

**APPLICATION FOR DETERMINATION OF NEED  
SUBSTANTIAL CAPITAL EXPENDITURE  
BOSTON MEDICAL CENTER  
DoN APPLICATION # BMCHS-22080908-HE**

**BY**

**BMC HEALTH SYSTEM, INC.  
ONE BOSTON MEDICAL CENTER PLACE  
BOSTON, MA 02118**

**AUGUST 9, 2022**

**BMC HEALTH SYSTEM, INC.**  
**DoN APPLICATION # BMCHS-22080908-HE**  
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**FACTOR 4 MATERIALS – INDEPENDENT CPA REPORT**

**BMC Health System, Inc.**

**Analysis of the Reasonableness of  
Assumptions Used For and  
Feasibility of Projected Financials of  
BMC Health System, Inc.  
For the Years Ending September 30, 2023  
Through September 30, 2027**

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August 8, 2022

Ms. Terri T. Newsom  
Senior Vice President and Chief Financial Officer  
Boston Medical Center  
715 Albany Street  
Boston, MA 02118

**RE: Analysis of the Reasonableness of Assumptions and Projections Used to Support the Financial Feasibility and Sustainability of the Proposed Capital Renovation Project**

Dear Ms. Newsom:

I have performed an analysis of the financial projections prepared by BMC Health System, Inc. (“BMC”) detailing the projected capital construction and renovation projects at Boston Medical Center Corporation d/b/a Boston Medical Center (“the Hospital”), including the addition of 70 beds and 5 operating rooms, renovations to accommodate inpatient and infrastructure expansion and other construction and renovation to accommodate relocation of various services. This report details my analysis and findings with regards to the reasonableness of assumptions used in the preparation and feasibility of the projected financial information of BMC Health System, Inc. as prepared by the management of BMC (“Management”). This report is to be used by BMC Health System, Inc. in its Determination of Need (“DoN”) Application – Factor 4(a) and should not be distributed or relied upon for any other purpose.

**I. EXECUTIVE SUMMARY**

The scope of my analysis was limited to the five-year consolidated financial projections (the “Projections”) prepared by BMC as well as the actual operating results for BMC for the fiscal years ended 2020 and 2021, and the supporting documentation in order to render an opinion as to the reasonableness of assumptions used in the preparation and feasibility of the Projections with regards to the impact of the capital expenditures at BMC Health System, Inc.

The impact of the proposed capital projects at the Hospital, which are the subject of this DoN application, represents a relatively insignificant component of the projected operating revenues (approximately 1.3%) and financial position (approximately 2.7%) of BMC for Fiscal Year 2027. As such, I determined that the Projections are not likely to result in a scenario where there are insufficient funds available for capital and ongoing operating costs necessary to support the ongoing operations of BMC. Therefore, it is my opinion that the Projections for BMC are financially feasible as detailed below.

## **II. RELEVANT BACKGROUND INFORMATION**

BMC Health System, Inc. is a tax-exempt, non-profit Massachusetts corporation that oversees the operation of Boston Medical Center Corporation d/b/a Boston Medical Center, and various other affiliates and associated service entities.

Please refer to the DoN application for a further description of the proposed project and the rationale for the expenditures.

## **III. SCOPE OF REPORT**

The scope of this report is limited to an analysis of the Projections, prior year financials and the supporting documentation in order to render an opinion as to the reasonableness of assumptions used in the preparation and feasibility of the Projections with regards to the impact of the capital projects involving and ancillary to BMC Health System, Inc. My analysis of the Projections and conclusions contained within this report are based upon my detailed review of all relevant information (see Section IV which references the sources of information). I have gained an understanding of BMC Health System, Inc. through my review of the information provided as well as a review of the BMC website, annual reports, and the DoN application.

Reasonableness is defined within the context of this report as supportable and proper, given the underlying information. Feasibility is defined as based on the assumptions used, the plan is not likely to result in insufficient “funds available for capital and ongoing operating costs necessary to support the proposed project without negative impacts or consequences to BMC Health System, Inc.’s existing patient panel” (per Determination of Need, Factor 4(a)).

This report is based upon historical and prospective financial information provided to me by Management. I have not audited or performed any other form of attestation services on the projected financial information. If I had audited the underlying data, matters may have come to my attention that would have resulted in my using amounts that differ from those provided. Accordingly, I do not express an opinion or any other assurances on the underlying data presented or relied upon in this report. I do not provide assurance on the achievability of the results forecasted by BMC because events and circumstances frequently do not occur as expected, and the achievement of the forecasted results are dependent on the actions, plans, and assumptions of management. I reserve the right to update my analysis in the event that I am provided with additional information.

## **IV. PRIMARY SOURCES OF INFORMATION UTILIZED**

In formulating my opinions and conclusions contained in this report, I reviewed documents produced by Management. The documents and information upon which I relied are identified below or are otherwise referenced in this report:

1. Five-Year Financial Forecast (Projections), including related assumptions for BMC Health System, Inc. for the fiscal years ending 2023 through 2027, provided December 21, 2021;
2. Projected income statements for the Project, including detailed assumptions and supporting documentation for the fiscal years 2022 through 2036, provided December 21, 2021 and updated April 29, 2022 and July 14, 2022;



3. Schedule of Estimated Total Capital Expenditure provided April 29, 2022 and updated July 14, 2022;
4. Presentations to Leadership on proposed renovation project, provided December 13, 2021;
5. Audited Financial Statements of BMC Health System, Inc. including consolidating balance sheets and statements of operations as of and for the years ended September 30, 2020 and 2019 and as of and for the years ended September 30, 2019 and 2018, provided December 13, 2021; audited financial statements as of and for the years ended September 30, 2021 and 2020, provided May 3, 2022;
6. Boston Medical Center website – <https://www.bmc.org>;
7. Various news publications and other public information about the hospital;
8. Determination of Need Application Instructions dated March 2017; and
9. Draft Determination of Need Factor 1, provided August 4, 2022. Project description provided April 29, 2022, updated July 14, 2022.

## V. REVIEW OF THE PROJECTIONS

This section of my report summarizes my review of the reasonableness of the assumptions used and feasibility of the Projections. The Projections are delineated between two categories of revenue and five general categories of operating expenses of BMC Health System, Inc. as well as other nonoperating gains and losses. The following table presents the Key Metrics, as defined below, of BMC which compares the results of the Projections for the fiscal years ending 2023 through 2027 to BMC’s historical results for the fiscal years ended 2020 and 2021.

(\$ in thousands)	BMCHS, Inc.		Key Metric of Projected Periods				
	as reported		2023	2024	2025	2026	2027
EBIDA (\$)	210,663	214,699	101,662	131,635	146,623	155,154	153,537
EBIDA Margin (%)	4.8%	4.8%	1.7%	2.0%	2.1%	2.1%	1.9%
Operating Margin (%)	1.9%	2.0%	-0.6%	-0.2%	0.0%	0.1%	0.1%
Total Margin (%)	3.4%	3.4%	-0.1%	0.3%	0.5%	0.6%	0.6%
Unrestricted Cash Days on Hand (days)	128.7	155.2	101.7	95.7	92.5	87.3	85.1
Unrestricted Cash to Debt (%)	238.9%	300.0%	205.9%	213.7%	224.5%	250.2%	267.4%
Debt Service Coverage (ratio)	8.1	8.7	3.2	3.9	4.3	1.7	4.7
Debt to Capitalization (%)	29.9%	27.2%	33.0%	32.4%	31.7%	28.9%	27.7%
Total Assets (\$)	3,649,009	3,912,529	3,855,262	3,900,211	3,963,836	3,962,840	4,020,127
Total Net Assets (\$)	1,819,573	2,052,943	2,042,756	2,064,218	2,099,232	2,143,401	2,188,284

The Key Metrics fall into three primary categories: profitability, liquidity, and solvency. Profitability metrics, such as EBIDA, EBIDA Margin, Operating Margin, Total Margin, and Debt Service Coverage Ratio are used to assist in the evaluation of management performance in how efficiently resources are utilized. Liquidity metrics, such as Unrestricted Cash Days on Hand and Unrestricted Cash to Debt, measure the quality and adequacy of assets to meet current obligations as they come due. Solvency metrics, such as Debt to Capitalization, Total Assets and Total Net Assets, measure the company’s ability to service debt obligations. Additionally, certain metrics can be applicable in multiple categories.

The following table shows how each of the Key Metrics is calculated.

Key Metric	Definition
EBIDA (\$)	(Earnings before interest, depreciation and amortization expenses) - Operating income (loss) + interest expense + depreciation expense + amortization expense
EBIDA Margin (%)	EBIDA expressed as a % of total operating revenue. $EBIDA / \text{total operating revenue}$
Operating Margin (%)	Income (loss) from operations / total operating revenue
Total Margin (%)	Excess (deficiency) of revenue over expenses / total operating revenue
Debt Service Coverage (ratio)	(Excess (deficiency) of revenue over expenses + depreciation expense + amortization expense + interest expense) / (Principal payments + interest expense)
Unrestricted Cash Days on Hand (days)	(Cash and equivalents + short-term investments + board-designated investments + long-term investments) / ((Total operating expenses - depreciation & amortization) / YTD days)
Unrestricted Cash to Debt (%)	(Cash and equivalents + short-term investments + board-designated investments + long-term investments) / (Current portion of long-term debt + long-term debt)
Debt to Capitalization (%)	(Current portion of long-term debt + long-term debt) / (Current portion of long-term debt + long-term debt + unrestricted net assets)
Total Assets (\$)	Total assets of the organization
Total Net Assets (\$)	Total net assets of the organization (includes net assets without donor restrictions and net assets with donor restrictions)

## 1. Revenues

The only revenue category on which the proposed capital project would have an impact is net patient service revenue. Therefore, I have analyzed net patient service revenue identified by BMC Health System, Inc. in both their historical and projected financial information. Based upon my analysis of the projected results from Fiscal Year 2023 through Fiscal Year 2027, the incremental revenue from the proposed capital project represents approximately .703% (less than 8 tenths of 1%) of BMC's operating revenue in FY 2024, and approximately 1.32% (about 1.3%) of BMC's operating revenue in FY 2027. The first year in which incremental revenue is present for the proposed capital project is FY 2024.

It is my opinion that the revenue growth projected by Management reflects a reasonable estimation based primarily on historical operations.

## 2. Operating Expenses

I analyzed each of the categorized operating expenses for reasonableness and feasibility as it relates to the projected revenue items. I reviewed the actual operating results for the years ended 2020 and 2021 in order to determine the impact of the proposed renovation project at BMC and in order to determine the reasonableness of the Projections for the fiscal years 2023 through 2027. I compared the projected expenses for BMC to actual operating expenses for the years ended September 30, 2021 and 2020. Based upon my analysis of the projected results from 2023 through 2027, the proposed capital project would represent approximately 0.641% (about 6 tenths of 1%) of BMC's operating expenses beginning in FY 2024 to 1.13% (about 1.1%) in FY 2027.

It is my opinion that the growth in operating expenses projected by Management is reasonable in nature.

### **3. Nonoperating Gains/Expenses and Other Changes in Net Assets**

The final categories of BMC Health System, Inc. Projections are various nonoperating gains/expenses. The items in these categories relate to investment account activity (realized and unrealized) and pension plan funded status. Because these items are unpredictable, nonrecurring, or dependent upon market fluctuations, I analyzed the nonoperating activity in aggregate by comparing them to historical data. Accordingly, it is my opinion that the pro-forma nonoperating gains/expenses and other changes in net assets are reasonable.

### **4. Capital Expenditures and Cash Flows**

I reviewed historical capital expenditures and cash flows in order to determine whether BMC anticipated reinvesting sufficient funds for technological upgrades and property, plant and equipment and whether the cash flow would be able to support that reinvestment.

Based upon my discussions with Management and my review of the information provided, I considered the current and projected capital projects and loan financing obligations included within the Projections and the impact of those projected expenditures on BMC's cash flow. Based upon my analysis, it is my opinion that the pro-forma capital expenditures and resulting impact on BMC Health System, Inc.'s cash flows are reasonable.

## **VI. FEASIBILITY**

I analyzed the Projections and Key Metrics for BMC Health System, Inc. In performing my analysis, I considered multiple sources of information. It is important to note that the Projections do not account for any anticipated changes in accounting standards. These standards, which may have a material impact on individual future years, are not anticipated to have a material impact on the aggregate Projections.

Since the impact of the proposed capital projects at the Hospital represents a relatively insignificant portion of the operating revenues (approximately 1.3%) and financial position (approximately 2.7%) of BMC Health System, Inc., I determined that the Projections are not likely to result in insufficient funds available for capital and ongoing operating costs necessary to support the proposed projects. Based upon my review of the Projections and relevant supporting documentation, I determined the projects and continued operating surplus are reasonable and are based upon feasible financial assumptions. Therefore, the proposed capital projects at the Hospital are financially feasible and within the financial capability of BMC Health System, Inc.

Respectively submitted,



Bernard L. Donohue, III, CPA

**APPENDIX 4B:**

**FACTOR 4 MATERIALS – FACTOR 4.A.I CAPITAL COSTS CHART**

**Factor 4: Financial Feasibility and Reasonableness of Expenditures and Costs**

Applicant has provided (as an attachment) a certification, by an independent certified public accountant (CPA) as to the availability of sufficient funds for capital and ongoing operating costs necessary to support the Proposed Project without negative impacts or consequences to the Applicant's existing Patient Panel.

**F4.a.i Capital Costs Chart:**

Functional Areas	Present Square Footage		Square Footage Involved in the Project				Resulting Square Footage		Total Cost		Cost/Square Footage	
	Net	Gross	New Construction		Renovation		Net	Gross	New Construction	Renovation	New Construction	Renovation
			Net	Gross	Net	Gross						
<b>Yawkey Building (850 Harrison Ave)</b>												
Level 1 - Lobby Addition	2,095	2,367	2,023	2,176	0	0	4,118	4,543	\$ 3,233,700	\$ -	\$ 1,486	\$ -
Level 2 - Cafeteria Seating Expansion	8,051	9,098	1,893	2,176	0	0	9,944	11,274	\$ 3,213,700	\$ -	\$ 1,477	\$ -
Level 5 - New 22-bed Med/Surg Inpatient Unit	0	0	0	0	15,609	17,941	15,609	17,941	\$ -	\$ 16,387,277	\$ -	\$ 913
Level 5 - Relocated 28-bed Observation Unit <sup>1</sup>	0	0	0	0	9,025	10,253	9,025	10,253	\$ -	\$ 9,365,072	\$ -	\$ 913
Level 6 - New 10-bed ICU Unit <sup>2</sup>	0	0	1,684	1,936	5,327	6,123	7,011	8,059	\$ 3,223,118	\$ 5,592,738	\$ 1,665	\$ 913
Level 6 - New 38-bed Med/Surg Inpatient Unit <sup>2</sup>	0	0	14,315	16,454	10,932	12,566	25,247	29,020	\$ 27,018,219	\$ 11,477,762	\$ 1,642	\$ 913
<b>Menino Building (840 Harrison Ave)</b>												
Level 1 - ED Vestibule Expansion <sup>3</sup>	0	0	656	754	0	0	656	754	\$ 2,408,579	\$ -	\$ 3,194	\$ -
Level 1 - Lobby Addition and Renovation	7,790	8,394	1,481	1,636	7,790	8,394	9,271	10,030	\$ 1,606,850	\$ 8,527,195	\$ 982	\$ 1,016
Level 2 - Lobby Renovation	1,401	1,921	0	0	1,401	1,921	1,401	1,921	\$ -	\$ 1,961,507	\$ -	\$ 1,021
Level 2 - Expanded Inpatient ORs (18 existing ORs, 5 new ORs) and Sterile Support	27,597	32,274	0	0	8,053	9,256	35,650	41,530	\$ -	\$ 8,857,277	\$ -	\$ 957
Level 2 - Relocated Negative Pressure Inpatient Procedure Room <sup>4</sup>	251	469	0	0	251	469	251	469	\$ -	\$ 495,787	\$ -	\$ 1,057
Level 2 - Renovated Inpatient OR Non-Sterile Support Areas (breakrooms, lockers, etc.)	3,763	4,269	0	0	1,677	1,928	4,700	5,590	\$ -	\$ 1,948,218	\$ -	\$ 1,010
Level 2 - Expanded Inpatient OR and Interventional Pre/Post Recovery and PACU areas	14,253	15,638	0	0	7,917	9,100	17,346	18,832	\$ -	\$ 9,195,429	\$ -	\$ 1,010
Level 2 - Menino/Moakley OR Sterile Connector Addition <sup>5</sup>	0	0	656	754	261	300	917	1,054	\$ 2,413,579	\$ 302,763	\$ 3,201	\$ 1,009
Level B - Renovated CPD Contaminated Area (supports added ORs)	12,702	14,353	0	0	771	800	12,702	14,353	\$ -	\$ 808,390	\$ -	\$ 1,010
<b>Total: (calculated)</b>	<b>77,903</b>	<b>88,783</b>	<b>22,708</b>	<b>25,886</b>	<b>69,014</b>	<b>79,051</b>	<b>153,848</b>	<b>175,623</b>	<b>\$ 43,117,745</b>	<b>\$ 74,919,415</b>	<b>\$ 1,666</b>	<b>\$ 948</b>

Please note that the Applicant submits the Factor 4.a.i Capital Costs Chart as an Excel spreadsheet to address the calculation related to Total Cost/Square Footage contained within the Department of Public Health's ("Department's") Capital Costs Chart included in the Determination of Need ("DoN") Application Form. Specifically, the Department's Capital Costs Chart included in the DoN Application form auto-calculates Total Cost/Square Footage using a summation formula, such that the total is a sum of the cost/square footage for the various functional areas. A more accurate Total Cost/Square Footage is achieved using the following calculation: Total Cost/Total Gross Square Footage Involved in the Project. In the case of Total Cost/Square Footage for New Construction, this calculation is as follows: \$43,117,745/25,886 = \$1,666. In the case of Total Cost/Square Footage for Renovation, this calculation is as follows: \$74,919,415/79,051 = \$948. These totals are reflected in the Capital Costs Chart above.

**Footnotes**

<sup>1</sup> Observation Unit is currently on Menino 2 occupying 8,529 net sqf and 9,272 gross sqf.

<sup>2</sup> Costs related to elevator work are built into Yawkey 6th floor numbers.

<sup>3</sup> ED Vestibule included in inpatient filing per discussions with Department and pursuant to DoN Consolidation Guideline that indicates: "Expenditures for services and/or construction that will be used for both inpatient and outpatient purposes are considered inpatient expenditures for purposes of applying for a DoN."

<sup>4</sup> Negative Pressure Room is currently on Menino 2; being relocated within Menino 2.

<sup>5</sup> Renovation square footage is estimate of impacted existing square footage as result of addition.