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HEALTH FACILITIES &
SERVICES REVIEW BOARD

April 27, 2017

Mr. Michael Constantino
Illinois Health Facilities and
Services Review Board
525 W. Jefferson Street 2nd Floor
Springfield, IL 62761

Re: Project 17-002 Mercy Health Hospital and Medical Center Crystal Lake – Hospital
Responses to Questions

Dear Mr Constantino

Attached are responses to questions you have raised regarding the permit application. Please let me know if you have further questions on this material or on other matters.

Sincerely,

Ralph M Weber

Ralph M. Weber
847-791-0830

Responses to April 20, 2017 Questions
Project 17-002

1. *Average case time for outpatient surgeries exceed the State average by over 50%. Can you give me an explanation for this?*

Response: Review of the files shows that an incorrect figure of 2.63 hours per case was inadvertently used for outpatient surgical cases. (Page 88 of the permit application.) It is much higher than our anticipated hours per case and is not appropriate for projecting outpatient hours.

The following table uses a different methodology to project total hours for the two surgical operating rooms. It applies statewide hours per case for inpatient and outpatient surgery, based on the mix and volumes of surgery anticipated in the Crystal Lake hospital. Case volumes in the table below match the total volumes projected on page 88 of the permit application.

Surgery ORs	Projected # of Cases	Hours per Case	Total Hours
		(2015 State averages)	
Inpatient			
Ortho	43	2.8	120.4
General	20	2.5	50.0
Outpatient			
Ortho	101	1.9	191.9
Podiatry	6	1.7	10.2
Gyn	181	1.7	307.7
ENT	413	1.5	619.5
Urology	55	1.5	82.5
General	130	1.6	208.0
Ophthalmology	72	1.1	79.2
Total, Surgical ORs	1021		1669.4

The next table shows the calculations for the two proposed procedure rooms, based on volumes projected on page 90 of the permit application, and applying State average hours by procedure type.

Procedure Rooms	Projected # of Cases	Hours per Case	Total Hours
		(2015 State averages)	
Inpatient			
GI	76	0.9	68.4
Outpatient			
GI	1757	0.9	1581.3
Pain Management	255	1.8	459.0
Total, Procedure Rms	2088		2108.7

Comparison to State Standards

Category of Service	Hours	Number of Rooms	State Standard	Met Standard?
Operating Rooms				
Year 2021	1669.4	2	1500 hrs/rm	Yes
Year 2022	1719.5	2	1500 hrs/rm	Yes
Special Procedure Rooms				
Year 2021	2,108.7	2	1500 hrs/rm	Yes
Year 2022	2,172.0	2	1500 hrs/rm	Yes

Two procedure rooms are needed, especially in order to accommodate efficient scheduling of colonoscopies and other GI outpatient procedures, the major service in the procedure rooms. Time is allocated to GI physicians on a block schedule. When one GI procedure is completed, the physician moves to the adjacent procedure room for the next procedure. While that procedure is underway in the second room, the first room is cleaned and prepared for the third procedure. This maximizes the efficient utilization of physicians and technical staff. If the facility had only one procedure room, the clinical team would be forced to wait between procedures for the patient to me moved out after the procedure, the room cleaned, and a new patient brought for the next procedure.

Similarly two ORs are needed, since projected hours exceed the State standard for one operating room. A procedure room cannot be set up to function as an OR, since procedure rooms do not contain the mechanical, medical gases and interior finishes required for inpatient and outpatient surgery nor meet the sterile code requirements of an OR. ORs have requirements for sterile fields, air flow and infection control that procedure rooms do not have.

2. *Is the plan to use the 11 M/S beds for observation or are you going to have a separate observation unit? If you are going to have a separate observation unit can you tell me how many beds you will have?*

Response: The 11 beds will accommodate observation patients as well as inpatients. There is no separate observation unit or designated beds within the 11 bed med/surg unit for observation patients.

3. *I have attached a table of the prior Mercy projects in Crystal Lake. The difference in cost per bed is quite a lot. I believe one question the board is going to want to know is an explanation of that difference. Can you provide an explanation of that difference?*

Response: Dividing the total project cost by number of acute care beds is an overly simplistic measure. It is misleading and does not offer a meaningful measure of reasonableness of cost. Several persons at the public hearing in February used such a measure to attempt to challenge the project.

Such a simplistic measure shows that the cost per bed of the current Mercy Project (Project 17-002, with modified total project cost of $79,890,524) is about $6.1 million per bed. The project Mercy proposed in 2010 (Project 10-089, with modified total project cost of $115,114,525) was about $1.6 million per bed.

Such a metric is misleading and not accurate, since it does not take into account that the project includes other components than acute care beds. The numerator in the fraction of total project cost per bed includes not just the cost of acute care beds, but also the costs of surgery, the emergency room, diagnostic imaging, lab, pharmacy, and other support functions. The denominator of the fraction (13 acute care beds for the current project) is just the bed component of the project. Misuse of such a measure is intended to make the project appear excessively expensive and out of line. Formal State review standards that have been used over the decades do not include such a metric as a review criterion.

There are two responses that demonstrate that the costs of the proposed project are appropriate.

First, the most important and compelling statement about the reasonableness of the current project cost is that the clinical cost per sq ft of $465.20 is consistent with (slightly below) the State standard of $467.09 per sq ft (R S Means Index for year 2015, inflated by 3% annually to the midpoint of project construction). Clinical cost is inclusive of beds, surgery, the emergency department, lab, diagnostic imaging, pharmacy and the sleep center. The project meets the State standard for new construction, when all clinical cost components are taken into consideration. This is the most significant measure relied on by the State to assess reasonableness of project cost, instead of a simplistic measure that divides total project cost by number of beds. The current proposed project meets this standard.

Second, a more accurate measure than dividing total project cost by the number of acute care beds is to measure the construction plus contingency cost per bed for the medical/surgical unit. This allows an informative comparison of Project 17-002 to Project 10-089 proposed 7 years ago. As shown on the following table, the cost per med/surg bed for the 11 bed med/surg unit in the current project is $304,990. The cost per bed for 56 bed med/surg unit in Project 10-089 was $209,573.

Comparison of Project Construction Costs per bed and Total Clinical Costs per sq ft
Mercy projects 17-002 (current) and 10-089

	Project 17-002 (modified)		Project 10-089 (modified)	
	M/S (11)	ICU (2)	M/S (56)	ICU (4)
Sq ft	7114	1348	32,412	2385
Constr cost/sq ft	$430.52	$396.29	$320	$434
Contingency/sq ft	$41.07	$41.07	$42.09	$42.09
Constr + Contingency	$3,354,891	$589,561	$11,736,061	$1,135,475
Cost per bed	$304,990	$294,781	$209,573	$283,869
	Total Clinical		Total Clinical	
Total clinical cost/sq ft	$465.20		$374.26	
State standard	$467.09		$396.67	

The $95,417 difference between the two projects ($304,990 - $209,573) is explained as follows. First, there has been cost escalation of 3% per year for the 7 years, a compounded total increase of 23%. 23% of $209,573 = $48,201. This escalation in construction cost is responsible for slightly more than half of the $95,417 difference.

Second, the remainder of the difference in cost per bed is attributed to the smaller scale of the current Project 17-002 compared to Project 10-089. The smaller the unit, the greater are the costs apportioned to the individual bed rooms for functions that are part of the clinical space on the unit. For example, there is one nurse station for the 11 bed med/surg unit. 1/11th of the nursing station cost is carried by each room. For project 10-089, there were two nurses stations proposed for the 56 med/surg beds. 2/56 or 1/28 of an individual nursing station cost is apportioned to each of the med/surg rooms. It is easy to see that the per room cost of the med/surg unit in the current project is higher than for larger scale projects. Another example is circulation space. There was not 5 times as much circulation space for the proposed 56 bed project than there is for the 11 bed project. As a result, the cost per med/surg bed to accommodate the clinical circulation space within the med/surg unit is greater for the 11 bed project than for the 56 bed project.

4. *Can you provide the analysis that demonstrates how the projected average daily census of 10 patients for the 11 bed med/surg unit compares to other hospitals in the State?*

Response: Based on the State's web site showing hospital profiles for CY 2015, there are 57 hospitals in Illinois with med/surg ADC of 10 or less. The attached table shows these hospitals. This is over 30% of the 184 hospitals in the State with med/surg units. This fact is offered as evidence that small sized hospital are not an anomaly, but already exist in significant numbers throughout the State.

Listing of All Illinois Hospitals with Med/Surg Average Daily Census of 10 or Less

Source: 2015 Hospital Profiles from HFSRB website

Hospital Name	CON Approved M/S Beds	Avg. Daily M/S Census
Abraham Lincoln Hospital	22	9.2
Advocate Eureka Hospital	25	1.6
Carlinville Area Hospital Association	25	3.9
Clay County Hospital	18	9.4
Community Memorial Hospital	43	2.0
Crawford Memorial Hospital	21	9.5
Dr. John Warner Hospital	21	2.1
Fairfield Memorial Hospital	21	9.3
Fayette County Hospital	23	9.1
Ferrell Hospital	25	6.6
Franklin Hospital	16	3.8
Genesis Medical Center Aledo	22	2.2
Gibson Community Hospital	17	6.6
Greenville Regional Hospital	26	6.6
Hamilton Memorial Hospital	25	5.6
Hammond Henry Hospital	16	8.1
Hardin County General Hospital	25	6.5
Hillsboro Area Hospital	25	3.9
Hoopeston Community Memorial Hospital	24	4.6
Hopedale Hospital	20	3.1
Illini Community Hospital	19	3.8
Iroquois Memorial Hospital	15	7.0
Jersey Community Hospital	61	8.2
Kirby Medical Center	16	1.9
Lawrence County Memorial Hospital	25	6.7
Marshall Browning Hospital	25	5.3
Mason District Hospital	25	2.0
Massac Memorial Hospital	25	9.6
Memorial Hospital - Chester	23	5.6
Memorial Hospital - Carthage	15	3.1
Mendota Community Hospital d/b/a OSF Saint	21	5.6
Mercy Harvard Memorial Hospital	15	4.6
Midwest Medical Center	25	1.2
Morrison Community Hospital	25	8.1
OSF Holy Family Medical Center	23	2.7
OSF Saint James John W. Albrecht Medical Cent	33	8.4
OSF Saint Luke Medical Center	22	4.3
Pana Community Hospital	22	2.6
Paris Community Hospital	25	4.8
Perry Memorial Hospital	22	7.3
Pinckneyville Community Hospital	17	4.6
Presence Holy Family Hospital	49	6.1

Hospital Name	M/S Beds	Census
Provident Hospital of Cook County	79	8.9
Red Bud Regional Hospital	25	6.0
Rochelle Community Hospital	12	6.8
Salem Township Hospital	22	5.1
Sarah D. Culbertson Memorial Hospital	22	2.3
Shelby Memorial Hospital	30	4.9
Sparta Community Hospital	25	5.8
St. Joseph Memorial Hospital	25	5.3
SwedishAmerican Medical Center - Belvidere	34	0.1
Taylorville Memorial Hospital	21	9.5
Thomas H. Boyd Memorial Hospital	25	1.6
UnityPoint Health - Trinity Moline	20	2.3
Valley West Hospital	15	6.8
Wabash General Hospital District	25	7.3
Washington County Hospital	22	0.7