

## **Memorandum to the Public Health Council**

**APPLICANT:** Mass General Brigham Incorporated  
800 Boylston St, Suite 1150  
Boston, MA 02199

**SITE:** North Shore Medical Center  
Salem Hospital  
81 Highland Ave  
Salem, MA 01970

**PROJECT NUMBER:** #6-3C46 (Original)  
#MGB-22080909-AM (Amendment)

**FILING DATE:** August 25, 2022

### **Introduction**

This memorandum presents, for Public Health Council (PHC) action, the Determination of Need (DoN) Program's recommendation pertaining to a request by Mass General Brigham, for a Significant Change to North Shore Medical Center's Salem Hospital (DoN # 6-3C46) to build out 19,665 gross square feet (GSF) of approved shell space. As described further herein, the Applicant seeks approval for a 13-bed increase in the number of licensed beds (from 199 to 212). The increase in the Maximum Capital Expenditure (MCE) of this project is \$14,453,100.00, for a new maximum capital expenditure ("MCE") of \$182,626,939. The increase to the community health initiatives (CHI) contribution is \$105,986.00.

This request falls within the definition for Significant Change that includes "... (5) Any build out of shell space that was subject to a Notice of Determination of Need" and will be reviewed pursuant to 105 C.M.R. 100.635(A)(3), which requires that the proposed change falls within the scope of the Notice of Determination of Need and is reasonable.

The Department has received no public comment on this request for Significant Change.

### **Background**

On October 7, 2016 the Holder received DoN approval for a Substantial Change in Service. The original DoN (#6-3C46) included 1) new construction of a 3-story, 115,405 gross square foot (GSF) building on the Salem Campus, for two 24-bed units of relocated medical/surgical beds and a new, relocated emergency department; 2) renovation of the vacated emergency department for a new main entrance with reception and lobby, with additional capacity for relocated outpatient cardiac and pulmonary rehabilitation, and addition/expansion of wellness,

ultrasound and infusion services; 3) and renovation of 137,368 GSF of the former Spaulding Hospital - North Shore (adjacent to the Salem Campus) to accommodate the relocation of 64 licensed beds from the Salem and Lynn campuses and 56 new inpatient psychiatric beds for pediatric, adult, and geriatric patients. The total approved MCE was \$180,507,208 (2015 dollars).

On August 9, 2017 a Significant Amendment was approved to reduce the number of medical/surgical beds and psychiatric beds in the originally approved DoN, and instead create shell space associated with one of the approved 24-bed units. The Amendment also eliminated the DoN-approved new main entrance/reception/lobby (item #2 of the approval, above).<sup>1</sup> The total approved MCE was reduced to \$168,173,839 (2017 dollars).

On September 12, 2018, a second Significant Amendment was approved to build-out 18,626 GSF of the approved psychiatric shell space<sup>2</sup> for the 30 psychiatric beds that had been downsized in the first Amendment. Due to cost savings achieved during construction of the approved project (and first Amendment), the second Amendment did not require an increase in costs, therefore the MCE remained at \$168,173,839 (2017 dollars).

Table 1 below shows the sequence of the approved total bed count for the DoN and subsequent Amendments. The current 2022 Amendment request is in the far-right column in bold. Since there is no change to the Approved 120 psychiatric beds located at Spaulding Site, the Psychiatric Services will not be discussed further in this report.

Table 1- DoN Project and Approval Sequence 2016-Present- Total Beds Licensed

<b>Clinical Service</b>	<b>Pre-DoN #6-3C46 Bed Count</b>	<b>Requested &amp; Approved Beds DoN 6-3C46</b>	<b>2017 Approved Beds 1<sup>st</sup> Amendment</b>	<b>2018 Approved Beds 2nd Amendment</b>	<b>2022 Requested Beds 3<sup>rd</sup> Amendment</b>
Medical Surgical	247	219	203	Approved 203 Licensed 199 <sup>3</sup>	<b>212</b>
Adult Psychiatric	26	60	30	60	No Change
Geriatric Psychiatric	20	30	30	30	No Change
Pediatric Psychiatric	20	30	30	30	No Change

<sup>1</sup> On October 1, 2021 NSMC-Salem Hospital received approval from Plan review for “renovations to public & administrative areas will include new lobby and entrance” for an estimated capital expenditure of \$13,203,000.

<sup>2</sup> At Spaulding Hospital North Shore

<sup>3</sup> In FY 22, the Hospital went through DPH’s Plan Review process to convert four beds to an inpatient dialysis unit, and now has 199 licensed medical/surgical beds.

### **Proposed Amendment**

With this third Significant Amendment, the holder proposes to build-out the remaining 19,665 GSF of approved shell space to accommodate the construction of 24<sup>4</sup> private medical/surgical beds (and to concurrently close 11 M/S beds in multi-bedded rooms), resulting in a net increase of 13 new licensed medical/surgical beds and a licensed and operational bed count of 212 beds at Salem Hospital.

The reason for the change is the Hospital has experienced steady, increased demand for medical/surgical admissions as indicated by rising patient days, occupancy rates, and ED boarding due to the lack of available M/S beds to admit patients from the ED. The current number of operating beds is 188. Except for times of surge, there are currently 11 beds not in service (located in triple and quadruple occupancy rooms) due to issues of infection control, and patient compatibility (age, gender, behavior) that prevent the beds from being used consistently.

The Hospital's medical/surgical occupancy rate for operating beds increased from 79% in 2019 to 88% in 2021. This trend continues with the Hospital's operational beds at 95.4% occupancy from October 2021-March 2022. As a result, the Hospital is operating above the industry standard of 85% for optimal operating efficiency<sup>i</sup>, impacting timely access to inpatient care.

Also, the total number of M/S patient days has steadily increased from FY19-FY21. Patient days increased 1.6% from FY19-FY21. Based on FY22 patient days through March 2022, the Hospital projects that patient days will increase by 6.9% from FY21-FY22.<sup>5</sup> In addition, the ALOS for all patients occupying a medical/surgical bed increased from 3.30 to 3.45 days from FY19-FY21. The length of stay for admitted patients is 4.78 for the first five months of FY22. As a result, beds remain occupied for longer periods each year leading to higher overall occupancy rates. With increased patient days and ALOS, the data suggests that patients requiring inpatient care at the Hospital are sicker than previously the Applicant asserts.

The Hospital's ED boarder hours for M/S patients awaiting admission increased from 20,909 hours in FY20 to 27,644 hours for the five-month period between October 2021-March 2022. The M/S average boarding time has more than doubled from 2.2 hours in FY20 to 5.6 hours for the first five months of 2022. When annualized, the Hospital is on track to have 68,368 boarder hours in FY22. This impacts the ability of the hospital to efficiently provide care. ED avoidance due to COVID depressed ED utilization in the second half of FY20. However, the Holder asserts that currently increased medical/surgical utilization described herein, is now having an adverse impact on the Hospital's ability provide timely care to all ED patients, not just

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<sup>4</sup> DoN 6-3C46 Approved 2 new 24-bed units. Only one was implemented. The second unit was eliminated with the approval of the downsized project in 2017, and instead shell space was included.

<sup>5</sup> There were 32,461 patient days from October-March annualized for FY 22 it projects 64,922 patient days.

M/S patients. Accordingly, the current state of ED boarding at the Hospital must be addressed through the expansion of medical/surgical bed capacity.

With the proposed Amendment, the Hospital's medical/surgical bed occupancy rate will move into the industry standard of 85% as shown in the utilization projections following implementation of the proposed Amendment. (See Table 2)

Table 2: Patient Days and Occupancy Projections, FY 25-29

Year	Patient Days	Beds	Occupancy
FY25	63,795	212	82.4%
FY26	64,518	212	83.4%
FY27	65,049	212	84.1%
FY28	65,499	212	84.4%
FY29	65,680	212	84.9%

The projections are based on prior year inpatient days and observation patient days, and ED boarder days that will be converted to inpatient days as a result of the new beds and incorporating the modest forecasted growth in the Hospital's service area. The Proposed Change will allow for the Hospital to have capacity for future growth over time with a ramp up over a five-year period.

The Hospital serves Salem, Lynn, and the surrounding communities and is designated a high public payer hospital, with a payer mix that includes 22.75% MassHealth and 43.84% Medicare. The Hospital also has implemented an interpreter services program to facilitate care and improve patient experience. The Proposed Change will improve the Hospital's ability to ensure timely access to inpatient and ED care for the communities served by the Hospital.

### **Analysis**

Staff has reviewed the Amendment request and has determined that it falls within the scope of the original Approval. Staff finds that through data that were presented of rising number and average M/S boarding hours, patient days and occupancy rates, the Holder has established the need for an additional 13 M/S licensed beds.

### **Impact on Cost**

The regulation requires that a Holder submit a description of the proposed change along with associated cost implications for the Holder and the Patient Panel. The Applicant provided the information of what the increases in capital expenditure that the Applicant is seeking are, at

Staff's request which were condensed into Table 3 below. The total increase in costs for this buildout of shell space is 8.6%. As anticipated for a such a project, the largest category of expenses is the *Construction Contract* accounting for ~\$13.5 M of the ~\$14.5M total.

Table 3 Approved and Requested Capital Expenditures NSMC-Salem Hospital

Category of Expenditure	2018 Approved Total	Current Amendment Request	Combined Total
<b>Land Costs Includes only New Construction (No renovations)</b>			
Land Acquisition Cost		\$0	\$0
Site Survey and Soil Investigation	\$5,239,266	\$0	\$5,239,266
Other Non-Depreciable Land Development	\$230,000	\$0	\$230,000
<b>Total Land Costs</b>	<b>\$5,469,266</b>	<b>\$0</b>	<b>\$5,469,266</b>
<b>Construction Contract (including bonding cost)</b>			
Depreciable Land Development Cost	\$3,557,846	\$0	\$3,557,846
Building Acquisition Cost	\$1	\$0	\$1
Construction Contract (including bonding cost)	\$135,772,800	\$13,410,000	\$149,182,800
Fixed Equipment Non in Contract	\$2,380,000	\$450,000	\$2,830,000
Architectural Cost (Including fee, Printing, supervision etc.) and Engineering Cost	\$11,820,000	\$325,000	\$12,145,000
Pre-filing Planning and Development Costs (precon)	\$445,000	\$50,000	\$495,000
Post-filing Planning and Development Costs	\$1,045,000	\$0	\$1,045,000
Other (Construction testing (air, med gas, electrical, etc.))	\$0	\$75,000	\$75,000
Other	\$1,505,000	\$0	\$1,505,000
Other	\$4,677,000	\$0	\$4,677,000
<b>Total Construction Costs</b>	<b>\$161,202,647</b>	<b>\$14,310,000</b>	<b>\$175,512,647</b>
<b>Financing Costs</b>			
Cost of Securing Financing (legal, administrative, feasibility studies, mortgage insurance, printing, etc	\$1,511,926	\$143,100	\$1,655,026
Bond Discount		\$0	\$0
<b>Total Financing Costs</b>	<b>\$1,511,926</b>	<b>\$143,100</b>	<b>\$1,655,026</b>
<b>Final Estimated Total Capital Expenditure</b>	<b>\$168,183,839</b>	<b>\$14,453,100</b>	<b>\$182,636,939</b>

The Holder asserts that building out existing shell space is more cost-effective means for adding

inpatient capacity than building an addition to meet demand for M/S beds. The Holder projects that the project will increase the Hospital's annual operating costs by approximately \$14.5M.

The Holder anticipates that its Patient Panel will not experience any impact on cost from the Project as a result of adding just 13 beds to an existing service as it will not result in any change to prices charged. The Holder asserts that the increased operating and capital cost for the Proposed Amendment is financially feasible for the Holder.

### **Impact on Community Health Initiative Funding**

This Amendment is for an increase in the maximum capital expenditure, and results in an increase of \$105,986.00 to the Community Health Initiative (CHI) contribution.

*Summary and relevant background and context for this Amendment:* This is a DoN Amendment project that will result in a Tier 1 CHI. The Community Health Needs Assessment process was completed in parallel to the Amendment filing. The Holder will continue to engage its Community Affairs and Health Access Committee to make decisions related to the community health investment based on the information gathered through this process. Tier 1 projects are able to pool funds, but with no existing DoN investment in the geography covered by this Amendment, the Holder will be expected to invest the associated CHI funds through a transparent and engaging process.

For this project, to fulfill Factor 6 requirements, the Holder submitted its new 2022 Community Health Needs Assessment (CHNA), a Self-Assessment, Stakeholder Assessments, and a CHI Narrative.

**The Community Health Needs Assessment** was finalized in Fall of 2022 by Salem Hospital. The Hospital utilized secondary data from the US Census, CDC, DPH, DESE, among other sources, and also conducted online focus groups for over 100 invitees. Ultimately, nine focus groups covering different community health sectors including housing, food security, immigrant experience, and youth services and a community survey available in 10 languages were conducted. The final Needs Assessment identifies priority populations and describes key findings and themes from the participating communities in the service area. The priority populations are residents of Danvers, Lynn, Lynnfield, Marblehead, Nahant, Peabody, Salem, and Swampscott. The themes identified in the Needs Assessment are Behavioral Health, Health Care Access, Culturally Sensitive Care, Social Determinants of Health, and Workforce. The Hospital will engage its Community Affairs and Health Access Committee (CAHAC) to select priorities and identify strategies for implementation.

**The Self-Assessment** provided a summary of community engagement processes and socio-demographic information, data and highlights related to topics and themes of community needs related to the current and ongoing assessment work for the 2022 CHNA. Through

primary data collection such as key informant interviews, focus groups, community wide surveying, and data analysis, the participating community groups and residents identified the key concerns to be outlined in the 2022 Community Health Needs Assessment.

**Stakeholder Assessments** provided information on the individuals' engagement levels (e.g. their personal participation and role) and their analysis of how the Hospital engaged the community in community health improvement planning processes. The information provided in these forms were largely consistent with the self-assessment conducted by the Hospital.

**The CHI Narrative** provided background and overview information for the CHI processes and outlines duties for the advisory and allocation committees, and also the planned breakdown, use and timing of funding for evaluation and administrative activities.

The timeline, RFP processes, and use of evaluation and administrative funds are all appropriate and in line with CHI planning guidelines. In order to select strategies that meet Health Priority Guideline principles, focus will need to be on the priority areas in the final assessment that allow for implementation at the root cause level. These are most likely in the areas of Social Determinants of Health and Workforce. The Hospital will work with its CAHAC to select priorities and approve implementation strategies, and may want to consider enhancing impact through fewer, larger investments given the small CHI total. DPH staff have determined that if the Holder agrees to address community conditions and root causes while engaging in ongoing work with the Community Affairs and Health Access Committee, CHI investment will align appropriately with the Health Priorities Guideline. The Holder will also have additional touchpoints with DPH staff to share lessons learned to ensure sound processes for planning and implementation work moving forward.

The anticipated timeline for CHI activities includes a meeting of the Advisory Committee six weeks post approval, identifying the Health Priorities Strategies 3-4 months post approval, with funding disbursed 6-7 months thereafter.

With the administrative funds, the Hospital's early plans are to support facilitation of CAHAC Advisory and Allocation activities, develop, and disseminate lessons learned and communication materials.

### ***Analysis***

As a result of information provided by the Holder and additional analysis, staff finds that with the conditions outlined below, and the ongoing communication on items outlined above, the Holder will have demonstrated that it has addressed the Community Health Initiative Funding requirements.

## Staff Summary and Findings

Staff reviewed the 2016 Staff Report and Decision Letters for the two prior Amendments to determine whether the request falls within the scope of that Approval.

Based upon the information submitted, and information in the record, the Department can find that the “the proposed change or modification falls within the scope of the Notice of Determination of Need as previously approved by the Department, and ... is reasonable”<sup>105</sup> C.M.R. 100.635(A)(3), which are the requirements for approval of an Amendment.

## Conditions to the DoN

1. Of the total required CHI contribution of \$105,986.00
  - a. \$10,174.66 will be directed to the CHI Statewide Initiative
  - b. \$91,571.90 will be dedicated to local approaches to the DoN Health Priorities
  - c. \$4,239.44 will be designated as the administrative fee.
2. To comply with the Holder’s obligation to contribute to the Statewide CHI Initiative, the Holder must submit a check for \$10,174.66 to Health Resources in Action (the fiscal agent for the CHI Statewide Initiative).
  - i. The Holder must submit the funds to HRiA within 30 days from the date of the Notice of Approval.
  - ii. The Holder must promptly notify DPH (CHI contact staff) when the payment has been made.

Payment should be sent to:  
Health Resources in Action, Inc., (HRiA)  
2 Boylston Street, 4th Floor  
Boston, MA 02116  
Attn: Ms. Bora Toro

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<sup>i</sup> Green LV. How many hospital beds? INQUIRY. J Health Care Organization, Provision, and Financing. 2002;39(4):400–12; “According to the National Audit Office, bed occupancy rates are deemed efficient if around 85%, while rates above this level might lead to periodic bed shortages and levels exceeding 90% may prompt regular bed crises.” <https://link.springer.com/article/10.1007/s10198-022-01464-8>