

STAFF SUMMARY FOR DETERMINATION OF NEED  
BY THE PUBLIC HEALTH COUNCIL  
January 11, 2017

APPLICANT: Baystate Medical Center

PROGRAM ANALYST: Jere Page

LOCATION: 759 Chestnut Street  
Springfield, MA 01199

DATE OF APPLICATION: August 15, 2016

PROJECT NUMBER: 1-3B36.6 (Significant  
Change)PROJECT DESCRIPTION: Significant change to approved DoN Project No. 1-3B36  
(Build out of 11,133 GSF of shell space, and 6,358 GSF of renovation)

### **I. Introduction**

The purpose of this memorandum is to present for Public Health Council (PHC) action a request by Baystate Medical Center, Inc. ("Applicant" or "Baystate" or "Medical Center"), located at 759 Chestnut Street, Springfield, MA, for a significant change to its previously approved DoN Project No. 1-3B36. The amendment was filed on November 1, 2016. The original Project, as approved, included construction of 295,800 GSF of shell space. This amendment concerns the build-out of 11,133 GSF of shell space and renovation of 6,358 GSF to accommodate Baystate's pediatric procedure and infusion suite, the intermediate care unit, nurse training room and the gift shop and emergency room storage areas. The build-out of the shell space was anticipated in the original project approval on November 14, 2007.

As submitted, the request will increase the approved maximum capital expenditure ("MCE") from \$366,266,390 (April 2014 dollars) to \$373,520,390 (October 2016 dollars). This represents an increase of \$7,254,000 (October 2016 dollars) in the total approved MCE.

### **II. Background and Summary**

The PHC has already approved a total of five amendments related to the build-out of shell space. The original project, approved in November, 2007, involved construction of a new building known as the "Hospital of the Future" on the Baystate campus. Baystate reports that the design plan for this facility was to create a building that would meet Baystate's long term needs and could accommodate changes in service needs. The original project included spaces that could later be built to address Baystate's needs and to allow Baystate to achieve financial stability and program efficiency before taking the next step in capital construction. Baystate states that the sequenced build-out of the approved shell space has occurred as separate, distinct projects each meeting identified service needs and consistent with the long term plans for the Project. Baystate has also confirmed that all the five previous DoN amendments have been implemented and licensed. Those previous amendments are detailed in the chart below.

Filing Type	Approval Date	Approved Gross Square Footage (“GSF”)				
		Total GSF	New Const GSF (without shell)	Renovation GSF	Shell Space GSF	New Const GSF (with shell)
DoN #1-3B36	11/27/2007	641,250	303,300	42,150	295,800	599,100
Amendment	08/11/2009	630,504	303,300	44,900	282,304	585,604
Amendment	11/18/2009	686,086	303,300	44,900	337,886	641,186
Amendment	02/28/2011	692,276	381,857	48,974	261,445	643,302
Amendment	09/19/2012	692,276	461,973	48,974	181,329	643,302
Amendment	08/14/2014	692,276	475,616	48,974	167,686	643,302

The approved MCE for the project has increased with each build-out of shell space. The following chart, provided by Baystate, details the changes to the MCE through the approved amendments.

Filing Type	Approval Date	Approved MCE	Approved Year Dollars
DoN #1-3B36	11/27/2007	\$239,318,527	March 2007
Amendment <sup>1</sup>	08/11/2009	\$239,318,527	March 2007
Amendment	11/18/2009	\$239,318,527	March 2007
Amendment	02/28/2011	\$314,083,474	November 2010
Amendment	09/19/2012	\$359,423,474	June 2012
Amendment	08/14/2014	\$366,266,390	April 2014

**Summary of the Five Previous Amendments:**

**Amendment 1: August, 2009** - This amendment was filed as a result of refinements to the original design for the Project. Two floors on one wing of the new addition were eliminated changing the total GSF approved from 641,250 to 630,504 GSF and increasing the renovation GSF from 42,150 GSF to 44,900 GSF.

**Amendment 2: November, 2009** - This amendment was filed to restore the two (2) floors of shell space eliminated by the previous minor amendment as a result of further changes in planning. It brought the approval back to the plans contemplated in the original DoN. Amendment 2 increased the total GSF for the Project from 630,504 GSF to 686,086 GSF.

**Amendment 3: February, 2011** - Baystate built-out an additional 76,441 GSF of shell space to replace its then-current, inadequately sized ED through a Significant Amendment to its DoN. In addition, Amendment 3 included the construction of a connecting corridor and an increase of 6,190 GSF in the overall GSF originally approved for the Project in order to modify the existing lobby and add a covered walkway from the helipad. In addition to the build-out, Amendment 3 included renovation of 4,074 GSF for the lobby/main entrance.

**Amendment 4: September, 2012** - Baystate built-out an additional 80,116 GSF of existing, approved shell space to replace ninety-six (96) beds then located in undersized, inadequate space in the East Wing. The 80,116 GSF included 70,383 GSF for the build-out of three (3) floors of medical/surgical beds on the

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<sup>1</sup> Baystate reports that the amendments where the MCE did not change were more technical amendments to bring the DoN in line with the final architectural plans.

5th, 6th, and 7th floors of the new addition, 2,500 GSF for a construction management office, and 7,233 GSF in the basement and on the roof for supporting infrastructure systems.

**Amendment 5: August, 2014** - Amendment 5 authorized the build-out of 13,643 GSF of shell space, in order to develop a new pharmacy located closed to patient care areas. At the same time, Baystate was approved to renovate the existing pharmacy areas to convert them to administrative support space.

### **III. Requested Changes to Approval (Proposed Amendment 6)**

Baystate now seeks a sixth amendment to the DoN approval, involving a build-out of existing approved shell space to accommodate the pediatric procedure and infusion suite, the intermediate care and ICU, nurse training room, and the gift shop and emergency department storage areas, and proposes renovation of 4,700 GSF in the Pediatric Procedure and Infusion Suite. The following is a brief review of each of these components:

#### **1. Pediatric Procedure and Infusion Suite.**

Baystate will build out 6,548 GSF of shell space and renovate 4,700 GSF of space on the third floor of the South Wing to create a pediatric procedure and infusion suite with two procedure rooms. The proposed project relocates the existing procedure area, now shared with adult patients to a Pediatric Procedure Suite dedicated to pediatric patients only. Baystate believe that this will provide an improved treatment environment for pediatric patients, staffed by professionals trained and focused on pediatric care, with equipment and facilities oriented to the pediatric patient, and providing better opportunity for family to support the pediatric patients during procedures.

The following chart provides the 4 year historical volume for the two procedure rooms requested above. The data shows that volume has been relatively stable over the four year period.

	<u>FY13</u>	<u>FY14</u>	<u>FY15</u>	<u>FY16</u>
<b><u>Inpatient Procedures</u></b>				
EGD & Colonoscopy	20	18	34	27
EGD & Sigmoidoscopy	10	4	8	14
EGD	27	17	19	21
Colonoscopy	1	1	6	0
Minor Procedures	3	1	4	2
Sigmoidoscopy	3	6	8	14
Total Procedures	64	47	79	78
<b><u>All Others</u></b>				
Audiology	1	0	0	0
All Others	13	6	7	8
Total All Others	14	6	7	8
<b><u>Total Inpatient</u></b>	78	53	86	86
<b><u>Outpatient Procedures</u></b>				
EGD Colonoscopy & Sigmoidoscopy	2	2	4	1
EGD & Colonoscopy	322	317	324	302
EGD & Sigmoidoscopy	47	54	38	44
EGD	372	370	435	327
Colonoscopy	44	53	56	56
Minor Procedures	259	270	262	261
Sigmoidoscopy	40	47	26	48
Total Procedures	1,086	1,113	1,145	1,039
<b><u>All Others</u></b>				
Audiology	46	34	28	26
All Others	45	49	45	35
Total All Others	91	83	73	61
<b><u>Total Outpatient</u></b>	1,177	1,196	1,118	1,100
<b><u>Total Procedures</u></b>	1,255	1,249	1,204	1,186 <sup>2</sup>

Baystate believes the above volume will grow at modest rates of 2 to 3% annually. Their projections are based on a variety of factors including the fact that the previous physical facilities limited scheduling of procedures, and because the lack of pre-operative or post-operative recovery areas for patients resulted in inefficient use of the two procedure rooms.

Based on the above analysis, Staff finds the proposed build out of 6,548 GSF of shell space reasonable to accommodate the proposed Pediatric Procedure Suite.

<sup>2</sup> Baystate reports that the slight decline in the 2016 volume is attributable to the loss of a GI physician during that period. That physician has now been replaced.

**2. Development of 15 Bed Intermediate Care Unit.**

Baystate proposes to build-out 1,988 GSF of shell space on the third floor of the Mass Mutual (West) Wing and renovate and convert an additional 1,658 GSF of the existing ICU on that wing in order to establish a medical/surgical unit that will be used for intermediate care. This will result in an overall increase of fifteen (15) med/surg beds a reduction, from 30 to 21 critical beds on the Third Floor, West Wing. This is a net addition of six (6) beds.

**3. Need for 15-Bed Intermediate Care Unit**

Baystate reports that it currently operates a total of 126 beds in its Heart and Vascular Service (“Service”). Of these, the Service has 30 beds that are licensed as intensive care beds in its Heart and Vascular Critical Care Unit (HVCCU). However, only 18 of these intensive care beds are actually being used as critical care or intensive care beds. Baystate reports that the remaining 12 beds are being used as stepdown beds for patients who no longer require an intensive care bed, but are not yet ready for a routine medical/surgical bed. Stepdown patients only require an intermediate level of care, which is not the same as intensive care, but includes monitoring and an intermediate level of nursing care.

An average of 10 patients on any given day is in the HVCCU although they need step-down rather than intensive care. As a result, some patients remain in critical care beds when such level of care is not needed. Based on its occupancy needs, Baystate has determined that a 21 bed HVCCU would meet its need for intensive care beds and that the additional med/surg beds will provide the step-down space appropriate to the patient care.

	Current	Proposed	Net change
HVCCU	30	21	-9
Med/Surg	96	96	
Step-down	0	15	+15
Heart and Vascular Service	126	132	+6

If approved, there will be a net increase of 6 beds, increasing the total beds dedicated to this Service to 132. Baystate’s HVCCU will consist of 21 beds and the remaining 111 beds will be licensed as medical/surgical beds of which 15 medical/surgical beds will be located on a dedicated unit and used for stepdown level of care.

Baystate believes that the new 15 bed stepdown unit is essential for effective delivery of patient care and will permit patients to be moved out of the critical care beds to a more appropriate setting when they are stabilized which may reduce stress associated with being in the hospital and will permit families to have greater access to the patient. Finally, the new unit will improve access to critical care beds for patients who need those services.

Based on the above analysis, Staff finds the proposed build out of 1,988 GSF of shell space reasonable to accommodate the proposed new 15-bed intermediate care unit.

4. **Nurse Training Room.** Baystate proposes to establish a training room on the fourth floor.. Used for nurse training, it will be located convenient to where a large number of the nursing staff work. This training room will be built in 1700 GSF of shell space.
5. **Gift Shop Storage.** Baystate proposes to utilize 320 GSF of the fourth floor shell space in the Mass Mutual (West) Wing of the HOF for dedicated gift shop storage area.
6. **Emergency Department Storage.** There currently is 1,420 GSF of available shell space remaining on the first floor, near the Emergency Department. Baystate proposes to build-out 577 GSF of the remaining shell space on this floor. The shell space will be used for storage to support the Emergency Department.

In summary, Baystate is requesting approval to build-out 11,133 GSF of shell space, along with an additional 6,358 GSF of renovation.

**IV. Amendment Costs and Financing**

Baystate will fund the \$7,254,000 (October 2016 dollars) cost of the proposed GSF shell space build out and renovations with available funds. Staff’s review of the most recent audited financial statement<sup>3</sup> (FY 2015) show sufficient available funds for the project’s financing.

1. Change in the Maximum Capital Expenditure

The proposed amendment will increase the MCE of the project by \$7,254,000 from \$366,266,390 (April 2014 dollars) to \$373,520,390 (October 2016 dollars), as detailed below.

Category of Expenditure	Requested New Const	Requested Renovation
<b>Land Costs</b>		
Land Acquisition	0	0
Non-Dep. Land Dev.	0	0
Site Survey and Soil	0	0
<b>Total Land Costs</b>	<b>0</b>	<b>0</b>
<b>Construction Costs</b>		
Depreciable Land Development Costs	0	0
Construction Contract	6,037,000	704,000
Fixed Equip Not in Contract	0	0
Architectural & Engineer Costs	472,400	5,600
Pre-filing Plan & Development	17,650	2,350
Post-filing Plan & Development	13,250	1,750
Other:	0	0
Net Interest Expense During Cons	0	0
Major Movable Equip	0	0
<b>Total Construction Costs</b>	<b>6,540,300</b>	<b>713,700</b>
<b>Financing Costs</b>		
Costs of Securing Fin	0	0
<b>Total Financing Costs</b>	<b>0</b>	<b>0</b>
<b>Total Capital Expenditure</b>	<b>6,540,300</b>	<b>713,700</b>
	<b>\$7,254,000</b>	

<sup>3</sup> Baystate’s financials are a part of the consolidated financial statements of the parent entity, Baystate Health Inc.

The construction contracts of \$6,037,000 (new construction) and \$704,000 (renovation) account for almost all of the increase. The unit cost of \$584.70/GSF for new construction and \$150.98/GSF for renovation compares favorably with Marshall & Swift construction cost estimates after adjusting for inflation, as indicated below:

**New Construction Costs**

In determining the reasonableness of the requested capital expenditure, Staff calculated the proposed new construction cost/GSF, as follows:

Construction Contract	\$6,037,000
Architectural & Engineering Costs	<u>472,400</u>
Total New Construction Costs	\$6,509,400
Proposed New Construction GSF	11,133
Proposed Cost/GSF (October 2016 dollars)	\$584.70

Staff has compared the requested new construction cost of \$584.70/GSF to the most recent Marshall and Swift (“Marshall”) allowable cost/GSF using Marshall standards (General Hospitals, Class A, Excellent Quality). Taking into account the current regional, local and other cost factors recommended by Marshall, the maximum allowable cost/GSF for new hospital construction in the Springfield area is \$595.54/GSF, as indicated below:

M&S Base Cost/GSF (Class A Excellent - 2016)	\$478.61
Sprinklers (based on 11,133 GSF)	5.08
Extreme Climate	14.75
	\$498.44
Eastern Class A Multiplier	1.03
Local Multiplier (Springfield – Class A Excellent)	1.16
Total M&S Allowable Cost/GSF	\$595.54

The requested cost/GSF of \$584.70 is lower than the Marshall allowable cost of \$595.54/GSF.

**Renovation Costs**

Staff has determined that proposed renovation cost of \$150.98/GSF (October 2016 dollars) is less than the DoN standard of 60% of the Marshall allowable cost/GSF for new construction of \$595.54/GSF, as detailed below:

Based on the recommended approval of 4,700 GSF for renovation, the requested cost/GSF is \$/GSF (October 2016 dollars) as calculated below:

Construction Contract	\$ 704,000
Architectural & Engineering Costs	<u>5,600</u>
Total Renovation Costs	\$ 709,600
Proposed Renovation GSF	4,700
Proposed Cost/GSF (October 2016 dollars)	\$ 150.98

## **V. Changes to Approved Community Health Initiatives Contribution**

Based on the recommended increase in the total MCE, the approved community health initiative contribution will increase as a result of the changes to the approved MCE. Pursuant to the requirements of 105 C.M.R. §§100.553(B)(9) and 100.551(J), the Applicant will direct an amount equal to five (5) percent of the requested \$7,254,000 increase in the MCE, or \$362,700 for community health initiatives. The Office of Community Health Planning and Engagement (“OCHPE”) has approved the specified allocation of funds to the community health initiatives identified in the original DoN approval. The Applicant will file all reports requested by OCHPE and the Department in connection with the payment of the community health initiative.

## **VI. Findings and Recommendation**

Baystate has provided information sufficient for staff to make findings with respect to the proposed amendment: that it is a product of sound health planning as that term is used in the DoN regulation; that it is appropriate to the health care requirements of the relevant population; operationally sound; that it is financially feasible and within the financial capability of the Applicant; and that the construction costs of the project are reasonable as compared to Marshall & Swift estimated construction costs, adjusted for inflation.

The project, as amended, is consistent with Factor 9 of the DoN regulation (Community Health Initiatives).

Based upon the foregoing analysis and findings, Staff recommends approval of the proposed amendment subject to the following conditions:

1. The approved MCE of the project as amended shall be \$7,254,000 (October 2016 dollars);
2. The Applicant shall contribute an additional \$362,700 to the \$9,600,000 associated with the project as originally approved in 2007 and subsequently amended in 2009, 2011, 2012 and 2014. The revised total contribution represents 5% of the maximum capital expenditure as amended, to fund community health services initiatives as described in the document prepared by OCHPE which is attached hereto and incorporated herein. (Attachment 1)
3. The Applicant shall continue to provide language access services at the Medical Center with the improvements described in the document prepared by the Office of Health Equity (“OHE”), as amended from time to time by agreement of the Applicant and OHE, which is attached hereto as Attachment 2 and is incorporated herein by reference.
4. All other conditions attached to the original and amended approval of this project shall remain in effect.