the State of Maryland (58%). As is true for the state, African Americans are the largest minority in the County at 13.4%.

Table III-3: Population Estimates by Race/Ethnicity
Calvert County and Maryland, 2015

Jurisdiction	White	Black or African American	Asian	Other*	Two or More Races
Calvert	81.8%	13.2%	1.7%	0.5%	3.7%
Maryland	59.6%	30.5%	6.5%	0.7%	2.7%

Source: 2015 U.S. Census of Population http://quickfacts.census.gov/qfd/states/24/24033.html
Note: All racial categories, with the exception of "two or more," reported as "alone."
*Other includes American Indian and Alaskan Native, Native Hawaiian and other Pacific Islander.

Economic Status

Calvert County is one of the most affluent jurisdictions in the State, with an estimated median household income of $95,477[1] in 2013. Only 4.9% of Calvert County residents were living in poverty in 2013, half the statewide rate and better than all but two Maryland jurisdictions.[2] Table III-4 below provides more detail.

Table III-4: Proportion (%) of Total Residents Living in Poverty, 2013*

	Calvert	Maryland[3]
Residents living in poverty	4.9%	9.8%
Over age 18 in Poverty	6.7%	12.9%
Ages 5-17 in impoverished families	6.6%	11.6%
Under age 5 in Poverty	6.1	15.3%
Median Household Income	$95,477	$73,538

*Based on Federal Poverty Guidelines
http://factfinder.census.gov/faces/tableservices/jst/pages/productview.xhtml?src=bkmk

Additional economic indicators drawn from the U.S. Census Bureau also show the economic status of Calvert County residents as better off than the state average(see Table III-5 below).

Table III-5: Indicators of Economic Well-Being*

	Calvert	Maryland
Persons below poverty level, 2009-2014	6.9%	10.1%
Homeownership rate, 2009-2014	81.2%	67.1%
Median value of owner-occupied housing units, 2009-2014	$347,300	$287,700
Per capita money income, past 12 months (2013 dollars), 2009-2013	$49,038	$36,354
Median Household Income, 2009-2013	$98,221	$73,538

Source: US Census Bureau State & County Quickfacts, which reports data collected by the US Census Bureau for time frames between each 10 year census
http://quickfacts.census.gov/qfd/index.html

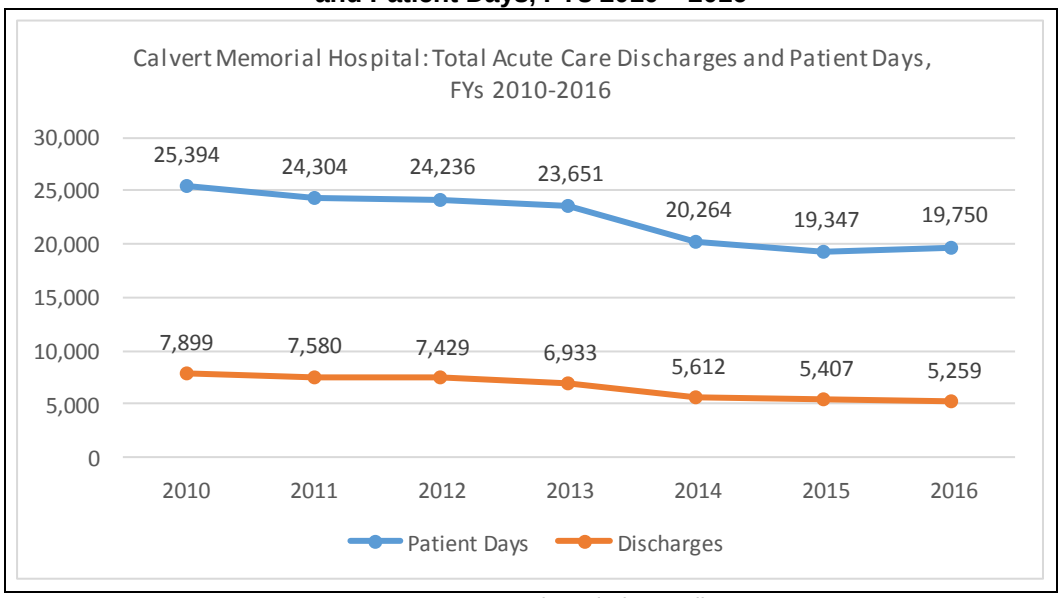
[1] Available at: http://www.census.gov/cgi-bin/saipe/saipe.cgi.
[2] Source: http://www.indexmundi.com/facts/united-states/quick-facts/maryland/percent-of-people-of-all-ages-in-poverty#chart
[3] Available at: http://www.census.gov/cgi-bin/saipe/saipe.cgi.

B. Hospital Utilization in Calvert County

Inpatient Care

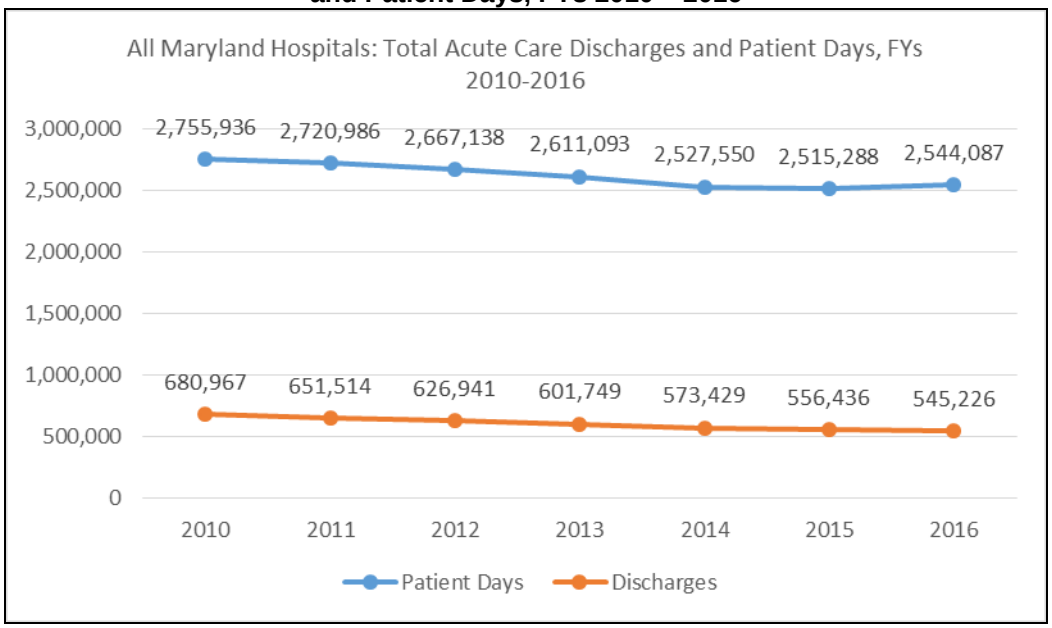
While inpatient utilization has steadily declined across the state, the decline at CMH has been steeper than in the state as a whole. The charts that follow illustrate acute care utilization trends for CMH and statewide between FY2010 and 2016.

Table III-6: Calvert Memorial Total Acute Care Discharges and Patient Days, FYs 2010 – 2016



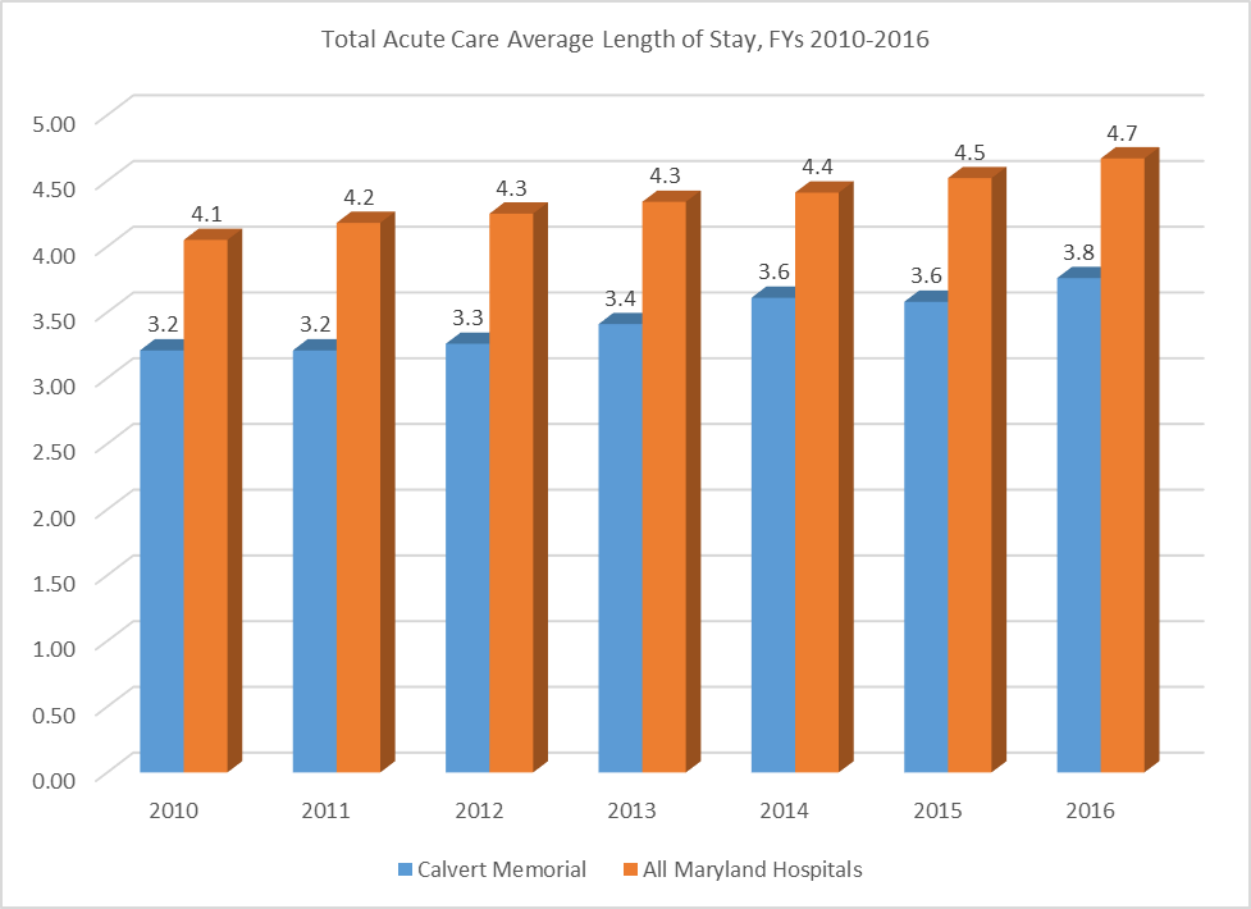
Source: HSCRC Inpatient Discharge Files

Table III-7: All Maryland Hospitals Total Acute Care Discharges and Patient Days, FYs 2010 – 2016



Source: HSCRC Inpatient Discharge Files

Table III-8: Total Acute Care Average Length of Stay, FY 2010 – 2016



Source: HSCRC Inpatient Discharge Files

Some noteworthy facts and trends during the last six years, through FY 2016:

Acute care discharges and patient days are falling…..

- Between FY 2010 and 2016, total acute care discharges declined by 33% at CMH, compared to 20% statewide.

- During the same period acute patient days at CMH declined by almost 19%, from 24,304 to 19,750, while declining by 7.6% statewide.

But….length of stay is increasing

- Acute care average length of stay ("ALOS") at CMH increased between 2010 and 2016, as it also did across the state(likely due to short stays converting to observation patients).

Outpatient Care

Total outpatient activity at Calvert Memorial Hospital (Calvert County) -- and hospitals statewide -- declined between calendar years (CYs) 2011 and CY 2015. A look at specific service lines shows:

Emergency Department Visit volume increased 1% at CMH, while dropping 2% statewide.

Same day surgery visits in Calvert County dropped 24%, in comparison to the 2% statewide decline.

Psychiatric Day & Night visits CMH reported a 35% increase in psychiatric day and night visits while psychiatric day and night visits statewide fell by 2%.

Clinic visits declined by 5% at CMH while dropping less than a percent statewide.

Total outpatient visits (defined as the aggregate of ED visits, same day surgery visits, outpatient psychiatric visits, and clinic visits) declined only two percent statewide. CMH experienced a slightly higher decrease of 4%.

Table III-9: Outpatient Visits: Calvert Memorial Hospital and All Maryland Hospitals, Calendar Years 2011-2015

Hospital	Visit Type	2011	2012	2013	2014	2015	% Change 2011-2015
Calvert Memorial Hospital	Total ED Visits	42,179	42,190	40,467	41,472	42,458	+1%
	Same Day Surgery	11,266	11,340	10,931	9,207	8,575	-24%
	Psych. Day & Night	1,797	2,252	2,516	2,313	2,432	+35%
	Clinic Visits	18,218	18,837	17,880	17,508	17,304	-5%
	Total OP visits	73,460	74,619	71,794	70,500	70,769	-4%
All MD Hospital	Total ED Visits	2,558,667	2,724,944	2,579,444	2,513,731	2,499,709	-2%
	Same Day Surgery	329,332	327,856	315,621	311,122	322,008	-2%
	Psych. Day & Night	120,618	128,110	121,559	111,585	115,173	-5%
	Clinic Visits	2,215,973	2,244,442	2,218,292	2,235,083	2,210,418	0%
	Total OP visits	5,224,590	5,425,352	5,234,916	5,171,521	5,147,308	-1%

Source: HSCRC Financial Data Base

IV. REVIEW AND ANALYSIS

The Commission is required to make its decision in accordance with the general Certificate of Need review criteria in 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 ("SHP") standards and policies. The SHP chapter that applies to this application is COMAR 10.24.10, Acute Inpatient Services.

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;
(b) Procedures for promptly responding to individual requests for current charges for specific services/procedures; and
(c) Requirements for staff training to ensure that inquiries regarding charges for its services are appropriately handled.

The applicant provided a link to the information regarding charges located on CMH's public website: http://www.calverthospital.org/body.cfm?id=1411, which provides readily available information on the most frequently accessed inpatient and and outpatient procedures by service line. The estimates are updated quarterly using the average charges from the previously reported period. To address an individual patient's actual charges for scheduled services, the website directs patients to contact the hospital's Patient Access Services Center or Patient Financial Services Department.

Staff has verified that Calvert Memorial Hospital complies with this standard.

(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.
(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.

To demonstrate compliance with this standard, CMH provided a copy of its Financial Assistance Policy and Procedures which outlines how the hospital determines a patient's eligibility

for financial assistance. (DI#10, Exhibit 4) Provisions of this policy include: (1) determination of probable eligibility within 2 business days following the patient's request for charity care services and/or application for medical assistance, and (2) notices regarding the hospitals charity care policy. CMH maintains a public link on the hospital's website which provides information regarding programs for patients in need of financial assistance and CMH's annual publication of its *Calvert Memorial Hospital's Healthcare Services Accessibility Assistance Programs*. (http://www.calverthospital.org/body.cfm?id=228) CMH also provided a copy of the Non-Discrimination Policy which is published in local newspapers, signage that is displayed throughout the hospital, and the brochures regarding financial assistance located at the admissions desks. (DI#23, pp. 1-2 & Attachments 1-5)

(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.

According to the HSCRC's Cost Benefit Report, Calvert Memorial Hospital's reported provision of charity care with a value of $7.45 million. This is equivalent to 6.3% of its operating expenses in FY 2013. This would place CMH at the 23rd rank among Maryland's 46 general hospitals.

Staff concludes that the applicant meets the charity care standard.

(3) <u>Quality of Care</u>

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.

The applicant attested to the hospital's compliance with all Medicaid and Medicare conditions of participation and supplied a copy of its current DHMH license and Letter of Accreditation from the Joint Commission. (DI#4, Exhibit 3)

(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 subpart (b) of this standard is essentially obsolete in that it requires an improvement plan for measures that fall within the bottom quartile of all hospitals' reported performance on that measure as reported in the most recent Maryland Hospital Performance

Evaluation Guide (HPEG). MHCC recently the performance measures reported on an updated Maryland Health Care Quality Reports website and how these measures are reported. In its quality reports, MHCC now focuses on two priority areas: (1) patient experience, as reported by the Centers for Medicare and Medicaid Services (CMS) in its Hospital Consumer Assessment of Healthcare Providers and Systems (HCAHPS) survey; and (2) healthcare associated infections, as tracked by CDC's National Healthcare Safety Network ("NHSN"). This standard will be amended to reflect these changes when the Acute Care Chapter of the SHP is updated.

With respect to the standard as it is currently structured, the applicant stated that none of its quality measures fell within the bottom quartile of all hospitals' reported quality performance and stated that the hospital's performance on all process and quality outcomes met or exceeded the 95th percentile. CMH also cited a number of quality recognitions it has received, including "Top Performer for Core Measures" from the Joint Commission, the "Gold Plus Stroke Award" by the American Medical Association, and the "VHA Clinical Excellence Award" for outstanding results in medication error reduction, readmission reduction, and fall reduction from the CMS Partnership for Patients collaborative.

The applicant has met this standard.

COMAR 10.24.10.04B-Project Review Standards

(1) <u>Geographic Accessibility</u> ***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 project does not propose a new acute care general hospital or the replacement of an acute care general hospital to a new site, rendering this standard not applicable to this review. Nevertheless, the Hospital responded to the standard, stating that the referenced services are within thirty minutes travel time, under normal driving conditions, for 90% or more of the residents in its service area.

(2) <u>Identification of Bed Need and Addition of Beds</u>

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.

As FY 2017, Calvert Memorial Hospital is licensed for a total of 76 acute care beds.[4] By law CMH has the ability to choose how it allocates its total licensed beds among its approved inpatient services; CMH allocated its FY 2017 license to include 60 MSGA beds, six obstetric beds, nine psychiatric beds, and one pediatric bed. CMH reports a current acute care physical bed capacity of 120 beds, and it is also licensed for 20 Comprehensive Care beds, which the hospital refers to as its Transitional Care Unit.

A comparison of the hospital's current room/bed inventory and the proposed changes in physical and operational capacity as a result of this project is shown in Table IV-1 below.

Table IV-1: Current and Proposed Patient Rooms, Physical Bed Capacity, and Operational Bed Capacity at Calvert Memorial Hospital

Department	Current Physical Bed Capacity		Physical Bed Capacity After Project Completion		Operational Bed Capacity After Project Completion	
	Rooms	Beds	Rooms	Beds	Rooms	Beds
General Medical/Surgical	53	81	66	81	66	66
ICU/CCU	10	10	10	10	10	10
Total MSGA	**63**	**91**	**76**	**91**	***76***	***76***
Obstetrics	12	12	12	12	*12*	*12*
Pediatric	0	1	0	0	0	0
Psychiatric	12	17	12	17	12	17
Total Acute Care	**87**	**120**	**100**	**120**	**100**	**105**

Source: DI# 13, p.2

Because of the renovations and repurposing of existing bed space explained earlier, this project would not increase the hospital's physical MSGA bed capacity. The hospital's intention to operate all MSGA rooms as private rooms will reduce its effective operating capacity. Private hospital rooms have been the design standard of the Facility Guidelines Institute[5] for the past ten years and has been linked to improved patient safety. The industry has moved to this standard to such a great extent that private room accommodation is now a widespread patient expectation. The

[4] Maryland's dynamic licensing law calculates licensed acute care beds effective July1 of each year based on each hospital's average daily census for the 12-month period ending on March 31 of each year. Licensed beds are calculated as 140% of this average daily census which, for CMH, was slightly over 54 patients in the year that ended on March 31, 2016.

[5] *Guidelines for Design and Construction of Hospitals and Outpatient Facilities* – The Facilities Guidelines Institute, 2014 edition,p.122

MHCC has established a precedent of allowing Maryland general hospitals to expand licensed physical bed capacity in order to operate their beds in private rooms without forcing the expense of physically modifying a semi-private room's structural design to disable it from functioning with two beds (e.g., requiring the hospital to pull out headwalls and gas lines).

However, despite the intent to operate all patient rooms as private rooms, the MSGA operational capacity (76) would exceed the current number of licensed MSGA beds (60). However, since CMH is the only hospital in Calvert County, this increase in operational bed capacity will not exceed the latest SHP bed need projection for MSGA beds in Calvert County. This published projection for a target year of 2022 is a minimum of 77 beds.[6]

Given the recent decreases in the hospital's discharges and patient days, staff would be concerned about possible be excess capacity if all the beds were to be located in newly constructed space. However, the fact that all but 40 of the MSGA beds will be located in older space eliminates this concern. As stated above, when a hospital project is converting semi-private rooms to private rooms, it would serve no purpose to make hospitals demolish capacity in older buildings just to match MSGA need projections.

Given the nature of this project -- a modernization of the facility without changing its current physical bed capacity -- staff recommends that the Commission find this project in compliance with this standard, but accompanied by the following condition:

The hospital will not routinely use any MSGA patient rooms for more than one patient without the approval of MHCC.

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

The applicant is not seeking to establish a new pediatric unit. This standard is not applicable.

(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

(b) If the project reduces the potential availability or accessibility of a facility or service by

[6] Maryland Register, Volume 41, Issue 5, Friday, March 7, 2014

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.

Addressing subpart (a) of this standard, CMH has stated that it is not seeking a rate increase from the HSCRC to offset the capital investment needed to execute this project and foresees no adverse impact on patient charges or availability of/access to services.

In addressing subpart (b), the applicant noted that the goal of this project is to modernize its current facility to create an all private patient room plan for MSGA patients. It is creating an 18-bed observation unit in older space. It states that these changes will enhance its patients' hospital experience and will not diminish availability of or access to care, including access for the indigent and/or uninsured. (DI#4, p.28)

As noted, private patient rooms are viewed as a safety enhancement supportive of quality patient care. The applicant has satisfied this standard.

(5) <u>Cost-Effectiveness</u>

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.***

(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.

(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 (1);***

(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.

CMH identified the goals of this project to be:

- to expand the availability of private rooms for MSGA patients;
- to establish a dedicated outpatient observation unit;
- to expand the first floor footprint of the hospital to provide more space for outpatient, ancillary and support services.

CMH considered four options to meet these objectives:

(1) Relocating the transition care unit (the "TCU" which is the CCF unit) off-site to create space for onsite renovation and expansion to accommodate an 18-bed observation unit and additional private MSGA patient rooms;

(2) Constructing a stand-alone facility for all MSGA beds and renovation of the current hospital to accommodate an observation unit;

(3) Constructing a replacement hospital; and

(4) Demolishing part of the existing hospital's first floor to allow for construction of a new tower that would be joined to the existing hospital, and renovating existing space. A summary of the project options and the applicant's decision rationale are described below.

Option 1: TCU Relocation and On-Site Renovation

This option would entail relocating and repurposing the space currently occupied by the TCU to free up some of the space needed to allow the hospital to add an observation unit and expand the current facility to support a two-story addition to house 30 private patient rooms. It would necessitate relocating the 18-bed TCU to another local nursing home, but CMH was unable to find a CCF in Calvert County with enough current capacity for additional patients to cover the loss of these CCF beds. Given CMH's stated commitment "to assuring continuous access to comprehensive care/SNF services in the community," that meant that the only way to pursue this option would be to partner with an existing CCF to add capacity, an approach that was considered and rejected by CMH without developing a cost estimate due to the difficulties of coordinating such a plan and the estimated five year time frame this option would require.

Option 2: Stand-Alone Acute Care Bed Replacement & On-site Renovations

This option would have the hospital relocate all of its acute care beds and the proposed observation unit to a free-standing three level building on the hospital campus. The vacated space would be used for renovations to the TCU and other ancillary support services. All services, current and proposed, would be met with this option. This option was estimated to

require a larger financial investment than that estimated for Option 4 (the option selected);[7] in addition, the applicant did not find a site on the hospital campus that would provide the adjacencies to ancillary and support services in the existing hospital which would be needed to achieve and maintain efficient operations.

Option 3: Complete Hospital Replacement

This option would relocate the hospital to a new location where it could be built to code and at a size to accommodate all of the hospitals current and proposed services under one roof. The applicant estimated that this option would require a capital investment of $202,000,000[8]. No timeframe or further consideration for this option was explored due to the capital investment required to pursue it.

Option 4: On-site Expansion, Renovation & New Construction

This option would demolish a portion of the existing facility to allow for a 3-story "infill structure" which would allow for the addition of 40 private patient rooms and expansion of the outpatient ITC/medical oncology unit. This option also includes renovation and repurposing of space in the existing hospital, including the addition of an observation unit, and allows the hospital to maintain necessary adjacencies to existing ancillary and support services on the hospital campus. This chosen option has a cost estimate of approximately $51.7 million and project can be implemented in less than four years.

CMH concluded that the selected option to demolish, expand and renovate the existing facility as the only feasible option to meet the hospital's need for additional private rooms and a dedicate observation unit. (DI#4, pp. 30-38, DI#10, pp. 8,9 and DI#13, p.4)

The applicant defined project objectives and reasonably demonstrated consideration of alternatives. Staff recommends that the Commission find that the applicant has met this standard.

(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.

The applicant's stated primary goals for this project are to increase the number of private rooms and add an observation unit. The renovation of an existing nursing unit to create an 18-bed observation unit for medical observation cases is an example of "*a service not covered by Regulation .05 of this Chapter or by another chapter of the State Health Plan"* spoken to in this standard,

[7] In considering this option CMH did not develop a detailed estimate, but instead applied estimated cost/bed data from recent hospital CON applications. At $515,000/bed (an amount less than the cost of the cost/bed for a six story tower at Holy Cross-Silver Spring) this option was estimated to be approximately $51 million for the new construction portion of this option.

[8] The applicant based its estimate on the cost of the recently-constructed Holy Cross-Germantown hospital project (Docket#: 08-15-2286) cost per bed.

requiring the applicant to demonstrate need for it.

In the absence of an observation unit, outpatient medical and outpatient surgical observation patients are currently placed in general medical/surgical inpatient units. CMH reported a 40% increase in outpatient medical observation visits from 1,663 in FY 2014 to 2,319 in FY 2015. Surgical observation cases increased by almost 55% over the same period from 252 to 343. (DI #4, Exhibit 1, Table F) The proposed unit is intended to serve the medical observation cases in 18 private rooms that would be smaller than MSGA patient rooms; and, therefore, would not be able to be converted to inpatient rooms. Surgical observation cases will continue to receive care on the hospital's general medical/surgical nursing units.

CMH projected continued increases in medical observations patients, but at a much slower rate than the rate of increase from 2014 to 2015 as shown in the table below. The following discussion will discuss this assumption.

Table IV-2: Statistical Projections of Medical Observation Visits FYs 2015-2022

FY	Visits	% change
2014	1,663	-
2015	2,319	39.5%
2016	2,435	5.0%
2017	2,527	3.8%
2018	2,624	3.8%
2019	2,723	3.8%
2020	2,827	3.8%
2021	2,934	3.8%
2022	3,046	3.8%

Source: DI #4, Exhibit 5, Table F.

Of the patients admitted for medical observation over that two year period, 18.3% were ultimately admitted for inpatient care. The average length of stay for those not admitted was 24.7 hours. Based on this data CMH assumed an average length of stay of one day and calculated that by 2022 the average daily census would be 8.3. Assuming that utilization is randomly distributed on a daily basis, CMH calculated that to meet the needs of these patients with a private room 99% of the time would require 15 to 16 beds[9], two fewer than the proposed capacity of the unit. CMH stated that the additional two beds is reasonable given the growth in medical observation cases and the fact that the unit will be housed in renovated space currently occupied by a general medical/surgical unit with 20 patient rooms and the physical capacity for 31 patients. (DI #4, pp. 32-33 and DI #10 pp.16-17)

Staff questioned why the needs of observation patients could not continue to be met on the general medical/surgical nursing units, given the relatively low occupancy rate of 46% projected for the observation unit and the expected excess capacity of the general/medical surgical units.[10]

[9] CMH assumed that the utilization approximates the mathematical model represented by the Poisson distribution and that the number of beds needed in order to meet the need 99% of the time equals the average daily census plus 2.33 times the square root of the average daily census [bed need=ADC+2.33* the square root of the ADC]

[10] Assuming the hospital completes this project and achieves its projected general medical/surgical patient days in FY 2022 (15,074), the hospital will have 66 patient rooms for an ADC of 41.3 patients for a 62.3% occupancy rate.

In response, CMH stated that the advantage of a dedicated unit is the focus it brings on the monitoring, evaluation, patient care and decision-making that is required for observation patients. (CMH states the unit "will facilitate enacting processes that carefully evaluate patients at given time frames to ensure that diagnostic tests, evaluation of results and clinical decisions are made in a timely fashion."[11] (DI #13, pp. 8-9)

In evaluating the applicant's demonstration of need, staff notes that there is no State Health Plan chapter that establishes standards for observation beds, and no bed need methodology for determining the reasonable capacity of observation units. While most hospitals continue to provide a large proportion of observation care in general nursing units, as CMH does, recent hospital projects and MHCC surveys indicate a movement toward creating dedicated observation units which I expected to result in less mixing of admitted inpatients and observation patients in the future. The applicant has made plausible arguments outlining its basis for believing that clustering such patients in a separate unit will provide better patient care.

Staff notes that the emergence of observation census as a significant part of the patient population in place at general hospitals is a relatively new phenomenon. It clearly mirrors, to some extent, the declines seen in the traditional measures of hospital patient census that only count admitted patients. While growth of observation census in recent years has been rapid, it is too early to make confident assumptions about how this census will change in coming years. While staff expects some continued growth as the payment system continues to incentivize alternatives to inpatient admission, a significant slowing of this rate of growth, as projected by CMH, is plausible. Continuation of higher levels of growth in observation patient census should spur hospitals to strongly pursue changes in long-term management of this patient population to reduce medical crises that produce emergency department visits and subsequent observation stays.

Regarding the proposed 18-bed capacity of the unit, although staff is not convinced that utilization of such a unit is completely random on a daily basis, CMH's method of calculating need is acceptable in the absence of specific Commission-approved methodology. It approximates, at the cenus levels under consideration, a normally distributed daily average census. While the projections suggest that the unit may have excess capacity, the uncertainty of the future utilization and the fact that the hospital is renovating existing space diminishs this concern. The project provides the value of modern private patient rooms and is repurposing older space for an area seeing rapid growth in demand, both of which are logical development responses to the environment.

In compliance with this standard, CMH has provided proof that there is additional need for this project outside of providing all private rooms for inpatients. The addition of the observation unit will designate space for medical observation patients that will provide the opportunity for focused processes for monitoring and evaluating such patients in order to make clinical decisions on whether and when to admit or discharge patients. Staff concludes that the applicant has met this standard.

(7) <u>Construction Cost of Hospital Space</u>

[11] January 6, 2016 response to 2nd completeness letter, p. 9.

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, adjusted for specific construction characteristics of the proposed project, with an index cost (i.e., an "expected cost") derived from the Marshall Valuation Service ("MVS"). The MVS methodology allows for a variety of adjustment factors related to the specific circumstances of the project, e.g., timing of the project, the locality, the number of stories, height per story, shape of the building (e.g., the relationship of floor size to perimeter), and departmental use of space. For a more complete explanation of MVS, see Appendix 3.

For this project, CMH calculated an MVS benchmark cost for the new construction portion of the project ($406.81 per SF). CMH adjusted the base costs for factors such as the sprinkler system, the specific departments included (departmental differential cost factor), the average perimeter, the average wall height, current cost, and local costs.

In comparing its estimated costs to this MVS benchmark, CMH made adjustments for demolition, rough grading, paving, exterior signs, canopy, jurisdictional hook-up fees and landscaping that are explicitly excluded from the MVS calculator costs. Calvert also made adjustments for extraordinary costs that it considered to be over and above the costs captured by the MVS calculator. These adjustments included: temporary construction for main building access, two elevators, flat plate concrete in lieu of composite steel, air handling unit (AHU) capacity for future conversion of 4th and 5th floors to heat pumps , special foundations and construction adjacent to an existing structure, security devices, pneumatic tube system, extended general conditions associated with phased construction, allocation of architects and engineering fees to extraordinary cost and escalation to midpoint of construction. After these adjustments, CMH calculated an adjusted estimated project cost of $402.48 per SF for the building addition, $4.33 below the MVS benchmark that it calculated for comparable hospital construction.

Commission Staff calculated its own MVS benchmark for the proposed project (see Appendix 3) and arrived at a benchmark of $386.24 per SF for the new construction. While staff started with a higher base cost than the applicant because updated costs were released by MVS in November 2015[12] after the application was submitted, staff calculated a benchmark for the new

[12] The applicant used the base costs for November 2013, which were the most current when the application was submitted.

construction that is $20.57 per SF less than that calculated by the applicant. The major reasons for this lower staff calculation is a lower perimeter multiplier[13] and a lower sprinkler add-on cost[14] than that used by the applicant.

Staff then compared its calculated MVS benchmark of $386.24 per SF to estimated cost of the new construction as adjusted for costs that are not included in MVS. Staff accepted the adjustments described above with the exception of adjustment for the elevators and escalation to midpoint of construction. Staff did not accept the adjustment for the elevator costs because the cost of elevators is included in the MVS base costs for class A good quality hospital construction. Staff did not accept the adjustment for the escalation to midpoint of construction because future inflation is a separate budget line item that is not included in the comparison to the benchmark. The following table compares Calvert's estimated cost for constructing the addition with the hospital's adjustments except as detailed above to the MVS benchmark calculated by Commission staff. It shows That CMH's estimate for construction of the addition to be $39.05 per SF above the benchmark.

Table IV-3: Comparison of Calvert Memorial's New Construction Budget to Commission's Staff Marshall Valuation Service Benchmark

Project Budget Item	**CMH Estimate**
Building	$17,412,000
Fixed Equipment	951,675
Site Preparation	3,550,000
Architectural Fees	1,499,694
Permits	482,723
New Construction Subtotal	**$23,896,092**
Adjustments to Budget for Comparison to MVS Benchmark	
Adjustments to Site & Building Costs	5,173,827
Proportional Adjustment to A & E fees	354,078
Total Adjustments	**$5,527,905**
Adjusted Total for MVS Comparison	**18,368,187**
Total Additional Square Footage	43,190
Adjusted Project Cost Per SF	**$425.29**
MHCC-calculated MVS Benchmark Cost Per SF.	**$386.24**
Total Over (Under) MVS Benchmark	**$39.05**

Data Sources: Calvert Memorial DI# 4, pp. 43-49 and Exhibit 5, Tables C, D, and E: Commission Staff calculations

The applicant and MHCC staff also compared CMH's estimated cost for the proposed renovations to benchmarks they calculated. However, The MVS calculator cost methodology that is used to calculate the benchmarks does not include 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. Therefore, the MVS benchmarks are typically much higher than the costs estimated by applicants for the renovation portion of projects. Thus the $287.39 per SF cost that CMH estimated for the renovation portion of the project is well below the benchmarks calculated by CMH and Staff for comparable new construction.

[13] 0.962 versus 1.012

[14] $3.39 per SF versus $4..16 per square foot

This standard requires that any rate increase proposed by the hospital related to the capital cost of the project "shall not include the amount of project construction costs that exceeds the MVS benchmark and those portions of the contingency allowance, inflation allowance and capital construction interest that are based on the excess construction cost." Since the source of funds for this project is cash and philanthropy, there are no additional adjustments for capital construction interest. Staff has apportioned the amounts budgeted by CMH for the contingency and future inflation by calculating the excess cost as a percentage of total current capital cost (3.4%) and multiplying the amounts budgeted for those line items by that percentage as shown in the following table.

Table IV-4: Calculation of Excess Cost

Construction cost exceeding benchmark ($39.05 x 43,190 SF)	$1.686,570
Total estimated current capital cost before Inflation & finance costs	$49,533,751
Costs exceeding benchmark as percent of total current capital costs	3.4%
The portion of the contingencies that should be excluded ($7,731,343 x 3.4%)	$263,244
The portion of future inflation that should be excluded ($1,960,387 x 3.4%)	$67,430
Total to be excluded from any rate increase proposed by the hospital related to the capital cost of the project	**$2,017,244**

Sources: CON Application Exhibit 1, Table E and MHCC calculations

Based on this analysis, staff recommends that approval of the project should be accompanied by the following condition:

> *Any future change to the financing of this project involving adjustments in rates set by the Health Services Cost Review Commission must exclude $2,017,244. This figure includes the estimated new construction costs that exceeds the Marshall Valuation Service guideline cost and portions of the contingency allowance and inflation allowance that are based on the excess construction cost.*

(8) Construction Cost of Non-Hospital Space

Not applicable. There is no non-hospital space proposed.

(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.

CMH provided the breakdown of the nursing unit new construction and renovations spaces associated with this project. They are shown in the following table; all of the nursing unit spaces are less than the 500 SF per bed threshold.

Table IV-5: Calvert Memorial Proposed Project Nursing Unit Space per Bed Summary

Unit Name	Unit Description	No. Beds	Unit Size (SF)	Square Feet per Bed
Floor 2	Existing M/S Unit	26	10,021	385.4
Floor 2	New M/S Unit	20	7,935	396.8
Floor 3	New M/S Unit	20	7,935	396.8

Source: DI#4, p.51)

The applicant meets this Inpatient Nursing Unit Space 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.

The applicant stated that this standard is not applicable because it has not been designated a high charge hospital by the Health Services Cost Review Commission ("HSCRC"). An HSCRC opinion on this project is attached to this recommendation.

This standard is no longer applicable because the rate reduction agreements referenced by the standard have been replaced by the Global Budget revenue model. Staff will consider the ongoing validity and/or revision of this standard in its next iteration of COMAR 10.24.10, the SHP chapter used in the review of general hospital projects.

(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.

CMH stated that it is already an efficient hospital, and to demonstrate that claim it cited the HSCRC *Reasonableness of Charges (ROC) Comparison by Peer Groups*, and provided a copy of

HSCRC's 2011 Peer Groups publication of the ROC[15] information. That document showed that CMH charges were 3.81% below its peer group's average. (DI# 13, Exhibit 5) CMH also cited data for the first two quarters of 2016, showing that the Statewide (non-case-mix-adjusted) average cost/case was $14,929, compared to CMH's $11,030.[16] CMH maintained that "for hospitals like CMH that are already performing efficiently by objective standards, and are leaders among Maryland hospitals in that regard, the opportunities for further significant improvements are more limited," and thus expectations of efficiency gains "should be tempered to be more realistically modest about what is sought or achievable." It also stated that: "The project was not simply suitable to the detailed analyses of projected efficiency gains as set forth in the Standard above. Rather, we anticipated some gains and some losses in operational efficiency, with no net overall measurable change, as a result of this project." (DI#23, p.4)

Elaborating further, CMH maintained that the design of the project "took potential efficiency improvements into account," but that the more primary design drivers were patient safety, infection control, patient satisfaction, providing additional private patient rooms and additional space for patient support functions. The applicant stated that: "Obtaining gains in operational efficiencies as a result of the project, while desirable, was taken specifically into account insofar as they were consistent with achieving these priorities." (DI#23, p.3)

Ultimately the applicant responded to a completeness question asking it to quantify the expected change in its staffing/unit of output after the project is implemented by organizing data from its application into the table shown below.

CMH:

- Projected a 2.4% increase in discharges over six years. CMH expects ALOS to decline. As shown in Section III.B. of this report, these assumptions project a change in recent trends for both discharges and ALOS; and
- Projects an increase of 14.2 FTE's (1.6%) after the expansion in response to these use assumptions.

This scenario would result in a slight decrease in FTE's per discharge, from 0.151 in FY 2016 to 0.149 in FY 2022, with a slight cost savings projected by CMH of $155 per patient discharge.

Table IV-6: Calvert Memorial Hospital's Staffing and Cost per Discharge Projections

	FY2016 Projections	FY2022 Projections	Difference
Full Time Equivalent (FTE) staff	870.0	884.2	+14.2
Total employee costs	$71,215,519	$72,035,055	$819,536
Total discharges	5,777	5,918	+141
FTE's/discharge	0.151	0.149	-0.002
Employee costs/discharge	$12,327	$12,172	-$155

[15] The last time this document was compiled was for 2011 data. Since then, the only ROC calculations prepared by the HSCRC staff have been related to specific rate setting matters for selected hospitals and not a compilation of data for all hospitals in Maryland.

[16] Source: FY 2016 (Q1 and Q2) inpatient case mix data, HSCRC

Source: DI# 23, p.5

More broadly, as noted in the HSCRC memorandum attached to this report, CMH is more robustly forecasting FTE's per average equivalent occupied bed to decline from 5.04 in 2015 to 4.76 in 2022. The applicant has maintained that it is currently an efficient hospital, and that the primary driver of the project was facility modernization and updating rather than a need to seek further efficiencies. Thus the applicant essentially maintained that the standard as written was not a good fit for a project "which is not dependent for its success or financial feasibility upon projected increases in volumes, reducing staffing, or achieving economies of scale." (DI#23, p.4) Despite that position, CMH's projections did show a modest cost savings per patient discharge would be achieved with this expansion project.

Staff is sympathetic to the applicant's perspective that there were other drivers of the project than seeking more efficient operations, when attention is focused on the impact of the specific project elements and projected FTE growth. We agree with HSCRC staff's observation (see attached memorandum) that conservative planning should assume volume declines in demand for inpatient services and CMH's productivity gains will be more difficult to achieve with declining service volume. HSCRC staff states that CMH may find itself to be structurally inefficient if volume projections do not match its expectations but expects it to be able to maintain its viability, noting the ability to request additional revenue to address project expesnses a CON approval affords to CMH. Staff recommends that the Commission find that the applicant complies with 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 identified five common and costly categories of medical errors -- communication errors, hospital acquired infections, patient falls and transfers and handoffs -- and how this project will address them. According to the applicant:

Communication errors have been identified as a leading cause of medication errors, delays in treatment, and wrong-site surgeries. This project will help to minimize them by: a) creating multi-disciplinary work spaces with visual connections among staff work areas to promote regular communication and discussion; and b) a nursing unit design that will reduce travel distances for access to supplies and medications.

Hospital acquired infections increase with the duration of hospitalization, and more than 1/3 of all nosocomial infections involve airborne transmissions. This project will help to minimize them by: a) incorporating readily accessible sinks and hand disinfectants; b) separation of patients into private rooms; and c) use of finishes that are easily cleaned and maintained.

Patient Falls are most frequently either toilet-related or occur during transitions from beds to

chairs. A number of design features will help to minimize them, such as: a) patient rooms will be designed to place the toilet as close as possible to the patient's bed; b) the room will be equipped with grab-bars running from the patient's bed to the toilet; c) configuration of the nursing units will incorporate charting areas located at the patient room entryway and decentralized nursing with clear lines of sight into patient rooms, enabling quicker preventive assistance by nursing staff, and/or faster post-fall care.

Transfers and Hand-Offs can result in serious medical errors resulting from miscommunication when a patient is transferred from one caregiver to another, e.g., when a patient is moved to another unit or turned over to a new nurse or doctor during a shift change. The proposed project design includes multidisciplinary work spaces to provide areas for team collaboration during shift changes.

The applicant has documented that it considered patient safety in planning this project and thus complies with this standard.

(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 submitted thorough and detailed assumptions that supported its volume, revenue and cost projections. (DI#4, pp. 61-66) HSCRC staff's Opinion Letter states a belief that "the overall assumptions regarding the financial viability of the proposed building and renovation project are reasonable and achievable, assuming that Calvert attains the volumes projected in the CON application." (DI#21, HSCRC Opinion Letter)

(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;

The applicant is projecting a return to growth in inpatient utilization after FY 2016. (See the following table.) CMH assumed that FY2015 MSGA and acute psychiatric bed use rates would remain static and, thus, population growth and aging would, at this constant use rate, yield a forecast of higher volume in the future. It adjusted this forecast by also assuming that Potentially Avoidable Utilization (PAU) at the hospital would be reduced over these years. As shown in the table, these assumptions produced a forecast that MSGA ADC would increase from 39.4 patients in FY 2015 to 44.8 patients by FY 2022 and forecasts that overall acute care daily census, would increase from an average of 53.7 patients in FY 2015 to 60.4 patients by FY 2022. Similar growth was assumed for observation patients. (DI#4, p. 63 and Exhibit 11 and DI#15, Revised CON Table Package)

Table IV-7: Actual and Projected Patient Volumes

	Actual		CMH Estimate	Actual	Projected					
	FY 2014	FY 2015	FY 2016	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022
MSGA Discharges	4,187	3,788	3,898	3,838	3,920	3,943	3,965	3,988	4,011	4,034
MSGA Discharge Days	16,183	14,411	15,905	14,594	15,910	16,001	16,093	16,186	16,279	16,372
MSGA Average Length of Stay	3.87	3.80	4.08	3.80	4.06	4.06	4.06	4.06	4.06	4.06
Total Acute Discharges	5,756	5,289	5,447	5,259	5,470	5,493	5,517	5,540	5,564	5,588
Total Acute Discharge Days	21,672	19,583	21,521	19,750	21,537	21,639	21,742	21,846	21,951	22,056
Total Acute Average Length of Stay	3.77	3.70	3.95	3.76	3.94	3.94	3.94	3.94	3.95	3.95
ED Outpatient Visits	35,365	38,555	38,763	38,127	39,762	40,787	41,838	42,917	44,023	45,158
Medical Observation Patients	1,663	2,319	2,435	NA	2,527	2,624	2,723	2,827	2,934	3,046
CCF Discharges	321	322	330	NA	330	330	330	330	330	330
CCF Discharge Days	4,635	4,517	4,729	NA	4,723	4,724	4,725	4,726	4,727	4,728

Source: DI#15, Revised CON Table Package and actual FY 2016 data and ALOS provided by MHCC

(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;

Calvert Memorial stated that its Revenue estimates are based on current allowable charge levels and incorporate the current reimbursement methodologies employed by the HSCRC. In its Opinion Letter (Appendix 4) responding to MHCC staff's inquiry regarding financial feasibility of this project, HSCRC staff affirmed that the applicant's revenue assumptions were consistent with its FY 2016 Rate Order and appear reasonable going forward. (DI#21, HSCRC Opinion Letter)

(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

CMH stated that staffing and overall expense projections are based on current expenditure levels and take into account projected changes in utilization and the necessary increases that are responsive to the additional square footage of the facility, and the operation of

a dedicated outpatient observation unit. (DI#4, p. 65) HSCRC staff's Opinion Letter pointed out that Calvert is projecting that its number of FTE's per Average Equivalent Occupied Beds (AEOB) will decrease from an actual 5.04 in 2015 to a projected 4.76 in 2022. (DI#21, HSCRC Opinion Letter)

(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.

Based on projected utilization, revenues, and expenses, which are based on reasobnable assumptions identified in Table G of the applicant's CON application, CMH has projected the ability to continue generate a healthy bottom line between FYs 2016 and 2021 (which covers construction and the first 2 years of operation of this demolition, expansion and renovation project). (DI#15, Revised CON Table G)

Table IV-8: Actual, Estimated, and Projected Revenues and Expenses (2016-22)
Current Dollars

	Actual		Est.	Projected				
	2014	2015	2016	2017	2018	2019	2020	2021
Revenues								
Gross Patient Service Revenues	**$152,176,131**	**$155,844,234**	**$158,737,442**	**$159,447,514**	**$160,064,471**	**$160,835,266**	**161,610,069**	**162,388,901**
Net Adj. to rev. (Bad Debt,, Contract Allow., Charity)	-30,022,052	-26,111,447	-25,546,558	-25,660,834	-25,760,125	-25,884,173	-26,008,867	-26,134,209
Net Patient Services Revenue	122,154,079	129,732,787	133,190,884	133,786,680	134,304,346	134,951,092	135,601,202	136,254,691
Other Op. Rev	5,792,802	4,503,778	4,173,192	4,173,192	4,173,192	4,173,192	4,173,192	4,173,192
NET OPERATING REVENUE	**$127,946,881**	**$134,236,565**	**$137,364,076**	**$137,959,872**	**$138,477,538**	**$139,124,284**	**$139,774,394**	**$140,427,883**
Expenses								
Total Salaries & Wages (incl. benefits)	62,583,594	66,993,009	70,721,881	70,721,881	70,721,881	70,721,881	70,721,881	70,721,881
Contractual Services	660,107	580,993	493,638	493,638	493,638	493,638	493,638	493,638
Total Interest, Depr. & Amortization	10,571,679	10,666,882	11,845,846	12,347,746	12,853,569	13,363,160	13,876,367	14,393,046
Supplies	9,358,963	9,296,321	9,412,858	9,463,467	9,560,137	9,658,987	9,760,093	9,863,532
Other Expenses	36,307,429	36,999,461	39,324,661	39,324,661	39,324,661	39,324,661	39,324,661	39,324,661
TOTAL	**$119,481,772**	**$124,536,666**	**$131,798,884**	**$132,351,393**	**$132,953,886**	**$133,562,327**	**$134,176,640**	**$134,796,757**

OPERATING EXPENSES								
NET INCOME (LOSS) From OPERATIONS	**$8,465,109**	**$9,699,899**	**$5,565,192**	**$5,608,479**	**$5,523,652**	**$5,561,957**	**$5,597,754**	**$5,631,126**

Source: DI#15, Revised CON Table G

Based on this analysis, the project complies with this standard.

(14) Emergency Department Treatment Capacity and Space
(15) Emergency Department Expansion

These standards do not apply, as CMH's Emergency Department is not touched by this project.

(16) Shell Space

There is no shelled space in this project,thus this standard does not apply.

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.

The need criterion requires the Commission to consider the applicable need analysis in the State Health Plan. For this project, the need analysis includes the need: to increase the number of private rooms in the medical surgical units; for a dedicated observation unit; for the proposed number of MSGA beds; the need for more functional hospital space; and the need to relocate the ITC.

Staff addressed the applicable bed need analysis for the MSGA beds and Pediatric beds under the Identification of Bed Need and Addition of Beds standard, COMAR 10.24.10.04B(2), and recommended a finding of consistency with a condition restricting the routine use of the semi-private rooms at their physical bed capacity. Although the semi-private rooms will remain in operation with a physical capacity for two beds, the hospital will set up and staff only one bed in these rooms. And while staff concluded that the proposed project should be considered as one that does not involve an increase in MSGA bed capacity, we acknowledge that the physical capacity upon project completion will exceed the minimum jurisdictional bed need projection in Calvert County (as it does currently). However, operating all rooms as private rooms as the applicant plans will not exceed the minimum jurisdictional bed need projection.

This project will also provide additional space to accommodate the relocation of the ITC to a more appropriate space. The existing ITC is a 2,990 sq./ft. open suite with little visual or auditory separation between patients. The current treatment area includes 12 open infusion bays and one private infusion treatment room. The open infusion area is 690 SF which translates to 57.5 SF/patient. This area is roughly 30% below the minimum requirement of 70-80 SF per patient, as

published in the Guidelines for Hospital and Outpatient Facilities (2014 edition)[17], (DI#10, p.19) The proposed location for the ITC would provide ample space for a combination of semi-private and open treatment areas that would allow flexibility for privacy or socialization as needed.

The proposed treatment area would include 16 semi-private or open treatment areas and 2 private treatment rooms. The semi-private/open treatment area would be 1,760 SF which translates to 110 SF/patient. (DI#13, p.12) In FY 2015, CMH was able to accommodate 4,960 patient visits at its current location. Upon projection completion, CMH projects an average annual 2.5% increase in outpatient visits (see table below). The new location would also provide both a comfortable treatment space and therapeutic healing ambiance of the outdoor healing garden. (DI#4, p.43 & exhibit F)

Table IV-9: Statistical Projections of Outpatient Infusion Therapy Center Visits FYs 2015-2022

FY	Visits	% change
2015	4,960	-
2016	5,053	1.8%
2017	5,183	2.5%
2018	5,317	2.5%
2019	5,454	2.5%
2020	5,594	2.5%
2021	5,739	2.5%
2022	5,887	2.5%

Source: DI#4, Exhibit 5.

Staff recommends that the applicant be deemed in compliance with this need criterion.

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 has reasonably demonstrated that its proposal is a cost effective approach among the options it considered to meet the goals of this project. Please see the full discussion of options located under the cost-effectiveness standard in COMAR 10.24.10.04B(5) found on page 15 of this recommendation.

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.

[17] Paragraph 2.2-3.12.2.2, p.2015

Availability of Resources to Implement the Proposed Project

The project would be funded with $46,654,138 of cash and $5,000,000 in philanthropy. To substantiate the availability of resources to implement this project, the applicant provided a copy of Calvert Health Systems, Inc. and Subsidiaries Consolidated Financial statements for the 2013 and 2014 fiscal years. (DI#4, Exhibit 13) CMH's FY 2014 audited financial statements showed that $126.9 million in cash and investments were available to help fund this project.

Availability of Resources Necessary to Sustain the Proposed Project

As shown at COMAR 10.24.10.04B (13) the Financial Feasibility standard, on p.26 the applicant's financial projections were based on reasonable assumptions and project a positive bottom line before and after implementation of the project. HSCRC staff's Opinion Letter states a belief that "the overall assumptions regarding the financial viability of the proposed building and renovation project are reasonable and achievable, assuming that Calvert attains the volumes projected in the CON application."

MHCC staff recommends that the Commission find that CMH has met the Viabiity criterion.

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.

Calvert Memorial responded that it has been issued only one Certificate of Need since 2000, a renovation and expansion project in 2004. The applicant further stated that the project was completed in compliance with the CON Certificate.

CON staff has confirmed compliance with this criterion.

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

COMAR 10.24.01.08G(3)(f): "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."

Impact on Existing Providers

CMH stated that there should be no adverse impact on other providers since the proposed project is to expand and modernize its facility to continue to deliver the same services currently offered without increasing its bed capacity. CMH points out that in calculating future volume

projections, it did not assume any change in market share resulting from the availability of 13 additional private patient rooms for MSGA inpatients.

Impact on Geographic and Demographic Access to Services

CMH states that features in this project such as more private rooms and the availability of an observation unit will benefit the process of care, particularly in the transfer of patients from the hospital ED to the inpatient and observation units, resulting in improved efficiency and accessibility of the hospital's ED. In addition, efficiency and access will be boosted by the availability of additional private rooms, which will reduce or eliminate the need to "block" beds located in semi-private rooms for various reasons such as isolation needs and gender differences.

Impact on Costs to the Health Care Delivery System

CMH has included no increase in patient charges related to the proposed project, and has posited that the availability of more private rooms and observation beds will increase efficiency. CMH also states that it: "believes that there is a long-term cost saving to the proposed project insofar as the efficient use of renovated existing space has been programmed into the project, which will provide long-term flexibility to meet future patient needs, without incurring the high costs of additional new hospital construction." (DI#4, p.80)

Staff recommends that the Commission find that the proposed project will not have a negative impact on existing providers or the health care delivery system. This project will allow the hospital to continue to operate in an efficient manner without having a negative impact on the market or costs of the health care system.

III. SUMMARY AND STAFF RECOMMENDATION

Based on its review and analysis of the Calvert Memorial Hospital's Certificate of Need application, the Commission staff recommends that the Commission find that the proposed capital project complies with the applicable State Health Plan standards, is needed, is a cost-effective approach to meeting Calvert Memorial Hospital's objectives, is viable, is proposed by an applicant that has complied with the terms and conditions of previously issued CONs, and will not have a negative impact on service accessibility, costs and charges, or other providers of health care services.

Accordingly, Staff recommends that the Commission **APPROVE** the application of Calvert Memorial Hospital for a Certificate of Need for a building addition and modernization project to provide for 12 additional private rooms in the MSGA units and add an observation unit, at a cost of $51,654,138, with the following conditions:

1. That Calvert Memorial Hospital will not routinely use any room on an MSGA nursing unit including the ICU and CCU units for more than one patient without approval of MHCC.

2. Any future change to the financing of this project involving adjustments in rates set by the Health Services Cost Commission must exclude $2,017,244. This figure includes the

estimated new construction costs that exceeds the Marshall Valuation Service guideline and cost and portions of the contingency allowance and inflation allowance that are based on the excess construction cost.

IN THE MATTER OF	*	**BEFORE THE**
	*	
CALVERT MEMORIAL	*	**MARYLAND HEALTH**
*		
Docket No. 15-04-2370	*	**CARE COMMISSION**
	*	

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FINAL ORDER

Based on the analysis and findings in the Staff Report and Recommendation, it is this 17th day of November 2016:

ORDERED, that the application for Certificate of Need by Calvert Memorial Hospital, Docket No. 15-04-2370, for a project that will demolish 10,225 SF of the hospital's first floor to allow for a 43,575 square foot addition; renovate approximately 32,910 square feet of existing space; and will enable the hospital to provide additional private rooms in the MSGA units and an observation unit, at an estimated project cost of $51,654,138, be **APPROVED**, subject to the following conditions:

1. That Calvert Memorial Hospital will not routinely use any room on an MSGA nursing unit including the ICU and CCU units for more than one patient without approval of MHCC.

2. Any future change to the financing of this project involving adjustments in rates set by the Health Services Cost Commission must exclude $2,017,244. This figure includes the estimated new construction costs that exceeds the Marshall Valuation Service guideline and cost and portions of the contingency allowance and inflation allowance that are based on the excess construction cost.

MARYLAND HEALTH CARE COMMISSION

APPENDIX 1

RECORD OF THE REVIEW

RECORD OF THE REVIEW

Item #	Correspondence File	Date
1	Commission staff acknowledged receipt of the Letter of Intent.	8/11/15
2	Commission responded to determination of coverage for IT and Medical Equipment exclusion from CON review request dated 8/3/15.	9/2/15
3	Commission received letters of support from Rev. David Showers and Rep. Steny Hoyer.	10/8/15
4	The applicant filed their Certificate of Need application with large plans.	10/9/15
5	Commission staff acknowledged receipt of application for completeness review.	10/13/15
6	Commission staff requested the *Calvert Recorder* publish notice of receipt of application.	10/13/15
7	Commission staff requested the *Maryland Register* publish notice of receipt of application.	10/13/15
8	Notice of receipt of application was published in the *Calvert Recorder*	10/23/15
9	Following completeness review, Commission staff requested additional information	10/29/15
10	Commission staff received responses to additional information request with large plans	11/19/15
11	Commission staff requested additional information from the applicant,	12/8/15
12	The applicant requested an extension to file responses to additional questions	12/22/15
13	Commission staff received additional completeness responses for the applicant	1/6/16
14	Commission staff requested additional information from the applicant.	1/15/16
15	Commission staff received responses to additional information request.	1/29/16
16	Commission staff notified applicant of formal start of review of application effective 3/4/16	2/12/16
17	Commission staff requested that the *Calvert Recorder* to publish notice of the formal start of review.	2/12/16
18	Commission staff requested that the *Maryland Register* to publish notice of the formal start of review.	2/12/16
19	Request made for Local Planning Department comments from Local Health Planning	2/12/16
20	Notice of formal start of review of application as published in the in the *Calvert Recorder*	2/24/16
21	Commission staff received HSCRC's comments on the application	5/20/16
22	Commission staff requested additional information from the applicant	6/23/16
23	Commission staff received responses to additional information request	7/12/16

APPENDIX 2

Acute Care Hospital Data for Calvert County, 2010-2016:

MSGA

- **DISCHARGES**
- **DISCHARGE DAYS**
- **AVERAGE LENGTH OF STAY**

MSGA Discharges: Calvert County 2010-2016

MEDICAL/SURGICAL/GYNECOLOGICAL/ADDICTIONS (MSGA) DISCHARGES							
Hospital	2010	2011	2012	2013	2014	2015	2016
	Calvert County General Hospitals						
Calvert Memorial Hospital	6,013	5,691	5,582	5,156	4,007	3,878	3,838
ALL Maryland Hospitals	546,039	519,221	497,946	476,022	451,779	435,091	428,019

Source: HSCRC Inpatient Discharge Files.

MSGA Discharge Days: Calvert County 2010-2016

MSGA DISCHARGE DAYS							
Hospital	2010	2011	2012	2013	2014	2015	2016
	Calvert County General Hospitals						
Calvert Memorial Hospital	19,443	18,347	18,254	17,781	14,825	14,188	14,594
All Maryland Hospitals	2,273,742	2,239,376	2,199,285	2,159,141	2,079,429	2,069,176	2,087,873

Source: HSCRC Inpatient Discharge Files.

MSGA Discharge Average Length of Stay: Calvert County 2010-2016

MSGA AVERAGE LENGTH OF STAY (ALOS) (DAYS)							
Hospital	2010	2011	2012	2013	2014	2015	2016
	Calvert County General Hospitals						
Calvert Memorial Hospital	3.2	3.2	3.2	3.4	3.7	3.6	3.8
All Maryland Hospitals	4.1	4.3	4.4	4.5	4.6	4.7	4.8

Source: HSCRC Inpatient Discharge Files.

APPENDIX 3

MVS Analysis

The Marshall Valuation System – What It Is and How It Works

In order to compare the cost of a proposed construction project to that of similar projects, 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, including hospitals.

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, or general contingency set asides for some unknown future event such as anticipated labor and material cost 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.[18]

MVS allows the applicant and 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 for a particular project the base costs are adjusted for a variety of factors using MVS adjustments such as including an add-on for sprinkler systems, the presence or absence of elevators, the number of building stories, the height per story, and the shape of the building (the relationship of floor area to perimeter). The base cost is also adjusted to the latest month and the locality of the construction project.

Applying MVS to this project

MHCC staff has calculated its own MVS benchmark of $386.24 per square foot for the building addition proposed by CMH based on the information submitted in the CON Application (Docket Number 15-04-2370) and information obtained from the MVS guide. Staff used separate MVS November 2015 Class A, "Good" quality construction base costs for floors one through three of new construction and for the mechanical penthouse.[19] The base cost for each component were adjusted based on the construction characteristics of each and data from the MVS. The base cost for floors one through three was adjusted for the departmental uses proposed by CMH as detailed in the application. (DI #4, pgs. 45-46) and the space planning guide in MVS (Section 87, p. 8) The base costs for both components were adjusted for the building shape (perimeter multiplier) and the story height. MVS provides a methodology for adjusting the benchmark costs for construction more than three floors above ground.[20] This multi-story multiplier was applied to mechanical penthouse base

[18] Marshall Valuation Service Guidelines, Section 1, p. 3 (January 2014).
[19] The applicant used November 2013 base cost, which was the most current at the time the application was first submitted. These base costs were updated by MVS and replace in November 2013.
[20] 0.5% per floor for each floor more than three floors above the ground

costs because the mechanical penthouse will be four floors above the ground. The cost of sprinklers was then added.

The final proposed cost after adjustments for specific building characteristics described above were then adjusted by applying the appropriate current cost and local multiplier to bring the MVS benchmark up to date for the October 2016 in Anne Arundel County, Maryland, which is the closest local multiplier available. Selected building characteristics and staff calculation of the MVS benchmark are detailed in the following table.

Maryland Health Care Commission Staff Calculation of Marshall Valuation Service Benchmark for Calvert Memorial Hospital's Building Addition

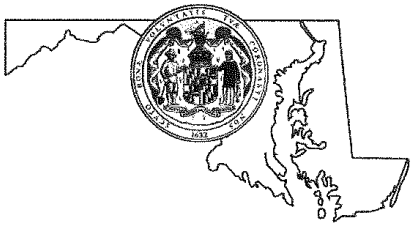
	Main Floors	Penthouse	Total
Construction Class/Quality	Class A/Good Quality		
Number of Stories	3	1	4
Square Feet	42,940	250	43,190
Average Perimeter	644	60	
Weighted Average Wall Height	13.6	13	
Average Area Per Flor	14,313	250	
Base Cost per SF (11/2015)	**$365.78**	**$80.77**	
Elevator Add-on	0	0	
Adjusted Base Cost per SF	**$365.78**	**$80.77**	
Adjustment for Dept. Cost Differences	0.993	1.0	
Gross Base Cost per SF	**$363.06**	**$80.77**	
Multipliers			
Perimeter Multiplier	0.962	1.468	
Story Height Multiplier	1.0368	1.023	
Multi-story Multiplier*	1.000	1.005	
Combined Multiplier	**0.997**	**1.509**	
Refined Cost per SF	**$362.10**	**$121.90**	
Sprinkler Add-on	$3.39	$3.39	
Adjusted Refined Square Foot Cost	$365.49	$125.29	
Update/Location Multipliers			
Current Cost Multiplier (10/2016)	1.02	1.02	
Location Multiplier (Anne Arundel Co., 10/2016)	1.04	1.04	
CC & Local Multipliers	$1.0608	$1.0608	
Final Benchmark MVS Cost per SF	**$387.71**	**$132.91**	
Total Building SF	**42,940**	**250**	**43,190**
MVS Building Cost	**$16,648,290**	**$132.91**	**$16,681,517**
Final MVS Cost Per SF	**$387.71**	**$132.91**	**$386.24**

Source: Calvert Memorial Hospital CON Application and Marshall Valuation Service®, published by Core Logic and Commission Staff Calculations

*Multi-story multiplier is .5% (.005) per floor for each floor more than three floors above the ground.

Appendix 4

HSCRC Opinion Letter



Health Services Cost Review Commission
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Toll Free: 1-888-287-3229
hscrc.maryland.gov

CHS- 7357

Memorandum

Date: May 20, 2016

RECEIVED

To: Kevin McDonald, Chief - CON, MHCC

MAY 20 2016

From: Gerard J. Schmith
Deputy Director, Hospital Rate Setting, HSCRC

Subject: Calvert Hospital Proposed Addition Project
Docket No. 15-04-2370

On March , 2016, you requested that we review and comment on the financial feasibility and underlying assumptions of the proposed $51,494,138 three story building addition and renovation project of Calvert Memorial Hospital ("Calvert," or "the Hospital') at its existing location in Prince Frederick. Calvert submitted a CON application on October 9, 2015 with additional supplemental information filed on November 19, 2015. The proposal includes the construction of a 43,575 square foot three story addition to the existing hospital's plant. The project also involves a renovation project encompassing 32,910 square feet of existing facility to address connections to the new addition and reprogramming existing medical surgical acute rooms to alternative uses, e.g., staff support, administration, and outpatient services.

The project will allow the hospital to expand the number of private patient rooms from 61 to 101 and create an 18-room dedicated outpatient observation unit by renovating an existing 31-bed medical surgical nursing unit. The proposed building addition is replacement in nature and will not increase Calvert's current capacity of 120 acute care beds. Calvert is presently licensed for 77 acute care beds and 18 comprehensive care beds.

Calvert is not requesting a rate increase to fund this project.

This memorandum provides our general comments and addresses your specific questions regarding the project.

General Comments on Financial Feasibility

Data Reviewed

We reviewed the financial information submitted in the CON application as well as other pertinent supplemental information associated with the CON process provided by Calvert. The information submitted included audited financial data for the fiscal years ending June 30, 2013 and 2014 and projected data for the fiscal years ending 2016 through 2022 (the first full year after the completion of the project.) Along with these financial projections, we have also reviewed Calvert's audited financial statements for the year ended June 30, 2015 and the expected financing plan for this project.

Sources and Uses of Funds

The total cost of the project is $51,494,138. Calvert is budgeting $29,404,739 for construction costs, costs, $8,240,788 for equipment and furnishing, $7,731,343 for contingencies, $4,156,881 in other capital costs including pre-construction costs, consultants, and inspections and permits, and $1,960,387 for an inflation allowance.

Calvert intends to finance the total project costs by using the existing cash resources and does not plan to incur any debt related to the project. As part of the project budget Calvert plans to raise $5,000,000 in philanthropy. All of the $51,494,138 project costs are related to capital costs with no allowance made for working capital costs or transition costs.

Projected Volumes and Occupancy Levels

Included in Table 1 below are Calvert's projected patient days and occupancy levels in the CON based on physical bed capacities for FY 2016 through FY 2022:

Table 1 - Summary of Projected Patient Days and Occupancy Rates
Excluding Pediatric Patient Days Because of No Projected Beds
Calvert Hospital CON Projections

	Years Ending June 30,						
	2016	2017	2018	2019	2020	2021	2022
Patient Days:							
Med/Surg	14,673	14,649	14,733	14,818	14,903	14,988	15,074
ICU/CCU	1,232	1,261	1,268	1,276	1,283	1,290	1,298
Obstetrics	2,018	2,013	2,008	2,003	1,998	1,993	1,989
Psychiatric	3,326	3,345	3,364	3,384	3,403	3,423	3,442
Total Patient Days	21,249	21,268	21,393	21,481	21,587	21,694	21,803
Occupancy Rates:							
Med/Surg	49.6%	49.5%	49.8%	50.1%	50.4%	50.7%	51.0%
ICU/CCU	33.8%	34.6%	34.8%	35.0%	35.2%	35.4%	35.6%

[1]

Obstetrics	46.1%	46.0%	45.8%	45.7%	45.6%	45.5%	45.4%
Psychiatric	53.6%	53.9%	54.2%	54.5%	54.8%	55.2%	55.5%
Total Occup. Rates	48.5%	48.6%	48.8%	49.0%	49.3%	49.5%	49.8%

The project includes renovating an existing 31 bed medical surgical nursing unit to house the 18 observation beds so Calvert will no longer have to house observation patients in medical surgical units which will free up all of the medical surgical beds for acute care inpatients.

Revenue Projections

We have reviewed the assumptions regarding the projections of operating revenue. For FY 2016 Calvert assumed that it would generate the HSCRC regulated revenue of $146,902,750 which agrees with the Hospital's final HSCRC rate order for FY 2016. Calvert projected that

The assumed annual HSCRC approved revenue increases listed in the CON application as follows:

Table 2 - Summary of Projected HSCRC Approved Revenue Increases
Calvert Hospital CON Projections

	Years Ending June 30,					
	2017	2018	2019	2020	2021	2022
Update Factor	2.34%	2.34%	2.34%	2.34%	2.34%	2.34%
Demographic Adjustment	.52%	.52%	.52%	.52%	.52%	.52%
Total	2.86%	2.86%	2.86%	2.86%	2.86%	2.86%

Source: Financial information and projections submitted by Calvert in the CON application.

Calvert projected a 2.34% annual rate increase for unregulated patient services including transitional care services and unregulated outpatient services.

Staff believes that the assumed increases are reasonable in light of the projected changes in population and approved revenue.

Calvert projected that charity write offs would equal 2.7% of gross patient revenue from 2016 through 2022, an increase of .2% from the 2015 actual of 2.5%. Calvert projected that its bad debt expenses would equal .7% of gross patient revenue from 2016 to 2022, a decrease of .1% from the 2015 actual of .8%.

Calvert's actual other deductions from revenue equaled 13.4% of gross patient revenue in 2015. Calvert projected that its other deductions from revenue would decrease to 12.7% of gross patient from 2016 to 2020. A portion of this reduction may be due to the reduction in HSCRC assessments due to the elimination of the Maryland Health Insurance Program (MHIP).

The Staff also reviewed Calvert's projections of other operating revenue. The projected other operating revenue is considered reasonable and achievable. Calvert projected non-operating losses of $50,000 per year from 2016 through 2022.

Expense Projections

Staff reviewed the assumptions regarding the projection of expenses. For FY 2016 Calvert included its internal budgeted expenses as the projected expenses. Calvert stated that it applied the following expense change assumptions in the CON projected financial statements for FY 2017 through FY 2022:

Table 3 - Summary of Assumed Expense Increases
Calvert Hospital CON Projections

	Years Ending June 30,					
	2017	2018	2019	2020	2021	2022
Salaries:						
Inflation	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%
Change in FTE 's	0.0%	0.0%	0.0%	0.0%	0.0%	.9%
Contractual Services:						
Inflation	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%
Volume	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Supplies:						
Inflation	2.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Volume	.5%	1.0%	1.0%	1.1%	1.1%	1.1%
Other:						
Inflation	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%
Volume	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%

Source: Financial information and projections submitted by Calvert in the CON application.

Although Calvert stated that it used an annual inflation assumption of 2.0% for supplies in the narrative, the projected financial statements incorporated no inflation after FY 2017 for supplies.

Calvert is projecting that its number of FTE's per Average Equivalent Occupied Beds (AEOB) will decrease from an actual 5.04 in 2015 to a projected 4.76 in 2022.

Staff calculated the projected overall annual expense percentage variability with volume based on the percentage change in uninflated revenue compared to the annual change in total expenses including depreciation and interest depreciation and interest. The results of staff's analyses were as follows:

Table 4 – Projected Expenses Percent Variability with Volume
Calvert Hospital CON Projections

	Years Ending June 30,

	2016	2017	2018	2019	2020	2021	2022
Including Depreciation and Interest	314.1%	93.7%	117.8%	95.0%	95.5%	95.9%	462.2%
Excluding Depreciation and Interest	287.8%	9.4%	20.8%	17.1%	17.5%	17.8%	131.8%

Source: Financial information and projections submitted by Calvert in the CON application.

Financial Ratios

Listed below are the projected key Income Statement financial ratios for Calvert:

Table 5 – Calvert Hospital Key Financial Information and Ratios
Calvert Hospital CON Projections (in thousands)

	Years Ending June 30, (in Thousands)						
	2016	2017	2018	2019	2020	2021	2022
Operating Income	$5,565	$5,302	$5,364	$5,438	$5,527	$5,629	$3,055
Operating Margin	4.1%	3.8%	3.7%	3.7%	3.6%	3.6%	1.9%
Excess of Revenue over Expense	$5,515	$5,252	$5,314	$5,388	$5,477	$5,579	$3,005
Excess Margin	4.0%	3.7%	3.7%	3.6%	3.6%	3.6%	1.9%
Debt Service Coverage Ratio	4.5x	4.6x	4.7x	4.8x	4.7x	4.7x	4.0x
Days Cash on Hand	328	348	302	263	245	225	225
Debt to Capitalization	32.1%	31.6%	31.0%	30.4%	30.0%	29.7%	29.3%

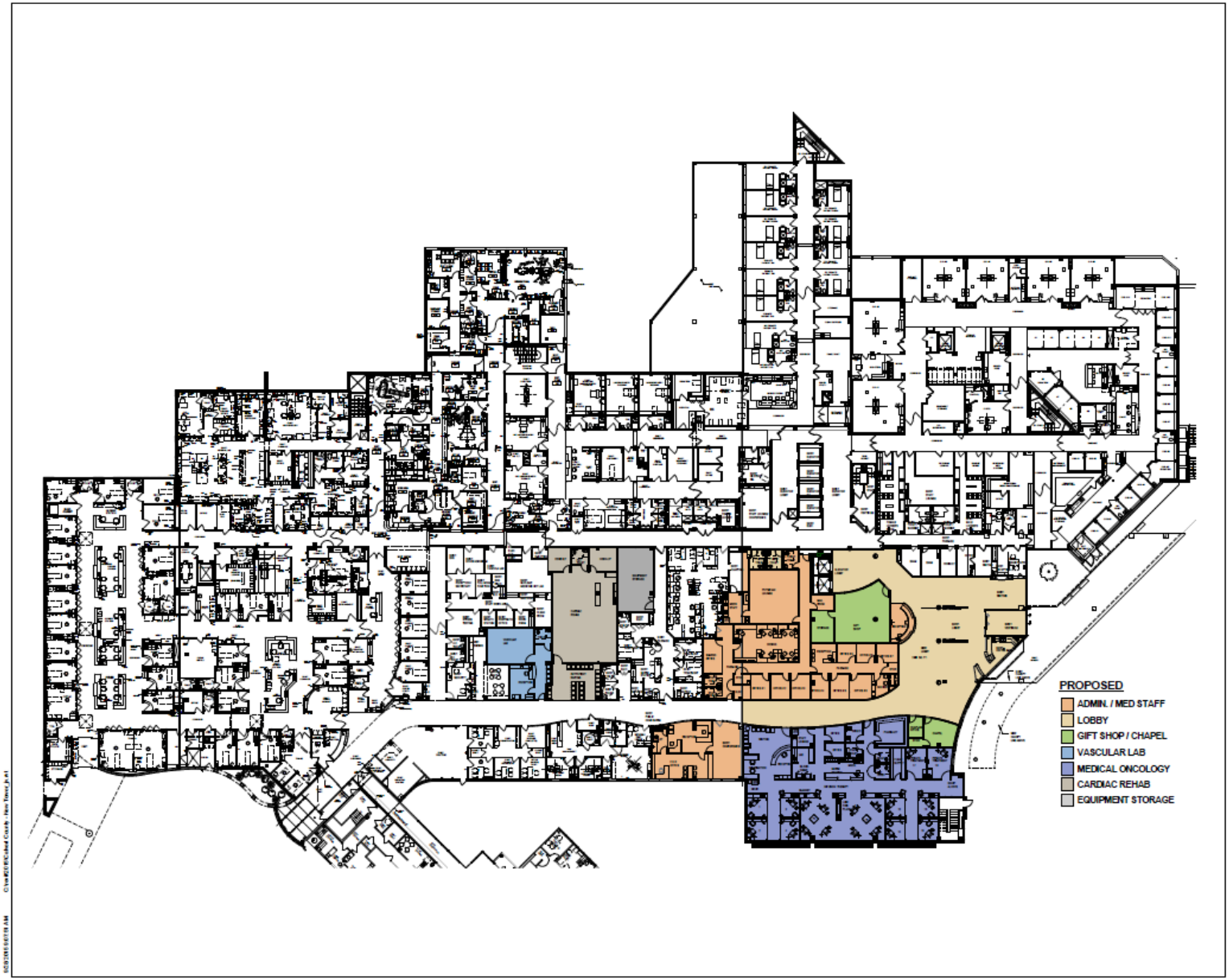
Source: Inflated financial information and projections submitted by Calvert during the CON process.

Summary

Staff believes that the overall assumptions regarding the financial viability of the proposed building and renovation project are reasonable and achievable, assuming that Calvert attains the volumes projected in the CON application. The current environment of change in health care financing and delivery, however, increases the probability that inpatient volumes will decline. Although Calvert currently has relatively low volumes of PAUs the staff recommends conservatism in evaluating need. If Calvert does not attain the projected volumes in its CON application, its overall rate and revenue structure may be viewed as inefficient, thereby affecting the overall financial viability of the project. Further, if the Hospital subsequently determines that it needs additional revenue, any such request before the HSCRC would necessitate a full rate application. The HSCRC expects that Calvert will maintain its overall financial viability in a manner consistent with Maryland's evolving health care finance and delivery system.

APPENDIX 5

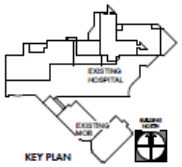
Project Drawings



Revisions	Date	No.

CALVERT MEMORIAL HOSPITAL
100 HOSPITAL ROAD
PRINCE FREDERICK, MARYLAND

PATIENT TOWER ADDITION AND RENOVATIONS



WILMOT SANZ
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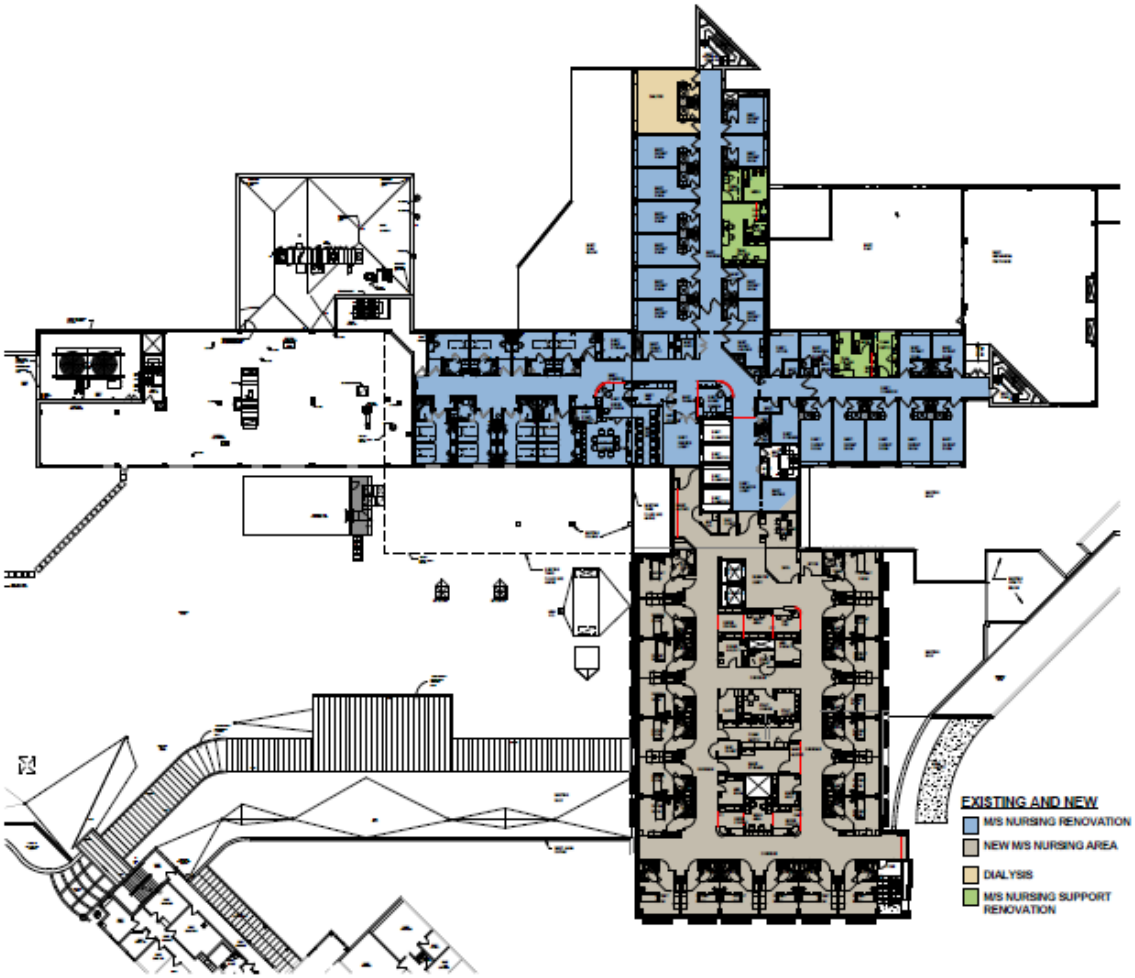
PLANNING
18310 Montgomery Village Avenue
Gaithersburg, Maryland 20879
301-590-2900 (Fax) 301-590-0150

NEW FIRST FLOOR PLAN - DEPT.

Project Number: 9411.20
Scale: 1/16" = 1'-0"
Date: October 5, 2015

Drawing No.: A1-1E
SCHEMATIC DESIGN



Remarks	Date	No.

CALVERT MEMORIAL HOSPITAL
100 HOSPITAL ROAD
PRINCE FREDERICK, MARYLAND

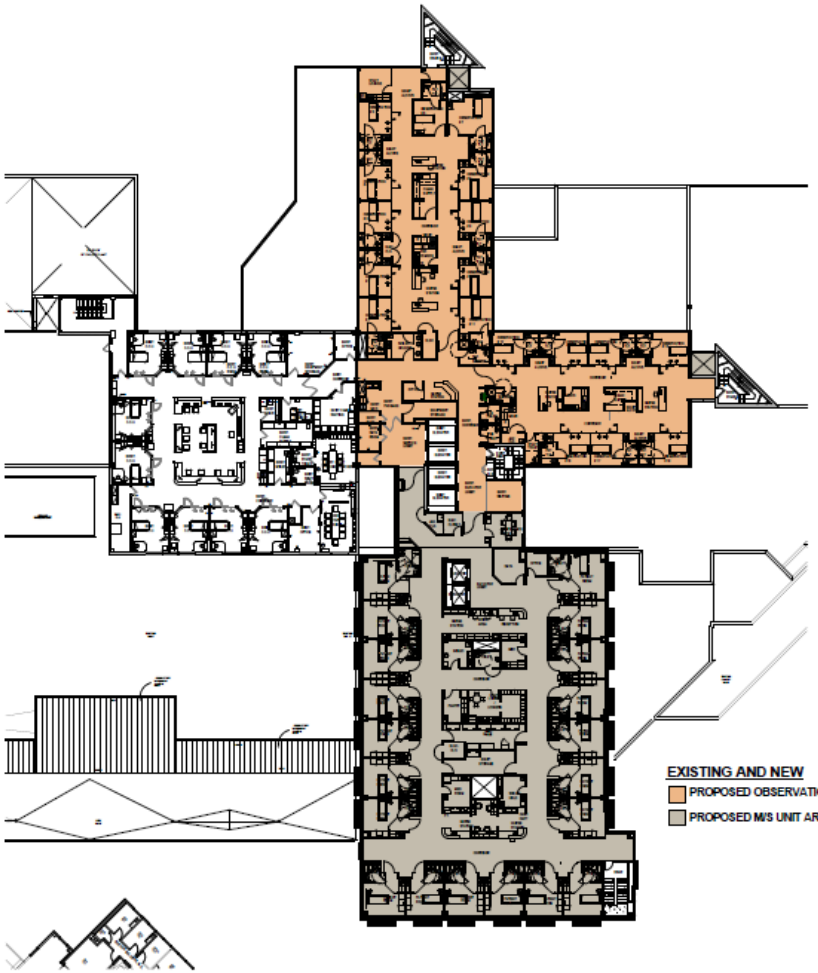
PATIENT TOWER ADDITION AND RENOVATIONS

WILMOT SANZ
ARCHITECTURE
PLANNING
10215 Montgomery Village Avenue
Gaithersburg, Maryland 20879
301-990-0900 [fax] 301-990-0158

NEW SECOND FLOOR PLAN - DEPT.

Project Number	0411.70
Scale	1/16" = 1'-0"
Date	October 5, 2012

Drawing No.: A1-2E
SCHEMATIC DESIGN

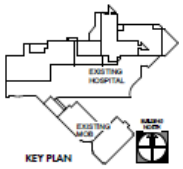


Revisions	Date	No.

CALVERT MEMORIAL HOSPITAL

100 HOSPITAL ROAD
PRINCE FREDERICK, MARYLAND

PATIENT TOWER ADDITION AND RENOVATIONS



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NEW THIRD FLOOR PLAN - DEPT.

Project Number 9411.72
Scale 1/16" = 1'-0"
Date October 5, 2015

Drawing No.: A1-3E
SCHEMATIC DESIGN