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December 4, 2015

Ms. Eileen Fleck
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Chief, Acute Care Policy and Planning
Maryland Health Care Commission
4160 Patterson Avenue
Baltimore, Maryland 21215

**VIA EMAIL &
HAND DELIVERY**

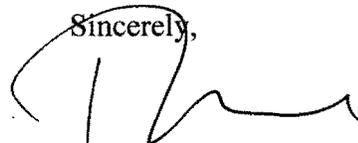
Re: University of Maryland Shore Medical Center at Easton
Application for Certificate of Conformance to Perform
Primary and Elective Percutaneous Coronary Interventions

Dear Ms. Fleck:

On behalf of applicant University of Maryland Shore Medical Center at Easton, we are submitting six copies of its response to additional information questions dated November 6, 2015. A Word version of the response will be forwarded to Commission staff under separate email.

I hereby certify that a copy of this submission has been forwarded to the appropriate local health planning agency as noted below.

Sincerely,



Thomas C. Dame

TCD:blr
Enclosures

cc: Kevin McDonald, Chief, Certificate of Need
Paul Parker, Director, Center for Health Care Facilities Planning & Development, MHCC
Suellen Wideman, Esq., Assistant Attorney General, MHCC
Ruby Potter, Health Facilities Coordination Officer
Thom McCarty, Acting Health Officer, Talbot County Health Department
Kenneth D. Kozel, President/CEO, UM Shore Regional Health
Patti Willis, Regional Senior Vice President, UM Shore Regional Health
Kathleen McGrath, Regional Director, Outreach & Business Development, UM Shore
Regional Health
William Huffner, Chief Medical Officer, UM Shore Regional Health
JoAnne Hahey, Chief Financial Officer, UM Shore Regional Health
Dana Farrakhan, Senior Vice President, Strategy, Community and Business
Development, UMMC

#545943
012516-0005

UNIVERSITY OF MARYLAND SHORE REGIONAL HEALTH
Application for Certificate of Conformance
Primary and Elective PCI Services

Response to Additional Information Questions Dated November 6, 2015

Quality Measures

1. In response to question #9 on the application, please provide specific information regarding the actions being taken to improve performance on those quality measures where UMSMCE is in the bottom quartile.

[Applicant Response](#)

Please see attached **Exhibit 17**.

Access to Emergency PCI Services

2. Please provide a revised Table 4 and Table 5 that includes the driving time to Delaware hospitals and a response to question #10 that accounts for access to these hospitals to the extent feasible, based on the information available. MHCC staff has provided additional information on primary and elective PCI procedures performed in Delaware hospitals for CY 2014.

[Applicant Response](#)

Primary PCI

On November 6, 2015, Eileen Fleck, Chief, Acute Care Policy & Planning at the MHCC, emailed to Kathleen McGrath, Director of Outreach and Business Development at Shore Regional Health, data Primary and Elective PCI cases by Zip Code for CY 2014 for three Delaware hospitals.

According to the Primary PCI data, there were only 14 Primary PCI Cases that came from Shore Health's five county service area at Delaware hospitals.

	<u>ZIP</u>	<u>TOWN</u>	<u>COUNTY</u>
Christiana (DE)	21620	CHESTERTOWN	KENT
Nanticoke	21624	CLAIBORNE	TALBOT
Nanticoke	21629	DENTON	CAROLINE
Nanticoke	21632	FEDERALSBURG	CAROLINE
Nanticoke	21632	FEDERALSBURG	CAROLINE
Nanticoke	21632	FEDERALSBURG	CAROLINE
Nanticoke	21632	FEDERALSBURG	CAROLINE
Nanticoke	21632	FEDERALSBURG	CAROLINE
Nanticoke	21632	FEDERALSBURG	CAROLINE
Nanticoke	21643	HURLOCK	DORCHESTER
Nanticoke	21643	HURLOCK	DORCHESTER

	<u>ZIP</u>	<u>TOWN</u>	<u>COUNTY</u>
Nanticoke	21655	PRESTON	CAROLINE
Nanticoke	21655	PRESTON	CAROLINE
Nanticoke	21655	PRESTON	CAROLINE
Nanticoke	21655	PRESTON	CAROLINE

UMSMC-E has revised tables 4 and 5, below, to incorporate these data. Table 4 shows the number of Primary PCI cases by Zip Code in CY 2014 and the hospitals at which they were performed. Columns I, J, and K show the drive time minutes from the communities to the hospital where the procedure was performed. Where the EMS data from Figure 1 could be used, UMSMC-E used those driving time estimates. For communities not included in Figure 1 (see page 8 of the application), UMSMC-E used the Google estimated drive time from those communities to the relevant hospitals at approximately Noon on Thursday, 9/24/15, and, for communities that were added as part of this revision, Sunday, 11/8/15. The drive times for which Google was used are shaded. Column L shows the number of cases at the relevant hospitals times the number of drive time minutes. (Where cases went to different hospitals, the number of cases at hospital A was multiplied by the drive time to hospital A. The same was done for hospital B, and then they were added together.) UMSMC-E did not include the drive times to "Howard" and UMMC because including these hospitals would skew the calculations in favor of UMSMC-E. Table 4 shows that if UMSMC-E provided primary PCI, the total average drive time would have been reduced by 40.7 percent.

Table 4 – Revised

Primary PCI Cases by Zip Code of Residence and Hospital (CY 2014)
 Drive Times from Community to Hospitals (Including UMSMC-E)
 Drive Time Minutes Saved if UMSMC-E Provides Primary PCI

A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q
Zip Code	Name	County	Cases by Hospital						Drive Time Minutes					Cases X Minutes		
			AAMC	Howard	PRMC	UMMC	Christiana	Nanticoke	Grand Total	AAMC	PRMC	Christiana (DE)	Nanticoke	UMSMC-E	Total Mins. To PCI Hospital	Total Min. to UMSMC-E
21629	DENTON	CAROLINE						1	1				34	26	34	26
21632	FEDERALSBURG	CAROLINE						5	5				17	30	85	150
21639	GREENSBORO	CAROLINE	1						1	56				38	56	38
21640	Henderson	CAROLINE			1				1	54	77			47	77	47
21655	PRESTON	CAROLINE	1			1		4	6	58			28	19	170	19
21660	RIDGELY	CAROLINE	1						1	47				29	47	29
21613	CAMBRIDGE	DORCHESTER	1		12				13	65	36			20	497	260
21631	EAST NEW MARKET	DORCHESTER			2				2		36			27	72	54
21643	HURLOCK	DORCHESTER			1	1		2	4		37		22	32	70	96
21835	LINKWOOD	DORCHESTER	1						1	72	28			27	72	27
21869	VIENNA	DORCHESTER			2				2		24			36	48	72
21620	CHESTERTOWN	KENT				1	1		2			61		51	61	51

A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q
Zip Code	Name	County	Cases by Hospital						Drive Time Minutes					Cases X Minutes		
			AAMC	Howard	PRMC	UMMC	Christiana	Nanticoke	Grand Total	AAMC	PRMC	Christiana (DE)	Nanticoke	UMSMC-E	Total Mins. To PCI Hospital	Total Min. to UMSMC-E
21619	CHESTER	QUEEN ANNES	5						5	22				35	110	175
21623	CHURCH HILL	QUEEN ANNES	1						1	43				40	43	40
21638	GRASONVILLE	QUEEN ANNES	1						1	22				29	22	29
21658	QUEENSTOWN	QUEEN ANNES	2	1					3	34				26	68	52
21601	EASTON	TALBOT	5		8				13	48				0	240	0
21624	CLAIBORNE	TALBOT						1	1				73	26	73	26
21625	CORDOVA	TALBOT	1		1				2	46	53			15	99	30
21663	SAINT MICHAELS	TALBOT			1				1		67			18	67	18
21671	TILGHMAN	TALBOT			2				2		85			34	170	68
21673	TRAPPE	TALBOT			3				3		41			20	123	60
Grand Total			20	1	33	3	1	13	71						2,304	1,367
Average Drive Time															43.5	25.8
Total Savings (in Minutes)																937
Savings %																40.7%

Table 5 – Revised shows the number of cases by Zip Code and drive times to whichever hospitals served Primary PCI patients from each Zip Code and to UMSMC-E. UMSMC-E then color-coded the primary hospital to which STEMI patients would be transported and whether the patients would be shared among hospitals, based on drive times. Green denotes the primary hospital, and yellow denotes the secondary hospital. This was done to estimate market share of the patients by county. If UMSMC-E is the primary hospital, and there is no secondary hospital, UMSMC-E is shaded green and assumes that it would receive 100% of the patients. If the drive times are close, UMSMC-E assumes that traffic and other criteria may affect transport decisions. For example, in Zip Code 21631, the drive time to UMSMC-E is 27 minutes. The drive time to PRMC is 36 minutes. UMSMC-E assumes that it would be the primary hospital, and, under certain circumstances, PRMC will be the secondary hospital. UMSMC-E assumed that it would receive 75% of the cases. If the difference in drive time is five minutes or less, UMSMC-E assumes that each hospital would receive 50% of the cases (see Zip Code 21643). In this way, UMSMC-E projected market share by county. Based on this methodology, UMSMC-E estimates that, had it provided Primary PCI services in 2014, it would have treated 53.75 cases.

Table 5 – Revised
 Primary PCI Cases by Zip Code (CY 2014)
 Drive Times to Primary PCI Providers
 Identification of Nearest Provider and Projection of Market Share

Zip Code	Name	County	2014 Total	AAMC	PRMC	Christiana (DE)	Nanticoke	UMSMC-E	Market Share	UMSMC-E Cases
21629	Denton	Caroline	1				34	26	100.0%	1
21632	Feddersburg	Caroline	5				17	30	0.0%	0

Zip Code	Name	County	2014 Total	AAMC	PRMC	Christiana (DE)	Nanticoke	UMSMC-E	Market Share	UMSMC-E Cases
21639	Greensboro	Caroline	1	56				38	100.0%	1
21640	Henderson	CAROLINE	1	54	77			47	100.0%	1
21655	Preston	Caroline	6	58			28	19	100.0%	6
21660	Ridgely	Caroline	1	47				29	100.0%	1
CAROLINE TOTAL			15						66.7%	10
21613	Cambridge	Dorchester	13	65	36			20	100.0%	13
21631	East New Market	Dorchester	2		36			27	75.0%	1.5
21643	Hurlock	Dorchester	4		37		22	32	25.0%	1
21835	Linkwood	Dorchester	1	72	28			27	50.0%	0.5
21869	Vienna	Dorchester	2		24			36	25.0%	0.5
DORCHESTER TOTAL			22						75.0%	16.5
21620	Chestertown	Kent	2	54	99		61	51	50.0%	1
Kent Total			2						50.0%	1
21619	Chester	Queen Annes	5	22				35	25.0%	1.25
21623	Church Hill	Queen Annes	1	43				40	50.0%	0.5
21638	Grasonville	Queen Annes	1	22				29	25.0%	0.25
21658	Queenstown	Queen Annes	3	34				26	75.0%	2.25
QUEEN ANNE'S TOTAL			10						42.5%	4.25
21601	Easton	Talbot	13	48	53			0	100.0%	13
21624	Claiborne	Talbot	1				73	26	100.0%	1
21625	Cordova	Talbot	2	46	65			15	100.0%	2
21663	Saint Michaels	Talbot	1		67			18	100.0%	1
21671	Tilghman	Talbot	2		85			34	100.0%	2
21673	Trappe	Talbot	3		41			20	100.0%	3
TALBOT TOTAL			22						100.0%	22
GRAND TOTAL			71						75.7%	53.75

However, the incorporation of these data from Delaware hospitals results in revised projections of the number of primary PCIs that UMSMC-E can expect. As in the original application, UMSMC-E utilized Maryland Department of Planning population for the age cohorts 45-64 and 65+ to project the population for each county through 2018. UMSMC-E then divided the 2014 Primary PCI cases by the 2014 population to calculate a use rate, which it then applied through 2018. Finally, UMSMC-E applied the county-wide market shares it calculated in Table 5 to project the number of Primary PCI Cases. These projections are shown in **Table 7 – Revised** below. UMSMC-E projects that it will receive 55.1 Primary PCI cases in 2017, 56.4 cases in 2018, 57.1 cases in 2019 and 57.8 cases in 2020.

Table 7 – Revised
 Projections of Primary PCI Cases at UMSMC-E
 2016-2020

Caroline													
MDP	2010	CAGR '10-'15	2011	2012	2013	2014	2015	CAGR '15-'20	2016	2017	2018	2019	2020
45-64	9,223	0.009	9,305	9,388	9,471	9,555	9,640	0.004	9,674	9,708	9,742	9,776	9,810
65+	4,413	0.027	4,532	4,654	4,779	4,908	5,040	0.032	5,203	5,371	5,545	5,725	5,910
Total	13,636		13,837	14,041	14,250	14,463	14,680		14,877	15,079	15,287	15,501	15,720
	Primary Cases					15	15		15	16	16	16	16
	Primary Use Rate					1.04							
	UMSMC-E Market Share								66.7%	66.7%	66.7%	66.7%	66.7%
	UMSMC-E Cases								10.3	10.4	10.6	10.7	10.9
Dorchester													
MDP	2010	CAGR '10-'15	2011	2012	2013	2014	2015	CAGR '15-'20	2016	2017	2018	2019	2020
45-64	9,806	0.002	9,829	9,851	9,874	9,897	9,920	(0.001)	9,914	9,908	9,902	9,896	9,890
65+	5,771	0.018	5,873	5,977	6,083	6,190	6,300	0.024	6,449	6,601	6,757	6,917	7,080
Total	15,577		15,702	15,828	15,957	16,088	16,220		16,363	16,509	16,659	16,813	16,970
	Primary Cases					22	22		22	23	23	23	23
	Primary Use Rate					1.37							
	UMSMC-E Market Share								75.0%	75.0%	75.0%	75.0%	75.0%
	UMSMC-E Cases								16.8	16.9	17.1	17.2	17.4
Kent													
MDP	2010	CAGR '10-'15	2011	2012	2013	2014	2015	CAGR '15-'20	2016	2017	2018	2019	2020
45-64	5,866	0.004	5,887	5,907	5,928	5,949	5,970	(0.001)	5,966	5,962	5,958	5,954	5,950
65+	4,397	0.029	4,526	4,658	4,795	4,935	5,080	0.030	5,231	5,386	5,546	5,711	5,880
Total	10,263		10,412	10,566	10,723	10,884	11,050		11,197	11,348	11,504	11,665	11,830
	Primary Cases					2	2		2	2	2	2	2
	Primary Use Rate					0.18							
	UMSMC-E Market Share								50.0%	50.0%	50.0%	50.0%	50.0%
	UMSMC-E Cases								1.0	1.0	1.1	1.1	1.1

Queen Anne's													
MDP	2010	CAGR '10-'15	2011	2012	2013	2014	2015	CAGR '15-'20	2016	2017	2018	2019	2020
45-64	14,868	0.014	15,076	15,288	15,502	15,720	15,940	0.003	15,994	16,047	16,101	16,156	16,210
65+	7,141	0.041	7,430	7,731	8,045	8,371	8,710	0.037	9,037	9,375	9,727	10,092	10,470
Total	22,009		22,507	23,019	23,547	24,090	24,650		25,030	25,423	25,828	26,247	26,680
	Primary Cases					10	10		10	11	11	11	11
	Primary Use Rate					0.42							
	UMSMC-E Market Share								42.5%	42.5%	42.5%	42.5%	42.5%
	UMSMC-E Cases								4.4	4.5	4.6	4.6	4.7
Talbot													
MDP	2010	CAGR '10-'15	2011	2012	2013	2014	2015	CAGR '15-'20	2016	2017	2018	2019	2020
45-64	11,273	(0.002)	11,246	11,220	11,193	11,166	11,140	(0.005)	11,079	11,019	10,959	10,899	10,840
65+	8,958	0.033	9,251	9,553	9,865	10,187	10,520	0.029	10,827	11,144	11,470	11,805	12,150
Total	20,231		20,497	20,772	21,058	21,354	21,660		21,907	22,163	22,429	22,704	22,990
	Primary Cases					22	22		23	23	23	23	24
	Primary Use Rate					1.03							
	UMSMC-E Market Share								100.0%	100.0%	100.0%	100.0%	100.0%
	UMSMC-E Cases								23	23	23	23	24
	TOTAL UMSMC-E PRIMARY PCI CASES								55.1	55.7	56.4	57.1	57.8

Elective PCI

As expected, the new data sent on elective PCIs performed in Delaware hospitals show that there were more elective PCIs than primary PCIs. There were 33 elective PCIs performed on residents of UMSMC-E's service area:

	<u>ZIP</u>	<u>TOWN</u>	<u>COUNTY</u>
Christiana (DE)	21610	BETTERTON	KENT
Christiana (DE)	21620	CHESTERTOWN	KENT
Christiana (DE)	21620	CHESTERTOWN	KENT
Christiana (DE)	21620	CHESTERTOWN	KENT
Christiana (DE)	21620	CHESTERTOWN	KENT
Christiana (DE)	21620	CHESTERTOWN	KENT
Nanticoke	21629	DENTON	CAROLINE
Nanticoke	21629	DENTON	CAROLINE
Nanticoke	21629	DENTON	CAROLINE
Nanticoke	21632	FEDERALSBURG	CAROLINE
Nanticoke	21632	FEDERALSBURG	CAROLINE
Nanticoke	21632	FEDERALSBURG	CAROLINE
Nanticoke	21632	FEDERALSBURG	CAROLINE
Nanticoke	21632	FEDERALSBURG	CAROLINE
Nanticoke	21632	FEDERALSBURG	CAROLINE
Nanticoke	21632	FEDERALSBURG	CAROLINE
Nanticoke	21632	FEDERALSBURG	CAROLINE
Nanticoke	21632	FEDERALSBURG	CAROLINE
Nanticoke	21632	FEDERALSBURG	CAROLINE
Christiana (DE)	21635	GALENA	KENT
Christiana (DE)	21635	GALENA	KENT
Christiana (DE)	21635	GALENA	KENT
Christiana (DE)	21635	GALENA	KENT
Christiana (DE)	21635	GALENA	KENT
Christiana (DE)	21635	GALENA	KENT
Christiana (DE)	21635	GALENA	KENT
Nanticoke	21643	HURLOCK	DORCHESTER
Christiana (DE)	21645	KENNEDYVILLE	KENT
Christiana (DE)	21651	MILLINGTON	KENT
Christiana (DE)	21651	MILLINGTON	KENT
Nanticoke	21655	PRESTON	CAROLINE
Nanticoke	21659	RHODESDALE	DORCHESTER
Christiana (DE)	21678	WORTON	KENT

However, unlike Primary PCIs, UMSMC-E does not believe that it would be methodologically appropriate to add elective PCIs to its projections of PCIs performed at UMSMC-E. UMSMC-E's methodology for projecting the number of elective PCIs it would perform was based on Shore Regional Health's cardiovascular service line market share among Maryland hospitals. UMSMC-E does not have comparable data on cardiovascular admissions in Delaware hospitals. It would be like comparing apples (elective PCIs at hospitals in Maryland and Delaware) to oranges (cardiovascular market share only among Maryland hospitals).

Hence, UMSMC-E believes that the total number of PCIs should be projected as follows:

	<u>2017</u>	<u>2018</u>	<u>2019</u>	<u>2020</u>
Total UMSMC-E Primary PCI Cases (Revised)	55.7	56.4	57.1	57.8
Total UMSMC-E Elective PCI Cases (Unchanged)	152.1	154.0	156.0	158.0
Total UMSMC-E PCI Cases	207.8	210.4	213.1	215.8

This approach is conservative since UMSMC-E could treat more elective PCI cases than are currently occurring in Delaware hospitals.

- 3. For Table 10, please provide information regarding the assumptions used to identify the cardiology inpatient market share. Was a particular range of primary diagnosis codes or APR-DRG codes used for an analysis of the HSCRC discharge abstract data?**

Applicant Response

The list of DRGs codes that comprised the cardiovascular service line are attached as **Exhibit 18**. The terms of the search are as follows:

Source:	HSCRC Inpatient Data Set
Vendor:	SMA Informatics
Time Period:	Quarter 3, 2014 Through Quarter 2, 2015
Grouping/Type:	Patient, County, and Provider
Provider:	Group: SHS - All Maryland Providers ex Chesapeake Rehab
DRG:	Group: SMA - Cardiovascular
ZIP:	Group: SHS - Five Mid-Shore Counties
ICD-9 Diag:	All (Level 1 - 1)
ICD-9 Proc:	All (Level 1 - 1)
Payor:	All
CPT-4:	All (Level 1 - 1)
Disposition:	All
Gender:	All

- 4. How many patients were identified as candidates for elective PCI in diagnostic cardiac catheterization procedures performed at UMSMCE in the last three fiscal years?**

Applicant Response

UMSMC-E has attempted to collect this information given the time frame necessary for response. Getting access to these data is extremely difficult without doing a very in-depth chart review. UMSMC-E tracks quality data on its physicians regarding the number of "normal" catheterizations. Catheterizations in which lesions or blockages are found in coronary arteries at catheterization to be obstructing less than 70% of the diameter of the vessel are considered normal, and generally are not considered candidates for performance of a PCI. Any abnormal catheterization would be a potential PCI candidate. The process is based on a documentation process that allows UMSMC-E to track the number of normal catheterizations as compared to abnormal. That information was utilized to drill down to the extent possible to identify those patients who were categorized as "abnormal catheterization." From that information, UMSMC-E attempted to filter out those patients who were potential candidates for PCI from those who would be managed medically or, based on the severity or location of lesions, identified as only being candidates for open heart surgery. Taking all of this into consideration, the best estimate is that on average 35 patients each year would have undergone a diagnostic catheterization at UMSMC-E and likely represents the patients who would have undergone elective PCI at UMSMC-E. This number factors out medical management and cardiac surgery.

The number of catheterizations performed at UMSMC-E is materially impacted (reduced) due to the lack of the ability to provide PCI at UMSMC-E. Local cardiologists report that if a cardiologist suspects that a patient might require PCI, he or she often refers the patient to a hospital that has a PCI program for the catheterization.

As the data provided in the PCI application and in this filing show, there are just over 200 patients who obtain PCI from UMSMC-E's service area.

Financial Viability

- 5. In response to question #11, UMSMCE stated that a loss of \$127,250 is projected in 2020, and the program would be regarded as "break-even" given the overall revenue for the hospital. What level of financial loss from operating the proposed PCI program would be regarded as unacceptable? What volume of cases would correspond to this level of unacceptable financial loss?**

Applicant Response

As shown in Form B (revenue and expense table) of the PCI application, as volume increases, the modest projected loss decreases. Thus, increasing volumes will not cause increased losses. UMSMC-E is confident in its projections and does not envision that it will see significantly lower volumes. Because the main expenses for this program are in staffing and supplies (both of which are variable), UMSMC-E does not expect that there would be significantly greater losses at lower volumes.

A scenario that may cause UMSMC-E to regard the continued operation of the program to be unacceptable involves revenue adjustment. UMSMC-E's Form B in the application relies on the HSCRC approving additional revenue according to its policies and established practice. UMSMC-E is a Total Patient Revenue System ("TPR") hospital. UMSMC-E's TPR agreement with the HSCRC (available at <http://www.hscrc.state.md.us/gbr-tpc.cfm>) permits

UMSMC-E to add new services and seek additional revenue. Specifically, Section IV.D of the agreement states:

If the Hospital applies and receives approval to provide a new service to its population area, the Hospital may petition the HSCRC staff for an adjustment to the Hospital's Approved Regulated Revenue if it can be demonstrated to the satisfaction of HSCRC Staff that provision of the new service cannot be managed within its existing revenue constraints.

In similar cases with other hospitals, the HSCRC has approved additional revenue for new services. UMSMC-E is relying on the HSCRC approving the additional revenue, which typically begins in the second year of operation. If the HSCRC does not approve additional revenue (approximately \$2.15M per year), UMSMC-E may deem the losses to be unacceptable, even at the projected volumes.

- 6. Is the cost of a new second cardiac catheterization laboratory included in the depreciation costs in the Table included in Form B?**

[Applicant Response](#)

Yes.

- 7. By what amount is it assumed that diagnostic procedures will increase? Is this assumption consistent with the experience of other facilities regarded as comparable? Approximately how much additional net revenue is associated with the assumption used?**

[Applicant Response](#)

Diagnostic procedures are expected to increase in proportion to PCI procedures performed. It is expected that the program will approach national expectations whereby one in four elective catheterizations will require an intervention. Approximately \$500,000 of additional net revenue is reflected in the proforma for the additional cardiac catheterizations.

Staffing

- 8. Will two FTE interventionalists be sufficient to provide services 24 hours per day seven days a week? How many interventionalists would be on staff for the routine provision of services?**

[Applicant Response](#)

Yes, two FTE interventionalists will be sufficient to provide services 24 hours per day, seven days a week. UMSMC-E anticipates that interventional cardiologists at University of Maryland Medical Center ("UMMC") will cover 6-8 weekends per year. UMMC Cardiologists have agreed to this arrangement.

Two Interventionalists will be on staff for the routine provision of services.

- 9. How many medical cardiologists are practicing full-time on the Eastern Shore on the staff of UMSMCE? How many are on the staff of the UMS hospitals in Chestertown and Cambridge and practicing full-time on the Eastern Shore?**

Applicant Response

There are six cardiologists practicing full-time on the Eastern Shore on the staff of UMSMC-E. Each cardiologist has a medical cardiology practice, five have invasive privileges, one has electrophysiology privileges. Two medical cardiologists are on the staff of UM Shore Medical Center at Chestertown and two are on staff at UM Shore Medical Center at Dorchester.

Emergency Transportation

- 9. The agreement submitted does not appear to comply with the requirement for arrival of air or ground ambulance within 30 minutes of a request for primary PCI patient transport by UMSMCE. Please clarify.**

Applicant Response

Maryland ExpressCare, a division of the University of Maryland Medical System (“UMMS”), provides around-the-clock patient transportation services. Under a Memorandum of Understanding (“MOU”) that pre-dated SRH’s affiliation with UMMS, UMMS agreed to provide patient transportation services for SRH. A copy of the MOU is included in Exhibit 11 of the PCI Application.

Maryland ExpressCare provides emergency air transport services for UMSMC-E by helicopter 24 hours a day, seven days a week, weather permitting. The air transport is based at Martin State Airport in Middle River, Maryland. When UMSMC-E requests emergency air transport, Maryland ExpressCare responds with a helicopter at UMSMC-E within 30 minutes. Also, Maryland ExpressCare provides a dedicated ground ambulance on the grounds of UMSMC-E between the hours of 8:00 AM and 8:00 PM.

In addition to the air and ground transport services provided by Maryland ExpressCare, UMMS provides back-up ground transportation through a private contractor, Best Care Ambulance, Inc. (“Best Care”), which is based in Easton, Maryland. UMMS entered an agreement dated September 7, 2010 with Best Care to provide ground ambulance services for SRH. A copy of the Best Care agreement is included in Exhibit 11 of the PCI Application. Under this arrangement, Best Care is required to provide a dedicated ground ambulance for SRH at all times. See Best Care Agreement, Schedule 2. Although Best Care is required to provide EMT staff only between the hours of 8:00 AM and 8:00 PM, and at other times is required to “make every reasonable effort” to provide staff within one hour, in practice UMSMC-E has provided, and will continue to provide, any medical transport staffing when not provided by Best Care. Thus, the dedicated Best Care ambulance is able to respond within 30 minutes at all times, unless it is already handling another call.

Finally, Best Care is required to provide “non-dedicated” ground ambulance services in the event the dedicated ambulance is not available due to another call. See Best Care Agreement, Schedule 3. For non-dedicated ambulance services, Best Care is required to respond to emergency requests for ground transport services within 30 minutes between the hours of 8:00 AM and 8:00 PM. Between the hours of 8:00 PM and 8:00 AM, Best Care is required to respond to emergency requests within 45 minutes.

In summary, the following emergency transportation services are available to UMSMC-E in the following order of priority:

Service	Availability	Possible Restrictions
Maryland ExpressCare Air Transport	Response time within 30 minutes on a 24/7 basis.	Weather and other conditions occasionally prevent air transport.
Maryland ExpressCare Ground Transport – Dedicated Ambulance	Response time within 30 minutes between 8:00 AM and 8:00 PM, seven days per week.	Not available between 8:00 PM and 8:00 AM, and possibly not available due to another transport call.
Best Care Ambulance – Dedicated Ambulance	Response time within 30 minutes on a 24/7 basis.	Possibly not available due to another transport call.
Best Care Ambulance – Non-Dedicated Ambulance	Response time within 30 minutes between 8:00 AM and 8:00 PM, seven days per week; and within 45 minutes between 8:00 PM and 8:00 AM, seven days per week.	No restrictions.

Thus, except in the exceptional circumstance when the air transport cannot fly, the dedicated ambulance is diverted on another call, and transportation services are needed between 8:00 PM and 8:00 AM, UMSMC-E will meet the 30-minute response time requirement. In this exceptional circumstance, Best Care is required to respond within 45 minutes. UMMS and UMSMC-E are in the process of negotiating a new agreement to provide 30-minute response time regardless of the circumstances.

Other

- 10. Please describe the specific plan for adding a second cardiac catheterization laboratory at the existing facility, providing a block schematic floor plan.**

Applicant Response

The proposed second catheterization laboratory would be located near the existing laboratory. Space is available because there are some radiology functions that are being displaced such as the radiologist office, ultrasound, some storage, and some of the dressing rooms. Mammography will be moved to a new location within the affected space. The new space consists of a new catheterization laboratory, with contiguous control room, and its own new equipment room, read station, work area and holding area. The total square footage of the renovated area is approximately 2,600 square feet. Both existing and planned schematic drawings of the area are included in **Exhibit 19**.

- 11. UMSMCE filed an application to relocate and replace the general hospital which has not been under active review in the last two years. Please discuss this project in light of that proposed relocation and the timing currently anticipated for these two projects. If a second cardiac catheterization laboratory is added at the hospital, how long is it anticipated to operate at the hospital prior to relocation? Would UMSMCE be able to salvage its investment in this laboratory if the hospital relocates within the next few years?**

Applicant Response

As noted, UMSMC-E filed a CON application to relocate and replace the hospital facility (Docket No. 12-20-2339). UMSMC-E intends to seek to activate the application within the next 12 months in connection with the implementation of a broader strategic plan for SRH. Assuming the replacement hospital project is approved, UMSMC-E does not expect the new facility to be open until at least 2020. If the PCI program is approved, it will begin operating in 2017. Thus, the proposed PCI program would operate within the existing hospital facility for at least several years before relocating to a new location.

As shown in the Project Budget, most of the capital expenditure for the proposed PCI program involves equipment, which UMSMC-E will seek to relocate to the replacement hospital to the extent the equipment has sufficient remaining useful life at that time. The capital cost for construction of space for a new cardiac catheterization laboratory totals less than \$1 million. That portion of the project cost will be lost upon relocation to a new facility, but UMSMC-E will use the improvements for several years before that occurs.

Given the immediate need for a PCI program in the Mid-shore region, UMSMC-E has determined to seek approval for the program in advance of continuing its application to replace and relocate the hospital. As explained in the PCI Application, the new program is important to decrease mortality and morbidity for residents of the Mid-shore region by making PCI services available with much shorter transport times. Also, opening a PCI program at this time will help keep local EMS transportation available in the region. Currently, when EMS resources are needed for PCI patients, the patients must be transported long distances, thereby removing the EMS resources from the local area.

Table of Exhibits

Exhibit	Description
17	Quality Measures Performance and Actions
18	DRG Cardiovascular Codes
19	Cath Lab Plans (Existing & Planned)

Table of Tables

Table	Description
4 REVISED	Primary PCI Cases by Zip Code of Residence and Hospital (CY 2014) / Drive Times from Community to Hospitals (Including UMSSMC-E) / Drive Time Minutes Saved if UMSSMC-E Provides Primary PCI
5 REVISED	Primary PCI Cases by Zip Code—CY 2014 / Drive Times to Primary PCI Providers / Identification of Nearest Provider and Projection of Market Share
7 REVISED	Projections of Primary PCI Cases at UMSSMC-E—2016-2018

I hereby declare and affirm under the penalties of perjury that the facts stated in Applicant's Response to Additional Information Questions Dated November 6, 2015 and its attachments are true and correct to the best of my knowledge, information, and belief.

December 4, 2015

Date

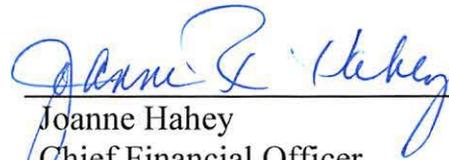


Kathleen McGrath
Regional Director
Outreach & Business Development
UM Shore Regional Health

I hereby declare and affirm under the penalties of perjury that the facts stated in Applicant's Response to Additional Information Questions Dated November 6, 2015 and its attachments are true and correct to the best of my knowledge, information, and belief.

December 4, 2015

Date



Joanne Hahey
Chief Financial Officer
UM Shore Regional Health

I hereby declare and affirm under the penalties of perjury that the facts stated in Applicant's Response to Additional Information Questions Dated November 6, 2015 and its attachments are true and correct to the best of my knowledge, information, and belief.

December 4, 2015

Date

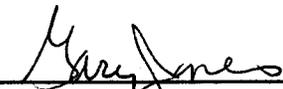


William Huffner
FACEP, FACHE
Chief Medical Officer
UM Shore Regional Health

I hereby declare and affirm under the penalties of perjury that the facts stated in Applicant's Response to Additional Information Questions Dated November 6, 2015 and its attachments are true and correct to the best of my knowledge, information, and belief.

December 4, 2015

Date



Gary Jones
Regional Director, Cardiovascular &
Pulmonary Services
UM Shore Regional Health

I hereby declare and affirm under the penalties of perjury that the facts stated in Applicant's Response to Additional Information Questions Dated November 6, 2015 and its attachments are true and correct to the best of my knowledge, information, and belief.

December 4, 2015

Date



Andrew L. Solberg

A.L.S. Healthcare Consultant Services

EXHIBIT 17

			Higher or Lower is Better	Bottom Quartile Level	Urn Shore Medical Center at Easton	
Deaths or returns to the hospital	All Causes	Returning to the hospital for any unplanned reason within 30 days after being discharged	Lower	16.8	14.2	
	Heart attack and chest pain	How often patients die in the hospital after heart attack	Lower	8.5352	8.9088	In June of 2014, Shore Regional Health formally adopted a Mortality Review Committee which reviews individual mortality cases and identifies operational and clinical opportunities for improvement. Clinical opportunities for improvement are sent through the peer review process while the Performance Management Committee receives operational opportunities. PI teams are developed to address the opportunities for improvement.
		Dying within 30-days after getting care in the hospital for a heart attack	Lower	15.225	15.1	as above in #5
	Heart failure	How often patients die in the hospital after heart failure	Lower	3.40555	4.0011	While our performance is within the "average" hospital performance (CI from MHCC hospital profile report is 2.0889-5.9134), in June of 2014, Shore Regional Health formally adopted a Mortality Review Committee which reviews individual mortality cases and identifies operational and clinical opportunities for improvement. Clinical opportunities for improvement are sent through the peer review process while the Performance Management Committee receives operational opportunities. PI teams are developed to address the opportunities for improvement.
		Dying within 30-days after getting care in the hospital for heart failure	Lower	12	10.6	
		Returning to the hospital after getting care for heart failure	Lower	18.825	18.6	
		Returning to the hospital after getting care for heart failure	Lower	24.525	22.3	
	Other surgeries	How often patients die in the hospital during or after surgery on the esophagus	Lower	N/A	N/A	
		How often patients die in the hospital during or after pancreas surgery	Lower	2.807125	0	

		Higher or Lower is Better	Bottom Quartile Level	Urn Shore Medical Center at Easton	
	How often patients die in the hospital during or after a surgery to fix the artery that carries blood to the lower body when it gets too large	Lower	44.3001	N/A	
Patient safety	How often patients die in the hospital after bleeding from stomach or intestines	Lower	3.0511	2.0828	
	How often patients die in the hospital after fractured hip	Lower	3.7751	3.5122	
	How often patients die in the hospital while getting care for a condition that rarely results in death	Lower	0.253275	0	
Pneumonia	How often patients die in the hospital while getting care for pneumonia	Lower	3.7049	5.1526	In June of 2014, Shore Regional Health formally adopted a Mortality Review Committee which reviews individual mortality cases and identifies operational and clinical opportunities for improvement. Clinical opportunities for improvement are sent through the peer review process while the Performance Management Committee receives operational opportunities. PI teams are developed to address the opportunities for improvement.
	Dying within 30-days after getting care in the hospital for pneumonia	Lower	11.8	10.5	
	Returning to the hospital after getting care for pneumonia	Lower	18.95	17.6	
Stroke	How often patients who came in after having stroke subsequently died in the hospital.	Lower	9.8518	11.3114	In June of 2014, Shore Regional Health formally adopted a Mortality Review Committee which reviews individual mortality cases and identifies operational and clinical opportunities for improvement. Clinical opportunities for improvement are sent through the peer review process while the Performance Management Committee receives operational opportunities. PI teams are developed to address the opportunities for improvement.

			Higher or Lower is Better	Bottom Quartile Level	Urn Shore Medical Center at Easton	
	Surgical patient safety	How often patients die in the hospital because a serious condition was not identified and treated	Lower	150.7294	296.4187	While our performance is within the "average" hospital performance (CI from MHCC hospital profile report is 147.2594-445.5781), in June of 2014, Shore Regional Health formally adopted a Mortality Review Committee which reviews individual mortality cases and identifies operational and clinical opportunities for improvement. Clinical opportunities for improvement are sent through the peer review process while the Performance Management Committee receives operational opportunities. PI teams are developed to address the opportunities for improvement.
Emergency Room (ER)	Throughput	How long patients spent in the emergency department before leaving for their hospital room	Lower	402	398	
		How long patients spent in the emergency department after the doctor decided the patient would stay in the hospital before leaving for their hospital room	Lower	169	125	
Heart attack and chest pain	Recommended care - Inpatient	Heart attack patients prescribed aspirin before leaving the hospital	Higher	99	96	This compliance rate is equivalent to 2 missed opportunities for aspirin prior to discharge in a 12 month period. The cases were reviewed by the core measure work group for opportunities for improvement. A "core measure status board" was developed to alert unit managers that potential core measure patients were on their units. Concurrent case review by dedicated staff was subsequently adopted. Additionally, missed opportunities for core measure compliance are included in physician score cards.
		Heart attack patients given procedure to open blood vessels within 90 minutes of getting to the hospital	Higher	91.5	N/A	

			Higher or Lower is Better	Bottom Quartile Level	U'm Shore Medical Center at Easton	
	Results of care	How often patients die in the hospital after heart attack	Lower	8.5352	8.9088	In June of 2014, Shore Regional Health formally adopted a Mortality Review Committee which reviews individual mortality cases and identifies operational and clinical opportunities for improvement. Clinical opportunities for improvement are sent through the peer review process while the Performance Management Committee receives operational opportunities. PI teams are developed to address the opportunities for improvement.
Heart failure	Recommended care	Dying within 30-days after getting care in the hospital for a heart attack	Lower	15.225	15.1	
		Heart failure patients given instructions for follow-up care before leaving the hospital	Higher	92.75	98	
		Test of how well the heart is able to pump blood	Higher	99.75	100	
		Heart failure patients given medicine to make the heart work better	Higher	96.75	96	This compliance rate is equivalent to 5 missed opportunities for ACEI or ARB for LVSD in a 12 month period. The cases were reviewed by the core measure work group for opportunities for improvement. A "core measure status board" was developed to alert unit managers that potential core measure patients were on their units. Concurrent case review by dedicated staff was subsequently adopted. Additionally, missed opportunities for core measure compliance are included in physician score cards.
	Results of care	How often patients die in the hospital after heart failure	Lower	3.40555	4.0011	In June of 2014, Shore Regional Health formally adopted a Mortality Review Committee which reviews individual mortality cases and identifies operational and clinical opportunities for improvement. Clinical opportunities for improvement are sent through the peer review process while the Performance Management Committee receives operational opportunities. PI teams are developed to address the opportunities for improvement.

			Higher or Lower is Better	Bottom Quartile Level	Urn Shore Medical Center at Easton	
		Dying within 30-days after getting care in the hospital for heart failure	Lower	12	10.6	
		Returning to the hospital after getting care for a heart attack	Lower	18.825	18.6	
		Returning to the hospital after getting care for heart failure	Lower	24.525	22.3	
Heart surgeries and procedures	Recommended care	How often the hospital uses a procedure to find blocked blood vessels in the heart on both sides of the heart instead of on only one side. Doing this procedure on both sides of the heart often leads to more complications.	Lower	2.0688	9.375	While our performance is within the "average" hospital performance (CI from MHCC hospital profile report is 2.2337 - 16..5163), peer review of both right and left heart catheterization occurs within the Cardiology section and in coordination with established Medical Staff Peer review processes to identify opportunities for improvement.
Maternity & Newborn	Practice patterns	Blood sugar level controlled after heart surgery	Higher			
		Percentage of births (deliveries) that are C-sections	Lower	33.8347	25.3579	
		How often there are no complications for mothers who gave birth vaginally when the mother has had a C-section in the past	Higher	5.7471	2.4194	Policies are in place to reduce VBACs. Individual case reviews are performed and the vast majority of VBAC cases occur because of conditions outside of the care team's control such as precipitous delivery. However, Medical Staff Peer review processes are followed.
		Percent of women having their first time C-section	Lower	21.4159	14.8712	
		How often babies are born vaginally when the mother has had a C-section in the past	Higher	5.3191	2.1898	Policies are in place to reduce VBACs. Individual case reviews are performed and the vast majority of VBAC cases occur because of conditions outside of the care team's control such as precipitous delivery. However, Medical Staff Peer review processes are followed.
Nursing care	Results of care - Complications	How often patients in the hospital get a blood clot in the lung or leg vein after surgery	Lower	4.8912	4.0281	
	Results of care - Deaths	How often patients die in the hospital while getting care for a condition that rarely results in death	Lower	0.253275	0	

			Higher or Lower is Better	Bottom Quartile Level	Urn Shore Medical Center at Easton	
		How often patients die in the hospital because a serious condition was not identified and treated	Lower	150.7294	296.4187	In June of 2014, Shore Regional Health formally adopted a Mortality Review Committee which reviews individual mortality cases and identifies operational and clinical opportunities for improvement. Clinical opportunities for improvement are sent through the peer review process while the Performance Management Committee receives operational opportunities. PI teams are developed to address the opportunities for improvement.
Other surgeries	Results of care	Number of surgeries to remove part of the esophagus	N/A	N/A	N/A	
		Number of surgeries to remove part of the pancreas	N/A	N/A	N/A	
		Number of surgeries to fix the artery that carries blood to the lower body when it gets too large	N/A	N/A	N/A	
		How often patients die in the hospital during or after surgery on the esophagus	Lower	N/A	N/A	
		How often patients die in the hospital during or after pancreas surgery	Lower	2.807125	0	
		How often patients die in the hospital during or after a surgery to fix the artery that carries blood to the lower body when it gets too large	Lower	44.3001	N/A	
Patient safety	Results of care -- Complications	Number of times a surgical tool was accidentally left in a patient's body during surgery	Lower	2	N/A	
		How often the hospital accidentally makes a hole in a patient's lung	Lower	0.392875	0.4898	Medical Peer review processes evaluate Hospital complications and and potential harm to identify opportunities for improvement and/or Focused Professional Practice Evaluation opportunities.
		How often patients accidentally get cut or have a hole poked in an organ that was not part of the surgery	Lower	1.643675	1.8663	Medical Peer review processes evaluate Hospital complications and and potential harm to identify opportunities for improvement and/or Focused Professional Practice Evaluation opportunities.

			Higher or Lower is Better	Bottom Quartile Level	Urn Shore Medical Center at Easton
		Number of patients who get a blood transfusion and have a problem or reaction to the blood they get	Lower	N/A	N/A
	Results of care -- Deaths	How often patients die in the hospital after bleeding from stomach or intestines	Lower	3.0511	2.0828
		How often patients die in the hospital after fractured hip	Lower	3.7751	3.5122
		How often patients die in the hospital while getting care for a condition that rarely results in death	Lower	0.253275	0
Pneumonia	Recommended care	Right antibiotics given	Higher	95	95
	Results of care	How often patients die in the hospital while getting care for pneumonia	Lower	3.7049	5.1526
					In June of 2014, Shore Regional Health formally adopted a Mortality Review Committee which reviews individual mortality cases and identifies operational and clinical opportunities for improvement. Clinical opportunities for improvement are sent through the peer review process while the Performance Management Committee receives operational opportunities. PI teams are developed to address the opportunities for improvement.
		Dying within 30-days after getting care in the hospital for pneumonia	Lower	11.8	10.5
		Returning to the hospital after getting care for pneumonia	Lower	18.95	17.6
Prevention and Treatment	Blood Clot	Patients who developed a blood clot while in the hospital and did not get treatment that could have prevented it	Lower	8	0
Preventive Care	Health care-associated	Patients in the hospital who got the flu vaccine if they were likely to get flu	Higher	95	97
Stroke	Results of care	How often patients who came in after having stroke subsequently died in the hospital.	Lower	56.10008	6.9854

			Higher or Lower is Better	Bottom Quartile Level	U of M Shore Medical Center at Easton	
Summary Scores	Deaths	How often patients die in the hospital from one of six problems: heart attack, heart failure, stroke, internal bleeding, hip fracture, or pneumonia	Lower	1.03915	1.1195	In June of 2014, Shore Regional Health formally adopted a Mortality Review Committee which reviews individual mortality cases and identifies operational and clinical opportunities for improvement. Clinical opportunities for improvement are sent through the peer review process while the Performance Management Committee receives operational opportunities. PI teams are developed to address the opportunities for improvement.
	Patient safety	How well this hospital keeps patients safe based on eight patient safety problems	Lower	0.85995	0.8671	Risk Adjusted performance again places SMC-E within the "average" range. In October of 2014 Shore Regional Health implemented its Harm Committee Review of individual cases for clinical and operational opportunities for improvement. CLABSI, CAUTI, SSI, several MHACs, and PSI-90 cases are reviewed.
Surgical patient safety	Recommended care after surgery	Antibiotics stopped within 24 hours after surgery	Higher	97.75	98	
		Blood sugar level controlled after heart surgery	Higher	94	N/A	
		Surgery patients who have a thin tube inserted to drain their bladder and it is removed on the first or second day after surgery	Higher	97	98	
		Preventing low body temperature during and after surgery	Higher	100	100	
	Recommended care before surgery	Medicine to lower blood pressure given (if needed)	Higher	97	97	
		Antibiotics given one hour before surgery	Higher	98	99	
		Right antibiotics given	Higher	98	100	
		Surgery patients prescribed treatment to prevent blood clots at the right time	Higher	98	96	

		Higher or Lower is Better	Bottom Quartile Level	U'm Shore Medical Center at Easton	
Results of care	How often patients die in the hospital because a serious condition was not identified and treated	Lower	150.7294	296.4187	In June of 2014, Shore Regional Health formally adopted a Mortality Review Committee which reviews individual mortality cases and identifies operational and clinical opportunities for improvement. Clinical opportunities for improvement are sent through the peer review process while the Performance Management Committee receives operational opportunities. PI teams are developed to address the opportunities for improvement.
	How often patients in the hospital had to use a breathing machine after surgery because they could not breathe on their own	Lower	8.69425	4.9712	
	How often patients in the hospital get a blood clot in the lung or leg vein after surgery	Lower	4.8912	4.0281	

EXHIBIT 18

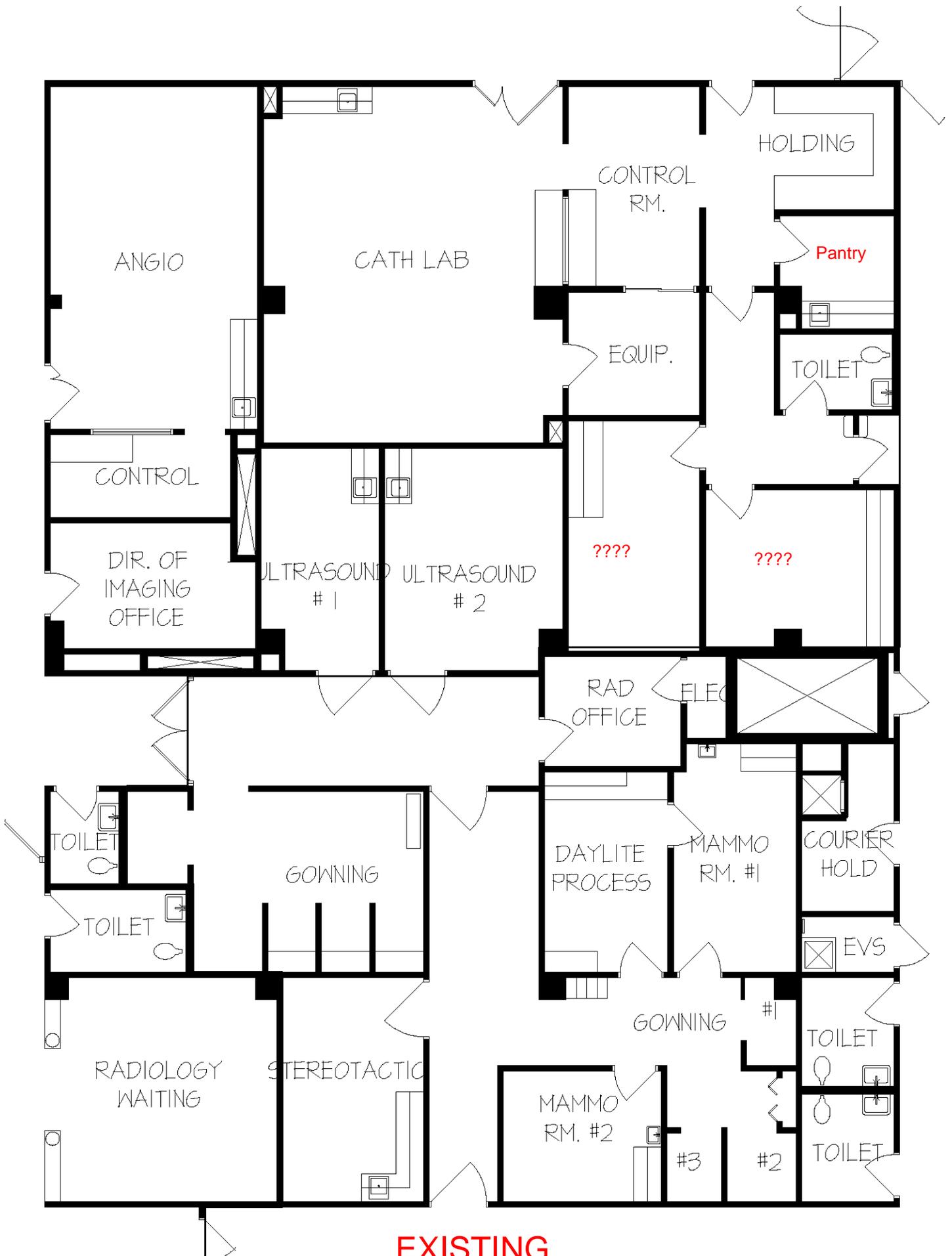
Patient Care Analyst
Center for Performance Sciences

Group Type: DRG

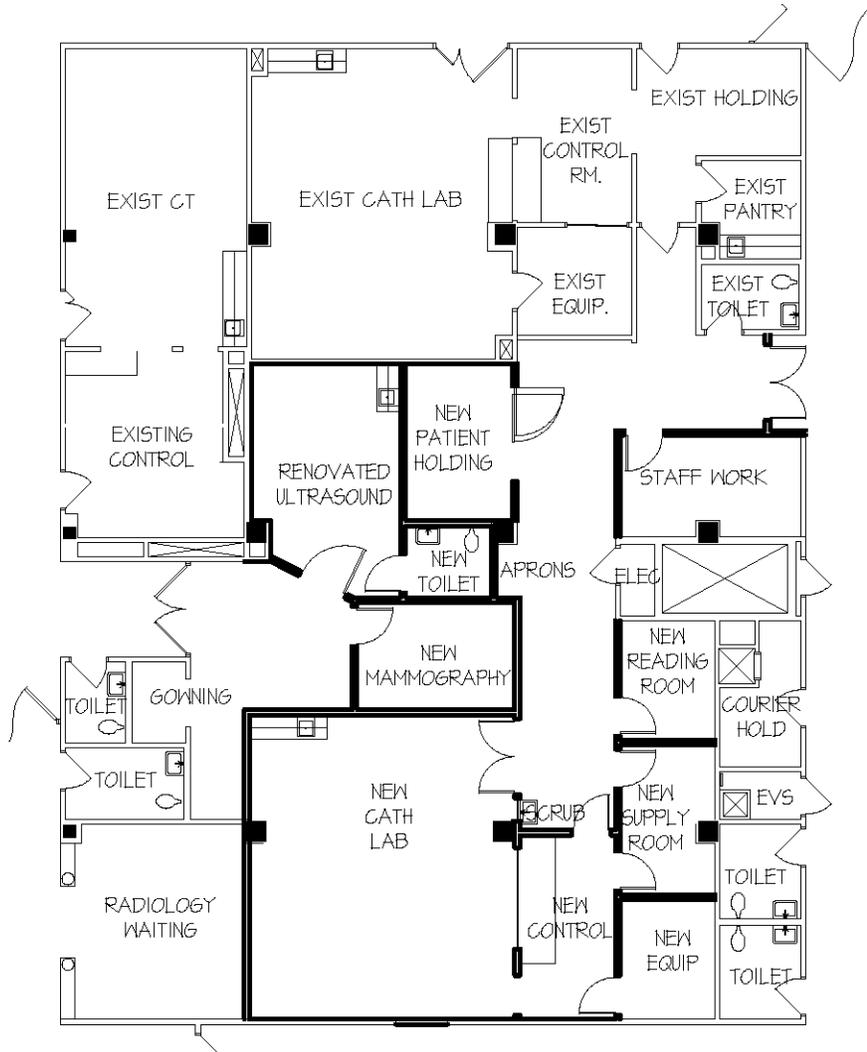
Group Name: SMA - Cardiovascular

Value Item	Value Name	Value Item	Value Name
001	Heart transplant or implant of heart assist system w MCC	002	Heart transplant or implant of heart assist system w/o MCC
034	Carotid artery stent procedure w MCC	035	Carotid artery stent procedure w CC
036	Carotid artery stent procedure w/o CC/MCC	037	Extracranial procedures w MCC
038	Extracranial procedures w CC	039	Extracranial procedures w/o CC/MCC
215	Other heart assist system implant	216	Cardiac valve & oth maj cardiothoracic proc w card cath w MCC
217	Cardiac valve & oth maj cardiothoracic proc w card cath w CC	218	Cardiac valve & oth maj cardiothoracic proc w card cath w/o CC/MCC
219	Cardiac valve & oth maj cardiothoracic proc w/o card cath w MCC	220	Cardiac valve & oth maj cardiothoracic proc w/o card cath w CC
221	Cardiac valve & oth maj cardiothoracic proc w/o card cath w/o CC/MCC	222	Cardiac defib implant w cardiac cath w AMI/HF/shock w MCC
223	Cardiac defib implant w cardiac cath w AMI/HF/shock w/o MCC	224	Cardiac defib implant w cardiac cath w/o AMI/HF/shock w MCC
225	Cardiac defib implant w cardiac cath w/o AMI/HF/shock w/o MCC	226	Cardiac defibrillator implant w/o cardiac cath w MCC
227	Cardiac defibrillator implant w/o cardiac cath w/o MCC	228	Other cardiothoracic procedures w MCC
229	Other cardiothoracic procedures w CC	230	Other cardiothoracic procedures w/o CC/MCC
231	Coronary bypass w PTCA w MCC	232	Coronary bypass w PTCA w/o MCC
233	Coronary bypass w cardiac cath w MCC	234	Coronary bypass w cardiac cath w/o MCC
235	Coronary bypass w/o cardiac cath w MCC	236	Coronary bypass w/o cardiac cath w/o MCC
237	Major cardiovascular procedures w MCC	238	Major cardiovascular procedures w/o MCC
239	Amputation for circ sys disorders exc upper limb & toe w MCC	240	Amputation for circ sys disorders exc upper limb & toe w CC
241	Amputation for circ sys disorders exc upper limb & toe w/o CC/MCC	242	Permanent cardiac pacemaker implant w MCC
243	Permanent cardiac pacemaker implant w CC	244	Permanent cardiac pacemaker implant w/o CC/MCC
245	AICD lead & generator procedures	246	Percutaneous cardiovascular proc w drug-eluting stent w MCC
247	Percutaneous cardiovascular proc w drug-eluting stent w/o MCC	248	Percutaneous cardiovasc proc w non-drug-eluting stent w MCC
249	Percutaneous cardiovasc proc w non-drug-eluting stent w/o MCC	250	Perc cardiovasc proc w/o coronary artery stent or AMI w MCC
251	Perc cardiovasc proc w/o coronary artery stent or AMI w/o MCC	252	Other vascular procedures w MCC
253	Other vascular procedures w CC	254	Other vascular procedures w/o CC/MCC
255	Upper limb & toe amputation for circ system disorders w MCC	256	Upper limb & toe amputation for circ system disorders w CC
257	Upper limb & toe amputation for circ system disorders w/o CC/MCC	258	Cardiac pacemaker device replacement w MCC
259	Cardiac pacemaker device replacement w/o MCC	260	Cardiac pacemaker revision except device replacement w MCC
261	Cardiac pacemaker revision except device replacement w CC	262	Cardiac pacemaker revision except device replacement w/o CC/MCC
263	Vein ligation & stripping	264	Other circulatory system O.R. procedures
265	AICD Lead Procedures	266	Endovascular Cardiac Valve Replacement W MCC
267	Endovascular Cardiac Valve Replacement W/O MCC	280	Acute myocardial infarction, discharged alive w MCC
281	Acute myocardial infarction, discharged alive w CC	282	Acute myocardia infarction, discharged alive w/o CC/MCC
283	Acute myocardial infarction, expired w MCC	284	Acute myocardial infarction, expired w CC
285	Acute myocardial infarction, expired w/o CC/MCC	286	Circulatory disorders except AMI, w card cath w MCC
287	Circulatory disorders except AMI, w card cath w/o MCC	288	Acute & subacute endocarditis w MCC
289	Acute & subacute endocarditis w CC	290	Acute & subacute endocarditis w/o CC/MCC
291	Heart failure & shock w MCC	292	Heart failure & shock w CC
293	Heart failure & shock w/o CC/MCC	294	Deep vein thrombophlebitis w CC/MCC
295	Deep vein thrombophlebitis w/o CC/MCC	296	Cardiac arrest, unexplained w MCC
297	Cardiac arrest, unexplained w CC	298	Cardiac arrest, unexplained w/o CC/MCC
299	Peripheral vascular disorders w MCC	300	Peripheral vascular disorders w CC
301	Peripheral vascular disorders w/o CC/MCC	302	Atherosclerosis w MCC
303	Atherosclerosis w/o MCC	304	Hypertension w MCC
305	Hypertension w/o MCC	306	Cardiac congenital & valvular disorders w MCC
307	Cardiac congenital & valvular disorders w/o MCC	308	Cardiac arrhythmia & conduction disorders w MCC
309	Cardiac arrhythmia & conduction disorders w CC	310	Cardiac arrhythmia & conduction disorders w/o CC/MCC
311	Angina pectoris	312	Syncope & collapse
313	Chest pain	314	Other circulatory system diagnoses w MCC
315	Other circulatory system diagnoses w CC	316	Other circulatory system diagnoses w/o CC/MCC

EXHIBIT 19



EXISTING



PLANNED

**UMD SHORE REGIONAL HEALTH
PRELIMINARY CATH LAB PLAN**

MCA
MARSHALL CRAFT ASSOCIATES
MCA

Marshall Craft Associates, Inc.
Architecture / Interior Design / Planning
8112 York Road, Baltimore, Maryland 21212-2811
410.532.3131 Fax: 410.532.8206

SCALE 1/16" = 1'-0"
MCA JOB NO M15128
DATE November 20, 2015
VERSION SCHEMATIC
SK-1A