

ILLINOIS HEALTH FACILITIES PLANNING BOARD  
APPLICATION FOR PERMIT

08-051

SECTION I. IDENTIFICATION, GENERAL INFORMATION, AND CERTIFICATION  
(IDEN)

RECEIVED

ORIGINAL

JUN 30 2008

This section must be completed for all projects.

HEALTH FACILITIES  
PLANNING BOARD

A. Facility/Project Identification

Facility Name Good Samaritan Regional Health Center Street Address \_\_\_\_\_  
Veteran's Memorial Drive at 42<sup>nd</sup> Street City Mount Vernon County \_\_\_\_\_  
Jefferson Zip 62864 Illinois State Representative District 107

B. Applicant Identification (provide for each co-applicant [refer to Part 1130.220] and insert after this page)

Exact Legal Name Good Samaritan Regional Health Center Address 605 N. 12<sup>th</sup> Street  
Mount Vernon, Illinois 62864 Name of  
Registered Agent Leo F. Childers, Jr. Name of Chief Executive Officer Leo F. Childers, Jr.  
Title President CEO Address 605 N. 12<sup>th</sup> Street Mount Vernon, Illinois 62864 Telephone  
No. (618)241-2201 Type of Ownership:  Non-profit Corporation  For-profit  
Corporation  Limited Liability Company  Partnership  Governmental  Sole  
Proprietorship  Other (specify) \_\_\_\_\_

Corporations and limited liability companies must provide an Illinois certificate of good standing; partnerships must provide the name of the state in which organized and the name and address of each partner specifying whether each is a general or limited partner.

APPEND DOCUMENTATION AS ATTACHMENT IDEN-1 AFTER THE LAST PAGE OF THIS SECTION.

C. Primary Contact Person (person who is to receive correspondence or inquiries during the review period)

Name Michael Warren Title Vice President  
Company Name Good Samaritan Regional Health Center  
Address 605 N. 12<sup>th</sup> Street Mount Vernon, IL 62864 Telephone No. (618)241-2202  
E-mail Address mike.warren@ssmhc.com Fax Number (618) 241-3847

D. Additional Contact Person (person such as consultant, attorney, financial representative, registered agent, etc. who also is authorized to discuss application and act on behalf of applicant)

Name Michael I. Copelin Title President  
Company Name Copelin Healthcare Consulting, Inc.  
Address 42 Birch Lake Drive Sherman, IL 62684  
Telephone No. (217)496-3712 E-mail Address micbball@aol.com Fax Number (217)496-3097

E. Post Permit Contact Person (person to whom all correspondence and inquiries pertaining to the project subsequent to permit issuance are to be directed)

Name Michael Warren Title Vice President  
Company Name Good Samaritan Regional Health Center  
Address 605 N. 12<sup>th</sup> Street Mount Vernon, IL 62864  
Telephone No. (618)241-2202  
E-mail Address mike.warren@ssmhc.com Fax Number (618) 241-3847

F. Site Ownership (complete this information for each applicable site and insert after this page)

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Exact Legal Name SSM Health Care Corporation Address 477 N. Lindbergh Blvd., St. Louis, MO 63141  
Name of Registered Agent Leo F. Childers, Jr. Name of Chief Executive Officer Sr. Mary Jean Ryan, FSM  
Title President & Chief Executive Officer CEO  
Address 477 N. Lindbergh Blvd., St. Louis, MO 63141 Telephone No. (314) 994-7800

Type of Ownership:  Non-profit Corporation  For-profit Corporation  Limited Liability Company  Partnership  Governmental  Sole Proprietorship  Other (specify) \_\_\_\_\_

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F. **Site Ownership** (complete this information for each applicable site and insert after this page)  
Exact Legal Name of Person Who Owns Site Good Samaritan Regional Health Center  
Address of Site Owner 605 N. 12<sup>th</sup> Street Mount Vernon, IL 62864  
Street Address or Legal Description of Site Veteran's Memorial Drive at 42<sup>nd</sup> Street Mount Vernon, IL 62864 (Legal Description is attached.

G. **Operating Entity/Licensee** (complete this information for each applicable facility and insert after this page)

Exact Legal Name Good Samaritan Regional Health Center, 605 N. 12<sup>th</sup> Street Mount Vernon, IL 62864

Type of Ownership:  Non-profit Corporation  For-profit Corporation  Limited Liability Company  Partnership  Governmental  Sole Proprietorship  Other (specify) \_\_\_\_\_

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**APPEND DOCUMENTATION AS ATTACHMENT IDEN-2 AFTER THE LAST PAGE OF THIS SECTION.**

H. **Organizational Relationships**

Provide (for each co-applicant) an organization chart containing the name and relationship of any person who is related (related person is defined in Part 1130.140). If the related person is participating in the development or funding of the project, describe the interest and the amount and type of any financial contribution.

**APPEND DOCUMENTATION AS ATTACHMENT IDEN-3 AFTER THE LAST PAGE OF THIS SECTION.**

I. **Status of Previous Certificate of Need Projects**

Provide the project number for any of the applicant's projects that have received permits but are not yet complete (completion is defined in Part 1130.140) and provide the current status of the project. If all projects are complete, indicate NONE: NONE

J. **Flood Plain Requirements** (refer to instructions for completion of this application)

Provide documentation regarding compliance with the Flood Plain requirements of Executive Order #4, 1979.

**APPEND DOCUMENTATION AS ATTACHMENT IDEN-4 AFTER THE LAST PAGE OF THIS SECTION.**

K. **Historic Resources Preservation Act Requirements** (refer to instructions for completion of this application)

Provide documentation regarding compliance with the requirements of the Historic Resources Preservation Act.

**APPEND DOCUMENTATION AS ATTACHMENT IDEN-5 AFTER THE LAST PAGE OF THIS SECTION.**

L. **Project Classification** (check those applicable, refer to Part 1110.40 and Part 1120.20.b)

1. Part 1110 Classification                      2. Part 1120 Applicability or Classification: (check one only)

Substantive

Non-substantive

Part 1120 Not Applicable

DHS or DVA Project

Category A Project

Category B Project



**M. Narrative Description**

Provide in the space below a brief narrative description of the project. Explain what is to be done, NOT why it is being done. Include the rationale as to the project's classification as substantive or non-substantive. If the project site does NOT have a street address, include a legal description of the site.

The proposed project will result in the discontinuation of the Good Samaritan Regional Health Center at 605 N 12 th Street and the construction of a replacement Hospital at 42<sup>nd</sup> street and Veteran's Memorial Drive in Mount Vernon ( Note a legal description of the site is appended to this document.

The current hospital has a total of 161 beds , while the proposed replacement facility will have a total of 134 beds. The only category of service which will be totally discontinued and not replaced is the Pediatrics service which will have its patients accommodated in the facility's Medical Surgical Beds.

The replacement Hospital will have 99 Medical Surgical beds, 16 ICU beds, 10 Rehabilitation, and 9 Obstetric beds. In addition the new hospital will have an 8 bed observation unit located next to the Emergency Department.

The new hospital will also provide Cardiac Catheterization Services and an Open Heart Surgery Service which replace the programs currently operated at the 12<sup>th</sup> street facility.

The new hospital will have a total of 382,067 GSF including a mechanical penthouse with a total of 23,878 GSF. In addition, a maintenance building with 8,621 GSF will also be constructed on the proposed site,

A medical office building will be constructed adjacent to the proposed new hospital, under a separate CON application. The medical office building will house some of the hospital's outpatient services and administrative space. That space will be justified as a part of that project.

A complete list of the departments involved in this project, their proposed gross square footage and their respective costs are shown on **ATTACHMENT INFO - 7** to this application.

This is a substantive project since it establishes a new facility. The project is also a Category B project under Part 1120.

**N. Project Costs and Sources of Funds**

Complete the following table listing all costs (refer to Part 1120.110) associated with the project. When a project or any component of a project is to be accomplished by lease, donation, gift, or other means, the fair market or dollar value (refer to Part 1190.40.b) of the component must be included in the estimated project cost. If the project contains components that are not related to the provision of health care, complete an additional table for the portions that are solely for health care and insert that table following this page (e.g. separate a nursing home's costs from the components of a retirement community; separate patient care area costs from a hospital project that includes a parking garage).

<b>PROJECT COST AND SOURCES OF FUNDS-TOTAL</b>	
Preplanning Costs	\$561,194
Site Survey and Soil Investigation	\$60,000
Site Preparation	\$7,947,117
Off Site Work	\$1,500,000
New Construction Contracts	\$123,077,650
Modernization Contracts	
Contingencies	\$12,307,765
Architectural/Engineering Fees	\$10,861,795
Consulting and Other Fees	\$991,192
Movable or Other Equipment (not in construction contracts)	17,701,460
Bond Issuance Expense (project related)	\$3,028,261
Net Interest Expense During Construction (project related)	\$6,807,439
Fair Market Value of Leased Space or Equipment	
Other Costs To Be Capitalized	
Acquisition of Building or Other Property (excluding land)	
<b>ESTIMATED TOTAL PROJECT COST</b>	<b>\$184,843,873</b>

Cash and Securities	\$33,430,873
Pledges	
Gifts and Bequests	
Bond Issues (project related)	\$151,413,000
Mortgages	
Leases (fair market value)	
Governmental Appropriations	
Grants	
Other Funds and Sources	
<b>TOTAL FUNDS</b>	<b>\$184,843,873</b>

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<b>PROJECT COST AND SOURCES OF FUNDS - Clinical</b>	
Preplanning Costs	\$238,528
Site Survey and Soil Investigation	\$25,534
Site Preparation	\$3,382,008
Off Site Work	\$638,346
New Construction Contracts	\$51,869,661
Modernization Contracts	
Contingencies	\$5,237,742
Architectural/Engineering Fees	\$4,622,391
Consulting and Other Fees	\$421,815
Movable or Other Equipment (not in construction contracts)	\$17,701,460
Bond Issuance Expense (project related)	\$1,288,719
Net Interest Expense During Construction (project related)	\$2,897,002
Fair Market Value of Leased Space or Equipment	
Other Costs To Be Capitalized	
Acquisition of Building or Other Property (excluding land)	
<b>ESTIMATED TOTAL PROJECT COST</b>	<b>\$88,323,206</b>

Cash and Securities	\$15,974,132
Pledges	
Gifts and Bequests	
Bond Issues (project related)	\$72,349,074
Mortgages	
Leases (fair market value)	
Governmental Appropriations	
Grants	
Other Funds and Sources	
<b>TOTAL FUNDS</b>	<b>\$88,323,206</b>

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<b>PROJECT COST AND SOURCES OF FUNDS - Non-Clinical</b>	
Preplanning Costs	\$322,666
Site Survey and Soil Investigation	\$34,466
Site Preparation	\$4,565,109
Off Site Work	\$861,654
New Construction Contracts	\$71,207,989
Modernization Contracts	
Contingencies	\$7,070,023
Architectural/Engineering Fees	\$6,239,404
Consulting and Other Fees	\$569,337
Movable or Other Equipment (not in construction contracts)	
Bond Issuance Expense (project related)	\$1,739,542
Net Interest Expense During Construction (project related)	\$3,910,437
Fair Market Value of Leased Space or Equipment	
Other Costs To Be Capitalized	
Acquisition of Building or Other Property (excluding land)	
<b>ESTIMATED TOTAL PROJECT COST</b>	<b>\$96,520,667</b>

Cash and Securities	\$17,456,741
Pledges	
Gifts and Bequests	
Bond Issues (project related)	\$79,063,926
Mortgages	
Leases (fair market value)	
Governmental Appropriations	
Grants	
Other Funds and Sources	
<b>TOTAL FUNDS</b>	<b>\$96,520,667</b>

**O. Related Project Costs**

1. Provide the following information, as applicable, with respect to any land related to the project that will be or has been acquired during the last two calendar years:

No land acquisition is related to project; Purchase Price \$ \_\_\_\_\_; Fair Market Value \$ \_\_\_\_\_

2. Does the project involve establishment of a new facility or a new category of service?  Yes  
 No

If yes, provide the dollar amount of all non-capitalized operating start-up costs (including operating deficits) through the first full fiscal year when the project achieves or exceeds the target utilization specified in Part 1100.

Estimated start-up costs and operating deficit cost is \$ NONE

**While technically classified as a new hospital the proposed facility is a replacement hospital and does not anticipate additional start-up costs nor an operating deficit.**

**P. Project Status and Completion Schedules**

Indicate the stage of the project's architectural drawings:

None or not applicable       Schematics     Preliminary       Final Working

1. Provide the following dates (indicate N/A for any item that is not applicable):

25% of project costs expended 11/30/2009      50% of project costs expended 5/31/2010  
75% of project costs expended 10/31/2010      95% of project costs expended 03/31/2011  
100% of project costs expended 7/31/2011      Midpoint of construction date 03/31/2010  
Anticipated project completion date (refer to Part 1130.140) 3/31/2012

3. Indicate the following with respect to project expenditures or to obligation (refer to Part 1130.140):

- Purchase orders, leases, or contracts pertaining to the project have been executed;
- Project obligation is contingent upon permit issuance. Provide a copy of the contingent "certification of obligation" document, highlighting any language related to CON contingencies.
- Project obligation will occur after permit issuance.

**APPEND DOCUMENTATION AS ATTACHMENT INFO-6 AFTER THE LAST PAGE OF THIS SECTION.**

**O. Cost/Space Requirements**

Provide in the format of the following example the gross square footage (GSF) and the attributable portion of total project cost for each department/area. Identify each piece of major medical equipment. The sum of the department costs MUST equal the total estimated project costs. Indicate if any space is being reallocated for a different purpose. Include outside wall measurement plus the department or area's portion of the surrounding circulation space. Indicate the proposed use of any vacated space.

Department/Area	Cost	Gross Square Feet		Amount of Proposed Total GSF That Is:		As is	Vacated Space
		Existing	Proposed	New Const.	Remodeled		
Dietary	\$1,150,000	3,000	6,000	3,000	1,000	2,000	
Radiation Therapy	3,250,000*	4,000(1)	5,500	5,500			
Medical Records	300,000	2,500	6,500	4,000(1)	2,500		
<b>TOTAL</b>	<b>4,700,000</b>	<b>9,500</b>	<b>18,000</b>	<b>8,500</b>	<b>5,000</b>	<b>4,500</b>	

\*Includes \$1,500,000 for an 18 MEV linear accelerator

(1) Existing radiation therapy space will be vacated and remodeled and converted to medical records.

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**R. Facility Bed Capacity and Utilization**

Complete the following chart as applicable. Complete a separate chart for each facility that is part of the project and insert following this page. Provide the existing bed capacity and utilization data for the latest 12 month period for which data is available. Any bed capacity discrepancy from the Inventory will result with the application being deemed incomplete.

FACILITY NAME Good Samaritan Regional Health Center CITY Mount Vernon

REPORTING PERIOD DATES: From 1/1/2007 to 12/31/2007

Category of Service	Existing # of Beds	Number of Admissions	Patient Days	Bed Changes	Proposed # of Beds
Medical/Surgical	106	6,015	24,506	-7	99
Pediatrics	16	146	296	-16	0
Obstetrics	6	1,006	1,861	+3	9
Intensive Care	10	904	3,128	+6	16
Neonatal ICU					
Acute Mental Illness					
Rehabilitation	23	240	2,819	-13	10
Nursing Care					
Sheltered Care					
Other (identify)					
Other (identify)					
Other (identify)					
<b>TOTAL</b>	161	8,311	32,610	-23	134

**Note: The above patient days do not include observation days. (509 MS, 36 Peds 4 ICU, and 88 in OB).**

2. Is the facility certified for participation in the Medicare "swing bed" (i.e. acute care beds certified for extended care) program?  Yes  No

3. For the following categories of service, indicate the number of existing beds that are Medicare certified and the number of existing beds that are Medicaid certified (if none, so indicate):

Service	# Medicare Beds	#Medicaid Beds
Nursing Care	_____	_____
ICF/DD Adult	_____	_____
Children DD	_____	_____

S. Certification

The application must be signed by the authorized representative(s) of the applicant entity. The authorized representative(s) are in the case of a corporation, any two of its officers or members of its board of directors; in the case of a limited liability company, any two of its managers or members (or the sole manager or member when two or more managers or members do not exist); in the case of a partnership, two of its general partners (or the sole general partner when two or more general partners do not exist); in the case of estates and trusts, two of its beneficiaries (or the sole beneficiary when two or more beneficiaries do not exist); and in the case of a sole proprietor, the individual that is the proprietor. The signature(s) must be notarized. If the application has co-applicants, a separate certification page must be completed for each co-applicant and inserted following this page. One copy of the application must have the ORIGINAL signatures for all persons that sign for the applicant and for each of the co-applicants.

This Application for Permit is filed on behalf of GOOD SAMARITAN REGIONAL HEALTH CENTER

\* in accordance with the requirements and procedures of the Illinois Health Facilities Planning Act. The undersigned certifies that he or she has the authority to execute and file this application for permit on behalf of the applicant entity. The undersigned further certifies that the data and information provided herein, and appended hereto, are complete and correct to the best of his or her knowledge and belief. The undersigned also certifies that the permit application fee required for this application is sent herewith or will be paid upon request.

Sr. Mary Jean Ryan, FSM  
Signature

Printed Name Sr. Mary Jean Ryan, FSM

Printed Title President/CEO

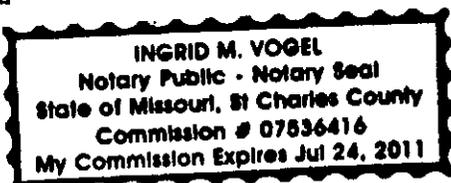
William C. Schoenhard  
Signature

Printed Name William C. Schoenhard

Printed Title Executive Vice President/COO

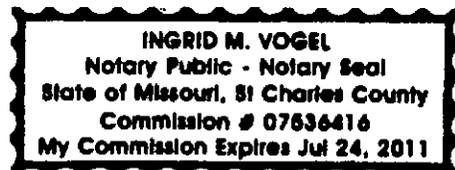
Notarization:  
Subscribed and sworn to before me  
this 16<sup>th</sup> day of June 2008  
Ingrid M. Vogel  
Signature of Notary

Seal



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This Application for Permit is filed on behalf of SSM Regional Health Services \* in accordance with the requirements and procedures of the Illinois Health Facilities Planning Act. The undersigned certifies that he or she has the authority to execute and file this application for permit on behalf of the applicant entity. The undersigned further certifies that the data and information provided herein, and appended hereto, are complete and correct to the best of his or her knowledge and belief. The undersigned also certifies that the permit application fee required for this application is sent herewith or will be paid upon request.

Sr. Mary Jean Ryan, FSM  
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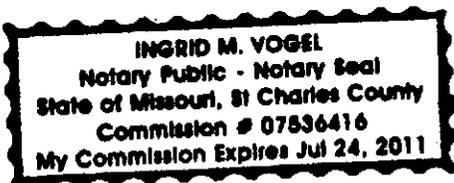
Printed Name Sr. Mary Jean Ryan, FSM

Printed Title President/CEO

Notarization:  
Subscribed and sworn to before me  
this 16<sup>th</sup> day of June 2008

Ingrid M. Vogel  
Signature of Notary

Seal



William C. Schoenhard  
Signature

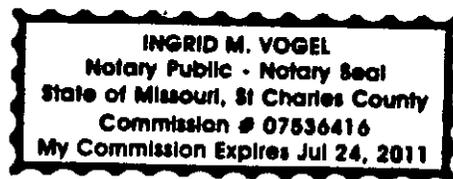
Printed Name William C. Schoenhard

Printed Title Executive Vice President/COO

Notarization:  
Subscribed and sworn to before me  
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Ingrid M. Vogel  
Signature of Notary

Seal



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S. Mary Jean Ryan, for  
Signature

Printed Name Sr. Mary Jean Ryan, FSM

Printed Title President/CEO

William C. Schoenhard  
Signature

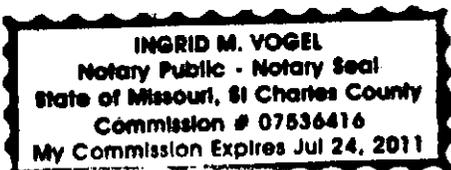
Printed Name William C. Schoenhard

Printed Title Executive Vice President/COO

Notarization:  
Subscribed and sworn to before me  
this 16<sup>th</sup> day of June 2008

Ingrid M. Vogel  
Signature of Notary

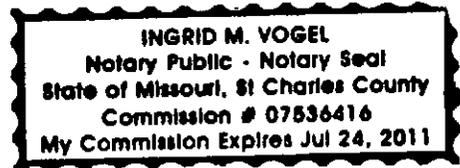
Seal



Notarization:  
Subscribed and sworn to before me  
this 16<sup>th</sup> day of June 2008

Ingrid M. Vogel  
Signature of Notary

Seal





**To all to whom these Presents Shall Come, Greeting:**

*I, Jesse White, Secretary of State of the State of Illinois, do hereby certify that*

**GOOD SAMARITAN REGIONAL HEALTH CENTER, INCORPORATED IN MISSOURI AND LICENSED TO CONDUCT AFFAIRS IN THIS STATE ON JANUARY 22, 1996, APPEARS TO HAVE COMPLIED WITH ALL THE PROVISIONS OF THE GENERAL NOT FOR PROFIT CORPORATION ACT OF THIS STATE, AND AS OF THIS DATE, IS A FOREIGN CORPORATION IN GOOD STANDING AND AUTHORIZED TO CONDUCT AFFAIRS IN THE STATE OF ILLINOIS.**

*In Testimony Whereof, I hereto set my hand and cause to be affixed the Great Seal of the State of Illinois, this 29TH day of MARCH A.D. 2008*



Authentication #: 0808900368  
Authenticate at: <http://www.cyberdriveillinois.com>

*Jesse White*  
ATTACHMENT IDEN-1  
SECRETARY OF STATE



To all to whom these Presents Shall Come, Greeting:

I, Jesse White, Secretary of State of the State of Illinois, do hereby certify that

SSM REGIONAL HEALTH SERVICES, INCORPORATED IN MISSOURI AND LICENSED TO CONDUCT AFFAIRS IN THIS STATE ON OCTOBER 18, 1999, APPEARS TO HAVE COMPLIED WITH ALL THE PROVISIONS OF THE GENERAL NOT FOR PROFIT CORPORATION ACT OF THIS STATE, AND AS OF THIS DATE, IS A FOREIGN CORPORATION IN GOOD STANDING AND AUTHORIZED TO CONDUCT AFFAIRS IN THE STATE OF ILLINOIS.



In Testimony Whereof, I hereto set my hand and cause to be affixed the Great Seal of the State of Illinois, this 6TH day of JUNE A.D. 2008 .

Jesse White

Authentication #: 0815802242

Authenticate at: <http://www.cyberdriveillinois.com>

SECRETARY OF STATE



*To all to whom these Presents Shall Come, Greeting:*

*I, Jesse White, Secretary of State of the State of Illinois, do hereby certify that*

**SSM HEALTH CARE CORPORATION, INCORPORATED IN MISSOURI AND LICENSED TO CONDUCT AFFAIRS IN THIS STATE ON OCTOBER 23, 1952, APPEARS TO HAVE COMPLIED WITH ALL THE PROVISIONS OF THE GENERAL NOT FOR PROFIT CORPORATION ACT OF THIS STATE, AND AS OF THIS DATE, IS A FOREIGN CORPORATION IN GOOD STANDING AND AUTHORIZED TO CONDUCT AFFAIRS IN THE STATE OF ILLINOIS.**



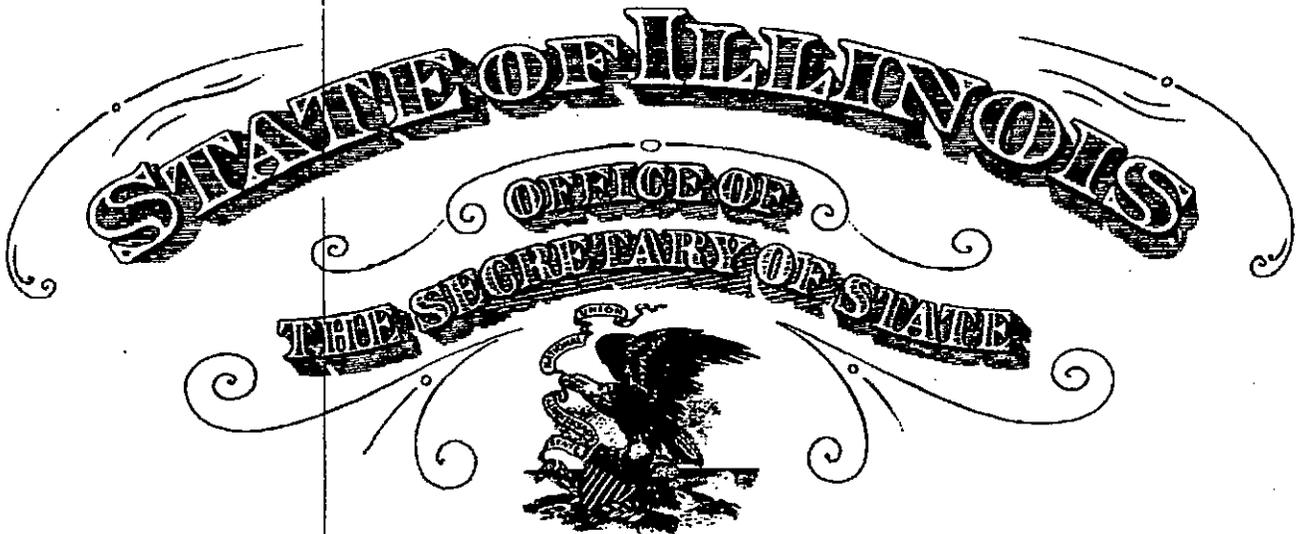
Authentication #: 0808900374

Authenticate at: <http://www.cyberdriveillinois.com>

*In Testimony Whereof, I hereto set my hand and cause to be affixed the Great Seal of the State of Illinois, this 29TH day of MARCH A.D. 2008*

*Jesse White*

**ATTACHMENT IDEN-1  
SECRETARY OF STATE**



**To all to whom these Presents Shall Come, Greeting:**

*I, Jesse White, Secretary of State of the State of Illinois, do hereby certify that*

GOOD SAMARITAN REGIONAL HEALTH CENTER, INCORPORATED IN MISSOURI AND LICENSED TO CONDUCT AFFAIRS IN THIS STATE ON JANUARY 22, 1996, APPEARS TO HAVE COMPLIED WITH ALL THE PROVISIONS OF THE GENERAL NOT FOR PROFIT CORPORATION ACT OF THIS STATE, AND AS OF THIS DATE, IS A FOREIGN CORPORATION IN GOOD STANDING AND AUTHORIZED TO CONDUCT AFFAIRS IN THE STATE OF ILLINOIS.



Authentication #: 0808900368

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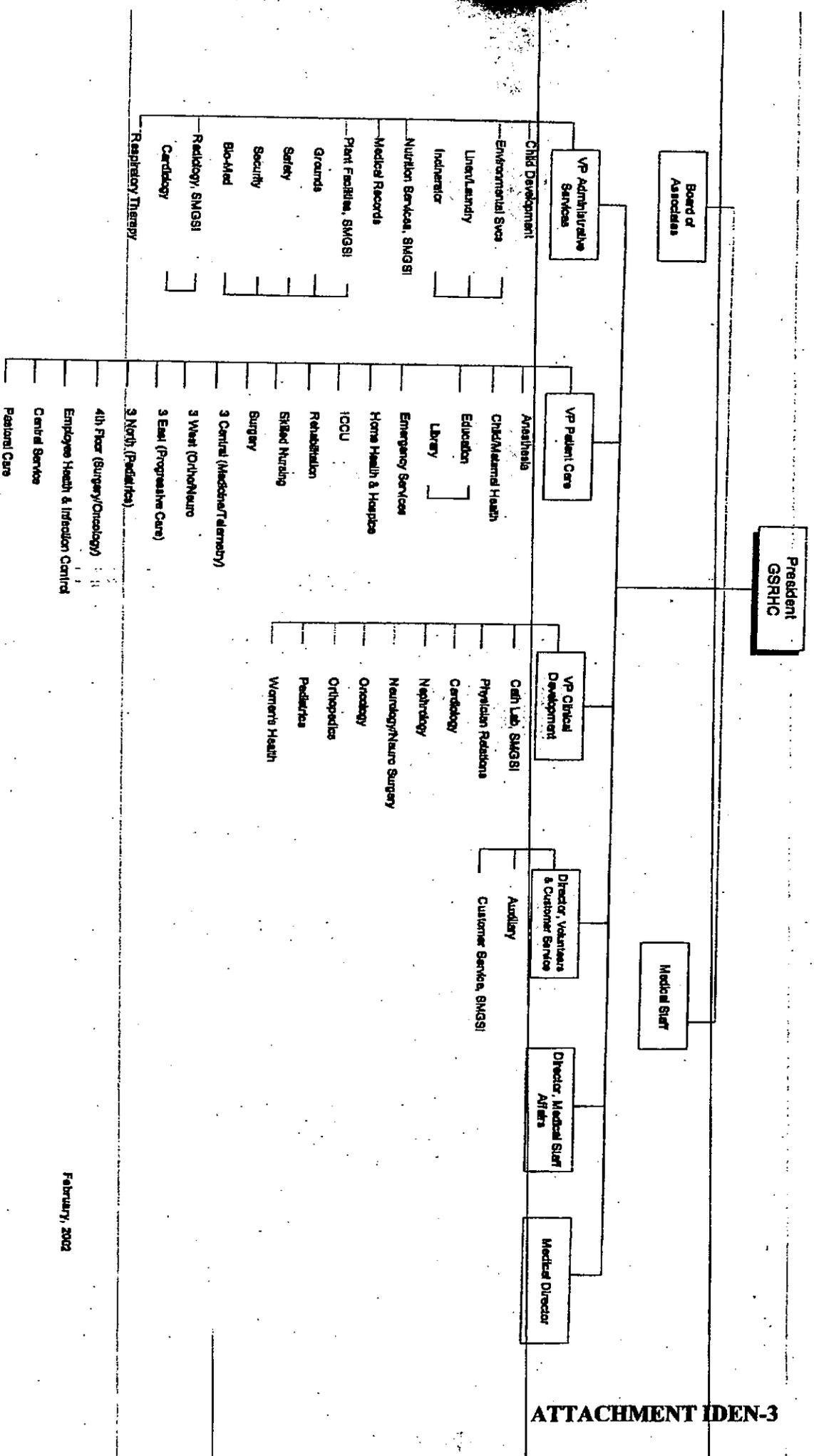
**In Testimony Whereof, I hereto set my hand and cause to be affixed the Great Seal of the State of Illinois, this 29TH day of MARCH A.D. 2008**

*Jesse White*

SECRETARY OF STATE



**GOOD SAMARITAN REGIONAL HEALTH CENTER, Mt. Vernon, IL**



**ATTACHMENT IDEN-3**

February, 2002



# Illinois State Water Survey

Main Office • 2204 Griffith Drive • Champaign, IL 61820-7495 • Tel (217) 333-2210 • Fax (217) 333-6540  
 Peoria Office • P.O. Box 697 • Peoria, IL 61652-0697 • Tel (309) 671-3196 • Fax (309) 671-3106



**Special Flood Hazard Area Determination**  
 pursuant to Governor's Executive Order 5 (2006)  
 (supersedes Governor's Executive Order 4 (1979))

Requestor: Michael I. Copelin  
 Address: Copelin Healthcare Consulting, 42 Birch Lake Dr.  
 City, state, zip: Sherman, IL 62684 Telephone: (217) 496-3712

Site description of determination:  
 Site address: SE corner Veterans Memorial Dr. & 42nd St.  
 City, state, zip: Mt. Vernon, IL  
 County: Jefferson Sec/4: N 1/2 Section: 1 T. 3 S. R. 2 E. PM: 3rd  
 Subject area: Approximately the E 1500 ft of the W 3100 ft of the N 1700 ft of Sec. 1, T. 3 S., R. 2 E., 3rd P.M., Jefferson County IL.

The property described above IS NOT located in a Special Flood Hazard Area or a shaded Zone X floodzone.  
 Floodway mapped: N/A Floodway on property: No  
 Sources used: FEMA Flood Hazard Boundary Map (FHBM, annotated copy attached), "existing" site topo (n.d.) site boundary.  
 Community name: Jefferson County Uninc. Areas Community number: 170305  
 Panel/map number: 170305 18 A Effective Date: March 4, 1977  
 Flood zone: C Base flood elevation: N/A ft NGVD 1929

- N/A a. The community does not currently participate in the National Flood Insurance Program (NFIP). NFIP flood insurance is not available; certain State and Federal assistance may not be available.
- N/A b. Panel not printed: no Special Flood Hazard Area on the panel (panel designated all Zone C or unshaded X).
- N/A c. No map panels printed: no Special Flood Hazard Areas within the community (NSFHA).

**The primary structure on the property:**

- N/A d. Is located in a Special Flood Hazard Area. Any activity on the property must meet State, Federal, and local floodplain development regulations. Federal law requires that a flood insurance policy be obtained as a condition of a federally-backed mortgage or loan that is secured by the building.
- N/A e. Is located in shaded Zone X or B (500-yr floodplain). Conditions may apply for local permits or Federal funding.
- X f. Is not located in a Special Flood Hazard Area or 500-year floodplain area shown on the effective FEMA map.
- N/A g. A determination of the building's exact location cannot be made on the current FEMA flood hazard map.
- N/A h. Exact structure location is not available or was not provided for this determination.

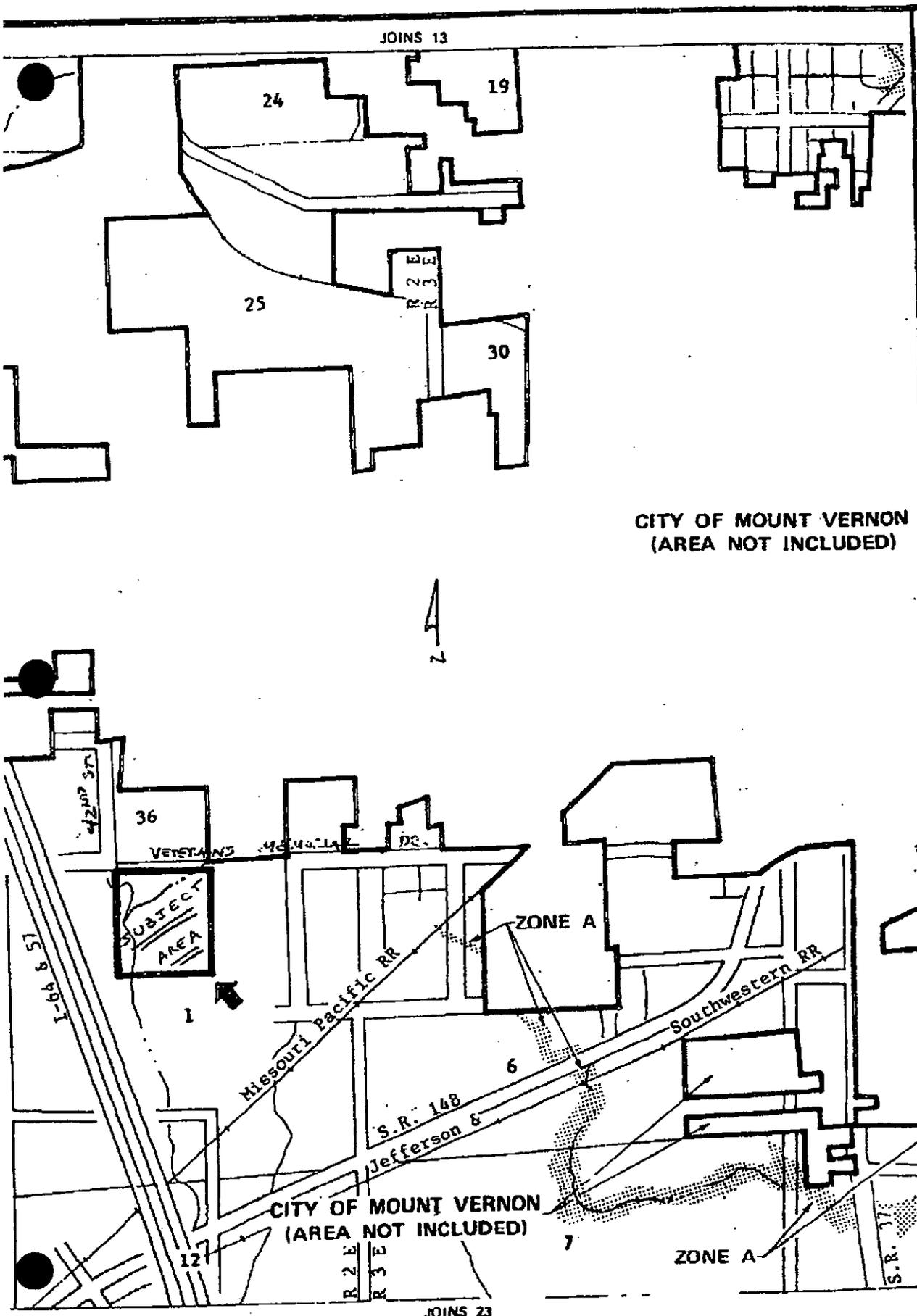
Note: This determination is based on the current Federal Emergency Management Agency (FEMA) flood hazard map for the community. This letter does not imply that the referenced property will or will not be free from flooding or damage. A property or structure not in a Special Flood Hazard Area may be damaged by a flood greater than that predicted on the FEMA map or by local drainage problems not mapped. This letter does not create liability on the part of the Illinois State Water Survey, or employees thereof for any damage that results from reliance on this determination. This letter does not exempt the project from local stormwater management regulations.

Questions concerning this determination may be directed to Bill Saylor (217/333-0447) at the Illinois State Water Survey. Questions concerning requirements of Governor's Executive Order 5 (2006), or State floodplain regulations, may be directed to Paul Osman (217/782-3862) at the IDNR Office of Water Resources.

William Saylor Title: ISWS Surface Water & Floodplain Information Date: 3/28/2008  
 William Saylor, CHM IL-02-00107, Illinois State Water Survey

Printed on recycled paper

- LEGEND ON REVERSE -



EFFECTIVE DATE  
MARCH 4, 1977

FLOOD HAZARD BOUNDARY MAP

DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT

Federal Insurance Administration

JEFFERSON CO., IL

(UNINC. AREAS)

170305

18 A

-WS/15WS 3/28/2008  
ATTACHMENT IDEN-4

**LEGEND**

**SPECIAL FLOOD HAZARD  
AREA**



Note: These maps may not include all Special Flood Hazard Areas in the community. After a more detailed study, the Special Flood Hazard Areas shown on these maps may be modified, and other areas added.

CONSULT NFIA SERVICING COMPANY OR LOCAL INSURANCE AGENT OR BROKER TO DETERMINE IF PROPERTIES IN THIS COMMUNITY ARE ELIGIBLE FOR FLOOD INSURANCE.

INITIAL IDENTIFICATION DATE:  
**MARCH 4, 1977**

**DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT**  
Federal Insurance Administration

**FLOOD HAZARD BOUNDARY MAP H - 01-40**

**MAP INDEX**

**JEFFERSON CO., IL**  
**(UNINC. AREAS)**

**COMMUNITY NO. 170305 A**

**ATTACHMENT IDEN-4**



Illinois Historic  
Preservation Agency

FAX (217) 782-8161

1 Old State Capitol Plaza • Springfield, Illinois 62701-1512 • [www.illinois-history.gov](http://www.illinois-history.gov)

Jefferson County  
Mt. Vernon

CON - Demolition and New Construction  
SE Corner 42nd St. and Veterans Memorial Dr.  
IHPA Log #013032708

April 7, 2008

Michael Copelin  
Copelin Health Care Consulting  
42 Birch Lake Dr.  
Sherman, IL 62684

Dear Mr. Copelin:

This letter is to inform you that we have reviewed the information provided concerning the referenced project.

Our review of the records indicates that no historic, architectural or archaeological sites exist within the project area.

Please retain this letter in your files as evidence of compliance with Section 4 of the Illinois State Agency Historic Resources Preservation Act (20 ILCS 3420/1 et. seq.). This clearance remains in effect for two years from date of issuance. It does not pertain to any discovery during construction, nor is it a clearance for purposes of the Illinois Human Skeletal Remains Protection Act (20 ILCS 3440).

If you have any further questions, please contact Patrick Gleason, Cultural Resources Manager, 1 Old State Capitol Plaza, Springfield, IL 62701, 217/785-3977.

Sincerely,

Anne E. Haaker  
Deputy State Historic  
Preservation Officer

**Cost/Space Requirements - Clinical**

Department	Proposed GSF	Cost
Pharmacy	2,070	\$898,450
Central Sterile Supply	2,495	\$1,082,914
Outpatient Testing	2,317	\$1,005,656
Outpatient Prep & Recovery	5,897	\$2,559,497
Infusion Center	1,665	\$772,666
Outpatient Procedure Rooms	2,535	\$1,100,276
Cardiac Catheterization	2,478	\$1,075,536
Diagnostic Radiology	6,275	\$2,723,562
Cardiac Diagnostic Testing	5,132	\$2,227,461
Nuclear Medicine	2,140	\$928,832
Emergency	10,762	\$4,671,072
EMS Facilities	390	\$169,732
Observation Beds	2,724	\$1,182,308
Surgery	10,780	\$4,678,884
Surgery Prep	4,020	\$1,744,816
Recovery	2,265	\$983,087
Hemodialysis	1,200	\$520,841
Respiratory Therapy	1,344	\$583,341
Physical Therapy	1,200	\$520,841
Occupational Therapy	444	\$192,711
ICU Beds	11,658	\$5,059,966
Rehab Beds	7,112	\$3,086,848
OB Beds	2,771	\$1,202,707
LDR	6,305	\$2,736,582
C-section Suite	1,018	\$441,846
New Born Nursery	1,219	\$529,087
Medical Surgical Beds	57,865	\$25,115,365
Hospice/Home Health	6,513	\$2,826,862
Equipment		\$17,701,460

**Cost/Space Requirements - Non-Clinical**

Department	Proposed GSF	Cost (\$)
Vertical Circulation	20,972	\$9,100,556
General Circulation	34,168	\$14,828,064
Public Waiting and Toilets	24,930	\$10,564,552
Administration	8,945	\$3,880,428
Staff Facilities	19,580	\$8,496,377
Materials Management	16,246	\$7,049,269
MEP	5,324	\$2,308,796
Housekeeping	4,760	\$2,064,000
Dietary	7,535	\$3,268,040
Cafeteria	3,630	\$1,573,540
Maintenance	1,250	\$540,540
Information Technology	5,522	\$2,394,730
Clinical Engineering	2,708	\$1,171,364
Tunnel	983	\$424,650
Energy Center	14,592	\$6,331,420
Admitting/Registration	1,210	\$523,180
Chapel/Pastoral Care	3,290	\$1,425,970
Employee Health	408	\$175,080,
Gift Shop/Volunteers	1,656	\$716,760
Coffee Shop	227	\$98,526
Nursing administration	2,253	\$975,878
Restricted Corridor	2,505	\$1,085,250
Roof Stair and Elevator Closure	1,092	\$471,960
Patient Accounts	12,394	\$5,377,410
Mechanical Penthouses	23,878	\$10,361,859
Maintenance Garage	8,621	\$1,312,428

ATTACHMENT INFO-7

## SECTION II. DISCONTINUATION (DISC)

This section is applicable to any project that involves discontinuation of a health care facility or discontinuation of a category of service. Refer to Part 1130.140 for the definition of discontinuation. NOTE: If the project is solely for discontinuation and if there is no project cost, the remaining sections of the application are not applicable.

### Criterion 1110.130, Discontinuation

Read the review criterion and provide the following information:

- (1) The reasons for the discontinuation;
- (2) The anticipated or actual date of discontinuation, or the date the last person was or will be discharged or treated, as applicable;
- (3) The availability of other services or facilities in the planning area that are available and willing to assume the applicant's workload without conditions, limitations, or discrimination. Documentation must include letters from such facilities attesting to such ability and willingness to accommodate the applicant's workload;
- (4) A closure plan indicating the process used to provide alternative services or facilities for the patients prior to or upon discontinuation;
- (5) The anticipated use of the physical plant and equipment after discontinuation has occurred and the anticipated date of such use.

**APPEND DOCUMENTATION AS ATTACHMENT DISC AFTER THE LAST PAGE OF THIS SECTION.**

### Criterion 1110.130, Discontinuation

The discontinuation of the existing hospital is proposed for several reasons:

The Original Hospital building and the Sister Joanne Building were constructed in 1947 and 195 respectively. Since then, there have been numerous additions and renovations all determined to be required at the time of construction as meeting a community need. This conglomeration of buildings has creates a facility made up of different materials and systems each of which were required at the time of construction These buildings have been asked to perform beyond their anticipated lifetime. Interim solutions have been implemented, where required, to keep the facility operational. With a better understanding of the requirements of the Healing Environment, along with ever changing technology advances in diagnostics, treatment, equipment and procedures, the facility has become outdated. Additionally, changes in the Life Safety and Building Codes, along with the addition of Seismic Requirements to the building codes leave the existing facility lacking in several of the basic construction requirements for hospitals. It was determined that the continued band-aid approach to meeting the community needs was no longer possible given the age of the building and its infrastructure, therefore the decision was made to construct a replacement hospital. (A more complete list and description of the problems with the existing hospital is given on **ATTACHMENT GRC-4** of this application.)

Due to the constraints of the existing location it was determined that it was necessary to construct the replacement hospital at another site. The site was chosen due to its good accessibility for all of the hospital's existing patients as well as for its size which allows the hospital the ability to grow with the community for many years.

The only service which the applicant proposes to permanently discontinue as a dedicated unit is Pediatrics , the other services now provided by the hospital are proposed to continue to be provided at the new replacement hospital.

The dedicated Pediatrics unit is being discontinue due to its very low census and the hospital's ability in the replacement facility to have private beds for all patients which makes it possible for pediatric patients to be treated in the Medical Surgical Beds. This configuration also allows the families to be involved in the patients care much more directly and allows the parents of a child to stay in the child's room overnight if so desired.

The pediatrics patients are also more likely to utilize the proposed observation beds since they are many times treated in the emergency department sent to a room for a very short time and then discharged. The new observation beds will allow for the patient to be managed and treated more efficiently and discharged directly from the Emergency Department after 23 hours or less of observation.

The hospitals 2007 utilization of the Pediatrics service totaled only 146 admissions and 296 patient days. This equals an admission every 2.5 days and an average daily census of only .81

**ATTACHMENT DISC**

patients. It is not practical to staff and operate a dedicated unit with this workload. By utilizing staff trained in pediatrics care, the patients can be treated very well in a medical/surgical bed.

The applicant also maintains a transfer agreement with Cardinal Glennon Children's Hospital in St. Louis for the care and treatment of children with more serious health care issues.

No patients will be transferred when the unit is closed other than to the new replacement hospital when it becomes operational. The pediatrics unit will not be discontinued until the new facility opens.

Since the applicant's current patients will continue to be served at the new replacement hospital, there will be no impact on any other facility in the planning area, or in any of the surrounding planning areas. No changes will be made in the hospitals existing charity care policy and no patient will now or have in the past been turned away based upon race, religion, or ability to pay.

The present plan calls for the existing facility to be demolished and the site used for residential development in keeping with the residential nature of the area surrounding the proposed site. The equipment will be re-used where possible, sold or donated for use by other facilities or programs.

**ATTACHMENT DISC**

## PATIENT TRANSFER AGREEMENT

THIS PATIENT TRANSFER AGREEMENT ("Agreement") is made and entered into effective as of the 1st day of January, 2008 ("Effective Date"), by and between Good Samaritan Regional Health Center ("Transferring Hospital") and SSM Cardinal Glennon Children's Medical Center ("Receiving Hospital"). The Transferring Hospital and the Receiving Hospital are also referred to in this Agreement individually as Hospital, or jointly as Hospitals ("Hospitals").

### WITNESSETH

WHEREAS, the Transferring Hospital is a licensed acute care hospital;

WHEREAS, the Receiving Hospital is a licensed acute care hospital; and

WHEREAS, the Transferring Hospital and Receiving Hospital have agreed that it is in the best interest of patient care and would promote the optimum use of patient care resources to enter into a patient transfer agreement between the Hospitals.

THEREFORE, in consideration of the promises, agreements and covenants contained herein, the sufficiency of which is hereby acknowledged, the parties agree as follows:

#### 1. Purpose

This Agreement is intended to facilitate the decision-making process and transfer of patients between the Transferring Hospital and Receiving Hospital. The criteria listed in Section 3.2 represents circumstances under which a patient may benefit from a transfer from the Transferring Hospital to the Receiving Hospital. Although these criteria may represent the usual and customary practices of the Transferring Hospital and Receiving Hospital for transferring patients, the ultimate authority and responsibility for a decision to transfer a patient rests with a patient's attending physician and shall be made on a case-by-case basis.

#### 2. Term

The term of this Agreement shall commence on January 1, 2008 ("Commencement Date") and, subject to Sections 2.1 and 2.2, continue until December 31, 2012 for an initial contract term of five (5) years.

2.1 Either Hospital may terminate this Agreement at any time without cause by providing the other Hospital with at least thirty (30) days prior written notice; provided, however, that each Hospital promises to carry out its obligations under this Agreement incurred prior to the termination of the Agreement and to ensure the continuity of care to any patient already in the process of being transferred from the Transferring Hospital to the Receiving Hospital.

2.2 Either Hospital may terminate this Agreement immediately if: (a) the other Hospital breaches this Agreement and such breach is not cured within thirty (30) days after receipt by the breaching Hospital of written notice of such breach; (b) either Hospital is destroyed to such an extent that the patient care provided by the Hospital cannot be carried out adequately; (c) either Hospital loses its license or accreditation; or (d) either Hospital is no longer able to provide the services for which this Agreement was executed.

7/21/03

### **3. Patient Transfer**

#### **3.1 Patient Transfer Consultation Procedures**

The attending physician of a patient shall determine whether it is appropriate for the patient to be transferred from the Transferring Hospital to the Receiving Hospital. When an attending physician determines that there is a need to transfer a patient from the Transferring Hospital to the Receiving Hospital, Emergency Department staff, in conjunction with the attending physician where appropriate, shall contact the Receiving Hospital's Emergency Department to initiate the patient's transfer. The Transferring Hospital's Emergency Department staff must obtain oral consent from a representative at the Receiving Hospital prior to initiating transfer of the patient to the Receiving Hospital. All transfers shall be documented in accordance with the respective Hospital's policies. The Hospitals shall adopt protocols for follow-up procedures for patients transferred from the Transferring Hospital to the Receiving Hospital to ensure a continuum of quality medical care.

#### **3.2 Patient Transfer Guidelines**

The specific circumstances under which the Transferring Hospital shall transfer a patient or patients to the Receiving Hospital are detailed on Exhibit A which is attached hereto and incorporated herein.

#### **3.3 Consent to Transfer**

The Transferring Hospital shall be responsible for obtaining appropriate consent from a patient prior to initiating transfer of the patient from the Transferring Hospital to the Receiving Hospital.

#### **3.4 Patient Transport**

Unless other arrangements are made with the Receiving Hospital, the Transferring Hospital shall retain responsibility for arranging for the transportation of the patient being transferred from the Transferring Hospital to the Receiving Hospital, including selection of the mode of transportation and providing appropriate health care practitioner(s) to accompany the patient. The Receiving Hospital's responsibility for the patient's care shall begin when the patient is received at the Receiving Hospital.

#### **3.5 Information to Accompany Transferred Patients**

At the time a patient is transferred from the Transferring Hospital to the Receiving Hospital the Transferring Hospital shall send a copy of the patient's entire medical record with the patient, including evidence that the patient was transferred promptly and safely, and the physician's order authorizing the transfer of the patient. If any part of the patient's medical record is not available at the time of transfer, the Transferring Hospital agrees to send the documents to the Receiving Hospital as soon as they become available to the Transferring Hospital.

#### **3.6 Return of Patients**

The Receiving Hospital agrees to transfer any patient transferred to its facility from the Transferring Hospital back to the Transferring Hospital, if appropriate, and with the consent of the patient, when the special care capabilities at the Receiving Hospital are no longer medically required by the patient.

### **3.7 Patient's Ability to Pay**

A patient's ability to pay for medical care shall not be a factor considered when determining the appropriateness of a patient transfer.

### **4. Provision of Information to Each Institution**

Each Hospital shall provide the other Hospital with the names or classifications of persons authorized to initiate, confirm and accept the transfer of patients on behalf of the Hospitals. The Receiving Hospital shall state specifically where transferred patients are to be delivered at its facility. The Hospitals agree to provide to each other information about new services and any changes in the type of patients and health conditions the Receiving Hospital will accept and the Transferring Hospital will transfer.

### **5. Payment for Services**

Each Hospital shall be responsible for collecting payment for medical services rendered at its respective Hospital and by its staff.

### **6. Independent Contractor Status**

Both Hospitals are independent contractors. Neither Hospitals are authorized or permitted to act as an agent nor employee of the other Hospital and each Hospital shall be responsible for its own acts and omissions and shall not be responsible for the acts and omissions of the other Hospital. Nothing in this Agreement shall in any way alter the freedom enjoyed by either Hospital, nor shall it in any way alter the control of the management, assets, and affairs of the respective Hospitals. Neither Hospital, by virtue of this Agreement, assumes any liability for any debts or obligations of either a financial or a legal nature incurred by the other Hospital pursuant to this Agreement.

### **7. Insurance and Indemnity**

Each Hospital shall maintain general liability insurance or self insurance covering itself and its employees providing services pursuant to the Agreement in the minimum amounts of \$1,000,000 per occurrence and \$2,000,000 annual aggregate of all claims and professional liability insurance or self insurance covering itself and its employees providing services pursuant to the Agreement in the minimum amounts of \$1,000,000 per occurrence and \$3,000,000 annual aggregate of all claims. Each Hospital shall maintain Workers' Compensation coverage for its employees performing service pursuant to this Agreement. Each Hospital shall provide to the other party a certificate of insurance evidencing that such coverage is in effect during the term of this Agreement.

Each Hospital agrees to indemnify and hold harmless the other party, its directors, officers, employees and agents from and against any and all claims, costs, expenses (including reasonable attorney fees), actions and/or liabilities which may be asserted against any one or more of them, arising out of any acts

or omissions of the indemnifying party, its directors, officers, employees and agents, except to the extent caused by the negligence of the other party or its directors, officers, employees or agents.

**8. Governing Law**

This Agreement shall be governed and interpreted according to the laws of the State of Missouri.

**9. Amendment**

This Agreement may not be amended or modified except by a subsequent written agreement between duly authorized representatives of the Transferring Hospital and Receiving Hospital.

**10. Notice**

Any notice required or allowed to be given hereunder shall be deemed to have been given upon deposit in the United States mail, registered or certified, within return receipt requested and addressed to the party to this Agreement to whom notice is given.

**11. Binding Agreement**

This Agreement shall be binding upon the successors or assigns of the parties hereto.

**12. Entire Agreement**

This Agreement constitutes the entire agreement between the Transferring Hospital and the Receiving Hospital with respect to the subject matter hereof and supersedes all prior proposals, negotiations, representations, drafts and other communications between the Transferring Hospital and the Receiving Hospital with respect to the subject matter hereof, whether oral or written.

IN WITNESS WHEREOF, Transferring Hospital and Receiving Hospital have hereunto caused this Agreement to be executed as by law provided, the day and year first above.

**GOOD SAMARITAN REGIONAL  
HEALTH CENTER:**

By: \_\_\_\_\_

Leo F. Childers, Jr., FACHE

President

**CARDINAL GLENNON CHILDREN'S  
MEDICAL CENTER:**

By: \_\_\_\_\_

Douglas A. Ries, FACHE

President

7/21/03

**EXHIBIT A**

**Transfer Hospital's physician will call Receiving Hospital's physician in order to coordinate patient transfer. Transfer Hospital will transfer any Pediatric patient beyond the specialty of care available at Transfer Hospital and available at Receiving Hospital upon the acceptance of Receiving Hospital's physician and a bed is available for the patient.**

or omissions of the indemnifying party, its directors, officers, employees and agents, except to the extent caused by the negligence of the other party or its directors, officers, employees or agents.

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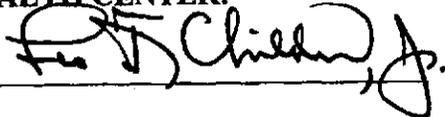
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**GOOD SAMARITAN REGIONAL  
HEALTH CENTER:**

By: 

Leo F. Childers, Jr., FACHE

President

**CARDINAL GLENNON CHILDREN'S  
MEDICAL CENTER:**

By: 

Douglas A. Ries, FACHE

President

7/21/03

### SECTION III. GENERAL REVIEW CRITERIA

This section is applicable to all projects EXCEPT those projects that are solely for discontinuation with no project costs and those projects that are non-substantive and subject only to a Part 1120 review. Refer to Part 1110.40 for the requirement for non-substantive projects.

#### A. Criterion 1110.230.a, Location

Check if the project will result in any of the following:  establishment of a health care facility;  establishment of a category of service;  acquisition of major medical equipment (for treating inpatients) that is not or will not be located in a health care facility and is not being acquired by or on behalf of a health care facility. If NO boxes are checked, this criterion is not applicable. If any box is checked, read the criterion and submit the following:

1. A map (8 1/2" x 11") of the area showing:
  - a. the location of the applicant's facility or project;
  - b. the name and location of all the other facilities providing the same service within the planning area and surrounding planning areas within 30 minutes travel time of the proposed facility;
  - c. the distance (in miles) and the travel time (under normal driving conditions) from the applicant's facility to each of the facilities identified in b. above;
  - d. an outline of the proposed target population area.
2. For existing facilities, provide patient origin data for all admissions for the last 12 months presented by zip code. Note this information must be based upon the patient's legal residence other than a health care facility for the last 6 months immediately prior to admission. For all other projects for which referrals are required patient origin data for the referrals must be provided.
3. The ratio of beds to population (population will be based upon the latest census data by zip code) within 30 minutes travel time of the proposed project.
4. The status of the project in the zoning process. Provide letter(s) from the appropriate local officials.
5. Evidence of legal site ownership, possession, or option to purchase or lease.

**APPEND DOCUMENTATION AS ATTACHMENT GRC-1 AFTER THE LAST PAGE OF THIS SECTION.**

**B. Criterion 1110.230.b, Background of Applicant**

Read the criterion and submit the following information:

1. A listing of all health care facilities owned or operated by the applicant, including licensing, certification and accreditation identification numbers, if applicable.
2. Proof of current licensing and, if applicable, certification and accreditation of all health care facilities owned or operated by the applicant.
3. A certification from the applicant listing any adverse action taken against any facility owned or operated by the applicant during the three (3) years prior to the filing of the application.
4. Authorization(s) permitting the State Board and Agency access to information in order to verify any documentation or information submitted in response to the requirements of this subsection or to obtain any documentation or information that the State Board or Agency finds pertinent to this subsection. **Failure to provide such authorization shall constitute an abandonment or withdrawal of the application without any action by the State Board.**

**APPEND DOCUMENTATION AS ATTACHMENT GRC-2 AFTER THE LAST PAGE OF THIS SECTION.**

**C. Criterion 1110.230.c, Alternatives to the Proposed Project**

Read the criterion and provide the following information:

1. Provide a comparison of all of the alternatives considered including the alternative of doing nothing. The comparison must address cost benefit analyses, patient access, quality, and short and long-term financial benefits.
2. Discuss why the alternative of using other area facilities or resources to meet the needs identified in your project is not feasible.
3. Discuss why the alternative of utilizing underutilized bed or other space in the facility is not feasible.
4. If the alternative selected is based solely or in part on improved quality of care, provide empirical evidence (including quantified outcome data) that verifies improved quality of care.

**APPEND DOCUMENTATION AS ATTACHMENT GRC-3 AFTER THE LAST PAGE OF THIS SECTION.**

**D. Criterion 1110.230.d, Need for the Project**

Is the need for the project based upon need assessment per Part 1100 or a variance?  Yes  No.

If no is indicated, read the criterion and submit the following as applicable:

1. Copies of area market studies including explanations regarding how and when these studies were performed.
2. Calculation of the need for the beds or services including the models used to estimate the need (all assumptions used in the model and the mathematical calculations must be included).
3. Identification of the individuals likely to use the proposed beds or service by:

Provide letters from physicians or hospitals which document how many patients were referred for this service in the past 12 months, where the patients were referred and how many patients will be referred annually to the proposed project.

- I 4. If the project is for the acquisition of major medical equipment that does NOT result in the establishment of a category of service, provide documentation that the equipment will achieve or exceed the applicable target utilization levels specified in Appendix B of Part 1110 within 12 months after acquisition.

**APPEND DOCUMENTATION AS ATTACHMENT GRC-4 AFTER THE LAST PAGE OF THIS SECTION.**

**E. Criterion 1110.230.e, Size of Project**

Read the criterion and provide the following:

1. For any department involved in this project that has a square footage which exceeds the State Norm found in Appendix B of Part 1110 or if no State Norm is shown in Appendix B, provide:
  - a. a rationale explaining how the proposed square footage was determined;
  - b. copies of any standards used to determine appropriate square footage;
  - c. architectural drawings showing any design impediments in the existing facility; and
  - d. if the project is for the conversion of beds from one category of service to another an explanation as to why the excess space within the facility cannot be more appropriately used for other purposes.

**APPEND DOCUMENTATION AS ATTACHMENT GRC-5 AFTER THE LAST PAGE OF THIS SECTION.**

2. If the project involves a category of service for which the State Board has established utilization targets, provide the following:
  - a. projected utilization for the first two years of operation after project completion;
  - b. an explanation regarding how these projections were developed;

- c. copies of any contracts with new physicians or professional staff;
- d. a list of any new procedures which will affect the workload of the facility.

**APPEND DOCUMENTATION AS ATTACHMENT GRC-6 AFTER THE LAST PAGE OF THIS SECTION.**

**Criterion 1110.230.a, Location**

The applicant facility is located in Planning Area F-4 in HSA V. The planning area includes 4 other hospitals: Crossroads Community Hospital in Mount Vernon; Salem Township Hospital in Salem; St. Mary's Hospital in Centralia; and Washington County Hospital in Nashville. In addition to these four hospitals one other hospital is within 30 minutes travel time of the proposed facility, Franklin Hospital in Benton which is 30 minutes travel time down Interstate 57 in Franklin County which is also in HSA V.

A Map showing the location of these hospitals is appended to this attachment. This map shows the distance and the travel time from the proposed site.

The F-4 planning area constitutes the primary service area for the hospital, while the secondary service area encompasses the 9 County area shown on the second map which shows all of the facilities within 60 minutes travel time of the applicant facility.

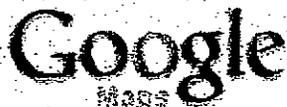
The ratio of beds (M/S, Peds, OB, and ICU) to population for the applicant's planning area equals 4.2 beds per 1000 population in 2005 according to the Planning Board's Inventory of Health Care Facilities with a projected ratio for 2015 of 4.0 beds per 1000 population. The applicants proposal will reduce the ratio to 4.18 beds per 1000 population based upon the 2005 population and 3.90 beds per 1000 in 2015 This compares to a Statewide average of 2.5 beds per 1000 population.

The proposed project will have virtually no impact on the distribution of beds in the planning area, and it will not have any impact upon the existing hospitals in that its purpose is to replace an existing obsolete hospital with an overall decrease in the number of beds in the planning area.

The property is appropriately zoned for the proposed project as evidenced by the letter from the City of Mt. Vernon's Chief Building Inspector/City Engineer dated June 2, 2008.

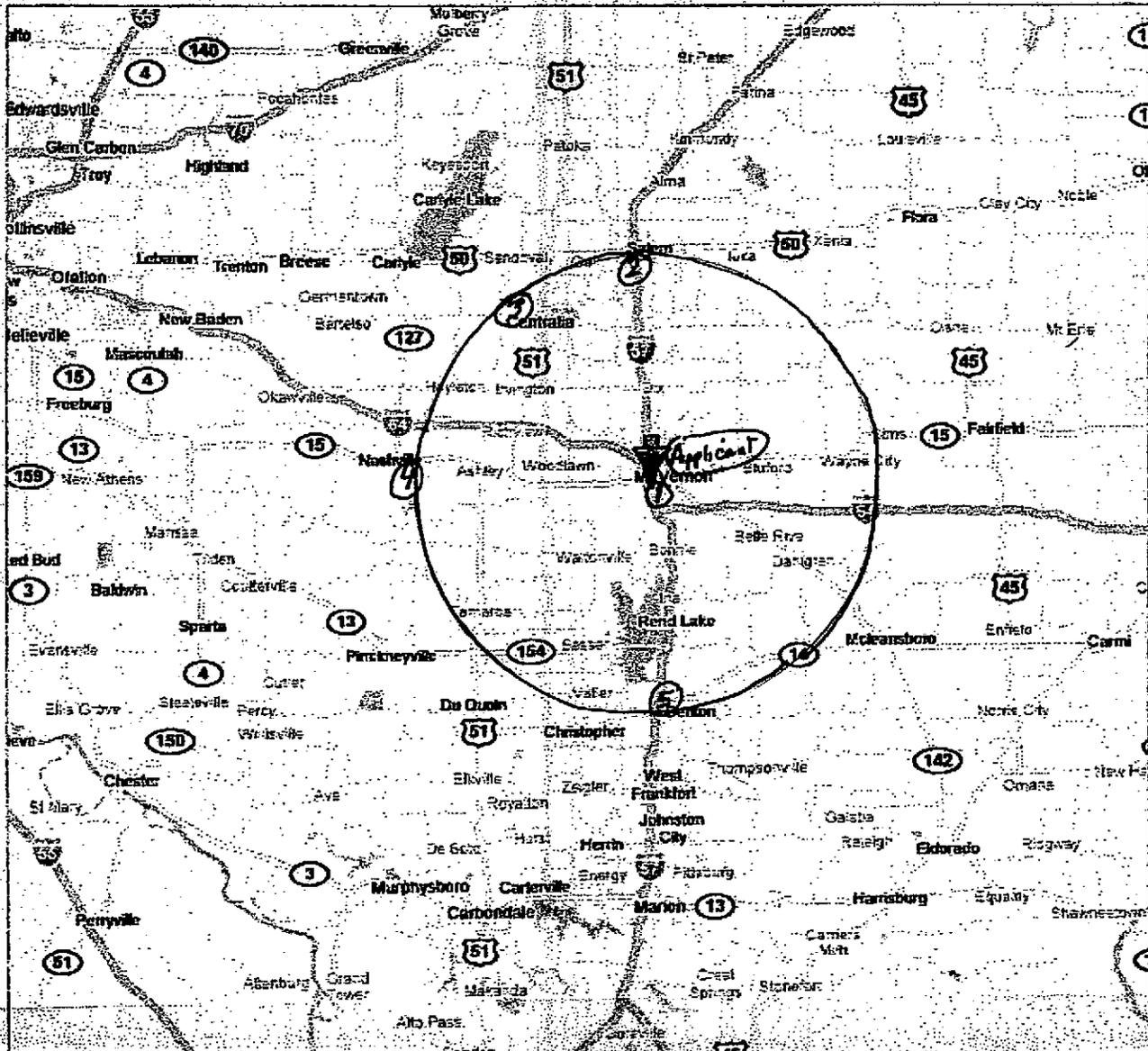
The hospitals patient origin information for 2007 is appended to this attachment.

A warranty Deed for the proposed site is appended to this attachment to show evidence of site control.



Address **Veterans Memorial Dr & S  
42nd St  
Mt Vernon, IL 62864**

Get Google Maps on your phone  
Text the word "GMAPS" to 466453

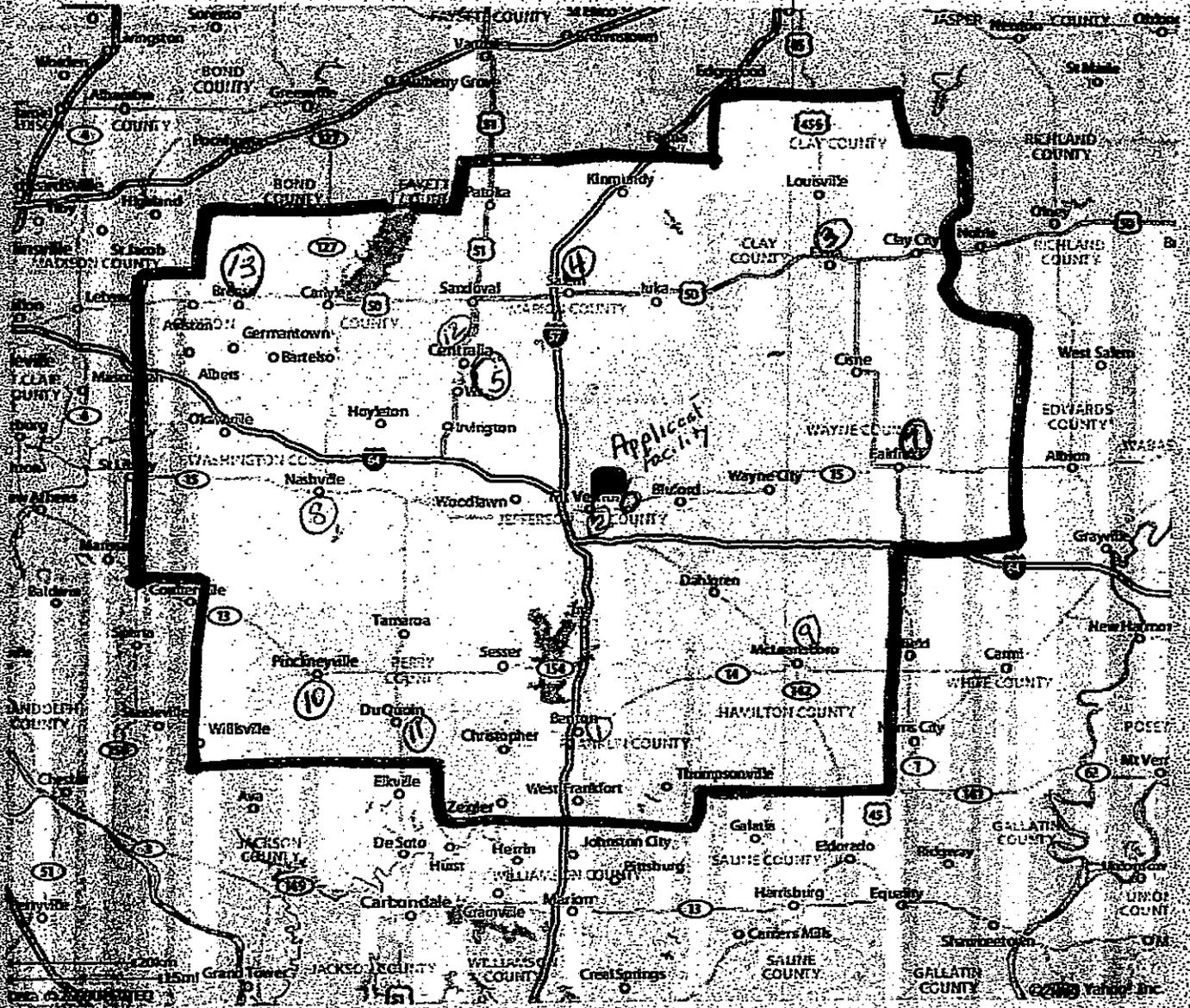



**Illinois Hospitals Within a 30 Minutes Travel Time of the Applicant Facility**

Hospital	Distance From Proposed Facility	Travel Time
1. Crossroads Community Hospital - Mt. Vernon	1.6 miles	5 minutes
2. Salem Township Hospital	26.1 miles	31 minutes
3. St. Mary's Hospital in Centralia	25.6 miles	31 minutes
4. Washington County Hospital in Nashville	31.3 miles	37 minutes
5. Franklin Hospital in Benton	24.4 miles	30 minutes

# YAHOO! LOCAL

Maps



1. Franklin Hospital - Benton
2. Cross Roads Community Hospital - Mt. Vernon
3. Clay County Hospital - Flora
4. Salem Township Hospital - Salem
5. St. Mary's Hospital - Centralia
6. Mt. Vernon Eye Center - Mt. Vernon
7. Fairfield Memorial Hospital - Fairfield
8. Washington County Hospital - Nashville
9. Hamilton Memorial Hospital - McLeansboro
10. Pinckneyville Community Hospital - Pinckneyville
11. Marshall Browning Hospital - DuQuoin
12. Surgery Center of Centralia - Centralia
13. St. Joseph's Hospital - Breese



CITY OF MT. VERNON  
1100 MAIN CITY HALL  
MT. VERNON, ILLINOIS 62864

618-242-6000

June 2, 2008

Good Samaritan Regional Health Center & SSM Health Care  
605 North 12<sup>th</sup> Street  
Mt. Vernon, IL 62864

RE: Zoning for site of the proposed health care facilities near intersection of  
Veterans Memorial Drive and South 42<sup>nd</sup> Street.

To whom it may concern,

The site of the proposed health care facilities near intersection of Veterans Memorial  
Drive and South 42<sup>nd</sup> Street is zoned B-PL, Planned Business District. Hospitals, medical  
office buildings and ambulatory surgical treatment centers are permitted use and/or  
structures in B-PL.

For further information regarding the Zoning Ordinance Codes, they can be located on  
the City's website, [www.mtvernon.com](http://www.mtvernon.com) under the Ordinance tab.

If you should need any further assistance, please feel free to contact our office at the  
above-listed number.

Sincerely,

John B. Porter  
Chief Building Inspector/City Engineer

Good Samaritan 2007 discharges 4/22/2008		Sorted in descending order by Grand Total	
Sum of CASES PT ZIP CODE	IP OR OP		Grand Total
	IP	OP	
62864	2,898	40,757	43,655
62812	458	3,631	4,089
62801	502	2,550	3,052
62814	166	2,516	2,682
62881	392	2,208	2,600
62898	168	2,210	2,378
62837	242	1,930	2,172
62895	159	2,004	2,163
62859	254	1,817	2,071
62872	132	1,655	1,787
62830	124	1,571	1,695
62816	124	1,505	1,629
62884	138	1,384	1,522
62810	68	1,129	1,197
62828	94	1,067	1,161
62894	77	1,042	1,119
62896	136	923	1,059
62808	70	967	1,037
62846	79	955	1,034
62889	70	959	1,029
62263	138	556	694
62883	46	533	579
62836	38	470	508
62849	63	392	455
62890	46	402	448
62853	40	394	434
62851	37	388	425
62839	62	342	404
62831	31	316	347
62882	60	283	343
62823	42	298	340
62901	4	329	333
62821	29	287	316
62886	27	285	312
62822	37	273	310
62933		302	302
62897	30	261	291
62870	59	229	288
62842	19	264	283
62959	11	254	265
62899	31	220	251
62893	16	232	248
62891	28	211	239
62854	41	182	223
62860	27	185	212
62803	13	193	206
62948	6	199	205
62877	16	188	204
62865	14	173	187
62231	8	174	182

Sum of CASES PT ZIP CODE	IP OR OP		Grand Total
	IP	OP	
62848	11	169	180
62850	16	144	160
62876	9	143	152
62888	25	110	135
62807	24	108	132
62951	9	120	129
62832	18	105	123
62274	17	93	110
62835	8	100	108
62450	8	96	104
62862	12	82	94
62866	4	87	91
62999	8	81	89
62819	12	70	82
62858	17	63	80
62806	12	68	80
62856	7	71	78
62946	3	74	77
62817	12	64	76
62930	8	67	75
62887	7	68	75
62918	1	70	71
62271	15	56	71
62869	10	54	64
62875	10	52	62
62863	7	50	57
62471	8	46	54
62966	1	50	51
62924	1	47	48
62237	2	44	46
62906	5	40	45
62250	10	35	45
62268	5	39	44
62824	8	30	38
62401	2	36	38
62265		38	38
62844	3	34	37
62922	1	31	32
62964	1	30	31
62838	4	27	31
62809	3	27	30
62805	4	24	28
62878	4	23	27
62820	3	23	26
62825	4	21	25
62565		25	25
62446	2	23	25
62892	5	19	24
62249		24	24
62939	2	21	23
62935	6	15	21
62921		20	20
62827	4	16	20
62983	4	15	19

Sum of CASES PT ZIP CODE	IP OR OP		Grand Total
	IP	OP	
62974	1	18	19
44145	2	17	19
62861	5	13	18
62829	4	14	18
62867	1	15	16
62476	2	14	16
62454	1	15	16
62230	3	13	16
62418	1	14	15
62214	3	12	15
62040	1	14	15
62979	3	11	14
62885	1	13	14
62286	2	12	14
80524	3	10	13
62977		13	13
62874	1	12	13
62269	3	10	13
62226	1	12	13
62972	1	11	12
62960		12	12
62880	3	9	12
62411	2	10	12
62002	1	11	12
62949	3	8	11
60004		11	11
62920	1	9	10
62902	1	9	10
62246	1	9	10
62245		10	10
62984		9	9
62833	5	4	9
62815	3	6	9
62264	2	7	9
63376		8	8
30189		8	8
38878		8	8
62260	2	6	8
62234		8	8
62221		8	8
62216		8	8
62207	1	7	8
60901		8	8
60108	3	5	8
53588		8	8
63146		7	7
63126		7	7
63116		7	7
62931		7	7
62917	2	5	7
42001		7	7
29321		7	7
30067	1	6	7
62439		7	7

Sum of CASES PT ZIP CODE	IP OR OP		Grand Total
	IP	OP	
62281	2	5	7
62275	1	6	7
62238		7	7
62220	2	5	7
62034		7	7
61856	1	6	7
62958		6	6
62934		6	6
62916	1	5	6
62910		6	6
62704		6	6
62437		6	6
62282		6	6
62258		6	6
62248	1	5	6
62208	1	5	6
62010		6	6
61723	2	4	6
60507	1	5	6
89021	2	3	5
63379		5	5
63101		5	5
62843		5	5
62522	1	4	5
62449		5	5
62434		5	5
62219		5	5
62061		5	5
62025		5	5
61920		5	5
61554	1	4	5
47630	2	3	5
78102	1	3	4
62987		4	4
62982		4	4
62938		4	4
62926	1	3	4
62915		4	4
62907	1	3	4
42003		4	4
47111		4	4
25510		4	4
62650		4	4
62473		4	4
62466	2	2	4
62458	1	3	4
62294		4	4
62262	1	3	4
33913		4	4
62095		4	4
62001	1	3	4
60645		4	4
55920		4	4
89014		3	3

Sum of CASES PT ZIP CODE	IP OR OP		Grand Total
	IP	OP	
79760		3	3
72076		3	3
70506	2	1	3
47714		3	3
65284		3	3
63138	1	2	3
63122		3	3
41011		3	3
32507		3	3
62997		3	3
62995	1	2	3
62967		3	3
62932		3	3
62903		3	3
38655		3	3
29935	1	2	3
62871		3	3
62841		3	3
62811		3	3
42345		3	3
62656		3	3
62629		3	3
62451	1	2	3
45385		3	3
62426		3	3
62425	3		3
62419		3	3
38242	1	2	3
62239		3	3
62232		3	3
62223		3	3
62215	1	2	3
53190		3	3
62062	1	2	3
62035		3	3
61764		3	3
61443		3	3
60628	1	2	3
60433		3	3
60152	1	2	3
94501		2	2
43055		2	2
85712		2	2
85629		2	2
38024	1	1	2
47711		2	2
78665		2	2
74955		2	2
70526	1	1	2
68826	1	1	2
67701	1	1	2
66204	1	1	2
66047		2	2
66040		2	2

Sum of CASES PT ZIP CODE	IP OR OP		Grand Total
	IP	OP	
65740	1	1	2
65202		2	2
64744	1	1	2
64068		2	2
63863		2	2
63857	1	1	2
60025		2	2
63664	1	1	2
63366		2	2
63303		2	2
63129		2	2
47933		2	2
63109	1	1	2
63108		2	2
63104		2	2
63103		2	2
63090		2	2
63010		2	2
62998		2	2
62988		2	2
62976		2	2
62969	1	1	2
60421	1	1	2
60425		2	2
28376		2	2
42303		2	2
62952		2	2
30901		2	2
60475	1	1	2
35757		2	2
33288		2	2
60505		2	2
34135		2	2
36207		2	2
42323		2	2
62914		2	2
47001		2	2
60601		2	2
28602		2	2
38240		2	2
62879	1	1	2
34470		2	2
62868	1	1	2
0	1	1	2
32329	1	1	2
60629		2	2
32606		2	2
62857		2	2
60644		2	2
62855		2	2
42023		2	2
49938		2	2
31750		2	2
40324		2	2

Sum of CASES PT ZIP CODE	IP OR OP		Grand Total
	IP	OP	
60914	1	1	2
34690		2	2
62818		2	2
33056		2	2
20109		2	2
39503		2	2
50021		2	2
30504		2	2
62557		2	2
37145		2	2
62475		2	2
47501	1	1	2
47591	1	1	2
42028		2	2
62432		2	2
62421	1	1	2
62410	1	1	2
62292		2	2
42352		2	2
39705		2	2
61701		2	2
62257	2		2
62254		2	2
62253		2	2
62252	2		2
33928		2	2
42442		2	2
42086		2	2
62233		2	2
62218		2	2
61846	1	1	2
62080		2	2
62075		2	2
62063		2	2
61938		2	2
53511		2	2
61957		2	2
98937		1	1
47639		1	1
38345		1	1
42728	1		1
62024		1	1
46037		1	1
42223		1	1
40741		1	1
37218		1	1
62049		1	1
62060		1	1
45638		1	1
61956		1	1
61944		1	1
46161	1		1
42276		1	1
47638		1	1

Sum of CASES PT ZIP CODE	IP OR OP		Grand Total
	IP	OP	
62097		1	1
62203		1	1
62205		1	1
62206		1	1
40313		1	1
42634	1		1
37216		1	1
53210	1		1
40299		1	1
61853		1	1
45601		1	1
42167		1	1
40218	1		1
53188		1	1
62225		1	1
38128	1		1
37174	1		1
30062		1	1
52856		1	1
61834		1	1
40215		1	1
47635		1	1
61832		1	1
52802		1	1
62243		1	1
38804		1	1
38671		1	1
61814	1		1
35204		1	1
53933		1	1
61761		1	1
61738		1	1
61727		1	1
42757		1	1
42411		1	1
62259		1	1
40214		1	1
46220	1		1
23452		1	1
61704		1	1
33990		1	1
33931		1	1
38109		1	1
33418		1	1
62272		1	1
32064		1	1
42071	1		1
42066	1		1
61604		1	1
62284		1	1
37857		1	1
62289		1	1
61603		1	1
62293		1	1

Sum of CASES PT ZIP CODE	IP OR OP		Grand Total
	IP	OP	
47620		1	1
62326	1		1
33982		1	1
46201	1		1
52750	1		1
62413		1	1
62417		1	1
37207		1	1
52658	1		1
61484		1	1
51455		1	1
51044		1	1
62427		1	1
61483		1	1
50854		1	1
42347		1	1
61455		1	1
62443		1	1
34747		1	1
62448	1		1
44855		1	1
32162		1	1
50702		1	1
62452		1	1
37167		1	1
54452		1	1
47523		1	1
33804		1	1
61427		1	1
61350		1	1
61348		1	1
62477	1		1
62489		1	1
62513		1	1
62521		1	1
44663		1	1
62549		1	1
62550		1	1
61257		1	1
62561		1	1
34746		1	1
62568		1	1
62626		1	1
50325		1	1
47441		1	1
50266	1		1
62677		1	1
62690		1	1
62702		1	1
50213	1		1
62707		1	1
62708		1	1
62711		1	1
62716		1	1

Sum of CASES PT ZIP CODE	IP OR OP		Grand Total
	IP	OP	
4401		1	1
29440		1	1
34287	1		1
32728		1	1
61241		1	1
22182	1		1
34239	1		1
20906		1	1
61115		1	1
3825		1	1
7059		1	1
61109		1	1
61103	1		1
61102		1	1
61064		1	1
32536		1	1
61032		1	1
27597		1	1
28117	1		1
26582		1	1
33950		1	1
34711		1	1
37027		1	1
21117		1	1
37115		1	1
15359		1	1
26105		1	1
61012		1	1
40210		1	1
62834		1	1
32134		1	1
24347		1	1
8832		1	1
34233		1	1
25801		1	1
60680		1	1
28372		1	1
44278		1	1
33991		1	1
22191		1	1
30066		1	1
24551		1	1
60657		1	1
47172		1	1
62852	1		1
24630		1	1
29150		1	1
60647		1	1
32822		1	1
47665		1	1
60641		1	1
14437	1		1
47112		1	1
37090		1	1

Sum of CASES PT ZIP CODE	IP OR OP		Grand Total
	IP	OP	
60640		1	1
33785		1	1
54495		1	1
30034		1	1
32425		1	1
37116		1	1
60626		1	1
33592		1	1
28208	1		1
49759	1		1
15301	1		1
38107		1	1
33772		1	1
40207		1	1
49507		1	1
60624		1	1
60617		1	1
60614		1	1
7646		1	1
26431		1	1
24224	1		1
20124	1		1
37813	1		1
27616	1		1
33312	1		1
30263		1	1
22553		1	1
24605		1	1
28803	1		1
35160		1	1
60612		1	1
21502		1	1
10552		1	1
21648		1	1
28205		1	1
8731		1	1
28546		1	1
27571		1	1
49301		1	1
48910		1	1
33922		1	1
60609		1	1
42330		1	1
60585		1	1
46901		1	1
60555		1	1
42002	1		1
33322		1	1
62919		1	1
38464		1	1
60525	1		1
60518		1	1
33876		1	1
46601		1	1

Sum of CASES PT ZIP CODE	IP OR OP		Grand Total
	IP	OP	
43050		1	1
41075		1	1
48461	1		1
28152		1	1
42320		1	1
60501	1		1
46582		1	1
35502	1		1
62940		1	1
62941		1	1
32837		1	1
62947		1	1
29576		1	1
38351		1	1
62950		1	1
60481		1	1
60458		1	1
62953		1	1
60445		1	1
54555		1	1
38237	1		1
34203		1	1
33870	1		1
48439		1	1
60426		1	1
38135		1	1
37064		1	1
60415		1	1
38079	1		1
37705		1	1
46410		1	1
37042		1	1
38868	1		1
62985		1	1
46320		1	1
60407		1	1
62992		1	1
48356		1	1
48213	1		1
60401		1	1
48151		1	1
60194		1	1
63028		1	1
63033		1	1
63050		1	1
63052		1	1
63077		1	1
60185		1	1
37066		1	1
60181	1		1
60178		1	1
63106		1	1
54562	1		1
60137	1		1

Sum of CASES PT ZIP CODE	IP OR OP		Grand Total
	IP	OP	
63115		1	1
40517		1	1
63119		1	1
63121		1	1
47905		1	1
63125		1	1
40965		1	1
60107		1	1
47882		1	1
40769		1	1
60090		1	1
63304	1		1
60089		1	1
39773	1		1
43360		1	1
63501		1	1
63537		1	1
63561		1	1
60064		1	1
63701		1	1
63744		1	1
63780		1	1
63781		1	1
63801		1	1
63823		1	1
63830		1	1
63841		1	1
60051	1		1
60010		1	1
63937	1		1
63961		1	1
64024	1		1
64055	1		1
60007		1	1
64093		1	1
64119	1		1
64228		1	1
64468		1	1
64628		1	1
38358		1	1
64836		1	1
64865		1	1
65201		1	1
60002		1	1
65251		1	1
47871		1	1
65459		1	1
65559		1	1
65560	1		1
65652	1		1
59801		1	1
66025		1	1
59741		1	1
59701	1		1

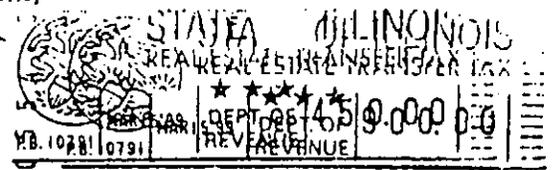
Sum of CASES PT ZIP CODE	IP OR OP		Grand Total
	IP	OP	
59068	1		1
66666	1		1
66716		1	1
67473		1	1
58102		1	1
67951		1	1
68506		1	1
56001		1	1
69123		1	1
47715		1	1
47703		1	1
71303		1	1
71665		1	1
71923		1	1
72007		1	1
72012		1	1
47712		1	1
72140		1	1
72209		1	1
72315		1	1
72401		1	1
72732	1		1
73461		1	1
73533		1	1
74014		1	1
74133		1	1
55812		1	1
75070		1	1
75189		1	1
75440		1	1
75460	1		1
75559		1	1
76107		1	1
76301		1	1
76541		1	1
76542	1		1
76543		1	1
77007		1	1
77056		1	1
77284	1		1
77302	1		1
77340		1	1
77351		1	1
77399		1	1
77624		1	1
46254		1	1
78132		1	1
78234		1	1
78358		1	1
78516		1	1
78550		1	1
55811		1	1
79107	1		1
55746		1	1

Sum of CASES PT ZIP CODE	IP OR OP		Grand Total
	IP	OP	
79924		1	1
80033		1	1
80218		1	1
80439	1		1
55304		1	1
81223		1	1
82003		1	1
82072		1	1
82633		1	1
85029		1	1
85250		1	1
85361		1	1
85374		1	1
54903	1		1
54902		1	1
86406		1	1
86436	1		1
86441	1		1
86442		1	1
87120		1	1
87123		1	1
88202		1	1
47710		1	1
54901	1		1
89139		1	1
89706		1	1
90034		1	1
90815		1	1
94044		1	1
94402		1	1
54766	1		1
95205		1	1
95841	1		1
96020		1	1
96734		1	1
96743	1		1
97048	1		1
97429		1	1
97501	1		1
98208		1	1
<b>Grand Total</b>	<b>7,965</b>	<b>86,106</b>	<b>94,071</b>

# 13

8 stamps have on top one 700.00 & one 700.00

JEFFERSON  
CO. NO. 02  
0  
JEFFERSON  
CO. 30.30034



STATE OF ILLINOIS  
COUNTY OF JEFFERSON ]SS  
**FILE FOR RECORD**

At 3:29 O'clock PM

MAR 15 1999

Recorded Cabinet 6

Drawer 1 Inst. 3736

*Don Rector* RECORDER  
\$15.00 pd

1999 - 01857

WARRANTY DEED

THIS INDENTURE WITNESSETH, That the Grantor, Star Investment Group, L.P., a Missouri limited partnership, for and in consideration of the sum of One Dollar and other good and valuable considerations, the receipt of which is hereby acknowledged, CONVEYS and WARRANTS to Good Samaritan Regional Health Center, a Missouri nonprofit corporation, whose address is 605 N. 12<sup>th</sup> Street, Mt. Vernon, Illinois 62864, Grantee, the following described real estate situated in the County of Jefferson and State of Illinois, to wit:

See Exhibit A attached hereto and hereby made a part hereof.

Tax Identification Number: 50-1-001-02

Subject only to those matters listed and described on Exhibit B attached hereto and hereby made a part hereof and the general taxes for the calendar year 1998 and thereafter, and the special taxes becoming a lien after the date of this Deed.

The Grantor hereby releases and waives all rights under and by virtue of the Homestead Exemption Laws of the State of Illinois.

Dated this 15th day of March 1999.

STAR INVESTMENT GROUP, L.P.,  
a Missouri limited partnership

By: STAR INVESTMENT GROUP  
GENERAL, L.L.C.  
a Missouri limited liability company,  
General Partner

By: *[Signature]*  
Rex C...

STATE OF Illinois )  
 ) ss  
COUNTY OF Jefferson )

I, the undersigned, a Notary Public, in and for the County and State aforesaid, DO HEREBY CERTIFY THAT Rex Cusumano, personally known to me to be the same person whose name is subscribed to the foregoing instrument, as having executed the same, appeared before me this day in person and acknowledged that he is a Manager of Star Investment Group General, L.L.C., a Missouri limited liability company, the General Partner of Star Investment Group L.P., a Missouri limited partnership, and that he signed and delivered the said instrument on behalf of said limited liability company in its capacity as the general partner of said limited partnership, and he acknowledged said instrument to be the free and voluntary act of said limited liability company and said limited partnership.

Given under my hand and official seal this 15th day of March, 1999.

Ora A. Ramsey  
Notary Public  
OFFICIAL SEAL  
ORA A RAMSEY  
NOTARY PUBLIC, STATE OF ILLINOIS  
MY COMMISSION EXPIRES 03/22/00

My Commission Expires:

Future Taxes to Grantee's  
Address

This Instrument was Prepared by:  
Whose Address is:

Return this document to:  
James E. Adkins, Esq.  
Greensfelder, Hemker & Gale, P.C.  
10 South Broadway, Suite 2000  
St. Louis, Missouri 63102

Suzanne L. Zatlín, Esq.  
Gallop, Johnson & Neuman, L.C.  
101 South Hanley Road, Suite 1600  
St. Louis, Missouri 63105  
314/862-1200

**EXHIBIT A**

**PROPERTY**

Part of Lots 5, 6, 7 and 9 in the Partition of Land of Rhodam Allen Section 1, Township 3 South, Range 2 East of the 3rd Principal Meridian, Circuit Court Record D, Page 331 in the Office of Circuit Clerk, Jefferson County, Illinois, more particularly described as follows:

Commencing at a point 7 rods and 7 feet (122.50 feet) east of the Northwest corner of said Lot 9; thence South 00 degrees 34 minutes 51 seconds East along the west line of the remainder of said Lot 9 a distance of 25.08 feet to the Point of Beginning on the South Right-Of-Way of Veterans Memorial Drive; thence continuing South 00 degrees 34 minutes 51 seconds East along the west line of the remainder of said Lot 9 a distance of 1749.75 feet to a point; thence South 88 degrees 56 minutes 01 seconds East parallel with the Center Line of Veterans Memorial Drive a distance of 1397.23 feet to a point; thence North 00 degrees 34 minutes 51 seconds West parallel to the west line of the remainder of said Lot 9 a distance of 1416.25 feet to a point; thence North 88 degrees 56 minutes 01 seconds West parallel to the Center Line of Veterans Memorial Drive a distance of 800.00 feet to a point; thence North 00 degrees 34 minutes 51 seconds West parallel to the west line of said Lot 9 a distance of 333.50 feet to a point on the South Right-of-Way Line of Veterans Memorial Drive; thence North 88 degrees 56 minutes 01 seconds West along the South Right-of-Way of Veterans Memorial Drive a distance of 597.23 feet to the point of beginning, containing 50.00 acres.

0303235.01

EXHIBIT B

Permitted Exceptions

1. Easement dated March 6, 1970 and filed November 25, 1970 in Cabinet 1, Drawer G, Instrument No. 333 made by First National Bank and Trust Company as Trustee under the Testamentary Trust established by the Last Will and Testament of Lester E. Starr, deceased to Illinois Power Company.
2. Easement dated March 24, 1981 and recorded July 27, 1981 in Cabinet 3, Drawer 1, Instrument No. 1265 made by First Bank and Trust Co., as Trustee under the provisions of a Trust Agreement dated May 3, 1976 as Trust No. 11118 to Illinois Power Company.
3. General Real Estate Taxes for the year 1998 and subsequent years, the 1998 General Real Estate Taxes being payable by Grantee, an adjustment having been made therefor.

AMERICAN LAND TITLE ASSOCIATION  
OWNER'S POLICY  
(10-17-92)

14 0205 106 00002273

CHICAGO TITLE INSURANCE COMPANY

SUBJECT TO THE EXCLUSIONS FROM COVERAGE, THE EXCEPTIONS FROM COVERAGE CONTAINED IN SCHEDULE B AND THE CONDITIONS AND STIPULATIONS, CHICAGO TITLE INSURANCE COMPANY, a Missouri corporation, herein called the Company, insures, as of Date of Policy shown in Schedule A, against loss or damage, not exceeding the Amount of Insurance stated in Schedule A, sustained or incurred by the insured by reason of:

1. Title to the estate or interest described in Schedule A being vested other than as stated therein;
2. Any defect in or lien or encumbrance on the title;
3. Unmarketability of the title;
4. Lack of a right of access to and from the land.

The Company will also pay the costs, attorneys' fees and expenses incurred in defense of the title, as insured, but only to the extent provided in the Conditions and Stipulations.

*In Witness Whereof*, CHICAGO TITLE INSURANCE COMPANY has caused this policy to be signed and sealed as of Date of Policy shown in Schedule A, the policy to become valid when countersigned by an authorized signatory.

Issued by:  
KING CITY ABSTRACTERS  
716 MAIN STREET  
P.O. BOX 402  
MT. VERNON, IL 62864  
(618) 242-3212

CHICAGO TITLE INSURANCE COMPANY

By:

  
President

By:

  
Secretary



## EXCLUSIONS FROM COVERAGE

The following matters are expressly excluded from the coverage of this policy and the Company will not pay loss or damage, costs, attorneys' fees or expenses which arise by reason of:

1. (a) Any law, ordinance or governmental regulation (including but not limited to building and zoning laws, ordinances, or regulations) restricting, regulating, prohibiting or relating to (i) the occupancy, use, or enjoyment of the land; (ii) the character, dimensions or location of any improvement now or hereafter erected on the land; (iii) a separation in ownership or a change in the dimensions or area of the land or any parcel of which the land is or was a part; or (iv) environmental protection, or the effect of any violation of these laws, ordinances or governmental regulations, except to the extent that a notice of the enforcement thereof or a notice of a defect, lien or encumbrance resulting from a violation or alleged violation affecting the land has been recorded in the public records at Date of Policy.  
  
(b) Any governmental police power not excluded by (a) above, except to the extent that a notice of the exercise thereof or a notice of a defect, lien or encumbrance resulting from a violation or alleged violation affecting the land has been recorded in the public records at Date of Policy.
2. Rights of eminent domain unless notice of the exercise thereof has been recorded in the public records at Date of Policy, but not excluding from coverage any taking which has occurred prior to Date of Policy which would be binding on the rights of a purchaser for value without knowledge.
3. Defects, liens, encumbrances, adverse claims or other matters:
  - (a) created, suffered, assumed or agreed to by the insured claimant;
  - (b) not known to the Company, not recorded in the public records at Date of Policy, but known to the insured claimant and not disclosed in writing to the Company by the insured claimant prior to the date the insured claimant became an insured under this policy;
  - (c) resulting in no loss or damage to the insured claimant;
  - (d) attaching or created subsequent to Date of Policy; or
  - (e) resulting in loss or damage which would not have been sustained if the insured claimant had paid value for the estate or interest insured by this policy.
4. Any claim, which arises out of the transaction vesting in the insured the estate or interest insured by this policy, by reason of the operation of federal bankruptcy, state insolvency, or similar creditors' rights laws, that is based on:
  - (i) the transaction creating the estate or interest insured by this policy being deemed a fraudulent conveyance or fraudulent transfer; or
  - (ii) the transaction creating the estate or interest insured by this policy being deemed a preferential transfer except where the preferential transfer results from the failure:
    - (a) to timely record the instrument of transfer; or
    - (b) of such recordation to impart notice to a purchaser for value or a judgment or lien creditor.

**OWNERS**  
**SCHEDULE A**

OFFICE FILE NUMBER	POLICY NUMBER	DATE OF POLICY	AMOUNT OF INSURANCE
1 KCA 41714	2 14 0205 106 00002273	3 3-15-1999	4 \$900,000.00

NOTE: A loan Policy on the encumbrance described in this Schedule has been issued naming as the insured:

1. Name of Insured:

GOOD SAMARITAN REGIONAL HEALTH CENTER

2. The estate or interest in the land which is covered by this Policy is:

Fee Simple

3. Title to the estate of interest in the land is vested in the Insured.

4. The land herein described is encumbered by the following mortgage or trust deed, and assignments:

"NOT APPLICABLE"

and the mortgages or trust deeds, if any, shown in Schedule B hereof.

5. The land referred to in this Policy is described as follows:

SEE ATTACHED PAGE FOR LEGAL DESCRIPTION

**SCHEDULE A**

ALTA Loan/Owners      This Policy valid only if Schedule B is attached.

ADDED PAGE

(Schedule A Continued)

Policy Number: 14 0205 106 00002273

Owners

KCA 41714

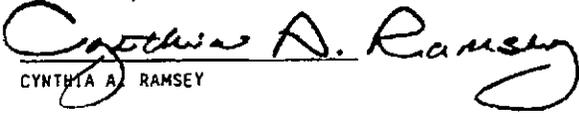
LEGAL DESCRIPTION

Part of Lots 5, 6, 7, and 9 of the Partition of land of Rhodam Allen, deceased, situated in Section 1, Township 3 South, Range 2 East of the Third Principal Meridian, as shown by plat thereof in the Circuit Court Record D at page 331 in the Circuit Clerk's Office of Jefferson County; more particularly described as follows:

Commencing at a point 7 rods and 7 feet (122.50 feet) East of the Northwest corner of said Lot 9; thence South 00 degrees 34 minutes 51 seconds East along the West line of the remainder of said Lot 9 a distance of 25.08 feet to the point of beginning on the South right of way of Veterans Memorial Drive; thence continuing South 00 degrees 34 minutes 51 seconds East along the West line of the remainder of said Lot 9 a distance of 1749.75 feet to a point; thence South 88 degrees 56 minutes 01 seconds East parallel with the center line of Veterans Memorial Drive a distance of 1397.23 feet to a point; thence North 00 degrees 34 minutes 51 seconds West parallel to the West line of the remainder of said Lot 9 a distance of 1416.25 feet to a point; thence North 88 degrees 56 minutes 01 seconds West parallel to the center line of Veterans Memorial Drive a distance of 800.00 feet to a point; thence North 00 degrees 34 minutes 51 seconds West parallel to the West line of said Lot 9 a distance of 333.50 feet to a point on the South right of way line of Veterans Memorial Drive; thence North 88 degrees 56 minutes 01 seconds West along the South right of way of Veterans Memorial Drive a distance of 597.23 feet to the point of beginning,

SITUATED IN JEFFERSON COUNTY, ILLINOIS.

KING CITY ABSTRACTERS  
716 MAIN STREET,  
P.O. BOX 402  
MT. VERNON, ILLINOIS 62864

  
CYNTHIA A. RAMSEY

POLICY INSERT

**OWNERS**  
**SCHEDULE B**

Policy Number: 14 0205 106 00002273  
Owners

**EXCEPTIONS FROM COVERAGE**

This policy does not insure loss or damage (and the Company will not pay costs, attorneys' fees expenses) which arise by reason of:

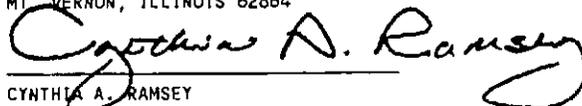
**General Exceptions:**

- (1) Rights or claims of parties in possession not shown by the public records.
- (2) Encroachments, overlaps, boundary line disputes, and any other matters which would be disclosed by an accurate survey and inspections of the premises.
- (3) Easements or claims of easements not shown by the public records.
- (4) Any lien, or right to lien, for services, labor, or materials heretofore or hereafter furnished, imposed by law and not shown by the public records.
- (5) Taxes or special assessments which are not shown as existing liens by the public records.

**Special Exceptions:** The mortgage, if any, referred to in item 4 of Schedule A.

1. Taxes for the year 1998.
2. Easement dated March 6, 1970 and filed November 25, 1970 in Cabinet 1, Drawer G, Instrument No. 333 made by First National Bank and Trust Company as Trustee under the Testamentary Trust established by the Last Will and Testament of Lester E. Starr, deceased to Illinois Power Company.
3. Easement dated March 24, 1981 and recorded July 27, 1981 in Cabinet 3, Drawer 1, Instrument No. 1265 made by First Bank and Trust Co., as Trustee under the provisions of a Trust Agreement dated May 3, 1976 as Trust No. 11118 to Illinois Power Company.

KING CITY ABSTRACTERS  
716 MAIN ST.  
MT. VERNON, ILLINOIS 62864

  
CYNTHIA A. RAMSEY

SCHEDULE B      Schedule B of this Policy consists of 1 page.  
Alta Modified Loan/Owners-1970

## CONDITIONS AND STIPULATIONS

### 1. DEFINITION OF TERMS

The following terms when used in this policy mean:

(a) "insured": the insured named in Schedule A, and, subject to any rights or defenses the Company would have had against the named insured, those who succeed to the interest of the named insured by operation of law as distinguished from purchase including, but not limited to, heirs, distributees, devisees, survivors, personal representatives, next of kin, or corporate or fiduciary successors.

(b) "insured claimant": an insured claiming loss or damage.

(c) "knowledge" or "known": actual knowledge, not constructive knowledge or notice which may be imputed to an insured by reason of the public records as defined in this policy or any other records which impart constructive notice of matters affecting the land.

(d) "land": the land described or referred to in Schedule A, and improvements affixed thereto which by law constitute real property. The term "land" does not include any property beyond the lines of the area described or referred to in Schedule A, nor any right, title, interest, estate or easement in abutting streets, roads, avenues, alleys, lanes, ways or waterways, but nothing herein shall modify or limit the extent to which a right of access to and from the land is insured by this policy.

(e) "mortgage": mortgage, deed of trust, trust deed, or other security instrument.

(f) "public records": records established under state statutes at Date of Policy for the purpose of imparting constructive notice of matters relating to real property to purchasers for value and without knowledge. With respect to Section 1(a)(iv) of the Exclusions From Coverage, "public records" shall also include environmental protection liens filed in the records of the clerk of the United States district court for the district in which the land is located.

(g) "unmarketability of the title": an alleged or apparent matter affecting the title to the land, not excluded or excepted from coverage, which would entitle a purchaser of the estate or interest described in Schedule A to be released from the obligation to purchase by virtue of a contractual condition requiring the delivery of marketable title.

### 2. CONTINUATION OF INSURANCE AFTER CONVEYANCE OF TITLE

The coverage of this policy shall continue in force as of Date of Policy in favor of an insured only so long as the insured retains an estate or interest in the land, or holds an indebtedness secured by a purchase money mortgage given by a purchaser from the insured, or only so long as the insured shall have liability by reason of covenants of warranty made by the insured in any transfer or conveyance of the estate or interest. This policy shall not continue in force in favor of any purchaser from the insured of either (i) an estate or interest in the land, or (ii) an indebtedness secured by a purchase money mortgage given to the insured.

### 3. NOTICE OF CLAIM TO BE GIVEN BY INSURED CLAIMANT

The insured shall notify the Company promptly in writing (i) in case of any litigation as set forth in Section 4(a) below, (ii) in case knowledge shall come to an insured hereunder of any claim of title or interest which is adverse to the title to the estate or interest, as insured, and which might cause loss or damage for which the Company may be liable by virtue of this policy, or (iii) if title to the estate or interest, as insured, is rejected as unmarketable. If prompt notice shall not be given to the Company, then as to the insured all liability of the Company shall terminate with regard to the matter or matters for which prompt notice is required; provided, however, that failure to notify the Company shall in no case prejudice the rights of any insured under this policy unless the Company shall be prejudiced by the failure and then only to the extent of the prejudice.

### 4. DEFENSE AND PROSECUTION OF ACTIONS; DUTY OF INSURED CLAIMANT TO COOPERATE

(a) Upon written request by the insured and subject to the options contained in Section 6 of these Conditions and Stipulations, the Company, at its own cost and without unreasonable delay, shall provide for the defense of an insured in litigation in which any third party asserts a claim adverse to the title or interest as insured, but only as to those stated causes of action alleging a defect, lien or encumbrance or other matter insured against by this policy. The Company shall have the right to select counsel of its choice (subject to the right of the insured to object for reasonable cause) to represent the insured as to those stated causes of action and shall not be liable for and will not pay the fees of any other counsel. The Company will not pay any fees, costs or expenses incurred by the insured in the defense of those causes of action which allege matters not insured against by this policy.

(b) The Company shall have the right, at its own cost, to institute and prosecute any action or proceeding or to do any other act which in its opinion may be necessary or desirable to establish the title to the estate or interest, as insured, or to prevent or reduce loss or damage to the insured. The Company may take any appropriate action under the terms of this policy, whether or not it shall be liable hereunder, and shall not thereby concede liability or waive any provision of this policy. If the Company shall exercise its rights under this paragraph, it shall do so diligently.

(c) Whenever the Company shall have brought an action or interposed a defense as required or permitted by the provisions of this policy, the Company may pursue any litigation to final determination by a court of competent jurisdiction and expressly reserves the right, in its sole discretion, to appeal from any adverse judgment or order.

(d) In all cases where this policy permits or requires the Company to prosecute or provide for the defense of any action or proceeding, the insured shall secure to the Company the right to so prosecute or provide defense in the action or proceeding, and all appeals therein, and permit the Company to use, at its option, the name of the insured for this purpose. Whenever requested by the Company, the insured, at the Company's expense, shall give the Company all reasonable aid (i) in any action or proceeding, securing evidence, obtaining witnesses, prosecuting or defending the action or proceeding, or effecting settlement, and (ii) in any other lawful act which in the opinion of the Company may be necessary or desirable to establish the title to the estate or interest as insured. If the Company is prejudiced by the failure of the insured to furnish the required cooperation, the Company's obligations to the insured under the policy shall terminate, including any liability or obligation to defend, prosecute, or continue any litigation, with regard to the matter or matters requiring such cooperation.

### 5. PROOF OF LOSS OR DAMAGE

In addition to and after the notices required under Section 3 of these Conditions and Stipulations have been provided the Company, a proof of loss or damage signed and sworn to by the insured claimant shall be furnished to the Company within 90 days after the insured claimant shall ascertain the facts giving rise to the loss or damage. The proof of loss or damage shall describe the defect in, or lien or encumbrance on the title, or other matter insured against by this policy which constitutes the basis of loss or damage and shall state, to the extent possible, the basis of calculating the amount of the loss or damage. If the Company is prejudiced by the failure of the insured claimant to provide the required proof of loss or damage, the Company's obligations to the insured under the policy shall terminate, including any liability or obligation to defend, prosecute, or continue any litigation, with regard to the matter or matters requiring such proof of loss or damage.

In addition, the insured claimant may reasonably be required to submit to examination under oath by any authorized representative of the Company and shall produce for examination, inspection and copying, at such reasonable times and places as may be designated by any authorized representative of the Company, all records, books, ledgers, checks, correspondence and memoranda, whether bearing a date before or after Date of Policy, which reasonably pertain to the loss or damage. Further, if requested by any authorized representative of the Company, the insured claimant shall grant its permission, in writing, for any authorized representative of the Company to examine, inspect and copy all records, books, ledgers, checks, correspondence and memoranda in the custody or control of a third party, which reasonably pertain to the loss or damage. All information designated as confidential by the insured claimant provided to the Company pursuant to this Section shall not be disclosed to others unless, in the reasonable judgment of the Company, it is necessary in the administration of the claim. Failure of the insured claimant to submit for examination under oath, produce other reasonably requested information or grant permission to secure reasonably necessary information from third parties as required in this paragraph shall terminate any liability of the Company under this policy as to that claim.

### 6. OPTIONS TO PAY OR OTHERWISE SETTLE CLAIMS; TERMINATION OF LIABILITY

In case of a claim under this policy, the Company shall have the following additional options:

#### (a) To Pay or Tender Payment of the Amount of Insurance.

To pay or tender payment of the amount of insurance under this policy together with any costs, attorneys' fees and expenses incurred by the insured claimant, which were authorized by the Company, up to the time of payment or tender of payment and which the Company is obligated to pay.

Upon the exercise by the Company of this option, all liability and obligations to the insured under this policy, other than to make the payment required, shall terminate, including any liability or obligation to defend, prosecute, or continue any litigation, and the policy shall be surrendered to the Company for cancellation.

#### (b) To Pay or Otherwise Settle With Parties Other than the Insured or With the Insured Claimant.

(i) to pay or otherwise settle with other parties for or in the name of an insured claimant any claim insured against under this policy, together with any costs, attorneys' fees and expenses incurred by the insured claimant which were authorized by the Company up to the time of payment and which the Company is obligated to pay; or

(ii) to pay or otherwise settle with the insured claimant the loss or damage provided for under this policy, together with any costs, attorneys' fees and expenses incurred by the insured claimant which were authorized by the Company up to the time of payment and which the Company is obligated to pay.

Upon the exercise by the Company of either of the options provided for in paragraphs (b)(i) or (ii), the Company's obligations to the insured under this policy for the claimed loss or damage, other than the payments required to be made, shall terminate, including any liability or obligation to defend, prosecute or continue any litigation.

#### 7. DETERMINATION, EXTENT OF LIABILITY AND COINSURANCE

This policy is a contract of indemnity against actual monetary loss or damage sustained or incurred by the insured claimant who has suffered loss or damage by reason of matters insured against by this policy and only to the extent herein described.

(a) The liability of the Company under this policy shall not exceed the least of:

(i) the Amount of Insurance stated in Schedule A; or  
(ii) the difference between the value of the insured estate or interest as insured and the value of the insured estate or interest subject to the defect, lien or encumbrance insured against by this policy.

(b) In the event the Amount of Insurance stated in Schedule A at the Date of Policy is less than 80 percent of the value of the insured estate or interest or the full consideration paid for the land, whichever is less, or if subsequent to the Date of Policy an improvement is erected on the land which increases the value of the insured estate or interest by at least 20 percent over the Amount of Insurance stated in Schedule A, then this Policy is subject to the following:

(i) where no subsequent improvement has been made, as to any partial loss, the Company shall only pay the loss pro rata in the proportion that the amount of insurance at Date of Policy bears to the total value of the insured estate or interest at Date of Policy; or

(ii) where a subsequent improvement has been made, as to any partial loss, the Company shall only pay the loss pro rata in the proportion that 120 percent of the Amount of Insurance stated in Schedule A bears to the sum of the Amount of Insurance stated in Schedule A and the amount expended for the improvement.

The provisions of this paragraph shall not apply to costs, attorneys' fees and expenses for which the Company is liable under this policy, and shall only apply to that portion of any loss which exceeds, in the aggregate, 10 percent of the Amount of Insurance stated in Schedule A.

(c) The Company will pay only those costs, attorneys' fees and expenses incurred in accordance with Section 4 of these Conditions and Stipulations.

#### 8. APPORTIONMENT

If the land described in Schedule A consists of two or more parcels which are not used as a single site, and a loss is established affecting one or more of the parcels but not all, the loss shall be computed and settled on a pro rata basis as if the amount of insurance under this policy was divided pro rata as to the value on Date of Policy of each separate parcel to the whole, exclusive of any improvements made subsequent to Date of Policy, unless a liability or value has otherwise been agreed upon as to each parcel by the Company and the insured at the time of the issuance of this policy and shown by an express statement or by an endorsement attached to this policy.

#### 9. LIMITATION OF LIABILITY

(a) If the Company establishes the title, or removes the alleged defect, lien or encumbrance, or cures the lack of a right of access to or from the land, or cures the claim of unmarketability of title, all as insured, in a reasonably diligent manner by any method, including litigation and the completion of any appeals therefrom, it shall have fully performed its obligations with respect to that matter and shall not be liable for any loss or damage caused thereby.

(b) In the event of any litigation, including litigation by the Company or with the Company's consent, the Company shall have no liability for loss or damage until there has been a final determination by a court of competent jurisdiction, and disposition of all appeals therefrom, adverse to the title as insured.

(c) The Company shall not be liable for loss or damage to any insured for liability voluntarily assumed by the insured in settling any claim or suit without the prior written consent of the Company.

#### 10. REDUCTION OF INSURANCE; REDUCTION OR TERMINATION OF LIABILITY

All payments under this policy, except payments made for costs, attorneys' fees and expenses, shall reduce the amount of the insurance pro tanto.

#### 11. LIABILITY NONCUMULATIVE

It is expressly understood that the amount of insurance under this policy shall be reduced by any amount the Company may pay under any policy insuring a mortgage to which exception is taken in Schedule B or to which the insured has agreed, assumed, or taken subject, or which is hereafter executed by an insured and which is a charge or lien on the estate or interest described or referred to in Schedule A, and the amount so paid shall be deemed a payment under this policy to the insured owner.

#### 12. PAYMENT OF LOSS

(a) No payment shall be made without producing this policy for endorsement of the payment unless the policy has been lost or destroyed, in which case proof of loss or destruction shall be furnished to the satisfaction of the Company.

(b) When liability and the extent of loss or damage has been definitely fixed in accordance with these Conditions and Stipulations, the loss or damage shall be payable within 30 days thereafter.

#### 13. SUBROGATION UPON PAYMENT OR SETTLEMENT

##### (a) The Company's Right of Subrogation.

Whenever the Company shall have settled and paid a claim under this policy, all right of subrogation shall vest in the Company unaffected by any act of the insured claimant.

The Company shall be subrogated to and be entitled to all rights and remedies which the insured claimant would have had against any person or property in respect to the claim had this policy not been issued. If requested by the Company, the insured claimant shall transfer to the Company all rights and remedies against any person or property necessary in order to perfect this right of subrogation. The insured claimant shall permit the Company to sue, compromise or settle in the name of the insured claimant and to use the name of the insured claimant in any transaction or litigation involving these rights or remedies.

If a payment on account of a claim does not fully cover the loss of the insured claimant, the Company shall be subrogated to these rights and remedies in the proportion which the Company's payment bears to the whole amount of the loss.

If loss should result from any act of the insured claimant, as stated above, that act shall not void this policy, but the Company, in that event, shall be required to pay only that part of any losses insured against by this policy which shall exceed the amount, if any, lost to the Company by reason of the impairment by the insured claimant of the Company's right of subrogation.

##### (b) The Company's Rights Against Non-Insured Obligors.

The Company's right of subrogation against non-insured obligors shall exist and shall include, without limitation, the rights of the insured to indemnities, guaranties, other policies of insurance or bonds, notwithstanding any terms or conditions contained in those instruments which provide for subrogation rights by reason of this policy.

#### 14. ARBITRATION

Unless prohibited by applicable law, either the Company or the insured may demand arbitration pursuant to the Title Insurance Arbitration Rules of the American Arbitration Association. Arbitrable matters may include, but are not limited to, any controversy or claim between the Company and the insured arising out of or relating to this policy, any service of the Company in connection with its issuance or the breach of a policy provision or other obligation. All arbitrable matters when the Amount of Insurance is \$1,000,000 or less shall be arbitrated at the option of either the Company or the insured. All arbitrable matters when the Amount of Insurance is in excess of \$1,000,000 shall be arbitrated only when agreed to by both the Company and the insured. Arbitration pursuant to this policy and under the Rules in effect on the date the demand for arbitration is made or, at the option of the insured, the Rules in effect at Date of Policy shall be binding upon the parties. The award may include attorneys' fees only if the laws of the state in which the land is located permit a court to award attorneys' fees to a prevailing party. Judgment upon the award rendered by the Arbitrator(s) may be entered in any court having jurisdiction thereof.

The law of the situs of the land shall apply to an arbitration under the Title Insurance Arbitration Rules.

A copy of the Rules may be obtained from the Company upon request.

#### 15. LIABILITY LIMITED TO THIS POLICY; POLICY ENTIRE CONTRACT

(a) This policy together with all endorsements, if any, attached hereto by the Company is the entire policy and contract between the insured and the Company. In interpreting any provision of this policy, this policy shall be construed as a whole.

(b) Any claim of loss or damage, whether or not based on negligence, and which arises out of the status of the title to the estate or interest covered hereby or by any action asserting such claim, shall be restricted to this policy.

(c) No amendment of or endorsement to this policy can be made except by a writing endorsed hereon or attached hereto signed by either the President, a Vice President, the Secretary, an Assistant Secretary, or validating officer or authorized signatory of the Company.

#### 16. SEVERABILITY

In the event any provision of the policy is held invalid or unenforceable under applicable law, the policy shall be deemed not to include that provision and all other provisions shall remain in full force and effect.

#### 17. NOTICES, WHERE SENT

All notices required to be given the Company and any statement in writing required to be furnished the Company shall include the number of this policy and shall be addressed to the Company at the issuing office or to:

Chicago Title Insurance Company  
Claims Department  
171 North Clark Street  
Chicago, Illinois 60601-3294

**Criterion 1110.230.b, Background of Applicant**

SSM Health Care Corporation through its affiliates currently operates three hospitals in the State of Illinois: Saint Francis Hospital and Health Center in Blue Island Illinois; St. Mary's Hospital in Centralia and Good Samaritan Regional Health Center which is the co-applicant on the proposed project. The required copies of the licenses for these three hospitals and their respective letters of accreditation from JCAHO are also appended to this application. The required letter regarding adverse action and authorization to review licensure files is also appended.

**ATTACHMENT GRC-2**



May 29, 2008

Mr. Jeffrey Mark  
Executive Secretary  
Health Facilities Planning Board  
525 W. Jefferson Street, Second Floor  
Springfield, Illinois 62761

Dear Mr. Mark:

The applicant SSM Health Care Corporation is a not-for-profit entity which through its related organizations owns and operates three licensed hospitals in Illinois. SSM Health Care Corporation is the ultimate corporate member of the operations of St. Francis Hospital and Health Center in Blue Island, Illinois, of Good Samaritan Regional Health Center in Mt. Vernon, Illinois and of St. Mary's Hospital in Centralia, Illinois. Except as disclosed herein, SSM Health Care Corporation does not "own or operate" any other health care facilities within the meaning of Section 1110.230(b) of the State Board's Rules.

I hereby certify that there has been no "adverse action" (as defined by Section 1110.230(b) of the State Board's Rules) taken against St. Francis Hospital and Health Center, Good Samaritan Regional Health Center or St. Mary's Hospital during the past three years.

SSM Health Care Corporation hereby authorizes the Illinois Health Facilities Planning Board and the Illinois Department of Public Health access to information in order to verify any documentation or information submitted in response to the requirements of Criterion 1110.230.b, Background of Applicant or to obtain documentation of information the State Board or Agency finds pertinent to this subsection.

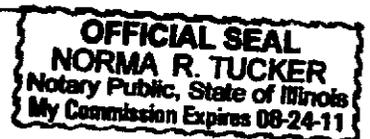
I am President and Chief Executive Officer of SSM Health Care Corporation and am authorized to make these statements herein.

Sincerely,

*Sister Mary Jean Ryan, FSM*  
Sister Mary Jean Ryan, FSM  
President and CEO

SUBSCRIBED and SWORN to before me  
this 29<sup>th</sup> day of MAY, 2008.

*Norma R. Tucker*  
Notary Public



477 N. Lindbergh Blvd.  
St. Louis, MO 63141-7832  
www.ssmhc.com

(314) 994 7800 phone  
(314) 994 7900 fax

DISPLAY THIS PART IN A CONSPICUOUS PLACE

REMOVE THIS CARD TO CARRY AS AN IDENTIFICATION

State of Illinois  
 Department of Public Health  
 LICENSE, PERMIT, CERTIFICATION, REGISTRATION

1859680

GOOD SAMARITAN REGIONAL HEALTH CENTER  
 CATEGORY: BGBD ID NUMBER: 0004705  
 EXPIRATION DATE: 02/28/09

FULL LICENSE  
 GENERAL HOSPITAL  
 EFFECTIVE: 03/01/08

01/05/08  
 GOOD SAMARITAN REGIONAL HEALTH CENT  
 605 NORTH 12TH STREET  
 MT. VERNON IL 62864

FEE RECEIPT NO.

State of Illinois 1859680  
 DEPARTMENT OF PUBLIC HEALTH

LICENSE, PERMIT, CERTIFICATION, REGISTRATION

The person, firm or corporation whose name appears on this certificate has complied with the provisions of the Illinois Statutes and/or rules and regulations and is hereby authorized to engage in the activity as indicated below.

Issued under the authority of  
The State of Illinois  
Department of Public Health

DAMON T. ARNOLD, M. D.  
DIRECTOR

EXPIRATION DATE	CATEGORY	ID NUMBER
02/28/09	BGBD	0004705

FULL LICENSE  
 GENERAL HOSPITAL  
 EFFECTIVE: 03/01/08

BUSINESS ADDRESS

GOOD SAMARITAN REGIONAL HEALTH CENTER  
 605 NORTH 12TH STREET

MOUNT VERNON IL 62864

The face of this license has a color background. Printed by authority of the State of Illinois • 4/97 •



State of Illinois 1849761

Department of Public Health

LICENSE, PERMIT, CERTIFICATION, REGISTRATION

The person, firm or corporation whose name appears on this certificate has complied with the provisions of the Illinois Statutes and/or rules and regulations and is hereby authorized to engage in the activity as indicated below.

DAMON T. ARNOLD, M.D.  
DIRECTOR

Issued under the authority of  
The State of Illinois  
Department of Public Health

EXPIRATION DATE	CATEGORY	I.D. NUMBER
12/31/08	BGED	0002642

FULL LICENSE  
 GENERAL HOSPITAL  
 EFFECTIVE: 01/01/08

BUSINESS ADDRESS

ST. MARY'S HOSPITAL  
 400 NORTH PLEASANT AVENUE  
 CENTRALIA IL 62801

The face of this license has a colored background. Printed by Authority of the State of Illinois • 4/97 •

**State of Illinois 1849**  
**Department of Public Health**  
**LICENSE, PERMIT, CERTIFICATION, REGISTRATION**

This card, form or corporation of any kind appears on this cardholder has been issued by the State of Illinois pursuant to the provisions of the Illinois State Board of Health Act and is hereby authorized by the State of Illinois to be used by the holder for the purposes herein.

**DAVID S. DANIELLO, M.D.**  
**DIAGNOSTICIAN**

ISSUE DATE	12/31/08	EXPIRES	0008118
FULL LICENSE			
GENERAL HOSPITAL			
EFFECTIVE: 01/01/08			

**BUSINESS ADDRESS:**  
 ST. FRANCIS HOSPITAL AND HEALTH CENTER  
 12935 SOUTH GREGORY STREET  
 BLUE ISLAND IL 60406

← **DISPLAY THIS PART IN A CONSPICUOUS PLACE**

**REMOVE THIS CARD TO CARRY AS AN IDENTIFICATION** →

**State of Illinois 1849**  
**Department of Public Health**  
**LICENSE, PERMIT, CERTIFICATION, REGISTRATION**

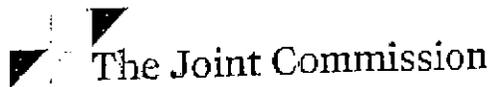
**DAVID S. DANIELLO, M.D.**  
**DIAGNOSTICIAN**

ISSUE DATE	12/31/08	EXPIRES	0008118
FULL LICENSE			
GENERAL HOSPITAL			
EFFECTIVE: 01/01/08			

**BUSINESS ADDRESS:**  
 ST. FRANCIS HOSPITAL & HEALTH SVS  
 12935 SOUTH GREGORY STREET  
 BLUE ISLAND IL 60406

11/03/07  
 ST. FRANCIS HOSPITAL & HEALTH SVS  
 12935 SOUTH GREGORY STREET  
 BLUE ISLAND IL 60406

FEE RECEIPT NO.



February 2, 2007

Leo F. Childers, Jr., FACHE  
President  
Good Samaritan Regional Health Center  
605 North 12th Street  
Mount Vernon, IL 62864

Joint Commission ID #: 7391  
Accreditation Activity: Measure of Success  
Accreditation Activity Completed: 2/2/2007

Dear Mr. Childers:

The Joint Commission would like to thank your organization for participating in the Joint Commission's accreditation process. This process is designed to help your organization continuously provide safe, high-quality care, treatment, and services by identifying opportunities for improvement in your processes and helping you follow through on and implement these improvements. We encourage you to use the accreditation process as a continuous standards compliance and operational improvement tool.

The Joint Commission is granting your organization an accreditation decision of Accredited for all services surveyed under the applicable manual(s) noted below:

- Comprehensive Accreditation Manual for Home Care
- Comprehensive Accreditation Manual for Hospitals

This accreditation cycle is effective beginning July 22, 2006. The Joint Commission reserves the right to shorten or lengthen the duration of the cycle; however, the certificate and cycle are customarily valid for up to 39 months.

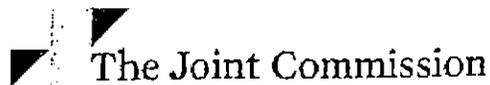
Please visit [Quality Check®](#) on the Joint Commission web site for updated information related to your accreditation decision.

We encourage you to share this accreditation decision with your organization's appropriate staff, leadership, and governing body. You may also want to inform the Centers for Medicare and Medicaid Services (CMS), state or regional regulatory services, and the public you serve of your organization's accreditation decision.

Please be assured that the Joint Commission will keep the report confidential, except as required by law. To ensure that the Joint Commission's information about your organization is always accurate and current, our policy requires that you inform us of any changes in the name or ownership of your organization or the health care services you provide.

Sincerely,

Russell P. Massaro, MD, FACPE  
Executive Vice President  
Division of Accreditation and Certification Operations



February 2, 2007

Bruce A. Merrell  
President  
St. Mary's Hospital  
400 North Pleasant Avenue  
Centralia, IL 62801

Joint Commission ID #: 7254  
Accreditation Activity: Measure of Success  
Accreditation Activity Completed: 2/2/2007

Dear Mr. Merrell:

The Joint Commission would like to thank your organization for participating in the Joint Commission's accreditation process. This process is designed to help your organization continuously provide safe, high-quality care, treatment, and services by identifying opportunities for improvement in your processes and helping you follow through on and implement these improvements. We encourage you to use the accreditation process as a continuous standards compliance and operational improvement tool.

The Joint Commission is granting your organization an accreditation decision of Accredited for all services surveyed under the applicable manual(s) noted below:

- Comprehensive Accreditation Manual for Behavioral Health Care
- Comprehensive Accreditation Manual for Hospitals

This accreditation cycle is effective beginning October 12, 2006. The Joint Commission reserves the right to shorten or lengthen the duration of the cycle; however, the certificate and cycle are customarily valid for up to 39 months.

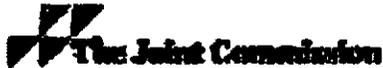
Please visit Quality Check® on the Joint Commission web site for updated information related to your accreditation decision.

We encourage you to share this accreditation decision with your organization's appropriate staff, leadership, and governing body. You may also want to inform the Centers for Medicare and Medicaid Services (CMS), state or regional regulatory services, and the public you serve of your organization's accreditation decision.

Please be assured that the Joint Commission will keep the report confidential, except as required by law. To ensure that the Joint Commission's information about your organization is always accurate and current, our policy requires that you inform us of any changes in the name or ownership of your organization or the health care services you provide.

Sincerely,

Russell P. Massaro, MD, FACPE  
Executive Vice President  
Division of Accreditation and Certification Operations



May 23, 2008

Colleen L. Kannaday  
Chief Executive Officer  
St. Francis Hospital and Health Center  
12935 South Gregory Street  
Blue Island, Illinois 60406

ORG ID: 7249

Dear Ms. Kannaday:

This letter is to confirm the accreditation status for St. Francis Hospital and Health Center.

The Joint Commission accreditation survey on August 29, 2006 for St. Francis Hospital and Health Center included the following sites of care:

**St. Francis Hospital and Health Center, 12935 South Gregory Street, Blue Island, Illinois 60406**

This accreditation cycle is effective beginning July 25, 2007. The Joint Commission reserves the right to shorten or lengthen the duration of the cycle; however, the certificate and cycle are customarily valid for up to 39 months.

If I can be of further assistance I can be reached at (630) 792-5184 or [tmullin@jointcommission.org](mailto:tmullin@jointcommission.org). Thank you for your cooperation and support of the accreditation process.

Sincerely,

*Theresa Mullin*

Theresa Mullin  
Account Executive, Corporate Region  
Accreditation and Certification Operations

cc: Correspondence File

[www.jointcommission.org](http://www.jointcommission.org)

Headquarters  
One Renaissance Boulevard  
Oakbrook Terrace, IL 60181  
(630) 792-7000 ext.

Attachment GRC-2

### **Criterion 1110.230.c. Alternatives to the Proposed Project**

Planning and strategic analysis of the proposed project has been ongoing for the past ten years. In June of 1998, a study was completed which outlined the deficiencies and corresponding short and long term needs of the existing hospital structures and campus (see Plan Development 16 June 1998 at the end of this Attachment). As per the detailed discussion below, the decision was made at that time that the existing campus could not be reconfigured at any cost to adequately address projected patient needs and anticipated health care delivery requirements.

Availability of a healthy, state of the art medical complex in Mount Vernon is essential to the health care needs not only of Good Samaritan Regional Health Center's service area, but to the entirety of southern Illinois. Good Samaritan Regional Health Center has been a leader in the development and provision of services such as tertiary-level cardiac care, rehabilitation care, and orthopedic and neurological modalities. In addition, Good Samaritan Regional Health Center has taken a strong initiative to develop and maintain relationships with small rural and Critical Access Hospitals in southern Illinois; these initiatives include establishment and operation of outpatient clinics and the provision of critical physician services to areas which would otherwise be without.

Subsequently, the proposed site became available and was purchased for the specific purpose of near-term outpatient and ancillary needs and long-term complete relocation of the hospital.

The discussion below, in the presentation of considered alternatives, clearly outlines the detailed planning which has gone into the proposed project as described in this application.

#### **Alternative #1: Do Nothing; Continue to Provide Services in the Existing Hospital**

This alternative has been identified as unfeasible for both short and long term community needs.

The original hospital building and Sister Joanne building were constructed in 1947 and 1950 respectively, nearly 60 years ago. Since that time, there have been numerous additions and renovations. The resulting conglomeration of buildings has created a facility made up of various materials and systems, which were appropriate to the time they were constructed. These buildings are all performing at present beyond anticipated life. Interim solutions have been implemented, as required, to keep the facility operational. With a better understanding of the Healing Environment, along with technological advances in diagnostics, patient treatment, equipment and procedures, the existing facility is no longer able to keep up.

Additionally, changes in the Life Safety and Building Codes over time, along with the addition of seismic requirements to the building code, make the existing campus inadequate in several basic elements required for hospitals.

**Structural issues:** some of the original buildings were constructed using bearing wall construction. These existing conditions create situations where the locations and operations of the existing bearing walls do not allow for expansion to accommodate the current program space requirements. Moving structural columns, piers or walls is very expensive and creates height restrictions that often make areas unusable. In addition, some of the newer pieces of healthcare equipment exceed the allowable loading limits and the inherent capacity of the existing structure.

**Seismic requirements:** hospital expansion projects before 1974 did not include the reinforcement of concrete joists to provide adequate detailing to resist lateral seismic loads (the rudimentary seismic requirements were not introduced until 1974). The 1979 addition is constructed of a two-way dropped panel slab with possible shear walls at one end. The current Seismic Code precludes the use of a two-way slab system in Seismic Hazard Group D, which is the classification for a hospital in Mount Vernon. The recent earthquake in the area points to the fact that adequate seismic protection is more than an academic exercise in our community.

**Height restrictions:** when the original and subsequent buildings were constructed, the cooling and heating was often done via piped systems and the ventilation provided via operational windows. Individual room systems were provided, and the above-ceiling heights were minimized, creating floor-to-floor heights that are minimal at best. The 1969/1970 addition has floor-to-floor heights of 10'8", 11', and 12'. Current codes and standards have established ventilation requirements and air quality levels that cannot be achieved through individual room systems. Forced air systems require filtration and humidification of the air to specific levels. The existing minimal floor-to-floor heights do not allow for the efficient distribution of ductwork within the ceiling spaces, so ceiling heights are minimized. This compromises or restricts the use of the floor space below. New hospital construction generally requires floor-to-floor heights of 14' to 17' to accommodate newer system and ventilation/air requirements.

**Vertical shafts:** similar to the height restrictions noted above, the HVAC ductwork sizes and configurations required for the efficient distribution of air have dramatically increased the amount of vertical circulation shafts required. This takes away from usable floor areas and creates floor-to-floor fire separation issues that are expensive to overcome.

**Fire resistance of materials:** as the campus has expanded over the years, some additions were constructed using materials and methods that are not acceptable under current standards for hospital construction. Retrofitting or change of use of some of these portions of the building would require full demolition and new construction to meet the current code and its fire resistance requirements. Additionally, over time gaps may have developed in fire-resistant material surrounding pipe, conduit, and duct penetrations through fire and smoke walls. Finding and repairing all locations is costly, and in some cases physically impossible without total removal and replacement of the affected area or system component.

**Existing room sizes and configurations:** the Strategic Facility Plan identifies specific instances where appropriate room sizes, configurations, and/or required amenities are not

available or achievable within the confines of the existing buildings. The existing critical care, medical/surgical and obstetric patient rooms are inadequate in size, required headwall lengths, bathroom availability and proximity to the nursing station. Existing facilities can be renovated; however, the construction required to meet current space requirements and standards is prohibitively expensive due to existing structural elements, including the confines of the existing exterior walls. The only practical solution is to tear down and rebuild.

Site restrictions: the existing campus is located within a residential neighborhood. It is landlocked on all sides. This eliminates the possibility of sequential modernization and expansion; that is, new buildings or wings can not be constructed to replace outdated ones, which could then be demolished once the replacement space is available. In addition, parking availability is currently inadequate; and, as is typical of every hospital operating today, parking demands are increasing. The only way to provide additional parking would be to construct a multi-level parking facility; unfortunately, the only place to do this is on the site of the current surface grade parking.

Fire protection system: there is a smoke detection system installed in all of the areas required by the Life Safety Code and the Office of the Fire Marshall. An automatic sprinkler system has been installed in limited areas of the hospital, as additions and renovations have allowed. Therefore, the facility is not considered "fully sprinklered". This places restrictions on use and directly impacts the insurance costs of the facility.

Mechanical systems: most of the existing systems have reached or exceeded anticipated life expectancy. The boilers in the existing Steam System are obsolete and extremely inefficient, leading to greater-than-necessary operational costs. The cooling system requires the use of an outdated coolant that is no longer manufactured. Conversion to new refrigerants will soon be a necessity, meaning replacement of the system will be mandatory. Many of the existing air handlers are at the end of their useful life and must be replaced to improve operations and efficiencies. Additionally, new requirements for air changes and filtration of the air to maintain standards have made several of the air handlers undersized and inefficient. New temperature control systems are more precise, giving patients and staff better control over the interior environment. The existing system must be replaced to achieve this control. The existing domestic water systems, including heating, softening, back flow prevention, etc. have reached or exceeded anticipated life expectancies and must be replaced.

Electrical systems: the existing electrical systems are obsolete because they have exceeded useful life expectancy and because current code requirements have defined the systems and their components and applications more precisely. The existing systems are not separated correctly and the entire electrical distribution system must be re-worked, separated and defined in order to create safer environments for patients, staff and visitors. Separation of these branches into Critical, Equipment and Life Safety categories creates a more reliable system and ensures that power is available when needed for essential services. Finally, the existing generators have exceeded their expected useful life and must be replaced.

These facility issues alone preclude exercising the option of doing nothing. Therefore, this alternative has not been selected.

Cost of this alternative (capital costs): \$0

Alternative #2: Expansion and Modernization of the Existing Campus

The previously-cited Plan development document, dated June 16 1998, is included with this Attachment and contains a highly-detailed area by area analysis of the individual projects and costs associated with existing campus modernization.

Since the detail is provided in that document, this discussion will summarize the salient points.

First, the total cost of the needed renovations and expansions was \$55 million in 1998 dollars. Healthcare construction costs have increased dramatically since that time; using a conservative inflation factor of three per cent per year, the cost of the plan in 2008 dollars rises to \$74 million.

This \$74 million expenditure would **not** address the following deficiencies:

- It does not allow for the construction of any new buildings for patient care. Owing to the inability to construct new buildings without taking existing services out of operation, projects would be limited to modernization only. This restriction effectively precludes the ability to bring the hospital up to state of the art patient care standards.
- It does not address short and long term needs for service expansion; it merely addresses critical shortcomings in existing areas.
- It does not address inherent structural issues such as seismic compliance and existing room sizes and configurations.
- It does not address inherent campus issues: lack of space for expansion, for adequate parking and wayfinding, or for separation of pedestrian and ambulance traffic.

Commitment to a major capital expenditure of at least 74 million dollars, without a solution to basic structural and operational deficiencies, is not a responsible fiscal decision and is not in the best interests of the patients or the larger community served by Good Samaritan Regional Health Center. Therefore, this alternative has not been selected.

Cost of this alternative: \$74,000,000

Alternative #3: Construct a Replacement Facility at a new location

This alternative actually has several associated iterations and nuances; as follows:

#3A: Construct a Replacement Facility at a Location Different than the Proposed Location

This alternative has not been selected for the following reasons.

- Good Samaritan Regional Health Center already has possession of the proposed site
- Good Samaritan Regional Health Center already has associated services such as the Oncology Center operational on the proposed new campus
- The proposed location is perfectly situated for access from all areas of our patient service area and from southern Illinois as a whole, being located just south of the junction of the major north/south (I-57) and east/west (I-64) highways in southern Illinois; further, the proposed location is directly adjacent to an Interstate 57 exit.
- This alternative would require additional expenditures for land acquisition (estimated at \$1.5 million) as well as for architectural site plans (estimated at \$250 thousand).

Cost of this Alternative: \$186,593,873

#3B: Construct a Replacement Facility at the Proposed Location; Retain Possession of the Existing Campus and Buildings for Various Patient-Related Services

This alternative has not been selected for the following reasons:

- Previously-discussed structural and functional deficiencies of the existing buildings on campus render the main structures virtually obsolete
- Significant capital outlay would be required for minimum modernization or demolition (approximately \$30 million)
- Health care use is not consistent with the residential nature of the surrounding neighborhood
- Parking would continue to be a major deficiency, particularly since the campus would presumably be converted to higher-traffic, outpatient and ancillary uses
- Owing to the cost of the proposed project, the revenue associated with the sale of the existing campus is necessary

Cost of this alternative: \$215 million

#3C: Construct a Replacement Facility at the Proposed Location, with a Greater Complement of Inpatient Beds

A detailed justification for the number of beds included in this proposed project is included in attachments elsewhere in this application, including Need for the Project and Establishment of Additional Beds.

This discussion relates to the options considered during the course of project planning.

In June 2006, a comprehensive data analysis and needs assessment was completed as part of the overall objective of project sizing. At that time, the appropriate number of beds for the replacement hospital was determined as follows:

- Medical/surgical: 116 beds
- Critical Care: 20 beds
- Obstetrics: 10 beds
- Pediatrics: 4 beds
- Inpatient Rehabilitation: 10 beds
  
- **Total bed complement 160 beds**

This initial optimal bed complement was developed based upon historic patient census, projected increases in the service area population, and new physician volumes not included in historic data. The initial proposed complement did not assume any changes in relative market share or any increases in use rates.

The first iteration of a space program for the proposed facility was based on the above number of beds. Subsequently, however, the proposed bed complement was reduced to 134 as the result of the following factors:

- It was determined that operation of a distinct pediatric unit was not operationally or cost efficient
- The June 2006 plan was based upon real data through 2005. Subsequent availability of 2006 and 2007 data served to modify projected needs.
- Although it is generally recognized that IHFPB standards for utilization of beds are somewhat conservative, the initial proposed bed complement was significantly inconsistent with standards and could potentially jeopardize ultimate project approval.

Reduction in the number of proposed beds has removed approximately \$100,000 per bed in total proposed project cost.

Cost of this Alternative: \$187,500,000

#3D: Construct a New Replacement 134-Bed Good Samaritan Regional Health Center at a New Location in Mount Vernon

This is the selected alternative. Detailed justification for the proposed project is this application in its entirety. A summary of the reasons for the selection of this alternative is as follows:

- The proposed project addresses existing deficiencies of the current campus
- The current campus cannot be modernized or expanded sufficiently to reach established standards of patient care or operational efficiency
- The capital costs required to bring the existing campus into minimum compliance with standards would be prohibitive
- Replacement at a new location allows provision of state of the art care, maximizes patient convenience and operational efficiency, and allows for any necessary future modification and expansion
- Replacement at the new location greatly improves facility access.

Cost of this Alternative: \$184,843,873

St. Mary's Good Samaritan Inc Strategic Facility Planning Concept Options - 14 July 1988		Good Samaritan Hospital Engineering Systems		PRIORITY RANK		
Development Concepts		Issues		Opportunities		
				1 = Next 2 years	2 = 2 - 5 Years	3 = Beyond 5 Years
Steam Generation System	1. Replace boilers	1. The boilers have exceeded their expected useful lifetime	1			1. Install smaller, more efficient boilers
Emergency Power Generation System	1. Create 3 branches of emergency power 2. Replace existing emergency generators	1. Present day codes require 3 branches of emergency power 2. Existing generators have reached their expected useful lifetime	1			1. Increased system reliability and patient/staff life safety and future flexibility to accommodate facility modifications
Chilled Water Generation System	1. Upgrade chiller refrigerant to R-134a 2. Replace cooling towers	1. Existing R-11 refrigerant no longer manufactured 2. Cooling towers are at or near their expected useful lifetime	1			1. Upgrade refrigerant to type manufactured today
Normal Power System	1. Repair medium voltage switchgear 2. Replace low voltage double ended switchgear 3. Upgrade branch circuit panelboards and feeders	1. Existing medium voltage switchgear need be repaired immediately 2. Existing switchgear and branch circuit panelboards/feeders have exceeded their expected useful lifetime	1			1. Improved system reliability and future flexibility to accommodate facility modifications
Heating Hot Water System	1. Install new system to serve North Wing	1. Replacement of existing ASU-20 (multi-zone) with new single zone AHU will require installation of new heating hot water system	1			1. Improved temperature control, thus improved patient comfort
Emergency and Normal Power Distribution Systems	1. Install grounding conductors	1. Present day codes require grounding conductors between branch circuit panelboards and receptacles in health care facilities	1			1. Improved patient/staff life safety
Air Handling Unit (AHU) Systems	1. Replace ASU-20 2. Replace ASU-18 3. Replace ASU-14 4. Replace ASU-15 5. Replace ASU-11 6. Upgrade Mitchell Hall HVAC System	1. Existing units have exceeded their expected useful lifetime 2. Improved Mitchell Hall comfort	1			1. Upgrade HVAC systems to improve operation and efficiency of systems
Temperature Control System	1. Continue to extend BAS System to entire facility	1. Upgrade temperature controls to direct digital technology with pneumatic actuators and thermostats	1, 2			1. Increase HVAC system efficiencies, occupant comfort and system reliability
Fire Protection System	1. Sprinkle remainder of facility	1. Continue to incorporate sprinklers into all future renovation projects	1			1. Increase patient and staff safety

St. Mary's Good Samaritan Inc. Strategic Facility Planning Concept Options - 11 June, 1998 Revised DRAFT.		Good Samaritan Hospital Engineering Systems			PRIORITY RANK	
Development Concepts		1 = Next 2 years	2 = 2 - 5 Years	3 = Beyond 5 Years	Issues	Opportunities
System	Development Concepts	PRIORITY RANK	Issues	Opportunities	Issues	Opportunities
Medical Gas System	1. Install emergency oxygen supply connection 2. Install new medical air compressor system 3. Replace standby medical vacuum pump	1	1. Code revisions require emergency oxygen supply connection and all free air compressors 2. Existing backup medical vacuum pump has exceeded its expected useful lifetime	1. Increase life safety for patients and improve equipment system reliability		
Fire Alarm System	1. Upgrade the alarm system to be ADA compliant	1	1. Present day ADA codes are not presently met	1. Increase patient/staff life safety		
Domestic Water Heating System	1. Replace existing domestic water heaters	1	1. Existing water heaters have exceeded their expected useful lifetime	1. Increased system reliability and efficiency		
Domestic Water Softening Equipment	1. Replace water softeners	1	1. Existing softeners have exceeded their expected useful lifetime	1. Increase system reliability		
Domestic Water Backflow Prevention System	1. Install backflow preventers	1	1. Present day codes require backflow preventers on all make-up water connections	1. Eliminate potential contamination of domestic water system		

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Program / Area	Planning Criteria & Development Concepts	ESTIMATED DGSF	Projected Cost	Phase 1 a Next 2 years	Phase 1 b Within 3 years	Phase 2 Within 5 Years	Phase 3 Beyond 5 Years
Rehab Services (PT, OT, Speech) (NEW) (AMBUL. BLDG.)	<ol style="list-style-type: none"> <li>1. Provide easy access for OP</li> <li>2. Provide for adequate space at each site</li> <li>3. Improve treatment space privacy</li> <li>4. Support growth in Specialty Services</li> <li>5. Develop as part of Amb. Care bldg (Cost included in Amb. Bldg)</li> </ol>		Phase 1: Phase 2: Phase 3:	Relocate OP to new OP Building Relocate IP to vacated Behavioral Health area <b>SEQUENCING</b> New Ambulatory Building			
Laboratory (NEW) (AMBUL. BLDG.)	<ol style="list-style-type: none"> <li>1. Consolidation of Laboratories at SMH</li> <li>2. Provide convenient access for OP</li> <li>3. Respond to technology changes</li> <li>4. Establish Satellite at GSH (Cost estimates included in Amb. Bldg)</li> </ol>		Phase 1: Phase 2: Phase 3:	Consolidate main lab at SMH Establish satellite lab in new OP building Access Center			
Ambulatory Services (NEW) (AMBUL. BLDG.)	<ol style="list-style-type: none"> <li>1. Develop new facility with OP Focus</li> <li>2. Provide new access and entry to hospital</li> <li>3. Provide for physician offices</li> <li>4. Convenient parking and access</li> </ol>	103,300	Phase 1: \$ 13,408,563 Phase 2: Phase 3:	Construct new Amb. Services Bldg OP Programs, Access Ctr, Physician offices <b>SEQUENCING</b> New Parking Garage Temp. site relocations			
Oncology & Radiation Therapy (NEW) (CAN. CENTER)	<ol style="list-style-type: none"> <li>1. Develop Oncology Image and visibility (integrated)</li> <li>2. Consolidate OP Services at Rad. Oncology site</li> <li>3. Respond to technology changes</li> <li>4. Provide expanded treatment therapies</li> </ol>		Phase 1: \$ 810,418 Phase 2: Phase 3:	Acquire Rad Onc. Bldg Expand for Chemotherapy			
<b>(CENTER FOR COMPREHENSIVE CANCER CARE CONSTRUCTED IN 2005 ON 50 ACRES SITE WITH CHEMOTHERAPY PROGRAM ADDED)</b>							
Power Plant (NEW) (SERVICE BLDG.)	<ol style="list-style-type: none"> <li>1. See separate Facility Assessment Report</li> </ol>		Phase 1: \$ 332,500 Phase 2: Phase 3:	Construct new services bldg <b>SEQUENCING</b> Temporary dock/ site rerouting			
Buildings & Grounds (NEW) (SERVICE BLDG.)	<ol style="list-style-type: none"> <li>1. Adequate space to support services</li> <li>2. Site work for projects</li> </ol>		Phase 1: \$ 1,950,000 Phase 2: Phase 3:	Construct new services bldg <b>SEQUENCING</b> Temporary dock/ site rerouting	Demo. of west wing St. Joanne		
Assisted Living (NEW) (ASSIST. LVG. B.)	<ol style="list-style-type: none"> <li>1. Develop an Assisted Living Facility on campus</li> </ol>		Phase 1: \$ 2,050,000 Phase 2: Phase 3:	Plan development based on special study			

St. Mary's Good Samaritan Inc Strategic Facility Planning - GOOD SAMARITAN CAMPUS Plan Development 16 June 1998							
Program / Area	Planning Criteria & Development Concepts	ESTIMATED DGSF	Projected Cost	Phase 1 a Next 2 years	Phase 1 b Within 3 years	Phase 2 Within 5 Years	Phase 3 Beyond 5 Years
Rehabilitation Unit (REMODEL)	1. Reduction in beds based on \$ changes 2. Development of subsacute capacity 3. Integrate with SNF unit 4. Improve patient room access (ADA) 5. Improvements in nursing station/support facilities 6. Integration of Rehab Therapy on unit		Phase 1 : \$ 1,185,838 Phase 2 : \$ 201,300 Phase 3 : \$ 201,300	Retain existing	Relocate Adjacent to SNF Expand / share support space Changes based on Bed Plan	Changes based on Bed Plan	Changes based on Bed Plan
Interior Upgrades on Nursing Floors (REMODEL)	1. Improve appearance and comfort 2. Coordinate with planned unit renovations		Phase 1 : \$ 839,078 Phase 2 : \$ 201,300 Phase 3 : \$ 201,300	Renovate public areas based on Bed plan sequencing	Renovate public areas based on Bed plan sequencing	Renovate public areas based on Bed plan sequencing	Renovate public areas based on Bed plan sequencing
Dietary/Food Service (REMODEL)	1. Provide pleasant dining areas for staff and visitors 2. Provide preventive maintenance for equipment 3. Provide adequate staff work space 4. Provide equipment to maintain reg. compliance ( Cost included in 2nd floor Renovations)		Phase 1 : Phase 2 : Phase 3 :	Retain existing			
Pharmacy (REMODEL)	1. Maintain access to inpatient units and surgery 2. Provide office space for Clinical Pharmacist 3. Provide automated dispensing systems 4. Centralize main production at GSH 5. Relocation to Critical Care area at GSH		Phase 1 : \$ 585,000 Phase 2 : Phase 3 :	Retain existing	Relocate to PT/OT area Consolidate main product. at GSH SEQUENCING New Ambulatory Bldg Relocation of PT/OT Renovation of area		
Mitchell Hall (REMODEL)	1. Improve facility deficiencies 2. Renovate for relocated offices 3. Consolidate management offices into building	4,000	Phase 1 : \$ 312,250 Phase 2 : \$ 289,775 Phase 3 :		Exterior and systems upgrades	Renovation for offices	
Sister Joanne Building (REMODEL)	1. Use as business / support office building 2. Upgrade building to meet functional needs 3. Improve infrastructure systems 4. Demolish West Wing		Phase 1 : \$ 4,525,938 Phase 2 : Phase 3 :	Sitework improvements Demolition of west wing Systems upgrades Exterior enclosure	Renovations for offices		
Women's Health (NEW) (MAMMO. BLDG.)	1. Development of Women's Diagnostic Center 2. Development of Tertiary Services 3. Respond to diagnostic technology changes 4. Provide adequate space for OP programs 5. Upgrade epidural services		Phase 1 : \$ 41,000 Phase 2 : Phase 3 :			SEQUENCING	
Behavioral Health (NEW) (MAMMO. BLDG.)	1. Consolidated IP at SMH 2. Relocation of OP services outside hospital facility 3. Establish vision for future program 4. Relocate to Mammo building ( Cost included in Mammo. Bldg)		Phase 1 : Phase 2 : Phase 3 :	Relocate OP to Mammo Bldg SEQUENCING Renovation of building			

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Program / Area	Planning Criteria & Development Concepts	ESTIMATED DGSF	Projected Cost	Phase 1 a Next 2 years	Phase 1 b Within 3 years	Phase 2 Within 5 Years	Phase 3 Beyond 5 Years
Education Library Classrooms (REMODEL)	1. Development of adequate class/meeting rooms 2. Improve library space allocation 3. Expand computer access 4. Respond to specific facility needs 5. Locate accessible to physicians and staff	2,600	Phase 1 : \$ 579,800 Phase 2 : Phase 3 :	Convert courtyard to meeting room			
Medical Records Physician Lounge (REMODEL)	1. Accessibility to physicians 2. Provide adequate storage space for active files 3. Development of specific archival program 4. Respond to specific facility needs at each site 5. Establishment of Record Management Program 6. Relocate from Mitchell Hall to hospital	2,700	Phase 1 : Phase 2 : Phase 3 :	Retain existing	Retain existing	Relocate to vacated Cardiac area SEQUENCING New Ambulatory Bldg Relocation of Cardiac services Renovation of area	
Support Renovation (2nd Floor) (REMODEL)	Note specific components included under departments - Cost estimates only Cost includes Refurbishment/interiors		Phase 1 : \$ 839,840 Phase 2 : \$ 340,000 Phase 3 : \$ 340,000	Coordinate with dept. Renovations	Coordinate with dept. Renovations	Coordinate with dept. Renovations	
Materials Mgmt Storeroom Receiving Dock CSS (REMODEL)	1. Provide for adequate Dock 2. Consolidation of space in new service building 3. Separation of materials handling/delivery in public hallways	22,000	Phase 1 : \$ 3,136,500 Phase 2 : Phase 3 :	Construct new services bldg SEQUENCING Temporary dock/ site rerouting			
Infrastructure (REMODEL)	1. Improve elevators 2. Update/replace HVAC systems		Phase 1 : \$ 3,480,366 Phase 2 : \$ 1,552,083 Phase 3 :	Elevator Modernization Systems replacement and upgrade	Boiler Room updates Systems replacement and upgrade	Systems replacement and upgrade	Systems replacement and upgrade
Critical Care Intensive Care Step Down (REMODEL)	1. Units supportive of clinical needs 2. Development of Open Heart capacity 3. Replacement of Intensive Care Unit 4. Improvements in nursing station/support facilities 5. Expansion of Step Down Capacity	6,520	Phase 1 : \$ 1,568,875 Phase 2 : Phase 3 :	Relocate to 2nd Floor SEQUENCING Relocate offices to Sr. Joanne Relocate nursing offices to temp.	Revise 3rd Floor for Step Down SEQUENCING Relocation of ICU		
<b>(ADDED 2 CRITICAL CARE BEDS IN 2004)</b>							
Medical Surgical (REMODEL)	1. Consolidation based on decreased census 2. Establishment of Observation approach to facility 3. Improvements to meet ADA requirements 4. Continued development of continuum beds 5. Improvements in nursing station/support facilities		Phase 1 : \$ 1,970,044 Phase 2 : \$ 172,500 Phase 3 :	Revised based on Step Down and Rehab unit Changes Changes based on Bed Plan		Changes based on Bed Plan	Changes based on Bed Plan
Obstetrics & Newborn Services (REMODEL)	1. Establishment of Women's Centers 2. Development of Newborn ICU potential 3. Ongoing relationships with tertiary care facilities 4. Renovation of nursery at GSH 5. Improvements in nursing station/support facilities	1,200	Phase 1 : \$ 172,500 Phase 2 : Phase 3 :	Renovate nursery			
Skilled Nursing (REMODEL)	1. Continued expansion at GSH 2. Integration of Rehab Therapy on unit 3. Provide added support with Rehab Unit		Phase 1 : \$ 590,333 Phase 2 : Phase 3 :	Retain existing	Changes based on Bed Plan	Changes based on Bed Plan	Changes based on Bed Plan

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Program / Area	Planning Criteria & Development Concepts	ESTIMATED DGSF	Projected Cost	Phase 1 a Next 2 years	Phase 1 b Within 3 years	Phase 2 Within 5 Years	Phase 3 Beyond 5 Years
Campus Image & Site (REMODEL)	1. Medical Center Image 2. Planned Development of Campus 3. Improved Vehicular access / circulation 4. Improved Main Entry / OP Entry 5. Improvements in Parking 6. Consistent Image between Campuses		Phase 1 : \$ 540,000 Phase 2 : Phase 3 :	Improve campus road circulation New campus entry Addition of OP Building New signage			
Patient Access & Parking (REMODEL)	1. Distinct OP Entry w/Parking access 2. Separation of ER Ambulances/ Pedestrians 3. Convenient Parking 4. Internal Access from New Building 5. Acquire land as required for projects		Phase 1 : \$ 2,878,540 Phase 2 : Phase 3 :	Add new Parking lots Split deck garage SEQUENCING Acquire adjacent needed property New services bldg	Add new Parking lots		
Wayfinding & Circulation 1st Floor (REMODEL)	1. Convenience for OP using all services 2. Separation of Staff/Patients/Visitors 3. Privacy for IP using Diagnostic Services 4. Minimization of Materials distribution with patient / visitor traffic		Phase 1 : \$ 425,000 Phase 2 : \$ 425,000 Phase 3 : \$ 425,000	New signage based on Op Bldg Retain existing on 1st Floor	Develop new based on OP Bldg Dev. based on specific projects SEQUENCING OP Building completion	Develop based on specific projects SEQUENCING Department relocations	
Imaging (REMODEL)	1. Separation of IP/OP flow; improve privacy 2. Improve outpatient access/flow 3. Develop off-campus imaging center 4. Continue to respond to technology changes 5. Locate services (ie. MRI) adjacent to department 6. Provide for adequate support space	13,500	Phase 1 : \$ 3,245,000 Phase 2 : Phase 3 :	Retain existing	Expand into adjacent support aces Reorient/relocate OP services Relocate high tech CT/MRI (add fixed) SEQUENCING New Service support bldg/Dock Renovation in phases		
Cardiopulmonary Care Services (REMODEL)	1. Integration of Invasive / non - Invasive programs 2. Ease of access for OP to departments 3. Provide for patient privacy 4. Provide adequate support space	5,500	Phase 1 : Phase 2 : \$ 907,500 Phase 3 :	Retain existing	Retain existing	Relocate non invasive adjacent to Cath Lab - Cardiac Center SEQUENCING New OP building Relocation of Amb. Surgery Renovation	
<b>(CARDIAC CATH PROGRAM ADDED IN 2002 AND EXPANDED IN 2006)</b>							
Surgery & Anesthesia Outpatient Surgery (REMODEL)	1. Provide separate flow for IP and OP cases 4. Provide easy access to OP/ambulatory area 3. Develop Open Heart Capacity 4. Continued response to technology changes 5. Respond to specific facility needs	13,000 3,200	Phase 1: \$ 1,868,750 Phase 2 : \$ 725,000 Phase 3 :	Retain existing	Expand OR for Open Heart/support services; retain OP location SEQUENCING Relocation of Lab New OP building	Relocation of OP Surgery SEQUENCING Renovation phased	
Endoscopy (REMODEL)	1. Provide appropriate, accessible OP services 2. Develop service capacity for region 3. Provide adequate facilities for functions 4. Expand capacity in OR suite area (Cost estimates included in Surgery)		Phase 1 : Phase 2 : Phase 3 :	Retain existing	Same As Surgery	Same as OP Surgery	
Emergency Room (REMODEL)	1. Separate ambulance and walk-in entrance 2. Improve patient privacy in triage and registration 3. Improve nursing station flow and work space 4. Provide convenient parking 5. Develop Observation and Urgent Care facilities 6. Improve patient flow within & to diagnostic areas	8,800	Phase 1 : Phase 2 : \$ 1,732,550 Phase 3 :	Retain existing	Retain existing	Expand into High Tech area and Imaging ; reconfigure area Revise and separate entries SEQUENCING Services Building addition Relocation of Imaging; Renovation	
<b>(EMERGENCY ROOM REMODELING COMPLETED IN 2005)</b>							

St. Mary's Good Samaritan Inc. Strategic Facility Planning Concept Options - 14 July 1998				Good Samaritan Sister Jo Anne Building Engineering Systems PRIORITY RANK 1 = Next 2 years    2 = 2 - 5 Years    3 = Beyond 5 Years			
System	Development Concepts	PRIORITY RANK	Issues	Opportunities			
Fire Alarm System	1. Replace fire alarm system	1	1. Multiple systems serve facility	1. Upgrade fire alarm system to be totally addressable 2. Improve system performance and reliability			
Domestic Water Backflow Prevention System	1. Install backflow preventers	1	1. Present dry codes require backflow preventers on all make-up water connections	1. Eliminates potential contamination of domestic water system			
Domestic Hot Water System	1. Replace water softener 2. Replace water heater 3. Install hot water return loop	1	1. Existing equipment has exceeded its expected useful lifetime	1. Improve system reliability			
Sanitary and Storm Drainage Systems	1. Replace sanitary and storm lift pumps	1	1. Existing equipment has exceeded its expected lifetime	1. Increase system reliability			
		1					

St. Mary's Good Samaritan Inc. Strategic Facility Planning Concept Options - 14 July 1998				Good Samaritan Blaster Jo Anne Building Engineering Systems		PRIORITY RANK 1 = Next 2 years    2 = 2 - 5 Years    3 = Beyond 5 Years	
System	Development Concepts	PRIORITY RANK	Issues	Opportunities			
Steam Generation System	1. Replace existing boilers	1	1. Existing boilers have exceeded their expected useful lifetime	1. Improve reliability and efficiency of system			
Emergency Power Generation System	1. Remove emergency generator 2. Remove transfer switch	1	1. Existing generator and transfer switch have been abandoned in place	1. Remove abandoned equipment to eliminate potential hazard			
Chilled Water Generation System	1. Replace chillers 2. Install new chiller(s), cooling tower and pumps	1	1. Existing chilled water generation system equipment has exceeded its expected lifetime	1. Increase efficiency and reliability of central chilled water plant			
Normal Power System	1. Repair "original" distribution equipment 2. Install grounding conductors	1	1. Switchgear equipment has exceeded its expected lifetime	1. Plan replacement of equipment rather than wait for a failure and act in an emergency mode 2. Improve occupant life safety			
Fuel Oil System	1. Remove underground fuel oil storage tank	1	1. Existing tank does not meet present day codes	1. Eliminate potential for fuel oil leakage in the future			
Air Handling Unit (AHU) Systems	1. Replace ventilation AHU 2. Replace West Wing AHU	1	1. AHU's are near to or have exceeded their expected lifetime	1. Improve reliability of systems			
Temperature Control System	1. Install new temperature control system	1, 2	1. Existing temperature controls have exceeded their expected lifetime	1. Improved engineering systems operation and efficiency			
Fire Protection System	1. Sprinkle entire facility	1	1. Incorporate sprinklers into all future renovation projects	1. Improve occupant life safety			
Fan Coil Unit (FCU) System	1. Replace existing FCU's	1	1. Existing FCU's have exceeded their expected useful lifetime	1. Improve building comfort with ability to heat or cool rooms simultaneously 2. Improve system reliability and efficiency			

### **Criterion 1110.230.d, Need for the Project**

The need for this project is based upon the historical utilization as well as the projected patient population increases projected for this planning area. A variance to the calculated bed need has been addressed for the bed services involved in this project.

The applicant determined that the existing facility needed to be replaced because it was impossible to make the changes which needed to be made to the facility in its current location.

The existing hospital is located in a residential area in the middle of Mt. Vernon and is landlocked with inadequate space to meet the facility's needs. The site is surrounded by residences which means that any construction which takes place disrupts the community, and with the main hospital buildings being 60+ years old it is not possible to rehabilitate them to meet today's health care requirements.

The new proposed site is located in Mt Vernon adjacent to Interstate 57 where a new exit ramp will be constructed. This re-location will greatly improve the access to the facility and it will allow the hospital to continue to meet the needs of the population of the planning area as well as to meet the needs of its patient base, which extends beyond the planning area.

It is not anticipated that the relocation of the facility will negatively impact the other hospitals in the planning area. In fact the applicant is proposing to have fewer beds at the new site than they have currently. These new beds will all be in single rooms which will allow the hospital greater flexibility in meeting its patient needs and will help to eliminate the situation where the applicant facility goes on By-pass status which happens frequently now.

The new facility will also allow the hospital to work more closely with their physicians several of whom will be located in an adjacent Medical Office Building for which the IHFPB has also received an application.

The replacement of the existing hospital will allow the applicant to provide service to the community in a modern up-to-date facility and to continue to provide the specialty services currently provided to the community such as Open Heart Surgery, Cardiac Catheterization, and Rehabilitation beds.

The applicant is proposing to increase their number of ICU beds from 10 to 16 which will allow them to always have beds available for their Open Heart Surgery Program and for accident cases, while still meeting the needs of their other critical care patients. The facility is located near the intersection of two major interstates I-57 and I-64 both of which have high traffic volumes which leads to more accidents and a higher than normal instance of accident cases which come to the applicant facility.

The need for the bed services are based on the bed need and the variances to that bed need and are discussed under those criteria. The need for the Open Heart Surgery Program and the Cardiac Catheterization Program are also discussed under those criteria. The need for the other

**ATTACHMENT GRC-4**

Catheterization Program are also discussed under those criteria. The need for the other departments in the hospital is discussed below.

**A. Pharmacy**

The pharmacy is proposed to be used to supply all pharmaceutical supplies required for the treatment of inpatients and for the use by outpatients who are seen by the physicians at the hospital or in the Emergency Department. This department will not be a retail pharmacy.

The department will be located on the Garden or lowest level of the hospital in close proximity to the material management department with convenient vertical access to the emergency department , surgery, and the bed units.

This department is an essential part of the provision of inpatient care as well as to the provision of emergency care. It is a department which is included in every new hospital and as such is needed in this hospital.

**B. Central Sterile Supply**

This department will be located on the Garden level of the hospital and will have direct vertical access to the cardiac catheterization Labs, The Surgery, and the outpatient services (endoscopy, and minor procedure) departments. The department will also be located in close proximity vertically to the Emergency Department.

The department will be responsible for providing sterile packs to the various departments in the hospital. The department will also house the sterilization equipment used to sterilize instruments and other re-usable supplies to these departments.

Again this department is an integral part of all hospitals. Even with today's reliance on disposable supplies the sterilization of equipment and supplies must be done, and this department is also responsible for preparing the packages of disposal for use in the other departments of the hospital.

**C. Outpatient Testing**

This department will be located on the first floor adjacent to the main entrance to the hospital. This will be where the patients go for their pre-admission testing, to have blood drawn, to answer questions, provide medical histories, etc., before they are admitted to the hospital, for any type of elective procedure, whether it be inpatient or outpatient. All of the testing here will be done on an outpatient basis.

This department provides a central location for patients who are coming into the hospital, many for the first time, to be met and escorted to the various departments where the testing will actually take place.

This department will have small rooms where blood can be drawn or where patients can answer the medical questions they or the hospital may have in privacy which is not now available at the existing hospital. Absent this department, patients would have to find their way to the various departments for their tests, and in many cases would have to answer the same questions multiple times. With this department the patient can have a much less stressful visit for these pre-admission tests while providing all of the information necessary to admit the patient for their actual procedure at a single location.

The requirements for privacy advanced by HIPAA require that the hospital provides private spaces for the taking of the pre-admission information. This department will allow that to be provided in an efficient manner.

**D. Outpatient Prep and Recovery**

This department is where outpatients requiring special procedures such as endoscopy, bronchoscopy, cardiac catheterization, etc, are prepared for the procedure and come back to for recovery. This department is outside of the PACU and stage two recovery areas for surgery. It basically consists of small rooms with a dressing area, a recliner or a space for a stretcher. These areas are monitored by the nursing staff and the patients are directly discharged from this area.

In 2007 the hospital had 1,330 outpatient endoscopy patients; 1,087 Catheterization patients and 712 angiography patients, in addition the applicant also has a contract with Archway Associates of Saint Louis to perform lithotripsy procedures and in 2007, 184 of those procedures were performed. All of the endoscopy patients a large percentage of the cardiac cath patients, many of the angiography patients and all of the lithotripsy patients will pass through this department many going into surgery, and again for recovery before they can be released to go home. This department by its nature has daily peaks and valleys in terms of occupancy with the early morning hours being the busiest and weekends being very quiet. Therefore the department must be built large enough to accommodate the busy times.

Again this department is an integral part of any modern health care facility with a strong outpatient department.

**E. Infusion Center**

This department will have five treatment stations on the first floor of the hospital and will be on a hallway that directly connects to the Medical Office Building. This unit will be isolated somewhat from the rest of the hospital as many times the patients receiving care in this area have compromised immune systems which would make it dangerous for them to be in close contact with other hospital patients.

This department will also be located on an outside wall of the hospital in order to provide the patients with exterior views. These patients are sometimes in the treatment rooms for several hours and this view to the outside is essential in their treatment.

The historical volume for this department for 2007 total 6,351 visits for an average of 24.4 visits per day 260 work days per year (5 days per week X 52 weeks). This volume would mean that, based upon an average time of 1.5 hours per patient, including setting up the room before each patient would mean that the rooms would be occupied 92% of the time.

The five rooms proposed are necessary to support the existing volume of infusions and that volume has increased from 5,262 visits in 2005 to 6,351 visits in 2007, and it is expected to continue to increase as the patients' age and new forms of chemotherapy are developed.

**F. Outpatient Procedure Rooms.**

This department will house the four procedure rooms, two rooms will be set-up to perform endoscopy procedures, one room will be used for pulmonary function testing and one room will be used for minor procedures not done in the surgery requiring only local anesthesia.

The existing facility performed a total of 1,336 hours of endoscopy in 2007 which was a 13% increase from the year before. It is projected that the volume will surpass the 1,500 hours of utilization level which justifies a second room by 2010 based upon a conservative increase of 4% per year. This increase is based upon the increase in population projected for the area approximately 2.2% over those 3 years, the increase in the population age 65 and over up which is projected to increase by 10% over those same three years. When these two population increases are taken into consideration along with an increase in the use of colonoscopies as a screening test the 4% increase in volume is very conservative.

The pulmonary function testing volume has remained relatively constant between 966 procedures and 1,193 procedures over the last three years with the volume in 2007 at 979 procedures. This volume supports the need for one room for this procedure.

The one room proposed for minor procedures is new and no historical volume is available, however, based upon discussions with our physicians it was determined that one room was need to allow these procedures to be performed outside of the physicians' offices.

**G. Cardiac Catheterization**

The hospital currently has two Cardiac Catheterization units in the existing building and the new replacement hospital will also have two cardiac catheterization laboratories. The applicant's 2007 volume totaled 1,087 visits. Based upon the State standard for Cardiac Catheterization of 400 procedures per machine the applicant can justify up to 3 laboratories.

## **H. Diagnostic Radiology**

The applicant is proposing to have 1 angiography room, 1 Radiographic /Fluoroscopic Unit, 1 General X-ray Unit, Chest X-ray Unit, 2 ultrasound units, and 1 CT Scanner in this department in the hospital. The hospital is proposing to have an outpatient Imaging Department in the MOB which will be discussed in that application.

The applicant's 2007 workload for general X-ray units total 12,389 exams for inpatients which, based upon the State standard of 6,500 procedures justifies only two of the three general units proposed by the applicant. However, each of the three units proposed to be located in the hospital serves a different purpose and all three are needed to support the applicant's inpatient and Emergency Department workload. The units, while capable of doing some of the same procedures, are much more efficient when used in their standard configuration.. The hospital will have a total of 5 ultrasound rooms counting the three units in the outpatient imaging department and the combined total volume for 2007 was 8,273 exams, which based upon the State Norm of 2000 exams per piece of equipment justifies 4.2 or 5 rooms.

The applicant's 2007 CT volume totaled 3,864 procedures performed on inpatients and 8,728 performed on outpatient. These volumes together justify up to 6.2 or 7 units based upon the State standard of 2,000 procedures per unit per year. The applicant is proposing to have 1 unit in the hospital and 1 unit in the MOB.

The applicant is proposing to have 1 angiography room in the hospital and none in the MOB. The 2007 hospital volume totaled 1,105 procedures, which based upon the State Norm of 400 procedures per machine would justify up to 3 angiography rooms in the hospital.

## **I. Cardiac Diagnostic Testing**

The applicant is proposing to have 5,131 GSF to house this unit, which will have space for stress testing, echocardiography testing, general EKG testing, storage space for the cardiology equipment and support space for the staff of the diagnostic cardiology department.

The workload for this department for 2007 totaled 20,716 procedures both inpatient and outpatient. With the hospital's busy cardiology department including two cardiac catheterization labs and an open heart surgery program, this space is needed to meet the patients' needs for both pre and post surgery and catheterization testing. Patients are routinely followed up subsequent to Open Heart Surgery and following therapeutic catheterizations.

Utilizing this department to determine which patients might need a catheterization or surgery is equally important to the follow-up care. If a catheterization can be avoided utilizing other less invasive testing methods, both time and money can be saved and the patient can avoid the risks associated with an invasive procedure.

This department, in conjunction with the cardiac catheterization service and the Open Heart Surgery Program offers the full range of cardiac care in one location convenient to the population of the planning area.

**J. Nuclear Medicine**

The hospital currently has three pieces of nuclear medicine equipment and will have three pieces of equipment in the new facility.

The proposed plan is to have two identical dual camera nuclear medicine rooms (A and B) that would perform the majority of all requested studies (79%) utilization of each room. We have proposed a third room (C) with only a single camera nuclear medicine machine system that would be configured for specialty studies (20%). These are longer duration studies that require a change in columnator configurations and calibration. These changes add 30 minutes each to the set-up and take-down of the configuration if the studies were performed on the routine (room A&B) system. By having Room C configured and calibrated will eliminate the set-up and take-down time for the 1.4 procedures performed per day.

The space difference is negligible as evidenced by the fact that the State Norm for Nuclear Medicine calls for 1,135 GSF per room which would allow the hospital to have 2,270 GSF for two units and the hospital is proposing to house the three units in only 2,140 GSF.

It is the most cost effective and efficient alternative available to the applicant to utilize the three units rather than the two the State Standard would allow. Note if only the special camera and one of the other two units was utilized the one unit would be operating at more than 100% occupancy.

**K. Emergency Department**

The existing facility currently has 14 treatment rooms and is proposing to have 18 treatment rooms.

The historical volume for this department is shown on the following table.

Year	Volume -Visits
2005	23,952
2006	24,072
2007	24,679

Of the 18 treatment rooms proposed 1 room is dedicated to trauma patients with a second room for backup. The proposed back-up trauma room would be used for general emergency treatment unless the trauma room is being used. Then this proposed second room would be used as a back-up trauma room. Another room is designed for privacy for use as a Women's crisis treatment room (Rape Victims or domestic abuse). A third room will not be set up specifically for treatment but will be used as a dedicated Behavioral Holding Room (a safe room to lock a disruptive patient in until the police can arrive.).

In all, three rooms will be dedicated and will not be used for routine treatment rooms.

Based upon the State Standard of 2,000 visits per room per year the 2007 workload justifies 13 rooms. However, as has been put forth in several of the applications considered by the IHFPB in the last two years, a more commonly accepted standard is 1,500 visits per room per year which would justify 17 rooms at the applicant facility, based upon the 2007 workload. Even if all of the specialty rooms are counted except for the single holding room where no treatment is actually taking place, the applicant is proposing to have only 17 treatment rooms which is consistent with the 1,500 procedure standard .

**L. EMS Facilities**

This area consists of a small 390 GSF area which will be utilized by the EMS call system and EMS personnel when they are at the hospital making their reports and awaiting the return of their equipment or picking up supplies. It will be located adjacent to the Emergency Department, but will not be used for patient care or treatment.

## **M. Observation Beds**

This area consists of four rooms with a capacity for two beds in each room. These beds will be utilized for the observation of patients who have not yet been admitted to the hospital. These patients are currently placed in inpatient beds on the patient floor or they are held in the ER treatment rooms until a bed can be found or they are released.

The patients will not be held for more than 23 hours in these rooms and they will be monitored by staff which can also be used in the ER if needed.

The establishment of this unit will allow for shorter waiting times in the ER and reduce the expense of transporting patients to the bed floors when they may or may not be admitted. This unit will also help the hospital to keep from having to go onto diversion (by-pass) due to lack of staff or available beds by maintaining open beds on the patient floors rather than utilizing them for these observation patients.

This unit is especially helpful when the hospital discontinues the pediatric unit because many times pediatric patients are admitted for very short stays and the observation unit could be used to monitor these patients and prevent them from being admitted when they can be stabilized and sent home for care.

The patient observation days for 2007 were as follows: 509 MS, 36 Peds, 4 ICU, and 88 in OB. This does not include any patients who were held in the Emergency room for observation. These patients could now be cared for in the observation unit with no disruption on the patient floor and with better resources for testing at there immediate disposal. This location also allows the Emergency Room physicians to continue to monitor the patients and be close at hand in case of an emergency involving the patient.

The four rooms are in one pod which makes it easy to segregate the patients as needed for isolation or differences in age or sex of the patient. The State Board does not publish utilization standards for this type of bed, but this unit appears to be the ideal size to handle virtually any observation scenario.

**N. Surgery**

The hospital is proposing to have 4 General Surgery Rooms, one dedicated Open Heart Surgery Room, and one dedicated Cystoscopy room. The ASTC in the adjacent MOB is projecting to perform 6,295.5 hours of surgery which if removed from the hospitals 2007 volume would leave 6,701.5 Hours to be performed in the hospital based upon the State Standard of 1,500 hours of surgery per year per room this workload would justify 4.46 or 5 rooms needed. However, if the two dedicated rooms and their volumes are removed from the hours of surgery the applicant's 2007 workload would be 4,320 hours which would justify three of the four rooms proposed.

As has been discussed elsewhere in the application the population of the planning area is projected to grow by 3.5 % between now and the opening of this hospital with another 2.5 % over the first three years of operation of the new hospital with the population over the age of 65 to grow at nearly twice that rate. If one only considers the smaller growth in the overall population the applicant's workload would be above the State standard (5,533 hours ÷ 1,500 hours per year per room = 3.02 or 4 rooms needed.) by the second year after project completion. It is unreasonable to build a new hospital which will already be inadequately sized within a two year period.

**O. Surgical Prep and Stage II Recovery**

This department will be used for the patients who come into the hospital the day of their surgery. The patients will be shown to a small room where they change from their street clothes into the gowns they will wear when they are transported to surgery. They will then be prepared for surgery with IV's started and any other pre-anesthesia medication administered. They will also meet here with their physician, or his representative and with a member of the anesthesiology department to go over what is going to be done and to answer any final questions they may have before surgery.

The patients will be transported from this area into surgery where they will have their procedure performed and then they will go to the PACU for stage one recovery and either be sent to their hospital room for stage two recovery or if they are an outpatient they will come back to this department for stage II recovery.

This department will have 11 bays which is less than two bays for each of the 6 OR's. These bays will be highly utilized throughout the morning when patients will be arriving, and again when the patients come into Stage II recovery. The PACU will have only 9 recovery rooms, so the two recovery areas will have a total of 20 bays for 6 operating rooms the Illinois Department of Public Health Establishes a recommended level of 4 bays per OR, which is above the applicant's 3.3 bays per OR, this can be accomplished due to the fact that most of the outpatient surgery will be performed in the ASTC in the adjacent MOB. The ASTC has its own recovery and prep area.

**P. Recovery**

The applicant is proposing to have a stage one recovery area with 8 bays and one isolation bay. This is very near the minimum number of recovery stations allowed by licensure and again can be accomplished due to the fact that the majority of the outpatient procedures, which normally have the quickest turn over in the OR's are done in the ASTC in the adjacent MOB. The ASTC has its own recovery area totally separate from the hospital based PACU.

A stage I recovery area is mandated for a hospital which performs surgery. Therefore, this unit is required and based upon licensure standards the 9 recovery stations are needed.

**Q. Hemodialysis - Inpatient**

The applicant is proposing to have an inpatient dialysis unit with 4 stations in a total of 1,200 GSF. The 2007 workload totaled 1,430 treatments.

The patients cared for in this unit will be patients who come into the hospital already on dialysis and those patients who because of kidney failure during their hospital stay require dialysis treatment. Dialysis treatment takes several hours for each treatment and a schedule of treatment must be maintained for patients once treatment is started. There must also be back-up equipment available in case of an emergency.

Based upon a 6 day per week schedule the 2007 volume would mean that on average 4.6 patients per day utilize the 4 stations proposed. However, inpatient dialysis does not maintain the same type of schedule that a freestanding dialysis unit would have, as people leave the hospital and go back to their regular dialysis facilities, the utilization of these units go up and down. Many times these units are utilized by two patients in the same day, or in some cases not utilized at all that day. The department must have sufficient capacity to handle the peak workloads. After reviewing the historical utilization patterns at the hospital it was determined that the four units would be the number required to meet the peak utilization times.

**O. Surgical Prep and Stage II Recovery**

This department will be used for the patients who come into the hospital the day of their surgery. The patients will be shown to a small room where they change from their street clothes into the gowns they will wear when they are transported to surgery. They will then be prepared for surgery with IV's started and any other pre-anesthesia medication administered. They will also meet here with their physician, or his representative and with a member of the anesthesiology department to go over what is going to be done and to answer any final questions they may have before surgery.

The patients will be transported from this area into surgery where they will have their procedure performed and then they will go to the PACU for stage one recovery and either be sent to their hospital room for stage two recovery or if they are an outpatient they will come back to this department for stage II recovery.

This department will have 11 bays which is less than two bays for each of the 6 OR's. These bays will be highly utilized throughout the morning when patients will be arriving, and again when the patients come into Stage II recovery. The PACU will have only 9 recovery rooms, so the two recovery areas will have a total of 20 bays for 6 operating rooms the Illinois Department of Public Health Establishes a recommended level of 4 bays per OR, which is above the applicant's 3.3 bays per OR, this can be accomplished due to the fact that most of the outpatient surgery will be performed in the ASTC in the adjacent MOB. The ASTC has its own recovery and prep area.

**S. Physical Therapy**

The applicant is proposing to have this department located on the third floor of the hospital between the Rehabilitation bed unit and the Medical Surgical Bed unit on that floor.

This department will be used solely for inpatients and is needed to support the proposed Rehabilitation Service. While, it will also serve the inpatient rehabilitation needs of the hospital's other inpatients, its primary purpose is to provide space for the rehabilitation of patients in the Comprehensive Rehabilitation unit.

In 2007 the inpatient workload for this department total 17,029 visits which based upon the State standard of 7.5 visits per GSF would justify 2,270.5 GSF while the applicant is proposing to have only 1,200 GSF. The difference is in the fact that the State Norm includes the outpatient space which is normally larger due to the need for changing rooms, and larger exercise spaces as the patients progress, and in this hospital that space is to be provided in the outpatient rehabilitation department in the MOB.

The hospital's proposed Comprehensive Rehabilitation Bed Unit requires that the applicant have an active Physical Therapy Department and an Occupational Therapy Department. The existing hospital provides both of those services and the new hospital will also have those services available.

**T. Occupational Therapy**

The applicant is proposing to located this department immediately adjacent to the Physical Therapy Department in 444 GSF. This department will be used solely for the inpatients of the hospital and will be separate from the outpatient Occupational Therapy area which is located in the MOB which is attached to the hospital.

This unit is required in order to provide "Comprehensive Rehabilitation Services" as proposed by the applicant. The square footage proposed is the minimum amount of space needed to provide this service and is supplemented on an outpatient basis by the department in the MOB. This unit provides basic occupational therapy with the more comprehensive program provided through the outpatient unit.

The inpatient program is designed to provide services which will enable the patient to be discharged where they will then be provided further services on an outpatient basis.

## **U. ICU Beds**

The applicant is proposing to increase the number of inventoried ICU beds from 10 to 16. The IHFPB Inventory of Health Care Facilities shows that a need for one additional bed in the applicant's F-004 Planning Area.

The 2007 workload for this department totaled 3,128 patient days. Based upon the Board's target occupancy of 60% this volume supports the need for 14.2 or 15 beds.

The population of this planning area is projected to increase by 7.1% between 2005 and 2015. This amounts to 3.5% over the next 4 years which is when the first full year of operation will be complete this would increase the number of patient days by 109 days which would then justify 14.78 beds. In 2007, the applicant also went on diversion/bypass 20 times for periods ranging from 1 hr and 55 minutes up to 88hrs and 25 minutes. The total time on diversion was 26.5 days. A log of that by-pass time is appended to this attachment. This by-pass affects the ICU in several ways, when the Medical Surgical Unit is full, the ICU can not move patients out to monitored beds and free space in the ICU and on the other side when the ICU is full the ambulances which bring patients to the hospital must be diverted to other facilities which means that patients are not being admitted through the ER or normally for any type of elective surgery that might require ICU care initially.

The applicant averaged 2.47 patients being admitted to ICU per day so if the facility was on bypass for 26.5 days it could be projected that the facility would have admitted an additional 66 Patients which with an average length of stay of 3.46 days this would have resulted in another 228 patient days. When those patient days are added to the 2007 patient days the total patient days would be 3,358 patient days which at the target occupancy would support the need for 15.3 or 16 beds, which is the number the applicant proposes to have.

## **V. Rehabilitation Beds**

The proposed project while technically classified as the establishment of a new category of service because the applicant will be licensed as a new facility, is in reality a replacement for an existing service in the old facility which is being replaced as a part of this application. The existing facility has 23 beds, while the new facility will have only 10 beds. There is only one other provider of rehabilitation services in the applicant's planning area which is all of HSA V. (See the appended map to see the location of the two facilities). The two facilities are 42.72 miles and 48 minutes travel time from each other and both are located in the middle of the HSA one to the North and 1 to the South in close proximity to Interstate 57. (See the second map showing HSA V.)

Herrin Hospital does not have any admission restrictions to their facility, but the travel time is excessive for the residents of the northern half of HSA V.

If the applicant were to discontinue the service totally a need for 9 additional beds would be created. The proposed reduction in beds from 23 to 10 reduces the number of excess beds in the planning area to 1 bed.

Based upon the historical utilization the applicant and the Board's 85% occupancy target the facility can justify 9.1 or 10 beds. Since this is the existing facility's historical utilization it appears reasonable to assume that these are the patients who would not have reasonable geographic access to Herrin Hospital if the existing facility's beds were not replaced at the new facility.

The State Board has established a minimum unit size of 15 beds for this service, however, given the rural nature of this planning area and the utilization experienced by the existing facility over several years, it does not appear that a 15 bed unit would be appropriately utilized while the proposed 10 bed unit would be.

**W. OB Beds/ LDR**

The facility will have 6 LDRP beds, 2 Post-Partum Beds and one Ante-Partum bed for a total of 9 beds which will be inventoried as Obstetric beds. The LDRP beds (Labor/Delivery/Recovery/Post-Partum) beds will be the primary location in which the patients will be admitted. The patient will be admitted to an LDRP bed where they will stay through labor, delivery, recovery, and until they are ready for discharge. The two post-partum beds and the ante-partum beds will be used for patients who have not delivered and are being admitted for medical reasons, or patients who have had C-sections are recovering from the surgery.

The 2007 workload, 1,861 patient days supports the need for 9 beds based upon the Board's target occupancy of 60%. ( $1,861 \div 365 = 5.2$  patients per day  $\div .60 = 8.7$  or 9 beds needed)

The beds are further justified under the variance to computed bed need shown on ATTACHMENT ACUTE-2.

**X. C-section Site**

The hospital is proposing one operating room for c-sections which will be located on the Fourth Floor of the new hospital adjacent to the LDRP and the Obstetric Unit. The total GSF for this area is 1,018 GSF.

In 2007 the volume of C-sections totaled 228 out of the 787 total deliveries at the hospital. This volume supports the need for one C-section room, which is what the applicant is proposing.

An operating room in which C-sections can be performed is an integral part of the hospitals provision of Obstetric Services and locating that room immediately adjacent to the rest of the OB services is the best way quality care can be delivered in an efficient and safe manor.

The proposed room will only be used for C-sections and will not be used for any other surgical procedure which means that its volume should not be used to justify any space in the OR nor should room capacity in the OR be considered as available for this service.

Illinois Hospital licensure requires that a C-section suite be available unless Operating Rooms can be shown to be immediately available for use. Since the surgery department is located on another floor the C-section suite is required and it must meet surgical standards.

The IHFPB guidelines allow for 2,078 GSF per Operating Room. The applicant is proposing to have only 1,018 GSF for this departmental area since it will be able to share some support space with the LDRP unit.

**Y. New Born Nursery**

The new born nursery will be located on the fourth floor immediately adjacent to the Obstetric and LDRP units, as is required by Illinois State Hospital Licensure.

While the patient rooms will have space for the baby to room-in with the mother the nursery will be used for respite times for the mothers or if the baby needs additional care.

## **Z. Medical Surgical Beds**

The proposed project calls for the discontinuation of a 106 bed Medical Surgical Service and the replacement of those beds by a 99 bed service in the new replacement hospital.

A map showing all of the facilities within 30 minutes travel time of the proposed facility and those facilities in the applicant's planning area is appended to this Attachment. It is important to note that Franklin Hospital in Benton, while within 30 minutes travel time is in another planning area for this service. The map also shows the only other non-planning area facility that is located between 30 and 45 minutes travel time of the proposed facility, that is Hamilton Memorial Hospital, in Mcleansboro, which is also in another planning area.

Only one other facility in the Planning area is within 30 minutes travel time of the proposed facility, that is Crossroads Community Hospital also located in Mt. Vernon.

The applicant's 2007 workload for Medical Surgical and Pediatric beds totaled 24,802 patient days, which results in an average daily census of 67.95 patients. Based upon the State Board's target occupancy rate of 75% for modernization of facilities with between 26 and 99 beds the 2007 workload justifies 91 beds. Based upon the 80% utilization target for new facilities the workload justifies 85 beds.

The applicant's peak census for 2007 was 99 beds which is also the number of beds proposed in the new hospital. The peak census for Pediatrics was 5. Together the peak census was 104 beds. This is important because all pediatric cases will be cared for in Medical/Surgical beds in the new replacement hospital.

In 2007, the applicant also went on diversion/bypass 20 times for periods ranging from 1hr and 55 minutes up to 88hrs and 25 minutes. A log of that by-pass time is appended to this attachment. This by-pass effects not only the Medical Surgical Unit but also the ICU. When the Medical Surgical Unit is full, the ICU can not move patients out to monitored beds and free space in the ICU and on the other side when the ICU is full the ambulances which bring patients to the hospital must be diverted to other facilities which means that patients are not being admitted through the ER or normally for any type of elective surgery that might require ICU care initially.

The bypass issue is a situation the hospital feels it must address in the new hospital as it critically impacts the ability to insure prompt care to the area residents.

The applicant proposes to have all private rooms in the facility which will allow for better utilization of the facilities beds by eliminating problems with isolation or with patient mix by age or sex. This is especially important now that pediatric patients are being treated in Medical Surgical beds, as it is inappropriate to mix pediatric and adolescent patients with adults.

**ATTACHMENT GRC-4**

The other facilities in the planning area do not appear to have admission restrictions, but they are with the exception of Crossroads Hospital a substantial distance away and would result in hardships for the patients and their families to have to use facilities so remote from where they live.

Good Samaritan Regional Health Center has been for a number of years a regional resource for programs such as cardiac catheterization, open heart surgery and Rehabilitation beds. The other facilities within either the 30 minute travel time or the forty-five minute travel time do not either offer the service (rehab and open heart ) or have the capacity (cardiac catheterization) to accommodate the facility's historical workload were the facility to not be replaced.

The proposed location of the new facility is on property next to Interstate 57 which will dramatically improve the access to the hospital by the planning area residents. The existing hospital is located in a residential area and is not on one of the main roads in the community which makes it difficult to locate for any patient who is not familiar with Mt. Vernon itself.

The hospital has always maintained a generous charity care program and does not deny access to any patient regardless of their ability to pay. This policy will continue at the facility.

The proposed 99 beds are needed to support the facility's peak census as it now exists and to prevent the hospital from having to go on diversion/bypass, even if no growth in the population occurs. The Illinois Department of Public Health Center for Health Statistics predicts that the total population of the planning area is projected to grow by 7.1% between 2005 and 2015, while the population age 65 and over is projected to grow by 33.9% during that same time period. The only population which is projected to decrease during that time is the 0-14 age group which is the pediatric patients for which the applicant is proposing to discontinue the dedicated unit. The number of medical surgical patient days for the area is projected to increase by 12,100 days in the age 65 and over group for that time period and by 464 in the 15-64 age group

Based on the 2005 utilization data, as published in the Planning Board's Inventory of Health Care Facilities dated March 11, 2008, the applicant treated 43.36% of the patient days in the planning area. If that market share remains the same in 2012 the first year after project completion the applicant's patient days would increase by 3,672 patient days which at the 80% occupancy target supports the need for 13 beds which more than justifies the difference between the number of beds the 2007 volume currently supports and the number of beds the applicant is proposing to have.

**AA. Hospice and Home Health**

This area will be used primarily as office space and counseling space for the nurses and care givers in the Home Health and Hospice departments.

This unit will not be used to house patients and will have no bed space on the unit. It will have meeting rooms and spaces for the families of the patients to meet with the professional care givers who provide the care for the patients in their homes. It will also have materials for the patients and their families to refer to as they make decisions regarding their care.

The home health nurses and their supervisors will also be housed here as needed and the administrative portion of their care will be done here.

This department is located on the fifth floor of the hospital in an area which is otherwise administrative in nature.

This space is basically non-clinical in nature and could have been excluded from the Board's review, however, the decision was made that since it involves staff with direct patient care responsibility and in some instances meetings with the patient, that it would be treated as clinical space and justified in that fashion.

It is difficult to assign workload figures to this department because the patients served vary greatly, and nurses are used as needed.

**Criterion 1110.230.e, Size of Project**

Department	State Standard	Allowable GSF	Proposed GSF
Pharmacy	12 GSF/Bed	1,608	2,070
Central Sterile Supply	18 GSF/Bed	2,412	2,495
Cardiac Catheterization	1,596 GSF/Laboratory	3,192	2,478
Diagnostic Radiology	1,386 GSF/Room	8,316	6,275
Emergency	744.6 GSF/Room	13,402.8	10,762
Nuclear Medicine	1,135 GSF/Room	3,405	2,140
Surgery	2,078 GSF/OR	12,468	10,780
Recovery	180 GSF/Station	1,620	2,265
Hemodialysis	470 GSF/Room	1,880	1,200
Respiratory Therapy	20,5 Proc/GSF	4,537	1,344
Physical Therapy	7.5 Treatments/GSF	2,270.5	1,200
Occupational Therapy	4.3 GSF/bed (Less OB and ICU)	468.7 GSF	444
ICU beds	603 GSF/Bed	9,648	11,658
Rehab Beds	588 GSF/Bed	5,880	7,112
OB beds	476 GSF/Bed	1,428	2,771
LDRP	1,119 GSF/Bed	6,714	6,305
C-section Suite (OR)	2078 GSF/OR	2,078	1,018
New Born Nursery	152 GSF/OB Bed	1,368	1,219
Medical Surgical Beds	401 GSF/Bed	39,699	57,865

The table above shows that several departments exceed the State Norms: Pharmacy, Central Sterile Supply, Recovery, ICU beds, Rehab Beds, Ob beds, and Medical Surgical Beds. Each of these departments will be discussed separately under this attachment. In addition several clinical departments do not have State Norms and they also will be discussed separately.

**A. Pharmacy**

The State Norm bases the size of this department upon the number of beds in the hospital which was a good measure of departmental size at the time it was developed several years ago. However, the hospital today operates much differently than the hospital did then and as a result the space needs for Pharmacy have increased. The pharmacy now is responsible for preparing all of the infusion material for the chemotherapy patients which takes more room than in the past and the use these mixtures of drugs increases every year as more types of chemotherapy become available. The hospital is also now treating many more outpatient and provides medication for them from the pharmacy in many cases. The hospitals have all gone to a more controlled, unit dose system, which requires each patients meds to be dispensed from the pharmacy rather than on the patient floor from medicine cabinets. This requires more storage for carts and for medications.

All of the above factors increase the need for space in the pharmacy. Based upon our evaluation of the space needs at the hospital it was determined that the proposed 2,070 GSF was needed to provide these functions. This amounts to only 15.5 GSF/bed for a total of only 462 GSF more than the Board's State Norm would allow.

**B. Central Sterile Supply**

The proposed square footage exceeds the State Norm by a total of 83 GSF and if the Observation beds are counted, as they will also need supplies for their operation, the proposed size is within the State Norm (8 X18 GSF/bed = 144 GSF). Even if those beds are not counted , the difference in the proposed square footage can be explained by the increase use of sterile disposables in the OR and in the ED which have required that the Central Sterile Supply Departments have to become larger in order to accommodate the storage and distribution of these items.

**C. Outpatient Testing**

This department will be located on the first floor adjacent to the main entrance to the hospital. This will be where the patients go for their pre-admission testing, to have blood drawn, to answer questions, provide medical histories, etc., before they are admitted to the hospital for any type of elective procedure, whether it be inpatient or outpatient. All of the testing here will be done on an outpatient basis.

The State Agency has not developed any norms for this department. The size of the department was determined based upon the past experience of the applicant and their architects and in through discussions with the end user groups for this department. No published standards could be found specifically for this department.

#### **D. Outpatient Prep and Recovery**

This department is where outpatients requiring special procedures such as endoscopy, bronchoscopy, cardiac catheterization, etc, are prepared for the procedure and come back to for recovery. This department is outside of the PACU and stage two recovery areas for surgery. It basically consists of small rooms with a dressing area, a recliner or a space for a stretcher. These areas are monitored by the nursing staff and the patients are directly discharged from this area.

In 2007 the hospital had 1,330 outpatient endoscopy patients, 1,087 Catheterization, and 712 angiography procedures, in addition the applicant also has a contract with Archway Associates of Saint Louis to perform lithotripsy procedures and in 2007, 184 of those procedures were performed. All of the endoscopy patients, a large percentage of the cardiac cath patients, many of the angiography patients and all of the lithotripsy patients will pass through this department going into surgery, and again for recovery before they can be released to go home. This department, by its nature, has daily peaks and valleys in terms of occupancy with the early morning hours being the busiest and weekends being very quiet. Therefore the department must be built large enough to accommodate the busy times.

Again this department is an integral part of any modern health care facility with a strong outpatient department.

The State Agency has not developed any norms for this department and the applicant was unable to find any published norms for the industry. Therefore the size of this department was developed based upon the experience of the Architects, the space planning consultants our own experience and discussion with the physicians and nurses and the patients who will be utilizing this space. Based upon all of these factors, the space proposed was determined to be the best arrangement possible to meet our needs.

#### **E. Infusion Room**

This department will have five treatment stations on the first floor of the hospital and will be on a hallway that directly connects to the Medical Office Building This unit will be isolated somewhat from the rest of the hospital as many times the patients receiving care in this area have compromised immune systems which would make to dangerous for them to be in close contact with other hospital patients.

The space proposed equals 333 GSF per room which is even smaller than the State Norm for Dialysis rooms, which is the closest comparison that could be made to the type of procedure which takes place in these rooms.

This departments rooms are all small single rooms where the patient comes to receive the infusion and then goes home after the procedure. Since the patient is awake during the procedure, windows are desired and televisions or other media are provided to make the experience less difficult for the patient. These rooms are minimally sized for the purpose for which they are to be used.

**F. Outpatient Procedure Room**

This department will house four procedure rooms, two rooms will be set-up to perform endoscopy procedures, one room will be used for pulmonary function testing and one room will be used for minor procedures not done in the surgery requiring only local anesthesia.

The proposed square footage for this department is 2,535 GSF. Using the norm for radiology rooms, as a good comparison, the endoscopy and pulmonary function testing rooms could justify 4,158 GSF. Since the space can be more efficiently designed by placing the endoscopy rooms immediately adjacent to one another the department can be made smaller, hence the proposed 2,535 GSF.

**G. Cardiac Diagnostic Testing Space.**

The applicant is proposing to have 5,131 GSF to house this unit, which will have space for stress testing, echocardiography testing, general EKG testing, storage space for the cardiology equipment and support space for the staff of the diagnostic cardiology department.

The workload for this department for 2007 totaled 20,716 procedures both inpatient and outpatient. With the hospitals busy cardiology department including two cardiac catheterization labs and an open heart surgery program, this space is needed to meet the patients needs for both pre and post surgery and catheterization testing. Patients are routinely followed up subsequent to Open Heart Surgery and following therapeutic catheterizations.

The State Agency has not yet developed any norms for this department and there does not appear to be industry standards to rely upon in determining the appropriate space for this department so the applicant in conjunction with the architects and space planning consultants visited other facilities, held discussion group meetings with the physicians, nurses and other staff and patients who utilize the department in order to determine what the appropriate size should be. Based upon these endeavors it was determined that based upon the facilities historical utilization the proposed 5,132 GSF was appropriate.

## **H. EMS Facilities**

This area consists of a small 390 GSF area which will be utilized by the EMS call system and EMS personnel when they are at the hospital making their reports and awaiting the return of their equipment or picking up supplies. It will be located adjacent to the Emergency Department, but will not be used for patient care or treatment.

The size of this space was based upon discussions with the EMS personnel to determine their needs. There are no standards for this department and it appears that the proposed 390 GSF is minimal.

## **I. Observation Beds**

This area consists of four rooms with a capacity for two beds in each room. These beds will be utilized for the observation of patients who have not yet been admitted to the hospital. These patients are currently placed in inpatient beds on the patient floor or they are held in the ER treatment rooms until a bed can be found or they are released.

The patients will not be held for more than 23 hours in these rooms and they will be monitored by staff which can also be used in the ER if needed.

The department will have a total of 2,724 GSF, which based upon the 8 bed capacity of the unit amounts to 340.5 GSF per bed. Which is below standard for Medical Surgical beds in 2-bed rooms (401 GSF per bed). Since these patients are in these beds for observation and not longer term care, this space was determined to be adequate for a short stay.

## **J. Surgery Prep**

This department will be used for the patients who come into the hospital the day of their surgery. The patients will be shown to a small room where they change from their street clothes into the gowns they will wear when they are transported to surgery. They will then be prepared for surgery with IV's started and any other pre-anesthesia medication administered. They will also meet here with their physician, or his representative and with a member of the anesthesiology department to go over what is going to be done and to answer any final questions they may have before surgery.

The patients will be transported from this area into surgery where they will have their procedure performed and then they will go to the PACU for Stage-I recovery and either be sent to their hospital room for Stage-II recovery or if they are an outpatient they will come back to this department for Stage-II recovery.

The space for this department was determine in two phases the need for a preparation area and the need for Stage-II recovery. The size of the preparation phase was determined

based upon the need to have a large number of small dressing rooms available for the early morning hours when patients are coming into the department prior to surgery, and the need to have sufficient space for the anesthesiologist and surgeons to see the patients prior to surgery to explain what was going to happen and to answer any last minute question. This area will also be used to provide the nurses an area to prepare the individual patients for surgery.

It is common during the early morning hours to have 12 to 15 patients in the preparation area awaiting their turn to go into surgery. This area can become quite congested therefore, additional space is necessary..

It was determined that the space for this area needed to be somewhat larger than the Stage-II recovery area so it was determined that 2,100 GSF was to be allocated to the preparation area and an additional 1,920 GSF was allocated to Stage-II recovery, with some of the space capable of being utilized for both parts of the patients' stays

The space for the eleven Stage-II recovery stations is within the State Norm of 1,980 GSF

#### **K. Recovery**

The applicant is proposing to have 9 recovery stations in 2,265 GSF. This exceeds the State standard of 180 GSF by 71 GSF per station

There are two reason why the space exceeds the standard. First the applicant is proposing to have actual rooms for these patients to recover in rather than the open bays with curtains surrounding the patient. This is done for two primary reasons. Infection control is a major issue in all hospitals today and this is one way to make sure that patients do not come in contact with infection from another patient, and second, HIPAA privacy rules require hospitals to be much more sensitive to patient privacy which is very difficult to maintain in open bay type area.

The second reason why this space is larger than the State Norm relates to its location in the hospital. Due to the need to place this unit immediately adjacent to the surgery area the location is fixed. However, there is a large vertical ventilation chase from the kitchen area that passes directly through this department. Therefore, more corridor and addition room space is necessary to maintain patient flow and allow the nurses direct observation of the patients.

These two factors dictate the size of this unit, and explain the discrepancy between the proposed square footage and the State Norm.

**L. ICU beds**

The applicant is proposing to have 16 ICU beds in 11,658 GSF which amounts to 728.6 GSF per bed which exceeds the State Norm of 603 GSF/bed by 125.6 GSF per bed.

The proposed GSF for this department is larger than the State Norm due primarily to the use of private rooms and the relatively small number of beds involved. The applicant proposes to develop a unit which has all private rooms which are not in open bays. But rather are in actual rooms. Each of these rooms will also have a bathroom, and will be sized to handle all of the equipment necessary for a modern ICU. These rooms will also be sized to handle Cardiac Cases such as patients who are coming to the unit following open heart surgery. The use of the rooms as private rooms increases square footage in several ways. It causes the department to be bigger just to account for the wall thicknesses, and the door opening, It causes the department to be bigger because each room will have its own restroom facilities and it causes the department to be bigger because more rooms require more corridor space and a larger nurses station to maintain direct visual observation of the patients. Modern ICU rooms also allow more room for a family member to be with the patient throughout his or her stay and to allow a somewhat larger number of visitors than was allowed in the past. All of these factors add up to a need for larger rooms.

The Board has seen in the more recent applications which have appeared before the Board that larger spaces are needed to support the ICU patients. The applicant's proposed 728.6 GSF falls well within the range of projects previously approved by the Board.

**M. Rehab Beds**

The applicant is proposing to have 7,112 GSF to house the proposed 10-bed Comprehensive Rehabilitation Unit. This amounts to 711 GSF per bed which exceeds the State Norm of 588 GSF/bed. The primary reason for this discrepancy is the number of beds proposed for this unit. While the applicant's historical occupancy supports the need for only the 10 beds proposed the programs which make up the State Norm are much larger units and there is an economy of size factor for this service. Because you need large pieces of equipment such as lifts to transfer patients, more wheel chairs and other devices to assist in making the patients more mobile storage is a must on these units and the more beds on the unit the smaller the GSF per bed is. The same holds true of the clean and soiled utility areas and the rehabilitation treatment areas on the floor. It takes virtually the same amount of space for rehabilitation treatment on the floor for a 16 bed unit as it does for a 10 Bed unit. There are minimum sizes for each of the support areas and they are virtually the same for a 10 Bed unit as they are for a 15 -20 Bed unit.

The department is minimally sized to provide all of the support space necessary to operate a comprehensive rehabilitation unit.

**N. Obstetric Beds**

The applicant is only proposing to have 3 beds in this unit. However, it is more appropriate to consider the entire LDRP and OB sections together, since the utilization which justifies the nine total beds is considered together. The State Norm for LDRP is listed at 1,119 GSF per room and OB is listed at 476 GSF per room. These two norms would allow the applicant to have a total of 8,142 GSF total the applicant is asking for 9,076 GSF. The difference between the State Norm and the applicant's proposal results from the small number of OB beds proposed. The three beds are needed to support the applicant's historical workload but the result in a very small unit which has built in inefficiency when it comes to square footage. The unit must meet all of the Life Safety Code requirements and the licensure requirements of a larger unit. It must have a nurses station, it must have utility rooms, medication stations, etc. but the square footage for these rooms can not be spread over a larger number of rooms. This makes it impossible for the applicant to meet the Board's size standards. Another factor in the size discrepancy is the desire to provide family space in the rooms and to give each room its own bathroom, this also causes the overall space in the unit to be larger.

**O. Medical Surgical Beds**

The applicant is proposing to have 99 Medical Surgical Beds in 57,865 GSF. This amounts to 584.5 GSF/bed which exceeds the State Norm of 401 GSF/bed by 183 GSF/bed. However, the applicant's proposed 584.5 GSF per bed is well within the range of space proposed for projects previously approved by the Board. In the past few months, the space approved has varied from 497 GSF/bed to 680.6 GSF/bed.

The reasons for the difference between the State Norm and the applicant's proposal are the same reasons the Board has heard on many occasions. The applicant is proposing to have family space in the rooms so that someone can stay overnight with the patient if they wish. This space will also include space for other visitors in the room including space for the doctor to sit down and discuss treatment with the patient. Each of the rooms will be private rooms which require additional corridor space, space for door swings and space for charting for the nurses. This will include space for laptop hook-ups to allow electronic medical records capability and immediate ordering capability for the physicians.

Each room will have its own bathroom which means that additional space will be needed to accommodate the additional bathrooms.

The proposed square footage is needed to accommodate the state-of-the-art unit proposed for this new hospital.

**P. Hospice and Home Health**

The Hospice and Home Health Departments will occupy space on the fifth floor of the

**Criterion 1110.230.e, Size of Project**

The projected utilization levels for the bed services are based on two factors, one is the increase in the population especially the age 65 and over population and the number of days the applicant was on diversion in 2007. Both of these factors were discussed under the Variances to the computed bed need.

It is important to note that the days on diversion were not considered in the projections for Rehab nor in OB since neither would be particularly impacted by the hospitals diversion status.

For purposes of this application the Obstetric patient days are projected to remain at the 2007 levels. The population change in the OB patient age group is negligible.

Department	2007 Volume	2012 Volume	2013 Volume
Obstetrics	1,861 Patient days	1,861 Patient Days	1,861 Patient Days
Rehab*	2,819	2,918	2,938.4
Medical Surgical/Peds	24,802	28,615	29,164
ICU**	3,128	3,465	3,488
Cardiac Cath***	1,087	1,200	1,250
Open Heart Surgery	84	84	84

\*The overall population of the planning area is projected to increase .7% per year for the 10 years between 2005 and 2015

\*\*Includes days which would be realized if not on diversion plus a .7% annual increase in population

\*\*\* during 2007 one interventional cardiologist left, but was replaced shortly by another, the projections conservatively project returning to 2005 and 2006 volumes

**SECTION VI. REVIEW CRITERIA RELATING TO ESTABLISHMENT OF ADDITIONAL BEDS OR SUBSTANTIAL CHANGE IN BED CAPACITY (BEDS)**

This section is applicable to all projects proposing the establishment of additional beds or the conversion of beds from one category of service to another.

**A. Criterion 1110.320.b, Allocation of Additional Beds**

Read this criterion and explain how establishment of the new category of service will improve the distribution or accessibility of the service. Include any supporting documentation.

**APPEND DOCUMENTATION AS ATTACHMENT BEDS-1 AFTER THE LAST PAGE OF THIS SECTION.**

**B. Criterion 1110.320.c, Addition of Beds to Existing Facilities**

Read this criterion and address the following:

1. If applicable, explain why it is not architecturally or programmatically feasible to rearrange and use presently underutilized bed capacity for this project.
2. Provide documentation that there will not be sufficient space in the proposed room to accommodate any additional beds.
3. Provide a comparison of the applicant facility's average length of stay with the length of stay of any similar facilities in the planning area. If there is a discrepancy, provide a rationale.

**APPEND DOCUMENTATION AS ATTACHMENT BEDS-2 AFTER THE LAST PAGE OF THIS SECTION.**

### **Criterion 1110.320.b, Allocation of Additional Beds**

The proposed project is considered to be the establishment of a new hospital because it involves the construction of the replacement hospital on a new site. This new site is much more accessible to the population of the planning area for two reasons.

1. The existing site is located in a residential area in the center of the community and is not on one of the main arterial roads of the community. It is located on two lane residential streets which can be congested with parked cars on one or sometimes both sides of the road. While the signage enables people to find the hospital it can be somewhat confusing in stressful emergency situations for people unfamiliar with the community.

The existing hospital's large service area for services such as Rehabilitation, Cardiac Catheterization and Cardiac Surgery make this location more of a problem since it brings many more patients who are unfamiliar with the community into the hospital.

2. The proposed location will be adjacent to a new off-ramp to Interstate 57 will make the facility more visible and much easier to access. Mt. Vernon's location at the intersection of two major interstate highways, I-57 and I-64 means that this area has a high concentration of traffic which leads to more traffic accidents and locating this facility adjacent to the interstate will make the job of getting a patient to the hospital for emergency workers much easier.

The proposed project will actually reduce the number of beds overall in the planning area while increasing the number of ICU and Obstetric beds. A discussion of the need for these additional beds occurs elsewhere in this application, but the two services are being increased for similar reasons. As more and more of the smaller hospitals in Southern Illinois become critical access hospitals with a very limited number of beds and short lengths of stay, the number of beds needed at the remaining hospitals for Obstetrics services and for those patients needing more intensive care continues to rise. The hospital can no longer afford to go on by-pass for even a short period of time as there is no place else for the patient to go for care within a reasonable travel time.

These additional beds are also essential for the recruitment of new physicians to the area. Again new physicians are needed in the specialty services which often involve ICU care and in Obstetrics where Southern Illinois has always had a problem recruiting and retaining Obstetricians which results in many hospitals over the years closing their services due to having no physicians. The location of this new facility will also improve access to mothers coming from different parts of the planning area to deliver their babies.

**SECTION VII REVIEW CRITERIA RELATING TO ALL MODERNIZATION PROJECTS (MOD)**

This section is applicable to all projects proposing modernization. Modernization includes, but is not limited to: expanding a department, acquiring major medical equipment, remodeling, or constructing additions or new buildings.

**A. Specific Information Requirements**

Indicate if the following areas or departments are to be modernized and provide the information as applicable.

1. AMBULATORY CARE (Include all outpatient clinics) -- Is this area being modernized?  
 Yes  No

If yes, provide:

a. The number of visits for each of the last three years:

Year \_\_\_\_\_  
 Number \_\_\_\_\_

b. The number of treatment/examination rooms: Existing \_\_\_\_\_ Proposed \_\_\_\_\_

2. AMBULATORY SURGERY TREATMENT CENTERS-- Is this area being modernized? Yes  No

If yes, provide:

a. The number of procedures for each of the last three years:

Year \_\_\_\_\_  
 Number \_\_\_\_\_

b. The number of visits for each of the last three years:

Year \_\_\_\_\_  
 Number \_\_\_\_\_

c.. The number of operating rooms for each of the last three years:

Year \_\_\_\_\_  
 Number \_\_\_\_\_

3. CARDIAC CATHETERIZATION -- Is this area being modernized? Yes  No

If yes, provide the number of inpatient, outpatient, and total procedures (patient visits) performed on adults and on pediatric patients for each of the past three years:

	ADULT			PEDIATRIC not applicable		
Year	2005	2006	2007	Year	_____	_____
Inpatient	873	915	700	Inpatient	_____	_____
Outpatient	376	349	387	Outpatient	_____	_____
Total	1,249	1,264	1,087	Total	_____	_____

4. EEG DEPARTMENT OR AREA -- Is this area being modernized? Yes  No

If yes, provide the number of inpatient, outpatient, and total procedures for each of the past three years:

Year	<u>2005</u>	<u>2006</u>	<u>2007</u>
Inpatient	<u>158</u>	<u>154</u>	<u>182</u>
Outpatient	<u>106</u>	<u>142</u>	<u>137</u>
Total	<u>264</u>	<u>296</u>	<u>319</u>

5. EKG DEPARTMENT OR AREA -- Is this area being modernized? Yes  No

If yes, provide the number of inpatient, outpatient, and total procedures for each of the past three years:

Year	<u>2005</u>	<u>2006</u>	<u>2007</u>
Inpatient	<u>12,726</u>	<u>11,819</u>	<u>12,643</u>
Outpatient	<u>8,798</u>	<u>8,531</u>	<u>8,073</u>
Total	<u>21,560</u>	<u>20,350</u>	<u>20,716</u>

6. HEMODIALYSIS SERVICES -- Is this area being modernized? Yes  No

If yes, provide the following information:

- a. The number of treatment stations: existing 4 proposed 4  
 b. The number of treatments performed for each of the last three years:

Year	<u>2005</u>	<u>2006</u>	<u>2007</u>
Treatments	<u>1,217</u>	<u>1,367</u>	<u>1,430</u>

7. LABOR-DELIVERY-RECOVERY -- Is this area being modernized? Yes  No

If yes, provide the following information:

- a. The number of \_\_\_\_\_  
 b. The number of procedures and deliveries for each of the last three years:

Labor rooms	_____	Year	<u>2005</u>	<u>2006</u>	<u>2007</u>
Delivery/birthing rooms	_____	Procedures	_____	_____	_____
Recovery stations	_____	Deliveries	<u>689</u>	<u>724</u>	<u>781</u>
LDR's	<u>5*</u>				
LDRP rooms	<u>6**</u>				

\* Number of existing rooms

\*\* Number of Proposed Rooms

8. LABORATORY SERVICES -- Is this area being modernized? Yes  No

If yes, provide the number of equivalent full-time employees (FTE's) employed in the laboratory 36

9. MAGNETIC RESONANCE IMAGING -- Is this area being modernized? Yes  No   
**MRI will be located in Medical Office Building and is discussed in that CON.**

If yes, provide the following information for each of the last three years:

Year	_____	_____	_____
Number of visits	_____	_____	_____
Number of scans	_____	_____	_____

10. NURSERY (other than neonatal intensive care units) -- Is this area being modernized?  
 Yes  No

If yes, provide the following for each of the last three years:

Year	<u>2005</u>	<u>2006</u>	<u>2007</u>
Number of newborns	<u>689</u>	<u>724</u>	<u>787</u>
Number of patient days	<u>1,178</u>	<u>1,253</u>	<u>1,330</u>

11. OCCUPATIONAL THERAPY -- Is this area being modernized? Yes  No

If yes, provide the following information for each of the last three years:

Year	<u>2005</u>	<u>2006</u>	<u>2007</u>
Inpatient treatments	<u>7,050</u>	<u>7,793</u>	<u>7,308</u>
Outpatient treatments	<u>993</u>	<u>753</u>	<u>718</u>
Number of visits	<u>8,043</u>	<u>8,546</u>	<u>8,026</u>

12. PHYSICAL THERAPY -- Is this area being modernized? Yes  No

If yes, provide the following information for each of the last three years.

Year	<u>2005</u>	<u>2006</u>	<u>2007</u>
Inpatient treatments	<u>17,033</u>	<u>17,368</u>	<u>17,029</u>
Outpatient treatments	<u>4,116</u>	<u>3,818</u>	<u>4,325</u>
Total treatments	<u>21,149</u>	<u>21,186</u>	<u>21,354</u>
Number of visits	<u>21,149</u>	<u>21,186</u>	<u>21,354</u>

13. PULMONARY FUNCTION -- Is this area being modernized? Yes  No

If yes, provide the following information for each of the last three years.

Year	<u>2005</u>	<u>2006</u>	<u>2007</u>
Inpatient procedures	<u>196</u>	<u>173</u>	<u>151</u>
Outpatient procedures	<u>997</u>	<u>793</u>	<u>828</u>
Total procedures	<u>1,193</u>	<u>966</u>	<u>979</u>
Number of visits	<u>1,193</u>	<u>966</u>	<u>979</u>

14. RECOVERY (SURGICAL) -- Is this area being modernized? Yes  No

If yes, provide the existing and proposed number of stations by type:

	Existing	Proposed
Inpatient	_____	<u>9</u>
Outpatient Stage I	_____	_____
Outpatient Stage II	_____	_____

15. RESPIRATORY THERAPY -- Is this area being modernized? Yes  No

If yes, provide the following information for each of the last three years.

Year	<u>2005</u>	<u>2006</u>	<u>2007</u>
Inpatient treatments	<u>79,781</u>	<u>79,797</u>	<u>90,681</u>
Outpatient treatments	<u>2,520</u>	<u>3,225</u>	<u>2,329</u>
Total treatments	<u>82,301</u>	<u>83,022</u>	<u>93,010</u>
Number of visits	<u>82,301</u>	<u>83,022</u>	<u>93,010</u>

16. DIAGNOSTIC RADIOLOGY -- Is this area being modernized? Yes  No

If yes, provide the following information classifying procedure rooms as general or special according to the type of machines employed.

General machines are:

- Radiographic
- Fluoroscopic
- Radiographic/Fluoroscopic
- Tomographic (linear)

Special machines are:

- Angiographic
- CT Scanner
- Mammography
- Sonographic (ultrasound)
- Tomographic (multi-directional)

- a. Provide the number of existing and proposed general procedure rooms by machine type.
- b. Provide the number of existing and proposed special procedure rooms by machine type.

**APPEND DOCUMENTATION AS ATTACHMENT MOD-1A AFTER THE LAST PAGE OF THIS SECTION.**

17. EMERGENCY SERVICES -- Is this area being modernized? Yes  No

If yes, provide the following information:

- a. The number of existing and proposed treatment/examination rooms;
- b. A list of any of the above rooms that are or will be used for purposes other than general treatment;
- c. The number of visits for each of the last three years.

**APPEND DOCUMENTATION AS ATTACHMENT MOD-1B AFTER THE LAST PAGE OF THIS SECTION.**

18. INPATIENT BED AREA -- Is this area being modernized? Yes  No

If yes, provide the following information:

- a. The number of existing and proposed private rooms, semi-private rooms, and three or more occupancy rooms (by category of service for each type of room) for the entire facility and for the project;
- b. Line drawings showing the configuration of the unit(s) being modernized.

**APPEND DOCUMENTATION AS ATTACHMENT MOD-1C AFTER THE LAST PAGE OF THIS SECTION.**

19. NUCLEAR MEDICINE -- Is this area being modernized? Yes  No

If yes, provide the following information:

A list of the existing and proposed major pieces of equipment;

- a. The existing and proposed number of procedure rooms;
- b. The number of inpatient, outpatient, and total procedures done for each of the last three years;
- c. A breakdown of the procedures into types of procedures and machine time/procedure for the last year.

**APPEND DOCUMENTATION AS ATTACHMENT MOD-1D AFTER THE LAST PAGE OF THIS SECTION.**

20. RADIATION THERAPY -- Is this area being modernized? Yes  No

If yes, provide the following information:

- a. The number of treatments and the number of "courses of treatment" for each of the last three years;
- b. A list of the existing and proposed pieces of megavoltage equipment.

**APPEND DOCUMENTATION AS ATTACHMENT MOD-1E AFTER THE LAST PAGE OF THIS SECTION.**

21. SURGERY -- Is this area being modernized? Yes  No

If yes, provide the following information:

- a. The existing and proposed number of procedure rooms. Indicate the use of these rooms such as general, open heart, eye, endoscopy, and cystology. Indicate how many rooms are dedicated solely to outpatient surgery, solely to inpatient surgery, and how many are used for both.
- b. The inpatient, outpatient, and total hours of utilization (including clean-up and set-up time) for each of the last three years;
- c. The total hours of utilization (including clean-up and set-up time) for each type of procedure room for each of the last three years;
- d. The number of inpatient, outpatient, and total surgical visits for each type of surgical specialty for each of the last three years.

**APPEND DOCUMENTATION AS ATTACHMENT MOD-1F AFTER THE LAST PAGE OF THIS SECTION.**

22. OTHER DEPARTMENTS OR AREAS -- Are any other areas being modernized? Yes  No

If yes, identify the area(s) and provide workload data for each area for each of the last three years.

**APPEND DOCUMENTATION AS ATTACHMENTS MOD-1G, MOD-1H, MOD-1I, MOD 1J, etc. AFTER THE LAST PAGE OF THIS SECTION.**

**DIAGNOSTIC RADIOLOGY**

Room Type	No. Of Rooms		Volume		
	Existing	Proposed	2005	2006	2007
General X-ray/ Fluoroscopy	3	6*	33,545	31,686	31,835
Mammography	2	3**	6,548	6,702	7,207
Ultrasound	3	5***	7,040	7,342	8,273
Angiography	1	1	1,108	1,103	1,105
CT	2	2****	12,469	10,996	12,592

\* 3 of the general X-ray units will be located in the new hospital and 3 will be located in the outpatient imaging center in the proposed MOB

\*\*All three of the Mammography Units will be located in the Women's Center in the MOB and will be discussed in that CON.

\*\*\* 2 of the ultrasound units will be located in the hospital and three will be located in the MOB.

\*\*\*\* 1 CT will be located in the hospital and 1 will be located in the MOB

## EMERGENCY SERVICES

The existing facility currently has 14 treatment rooms and is proposing to have 18 treatment rooms.

The historical volume for this department is shown on the following table.

Year	Volume -Visits
2005	23,952
2006	24,072
2007	24,679

### **INPATIENT BED AREA**

None of the existing inpatient bed units are being modernized. They are all being replaced in a new hospital. The new replacement hospital will have 100% private beds.

Schematic drawings for the new hospital are appended to the application.

**ATTACHMENT MOD-1C**

## NUCLEAR MEDICINE

The existing facility has 3 rooms and the new replacement facility is also proposing to have 3 rooms. The existing facilities historical volume is shown on the following table:

Year	Volume - Procedures
2005	3,914
2006	3,208
2007	3,521

Good Samaritan  
 ChargerMaster for Dept 4204  
 Printed 6/10/08@10:10 am.

NOTES:  
 changing collimators takes a long time for higher energy treatments  
 Myocardial procedures require IV start times prior to treatment beginning

Often have  
 to change  
 collimators

PATIENT	TRNLT TIME	2007	Extended	SIM_DESG	SIM_DPT	HCPCL	Categories	of Care	UB_COD	VAR_PRC_1	REV_CODE	ALT_CDS
FIN_CODE IN HOURS	Volume	Time				Code			E			
PROCEDURES												
420478100	0.8	107	63.60	NM THYROID UPTAKE	RAD	78000	Endocrine		341	201		4204 WP
420478010	1	107	107.00	NM THYROID SCAN ONLY	RAD	78010	Endocrine		341	626		4204 WP
420478070	3	13	39.00	NM PARATHYROID	RAD	78070	Endocrine		341	1208		4204 WP
420478196	3	29	87.00	NM LYMPHATICS LYMPH GLAND IMAGING	RAD	78195	Tumor		341	2183		4204 WP
420478218	1.25	2	2.50	NM LIVER SPLEEN SCAN	RAD	78218	GI		341	1287		4204 WP
420478220	1.6	60	90.00	NM HEPATOBILIARY SCAN	RAD	78220	GI		341	1284		4204 WP
420478223	1.6	318	954.00	NM HEPATOBILIARY FUNCTION SCAN	RAD	78223	GI		341	1467		4204 WP
420478284	2.6	19	40.00	NM GASTRIC EMPTYING STUDY	RAD	78284	GI		341	800		4204 WP
420478278	2	14	28.00	NM GI BLOOD LOSS	RAD	78278	GI		341	1028		4204 WP
420478280	3	1	3.00	NM MECKEL'S SCAN	RAD	78280	GI		341	780		4204 WP
420478306	3	20	60.00	NM BONE SCAN LIMITED AREA	RAD	78300	Skeletal		341	1181		4204 WP
420478306	3	480	1,380.00	NM BONE SCAN TOTAL BODY	RAD	78306	Skeletal		341	1181		4204 WP
420478315	3	88	288.00	NM BONE IMAGING 3 PHASE	RAD	78315	Skeletal		341	1181		4204 WP
420478320	3	11	33.00	NM BONE SCAN W/SPECT	RAD	78320	Skeletal		341	2024		4204 WP
420478461	3	2	6.00	NM MYOCARDIAL REDISTRIBUTION MULT	RAD	78461	Cardiology		341	1131		4204 WP
420478464	3	2	6.00	NM MYOCARDIAL SPECT MULTI	RAD	78464	Cardiology		341	1025		4204 WP
420478465	1.5	930	945.00	NM MYOCARDIAL IMAGING INFARCT	RAD	78465	Cardiology		341	2727		4204 WP
420478486	6	1	6.00	NM MYOCARDIAL PERF W/WALL MOTION	RAD	78486	Cardiology		341	1832		4204 WP
420478472	1	116	118.00	NM CARDIAC BLOOD POOL	RAD	78472	Cardiology		341	688		4204 WP
420478478	1	632	632.00	NM MYOCARDIAL PERF W/WALL MOTION	RAD	78478	Cardiology		341	688		4204 WP
420478480	1	632	632.00	NM MYOCARDIAL PERF W/INJECTION FRA	RAD	78480	Cardiology		341	1082		4204 WP
420478880	1	104	104.00	NM LUNG PERFUSION	RAD	78880	Pulmonary		341	780		4204 WP
420478887	1	103	103.00	NM LUNG VENTILATION MULTI PROJ	RAD	78887	Pulmonary		341	1214		4204 WP
420478704	1	18	18.00	NM RENAL W/FUNCTION	RAD	78704	Urology		341	1214		4204 WP
420478728	1.5	26	37.50	NM RENAL W/PHARMAC INTERVENTION	RAD	78708	Urology		341	1800		4204 WP
420478800	4	1	4.00	NM TUMOR LOCALIZATION LIMITED	RAD	78800	Tumor	xx	341	1800		4204 WP
420478801	4	1	4.00	NM TUMOR LOCALIZATION MULTIPLE	RAD	78801	Tumor	xx	341	1898		4204 WP
420478802	3	5	15.00	NM TUMOR LOCALIZATION WHOLE BODY	RAD	78802	Tumor	xx	341	1787		4204 WP
420478808	3	6	18.00	NM ABSCESS LOCALIZATION WHOLE BOB	RAD	78808	Infection		341	4930		4204 WP
420478001	1	8	6.00	NM HYPERTHYROIDISM THERAPY INITIA	RAD	78005	Therapy		342	1811		4204 WP
420479100	1	1	1.00	NM P-32 THERAPY	RAD	79101	Therapy		342	1374		4204 WP
420408376	1	4	4.00	NM HELICOBACTER PYLORI BREATH	RAD	83014	GI		300	800		4204 WP
		3,521	5,760.50									

**SURGERY**

Specialty	Number of Rooms		Hours of Surgery - Inpatient			Hours of Surgery - Outpatient		
	Present	Proposed	2005	2006	2007	2005	2006	2007
Cardiovascular	1	1	142	575	952	8	24	47
General	7	4	3,479	2,376	4,187	4,456	5,503	6,519
Urology / Cystoscopy	1	1	203	288	536	405	501	846

In addition to the surgery rooms offered in the hospital 3OR's and two minor procedure rooms will be provided in the ASTC which is proposed to be located in the Medical Office Building adjacent to the new replacement hospital and will be discussed in a separate CON application.

### Pharmacy

The pharmacy is meant to serve only the patients of the hospital, therefore the only apparent measure of need is the utilization of the hospital. The following table shows the number of inpatient admissions and the number of outpatient visits for each of the last three years.

Year	Inpatient Admissions	Patient Days Total	Outpatient Visits
2005	7,237	31,422	59,445
2006	7,440	31,270	76,683
2007	7,965	32,610	78,127(at the hospital)

## Endoscopy

The applicant currently has 2 endoscopy rooms, and will continue to have 2 endoscopy rooms in the new facility. The utilization for the endoscopy Service is shown below:

Year	Hours of Utilization
2005	1,498
2006	1,329
2007	1,336

### Infusion Services

The Infusion services volume for each of the last three years is shown below

Year	Volume
2005	5,262
2006	4,704
2007	6,351

### Cardiac Rehabilitation

The cardiac rehabilitation volume for each of the last three years is shown below.

Year	Volume
2005	1,362
2006	1,412
2007	1,765

### Speech Therapy

The volume for this department is as follows:

	2005	2006	2007
Inpatient	2,058	2,482	2,007
Outpatient	1,374	1,239	1,015
Total	3,432	3,721	3,002

ATTACHMENT MOD-1K

**B Criterion 1110.420.b, Modern Facilities**

A criterion must be claimed for EACH department or area to be modernized. The justification for each department or area must be on a separate page. Choose the criterion or criteria which most clearly approximates the reason for proposing the modernization.

At least ONE of the following two criteria must be claimed for EACH department or area proposed for modernization.

1. Read criterion 1110.420.b.1. **This criterion cannot be used to justify any increase in square footage. If expansion of a department is proposed, criterion 1110.420.b.2 must be claimed.**

Indicate if this criterion is claimed and submit the following:

- a. the age of the building or piece of equipment;
- b. the downtime experienced on the piece of equipment for each of the last three years;
- c. the cost of repair experienced on the piece of equipment for each of the last three years;
- d. a detailed explanation of why and how it was determined that the building or piece of equipment was deteriorated and needs to be replaced;
  - (a) provide copies of any licensing, certification, or fire protection citations.

**APPEND DOCUMENTATION AS ATTACHMENT MOD-2 AFTER THE LAST PAGE OF THIS SECTION.**

2. Read Criterion 1110.420.b.2. Identify if this criterion is claimed and submit the following information:
  - a. a detailed explanation of why and how it was determined that expansion of the department or area was necessary;
  - b. a discussion of the alternatives considered to expanding the department (e.g. increasing the hours or days of operation) and why the alternatives were rejected.

**APPEND DOCUMENTATION AS ATTACHMENT MOD-3 AFTER THE LAST PAGE OF THIS SECTION.**

**C. Criterion 1110.420.c, Major Medical Equipment**

Read Criterion 1110.420.c and provide documentation that the equipment will achieve or exceed the applicable target utilization levels specified in Appendix B of Part 1110 within 12 months after becoming operational.

**APPEND DOCUMENTATION AS ATTACHMENT MOD-4 AFTER THE LAST PAGE OF THIS SECTION.**

### **Criterion 1110.420.b.2, Necessary Expansion**

This criterion is chosen for all of the services in the new Replacement Hospital because it best describes the reasons why the hospital is being proposed for replacement. In general the hospital is inadequately sized and configured to serve the needs of the hospital's patients in an efficient and cost effective manor. While the building itself is old and its infrastructure is in need of replacement, that is only part of the information used to decide to replace the building. There is a need to provide more space so that patients can be treated in private rooms, the individual departments such as Emergency, Diagnostic Imaging, Surgery, etc. are undersized to accommodate the equipment used in today's health care environment, and are not designed to serve the increasing outpatient utilization in their present configuration. These conditions can not be addressed in the present location as the site is too small and does not lend itself to expansion beyond its current configuration.

The individual departments involved in this department are discussed in detail in the following pages.

**A. Pharmacy**

The pharmacy is proposed to be used to supply all pharmaceutical supplies required for the treatment of inpatients and for the use by outpatients who are seen by the physicians at the hospital or in the Emergency Department. This department will not be a retail pharmacy.

The department will be located on the Garden or lowest level of the hospital in close proximity to the material management department with convenient vertical access to the emergency department , surgery, and the bed units.

This department is an essential part of the provision of inpatient care as well as to the provision of emergency care. It is a department which is included in every new hospital and as such is needed in this hospital.

**B. Central Sterile Supply**

This department will be located on the Garden level of the hospital and will have direct vertical access to the cardiac catheterization Labs, The Surgery, and the outpatient services (endoscopy, and minor procedure) departments. The department will also be located in close proximity vertically to the Emergency Department.

The department will be responsible for providing sterile packs to the various departments in the hospital. The department will also house the sterilization equipment used to sterilize instruments and other re-usable supplies to these departments.

Again this department is an integral part of all hospitals. Even with today's reliance on disposable supplies the sterilization of equipment and supplies must be done, and this department is also responsible for preparing the packages of disposal for use in the other departments of the hospital.

**C. Outpatient Testing**

This department will be located on the first floor adjacent to the main entrance to the hospital. This will be where the patients go for their pre-admission testing, to have blood drawn, to answer questions, provide medical histories, etc., before they are admitted to the hospital, for any type of elective procedure, whether it be inpatient or outpatient. All of the testing here will be done on an outpatient basis.

This department provides a central location for patients who are coming into the hospital, many for the first time, to be met and escorted to the various departments where the testing will actually take place.

This department will have small rooms where blood can be drawn or where patients can answer the medical questions they or the hospital may have in privacy which is not now available at the existing hospital. Absent this department, patients would have to find their way to the various departments for their tests, and in many cases would have to answer the same questions multiple times. With this department the patient can have a much less stressful visit for these pre-admission tests while providing all of the information necessary to admit the patient for their actual procedure at a single location.

The requirements for privacy advanced by HIPAA require that the hospital provides private spaces for the taking of the pre-admission information. This department will allow that to be provided in an efficient manner.

**D. Outpatient Prep and Recovery**

This department is where outpatients requiring special procedures such as endoscopy, bronchoscopy, cardiac catheterization, etc, are prepared for the procedure and come back to for recovery. This department is outside of the PACU and stage two recovery areas for surgery. It basically consists of small rooms with a dressing area, a recliner or a space for a stretcher. These areas are monitored by the nursing staff and the patients are directly discharged from this area.

In 2007 the hospital had 1,330 outpatient endoscopy patients; 1,087 Catheterization patients and 712 angiography patients, in addition the applicant also has a contract with Archway Associates of Saint Louis to perform lithotripsy procedures and in 2007, 184 of those procedures were performed. All of the endoscopy patients a large percentage of the cardiac cath patients, many of the angiography patients and all of the lithotripsy patients will pass through this department many going into surgery, and again for recovery before they can be released to go home. This department by its nature has daily peaks and valleys in terms of occupancy with the early morning hours being the busiest and weekends being very quiet. Therefore the department must be built large enough to accommodate the busy times.

Again this department is an integral part of any modern health care facility with a strong outpatient department.

**E. Infusion Center**

This department will have five treatment stations on the first floor of the hospital and will be on a hallway that directly connects to the Medical Office Building. This unit will be isolated somewhat from the rest of the hospital as many times the patients receiving care in this area have compromised immune systems which would make it dangerous for them to be in close contact with other hospital patients.

This department will also be located on an outside wall of the hospital in order to provide the patients with exterior views. These patients are sometimes in the treatment rooms for several hours and this view to the outside is essential in their treatment.

The historical volume for this department for 2007 total 6,351 visits for an average of 24.4 visits per day 260 work days per year (5 days per week X 52 weeks). This volume would mean that, based upon an average time of 1.5 hours per patient, including setting up the room before each patient would mean that the rooms would be occupied 92% of the time.

The five rooms proposed are necessary to support the existing volume of infusions and that volume has increased from 5,262 visits in 2005 to 6,351 visits in 2007, and it is expected to continue to increase as the patients' age and new forms of chemotherapy are developed.

**F. Outpatient Procedure Rooms.**

This department will house the four procedure rooms, two rooms will be set-up to perform endoscopy procedures, one room will be used for pulmonary function testing and one room will be used for minor procedures not done in the surgery requiring only local anesthesia.

The existing facility performed a total of 1,336 hours of endoscopy in 2007 which was a 13% increase from the year before. It is projected that the volume will surpass the 1,500 hours of utilization level which justifies a second room by 2010 based upon a conservative increase of 4% per year. This increase is based upon the increase in population projected for the area approximately 2.2% over those 3 years, the increase in the population age 65 and over up which is projected to increase by 10% over those same three years. When these two population increases are taken into consideration along with an increase in the use of colonoscopies as a screening test the 4% increase in volume is very conservative.

The pulmonary function testing volume has remained relatively constant between 966 procedures and 1,193 procedures over the last three years with the volume in 2007 at 979 procedures. This volume supports the need for one room for this procedure.

The one room proposed for minor procedures is new and no historical volume is available, however, based upon discussions with our physicians it was determined that one room was need to allow these procedures to be performed outside of the physicians' offices.

**G. Cardiac Catheterization**

The hospital currently has two Cardiac Catheterization units in the existing building and the new replacement hospital will also have two cardiac catheterization laboratories. The applicant's 2007 volume totaled 1,087 visits. Based upon the State standard for Cardiac Catheterization of 400 procedures per machine the applicant can justify up to 3 laboratories.

## **H. Diagnostic Radiology**

The applicant is proposing to have 1 angiography room, 1 Radiographic /Fluoroscopic Unit, 1 General X-ray Unit, Chest X-ray Unit, 2 ultrasound units, and 1 CT Scanner in this department in the hospital. The hospital is proposing to have an outpatient Imaging Department in the MOB which will be discussed in that application.

The applicant's 2007 workload for general X-ray units total 12,389 exams for inpatients which, based upon the State standard of 6,500 procedures justifies only two of the three general units proposed by the applicant. However, each of the three units proposed to be located in the hospital serves a different purpose and all three are needed to support the applicant's inpatient and Emergency Department workload. The units, while capable of doing some of the same procedures, are much more efficient when used in their standard configuration.. The hospital will have a total of 5 ultrasound rooms counting the three units in the outpatient imaging department and the combined total volume for 2007 was 8,273 exams, which based upon the State Norm of 2000 exams per piece of equipment justifies 4.2 or 5 rooms.

The applicant's 2007 CT volume totaled 3,864 procedures performed on inpatients and 8,728 performed on outpatient. These volumes together justify up to 6.2 or 7 units based upon the State standard of 2,000 procedures per unit per year. The applicant is proposing to have 1 unit in the hospital and 1 unit in the MOB.

The applicant is proposing to have 1 angiography room in the hospital and none in the MOB. The 2007 hospital volume totaled 1,105 procedures, which based upon the State Norm of 400 procedures per machine would justify up to 3 angiography rooms in the hospital.

## **I. Cardiac Diagnostic Testing**

The applicant is proposing to have 5,131 GSF to house this unit, which will have space for stress testing, echocardiography testing, general EKG testing, storage space for the cardiology equipment and support space for the staff of the diagnostic cardiology department.

The workload for this department for 2007 totaled 20,716 procedures both inpatient and outpatient. With the hospital's busy cardiology department including two cardiac catheterization labs and an open heart surgery program, this space is needed to meet the patients' needs for both pre and post surgery and catheterization testing. Patients are routinely followed up subsequent to Open Heart Surgery and following therapeutic catheterizations.

Utilizing this department to determine which patients might need a catheterization or surgery is equally important to the follow-up care. If a catheterization can be avoided utilizing other less invasive testing methods, both time and money can be saved and the patient can avoid the risks associated with an invasive procedure.

This department, in conjunction with the cardiac catheterization service and the Open Heart Surgery Program offers the full range of cardiac care in one location convenient to the population of the planning area.

**J. Nuclear Medicine**

The hospital currently has three pieces of nuclear medicine equipment and will have three pieces of equipment in the new facility.

The proposed plan is to have two identical dual camera nuclear medicine rooms (A and B) that would perform the majority of all requested studies (79%) utilization of each room. We have proposed a third room (C) with only a single camera nuclear medicine machine system that would be configured for specialty studies (20%). These are longer duration studies that require a change in columnator configurations and calibration. These changes add 30 minutes each to the set-up and take-down of the configuration if the studies were performed on the routine (room A&B) system. By having Room C configured and calibrated will eliminate the set-up and take-down time for the 1.4 procedures performed per day.

The space difference is negligible as evidenced by the fact that the State Norm for Nuclear Medicine calls for 1,135 GSF per room which would allow the hospital to have 2,270 GSF for two units and the hospital is proposing to house the three units in only 2,140 GSF.

It is the most cost effective and efficient alternative available to the applicant to utilize the three units rather than the two the State Standard would allow. Note if only the special camera and one of the other two units was utilized the one unit would be operating at more than 100% occupancy.

**K. Emergency Department**

The existing facility currently has 14 treatment rooms and is proposing to have 18 treatment rooms.

The historical volume for this department is shown on the following table.

Year	Volume -Visits
2005	23,952
2006	24,072
2007	24,679

Of the 18 treatment rooms proposed 1 room is dedicated to trauma patients with a second room for backup. The proposed back-up trauma room would be used for general emergency treatment unless the trauma room is being used. Then this proposed second room would be used as a back-up trauma room. Another room is designed for privacy for use as a Women's crisis treatment room (Rape Victims or domestic abuse). A third room will not be set up specifically for treatment but will be used as a dedicated Behavioral Holding Room (a safe room to lock a disruptive patient in until the police can arrive.).

In all, three rooms will be dedicated and will not be used for routine treatment rooms.

Based upon the State Standard of 2,000 visits per room per year the 2007 workload justifies 13 rooms. However, as has been put forth in several of the applications considered by the IHFPB in the last two years, a more commonly accepted standard is 1,500 visits per room per year which would justify 17 rooms at the applicant facility, based upon the 2007 workload. Even if all of the specialty rooms are counted except for the single holding room where no treatment is actually taking place, the applicant is proposing to have only 17 treatment rooms which is consistent with the 1,500 procedure standard .

**L. EMS Facilities**

This area consists of a small 390 GSF area which will be utilized by the EMS call system and EMS personnel when they are at the hospital making their reports and awaiting the return of their equipment or picking up supplies. It will be located adjacent to the Emergency Department, but will not be used for patient care or treatment.

## **M. Observation Beds**

This area consists of four rooms with a capacity for two beds in each room. These beds will be utilized for the observation of patients who have not yet been admitted to the hospital. These patients are currently placed in inpatient beds on the patient floor or they are held in the ER treatment rooms until a bed can be found or they are released.

The patients will not be held for more than 23 hours in these rooms and they will be monitored by staff which can also be used in the ER if needed.

The establishment of this unit will allow for shorter waiting times in the ER and reduce the expense of transporting patients to the bed floors when they may or may not be admitted. This unit will also help the hospital to keep from having to go onto diversion (by-pass) due to lack of staff or available beds by maintaining open beds on the patient floors rather than utilizing them for these observation patients.

This unit is especially helpful when the hospital discontinues the pediatric unit because many times pediatric patients are admitted for very short stays and the observation unit could be used to monitor these patients and prevent them from being admitted when they can be stabilized and sent home for care.

The patient observation days for 2007 were as follows: 509 MS, 36 Peds, 4 ICU, and 88 in OB. This does not include any patients who were held in the Emergency room for observation. These patients could now be cared for in the observation unit with no disruption on the patient floor and with better resources for testing at their immediate disposal. This location also allows the Emergency Room physicians to continue to monitor the patients and be close at hand in case of an emergency involving the patient.

The four rooms are in one pod which makes it easy to segregate the patients as needed for isolation or differences in age or sex of the patient. The State Board does not publish utilization standards for this type of bed, but this unit appears to be the ideal size to handle virtually any observation scenario.

**N. Surgery**

The hospital is proposing to have 4 General Surgery Rooms, one dedicated Open Heart Surgery Room, and one dedicated Cystoscopy room. The ASTC in the adjacent MOB is projecting to perform 6,295.5 hours of surgery which if removed from the hospitals 2007 volume would leave 6,701.5 Hours to be performed in the hospital based upon the State Standard of 1,500 hours of surgery per year per room this workload would justify 4.46 or 5 rooms needed. However, if the two dedicated rooms and their volumes are removed from the hours of surgery the applicant's 2007 workload would be 4,320 hours which would justify three of the four rooms proposed.

As has been discussed elsewhere in the application the population of the planning area is projected to grow by 3.5 % between now and the opening of this hospital with another 2.5 % over the first three years of operation of the new hospital with the population over the age of 65 to grow at nearly twice that rate. If one only considers the smaller growth in the overall population the applicant's workload would be above the State standard (5,533 hours ÷ 1,500 hours per year per room = 3.02 or 4 rooms needed.) by the second year after project completion. It is unreasonable to build a new hospital which will already be inadequately sized within a two year period.

**O. Surgical Prep and Stage II Recovery**

This department will be used for the patients who come into the hospital the day of their surgery. The patients will be shown to a small room where they change from their street clothes into the gowns they will wear when they are transported to surgery. They will then be prepared for surgery with IV's started and any other pre-anesthesia medication administered. They will also meet here with their physician, or his representative and with a member of the anesthesiology department to go over what is going to be done and to answer any final questions they may have before surgery.

The patients will be transported from this area into surgery where they will have their procedure performed and then they will go to the PACU for stage one recovery and either be sent to their hospital room for stage two recovery or if they are an outpatient they will come back to this department for stage II recovery.

This department will have 11 bays which is less than two bays for each of the 6 OR's. These bays will be highly utilized throughout the morning when patients will be arriving, and again when the patients come into Stage II recovery. The PACU will have only 9 recovery rooms, so the two recovery areas will have a total of 20 bays for 6 operating rooms the Illinois Department of Public Health Establishes a recommended level of 4 bays per OR, which is above the applicant's 3.3 bays per OR, this can be accomplished due to the fact that most of the outpatient surgery will be performed in the ASTC in the adjacent MOB. The ASTC has its own recovery and prep area.

**P. Recovery**

The applicant is proposing to have a stage one recovery area with 8 bays and one isolation bay. This is very near the minimum number of recovery stations allowed by licensure and again can be accomplished due to the fact that the majority of the outpatient procedures, which normally have the quickest turn over in the OR's are done in the ASTC in the adjacent MOB. The ASTC has its own recovery area totally separate from the hospital based PACU.

A stage I recovery area is mandated for a hospital which performs surgery. Therefore, this unit is required and based upon licensure standards the 9 recovery stations are needed.

**Q. Hemodialysis - Inpatient**

The applicant is proposing to have an inpatient dialysis unit with 4 stations in a total of 1,200 GSF. The 2007 workload totaled 1,430 treatments.

The patients cared for in this unit will be patients who come into the hospital already on dialysis and those patients who because of kidney failure during their hospital stay require dialysis treatment. Dialysis treatment takes several hours for each treatment and a schedule of treatment must be maintained for patients once treatment is started. There must also be back-up equipment available in case of an emergency.

Based upon a 6 day per week schedule the 2007 volume would mean that on average 4.6 patients per day utilize the 4 stations proposed. However, inpatient dialysis does not maintain the same type of schedule that a freestanding dialysis unit would have, as people leave the hospital and go back to their regular dialysis facilities, the utilization of these units go up and down. Many times these units are utilized by two patients in the same day, or in some cases not utilized at all that day. The department must have sufficient capacity to handle the peak workloads. After reviewing the historical utilization patterns at the hospital it was determined that the four units would be the number required to meet the peak utilization times.

**R. Respiratory Therapy**

The applicant is proposing to place this department on the second floor of the new hospital directly below the patient bed floors. This department will occupy 1,344 GSF which is used primarily for the storage of supplies and equipment and for work space for the Respiratory Therapists. The majority of the treatments take place in the patient rooms.

In 2007 the department was responsible for 93,010 treatments. The majority, 90,681 were performed on inpatients with the remaining 2,329 performed on outpatients. The outpatients are treated within the department in most instances, so some treatment space is required.

The State Norm for is 20.5 procedures per GSF. The 2007 workload at the hospital would, based upon this standard justify 4,537 GSF which is substantially more than the applicant proposes. This can only be accomplished by the ability to maintain some equipment in the patient rooms since all of the new patient rooms will be private and by efficiently utilizing the space in the unit.

**S. Physical Therapy**

The applicant is proposing to have this department located on the third floor of the hospital between the Rehabilitation bed unit and the Medical Surgical Bed unit on that floor.

This department will be used solely for inpatients and is needed to support the proposed Rehabilitation Service. While, it will also serve the inpatient rehabilitation needs of the hospital's other inpatients, its primary purpose is to provide space for the rehabilitation of patients in the Comprehensive Rehabilitation unit.

In 2007 the inpatient workload for this department total 17,029 visits which based upon the State standard of 7.5 visits per GSF would justify 2,270.5 GSF while the applicant is proposing to have only 1,200 GSF. The difference is in the fact that the State Norm includes the outpatient space which is normally larger due to the need for changing rooms, and larger exercise spaces as the patients progress, and in this hospital that space is to be provided in the outpatient rehabilitation department in the MOB.

The hospital's proposed Comprehensive Rehabilitation Bed Unit requires that the applicant have an active Physical Therapy Department and an Occupational Therapy Department. The existing hospital provides both of those services and the new hospital will also have those services available.

**T. Occupational Therapy**

The applicant is proposing to located this department immediately adjacent to the Physical Therapy Department in 444 GSF. This department will be used solely for the inpatients of the hospital and will be separate from the outpatient Occupational Therapy area which is located in the MOB which is attached to the hospital.

This unit is required in order to provide "Comprehensive Rehabilitation Services" as proposed by the applicant. The square footage proposed is the minimum amount of space needed to provide this service and is supplemented on an outpatient basis by the department in the MOB. This unit provides basic occupational therapy with the more comprehensive program provided through the outpatient unit.

The inpatient program is designed to provide services which will enable the patient to be discharged where they will then be provided further services on an outpatient basis.

**U. ICU Beds**

The applicant is proposing to increase the number of inventoried ICU beds from 10 to 16. The IHFPB Inventory of Health Care Facilities shows that a need for one additional bed in the applicant's F-004 Planning Area.

The 2007 workload for this department totaled 3,128 patient days. Based upon the Board's target occupancy of 60% this volume supports the need for 14.2 or 15 beds.

The population of this planning area is projected to increase by 7.1% between 2005 and 2015. This amounts to 3.5% over the next 4 years which is when the first full year of operation will be complete this would increase the number of patient days by 109 days which would then justify 14.78 beds. In 2007, the applicant also went on diversion/bypass 20 times for periods ranging from 1 hr and 55 minutes up to 88hrs and 25 minutes. The total time on diversion was 26.5 days. A log of that by-pass time is appended to this attachment. This by-pass affects the ICU in several ways, when the Medical Surgical Unit is full, the ICU can not move patients out to monitored beds and free space in the ICU and on the other side when the ICU is full the ambulances which bring patients to the hospital must be diverted to other facilities which means that patients are not being admitted through the ER or normally for any type of elective surgery that might require ICU care initially.

The applicant averaged 2.47 patients being admitted to ICU per day so if the facility was on bypass for 26.5 days it could be projected that the facility would have admitted an additional 66 Patients which with an average length of stay of 3.46 days this would have resulted in another 228 patient days. When those patient days are added to the 2007 patient days the total patient days would be 3,358 patient days which at the target occupancy would support the need for 15.3 or 16 beds, which is the number the applicant proposes to have.

## **V. Rehabilitation Beds**

The proposed project while technically classified as the establishment of a new category of service because the applicant will be licensed as a new facility, is in reality a replacement for an existing service in the old facility which is being replaced as a part of this application. The existing facility has 23 beds, while the new facility will have only 10 beds. There is only one other provider of rehabilitation services in the applicant's planning area which is all of HSA V. (See the appended map to see the location of the two facilities). The two facilities are 42.72 miles and 48 minutes travel time from each other and both are located in the middle of the HSA one to the North and 1 to the South in close proximity to Interstate 57. (See the second map showing HSA V.)

Herrin Hospital does not have any admission restrictions to their facility, but the travel time is excessive for the residents of the northern half of HSA V.

If the applicant were to discontinue the service totally a need for 9 additional beds would be created. The proposed reduction in beds from 23 to 10 reduces the number of excess beds in the planning area to 1 bed.

Based upon the historical utilization the applicant and the Board's 85% occupancy target the facility can justify 9.1 or 10 beds. Since this is the existing facility's historical utilization it appears reasonable to assume that these are the patients who would not have reasonable geographic access to Herrin Hospital if the existing facility's beds were not replaced at the new facility.

The State Board has established a minimum unit size of 15 beds for this service, however, given the rural nature of this planning area and the utilization experienced by the existing facility over several years, it does not appear that a 15 bed unit would be appropriately utilized while the proposed 10 bed unit would be.

**W. OB Beds/ LDR**

The facility will have 6 LDRP beds, 2 Post-Partum Beds and one Ante-Partum bed for a total of 9 beds which will be inventoried as Obstetric beds. The LDRP beds (Labor/Delivery/Recovery/Post-Partum) beds will be the primary location in which the patients will be admitted. The patient will be admitted to an LDRP bed where they will stay through labor, delivery, recovery, and until they are ready for discharge. The two post-partum beds and the ante-partum beds will we used for patients who have not delivered and are being admitted for medical reasons, or patients who have had C-sections are recovering from the surgery.

The 2007 workload, 1,861 patient days supports the need for 9 beds based upon the Board's target occupancy of 60%. ( $1,861 \div 365 = 5.2$  patients per day  $\div .60 = 8.7$  or 9 beds needed)

The beds are further justified under the variance to computed bed need shown on ATTACHMENT ACUTE-2.

**X. C-section Site**

The hospital is proposing one operating room for c-sections which will be located on the Fourth Floor of the new hospital adjacent to the LDRP and the Obstetric Unit. The total GSF for this area is 1,018 GSF.

In 2007 the volume of C-sections totaled 228 out of the 787 total deliveries at the hospital. This volume supports the need for one C-section room, which is what the applicant is proposing.

An operating room in which C-sections can be performed is an integral part of the hospitals provision of Obstetric Services and locating that room immediately adjacent to the rest of the OB services is the best way quality care can be delivered in an efficient and safe manor.

The proposed room will only be used for C-sections and will not be used for any other surgical procedure which means that its volume should not be used to justify any space in the OR nor should room capacity in the OR be considered as available for this service.

Illinois Hospital licensure requires that a C-section suite be available unless Operating Rooms can be shown to be immediately available for use. Since the surgery department is located on another floor the C-section suite is required and it must meet surgical standards.

The IHFPB guidelines allow for 2,078 GSF per Operating Room. The applicant is proposing to have only 1,018 GSF for this departmental area since it will be able to share some support space with the LDRP unit.

**Y. New Born Nursery**

The new born nursery will be located on the fourth floor immediately adjacent to the Obstetric and LDRP units, as is required by Illinois State Hospital Licensure.

While the patient rooms will have space for the baby to room-in with the mother the nursery will be used for respite times for the mothers or if the baby needs additional care.

## **Z. Medical Surgical Beds**

The proposed project calls for the discontinuation of a 106 bed Medical Surgical Service and the replacement of those beds by a 99 bed service in the new replacement hospital.

A map showing all of the facilities within 30 minutes travel time of the proposed facility and those facilities in the applicant's planning area is appended to this Attachment. It is important to note that Franklin Hospital in Benton, while within 30 minutes travel time is in another planning area for this service. The map also shows the only other non-planning area facility that is located between 30 and 45 minutes travel time of the proposed facility, that is Hamilton Memorial Hospital, in Mcleansboro, which is also in another planning area.

Only one other facility in the Planning area is within 30 minutes travel time of the proposed facility, that is Crossroads Community Hospital also located in Mt. Vernon.

The applicant's 2007 workload for Medical Surgical and Pediatric beds totaled 24,802 patient days, which results in an average daily census of 67.95 patients. Based upon the State Board's target occupancy rate of 75% for modernization of facilities with between 26 and 99 beds the 2007 workload justifies 91 beds. Based upon the 80% utilization target for new facilities the workload justifies 85 beds.

The applicant's peak census for 2007 was 99 beds which is also the number of beds proposed in the new hospital. The peak census for Pediatrics was 5. Together the peak census was 104 beds. This is important because all pediatric cases will be cared for in Medical/Surgical beds in the new replacement hospital.

In 2007, the applicant also went on diversion/bypass 20 times for periods ranging from 1hr and 55 minutes up to 88hrs and 25 minutes. A log of that by-pass time is appended to this attachment. This by-pass effects not only the Medical Surgical Unit but also the ICU. When the Medical Surgical Unit is full, the ICU can not move patients out to monitored beds and free space in the ICU and on the other side when the ICU is full the ambulances which bring patients to the hospital must be diverted to other facilities which means that patients are not being admitted through the ER or normally for any type of elective surgery that might require ICU care initially.

The bypass issue is a situation the hospital feels it must address in the new hospital as it critically impacts the ability to insure prompt care to the area residents.

The applicant proposes to have all private rooms in the facility which will allow for better utilization of the facilities beds by eliminating problems with isolation or with patient mix by age or sex. This is especially important now that pediatric patients are being treated in Medical Surgical beds, as it is inappropriate to mix pediatric and adolescent

patients with adults.

The other facilities in the planning area do not appear to have admission restrictions, but they are with the exception of Crossroads Hospital a substantial distance away and would result in hardships for the patients and their families to have to use facilities so remote from where they live.

Good Samaritan Regional Health Center has been for a number of years a regional resource for programs such as cardiac catheterization, open heart surgery and Rehabilitation beds. The other facilities within either the 30 minute travel time or the forty-five minute travel time do not either offer the service (rehab and open heart ) or have the capacity (cardiac catheterization) to accommodate the facility's historical workload were the facility to not be replaced.

The proposed location of the new facility is on property next to Interstate 57 which will dramatically improve the access to the hospital by the planning area residents. The existing hospital is located in a residential area and is not on one of the main roads in the community which makes it difficult to locate for any patient who is not familiar with Mt. Vernon itself.

The hospital has always maintained a generous charity care program and does not deny access to any patient regardless of their ability to pay. This policy will continue at the facility.

The proposed 99 beds are needed to support the facility's peak census as it now exists and to prevent the hospital from having to go on diversion/bypass, even if no growth in the population occurs. The Illinois Department of Public Health Center for Health Statistics predicts that the total population of the planning area is projected to grow by 7.1% between 2005 and 2015, while the population age 65 and over is projected to grow by 33.9% during that same time period. The only population which is projected to decrease during that time is the 0-14 age group which is the pediatric patients for which the applicant is proposing to discontinue the dedicated unit. The number of medical surgical patient days for the area is projected to increase by 12,100 days in the age 65 and over group for that time period and by 464 in the 15-64 age group

Based on the 2005 utilization data, as published in the Planning Board's Inventory of Health Care Facilities dated March 11, 2008, the applicant treated 43.36% of the patient days in the planning area. If that market share remains the same in 2012 the first year after project completion the applicant's patient days would increase by 3,672 patient days which at the 80% occupancy target supports the need for 13 beds which more than justifies the difference between the number of beds the 2007 volume currently supports and the number of beds the applicant is proposing to have.

**ATTACHMENT MOD-3**

**AA. Hospice and Home Health**

This area will be used primarily as office space and counseling space for the nurses and care givers in the Home Health and Hospice departments.

This unit will not be used to house patients and will have no bed space on the unit. It will have meeting rooms and spaces for the families of the patients to meet with the professional care givers who provide the care for the patients in their homes. It will also have materials for the patients and their families to refer to as they make decisions regarding their care.

The home health nurses and their supervisors will also be housed here as needed and the administrative portion of their care will be done here.

This department is located on the fifth floor of the hospital in an area which is otherwise administrative in nature.

This space is basically non-clinical in nature and could have been excluded from the Board's review, however, the decision was made that since it involves staff with direct patient care responsibility and in some instances meetings with the patient, that it would be treated as clinical space and justified in that fashion.

It is difficult to assign workload figures to this department because the patients served vary greatly, and nurses are used as needed.

**SECTION VIII. REVIEW CRITERIA RELATING TO MEDICAL-SURGICAL, PEDIATRIC, OBSTETRICS, AND INTENSIVE CARE SERVICES (ACUTE)**

The section is applicable to all projects proposing the addition of Medical/Surgical, Obstetric, Pediatric, or ICU beds.

**A. Criterion 1110.530.a, Unit Size**

Read the criterion and indicate if the existing or proposed facility is located within a MSA. Yes   
No

**B. Criterion 1110.530.b, Variances to Computed Bed Need**

Read the criterion and, if applicable, address one of the following variances.

1. **Criterion 1110.530.b.1, High Occupancy.** Indicate if chosen and submit the following information:

- a. patient days and admissions for each of the last two years for the service involved;
- b. explain why it is not feasible to convert underutilized services to meet the identified demand;
- c. document that the number of beds proposed will not exceed the number needed to meet the target occupancy.
- d. if projections are utilized to support the need for beds, document the following:
  - 1) the projections are based upon population projections from the U.S. Bureau of the Census;
  - 2) the projections are for a period of not more than 5 years from the date the application is submitted;
  - 3) the projections are zip code based and age specific; and
  - 4) the projections are based upon the applicant's service area as defined by historical patient origin, and do not include any projected change in market share.

**APPEND DOCUMENTATION AS ATTACHMENT ACUTE-1 AFTER THE LAST PAGE OF THIS SECTION.**

2. **Criterion 1110.530.b.2, Medically Underserved Population.** Indicate if chosen and submit the following information:

- a. a map showing the location of all other area providers;
- b. a list of the travel times to other area providers;
- c. a detailed description of the admission restrictions of the other area facilities;
- d. documentation that access is restricted in the planning area;
- e. documentation that the number of beds proposed will not exceed the number needed, at the target occupancy rate, to meet the health care needs of the population identified;
- f. an explanation of how the proposed project will improve the access to care;

**APPEND DOCUMENTATION AS ATTACHMENT ACUTE-2 AFTER THE LAST PAGE OF THIS SECTION.**

**Criterion 1110.530.b, Variances to Computed Bed Need**

**Criterion 1110.530.b.2, Medically Underserved Population**

This criterion is being address for the Medical Surgical, Obstetric and ICU beds because the proposed project calls for the relocation of an existing hospital to a new site in the same community and Planning Area. The relocation to a new site requires the Board to consider this application as a new hospital rather than a replacement, and as such the only variance available in the Medical Underserved Population variance.

**A. Medical Surgical Beds**

The proposed project calls for the discontinuation of a 106 bed Medical Surgical Service and the replacement of those beds by a 99 bed service in the new replacement hospital.

A map showing all of the facilities within 30 minutes travel time of the proposed facility and those facilities in the applicant's planning area is appended to this Attachment. It is important to note that Franklin Hospital in Benton, while within 30 minutes travel time is in another planning area for this service. The map also shows the only other area facility that is within 45 minutes travel time of the proposed facility, that is Hamilton Memorial Hospital in Mcleansboro, which is also in another planning area.

Only one other facility in the Planning area is within 30 minutes travel time of the proposed facility, that is Crossroads Community Hospital also located in Mt. Vernon.

The applicant's 2007 workload for Medical Surgical and Pediatric beds totaled 24,802 patient days, which results in an average daily census of 67.95 patients. Based upon the State Board's target occupancy rate of 75% for modernization of facilities with between 26 and 99 beds the 2007 workload justifies 91 beds. Based upon the 80% utilization target for new facilities the workload justifies 85 beds.

The applicant's peak census for 2007 was 99 beds which is also the number of beds proposed in the new hospital. The peak census for Pediatrics was 5. This is important because all pediatric cases will be cared for in Medical/Surgical beds in the new replacement hospital.

In 2007, the applicant also went on diversion/bypass 20 times for periods ranging from 1hr and 55 minutes up to 88hrs and 25 minutes. A log of that by-pass time is appended to this attachment. This by-pass effects not only the Medical Surgical Unit but also the ICU. When the Medical Surgical Unit is full, the ICU can not move patients out to monitored beds and free space in the ICU and on the other side when the ICU is full the ambulances which bring patients to the hospital must be diverted to other facilities which means that patients are not being admitted through the ER or normally for any type of elective surgery that might require ICU care initially.

**ATTACHMENT ACUTE-2**

The bypass issue is a situation the hospital feels it must address in the new hospital as it critically impacts the ability to insure prompt care to the area residents.

The applicant proposes to have all private rooms in the facility which will allow for better utilization of the facilities beds by eliminating problems with isolation or with patient mix by age or sex. This is especially important now that pediatric patients are being treated in Medical Surgical beds, as it is inappropriate to mix pediatric and adolescent patients with adults.

The other facilities in the planning area do not appear to have admission restrictions, but they are with the exception of Crossroads Hospital a substantial distance away and would result in hardships for the patients and their families to have to use facilities so remote from where they live.

Good Samaritan Regional Health Center has been for a number of years a regional resource for programs such as cardiac catheterization, open heart surgery and Rehabilitation beds. The other facilities within either the 30 minute travel time or the forty-five minute travel time do not either offer the service (rehab and open heart ) or have the capacity (cardiac catheterization) to accommodate the facility's historical workload were the facility to not be replaced.

The proposed location of the new facility is on property next to Interstate 57 which will dramatically improve the access to the hospital by the planning area residents. The existing hospital is located in a residential area and is not on one of the main roads in the community which makes it difficult to locate for any patient who is not familiar with Mt. Vernon itself.

The hospital has always maintained a generous charity care program and does not deny access to any patient regardless of their ability to pay. This policy will continue at the facility.

The proposed 99 beds are need to support the facilities peak census as it now exists and to prevent the hospital from having to go on diversion/bypass, even if no growth in the population occurs. The Illinois Department of Public Health Center for Health Statistics predicts that the total population of the planning area is projected to grow by 7.1% between 2005 and 2015, while the population age 65 and over is projected to grow by 33.9% during that same time period. The only population which is projected to decrease during that time is the 0-14 age group which is the pediatric patients for which the applicant is proposing to discontinue the serve. The number of medical surgical patient days for the area is by 12,100 days in the age 65 and over group for that time period and by 464 in the 15-64 age group

Based on the 2005 utilization data, as published in the Planning Board's Inventory of Health Care Facilities dated March 11, 2008, the applicant treated 43.36% of the patient

**ATTACHMENT ACUTE-2**

days in the planning area. If that market share remains the same in 2012 the first year after project completion the applicant's patient days would increase by 3,813 patient days and by 4,362 in 2013 which is the second full year of operation which at the 80% occupancy target supports the need for 15 beds which justifies the difference between the number of beds the 2007 volume currently supports and the number of beds the applicant is proposing to have.

**B. Obstetric Beds**

The applicant is proposing to have 9 beds classified as OB beds. The facility will have a total of 6 LDRP rooms, 2 post-partum beds and one ante-partum beds.

The 2007 workload totaled 1,861 patient days, which at the target occupancy for units between 1 and 10 beds of 60% supports the need for the 9 beds proposed by the applicant.

The Inventory of Health Care Facilities projects an excess of 13 beds in the applicant's planning Area F-004, However if the facility were to close their OB unit there would be no other facilities within 30 minutes travel time which offer OB services.

The need for the 9 beds proposed is a direct result of the volume of patients now seen at the existing hospital, the applicant is not projecting a larger need for beds, nor is there any expected impact on other facilities in the planning area. While the population of the planning area is projected to increase, the number of beds proposed are adequate to meet any immediate need for beds.

**C. ICU Beds**

The applicant is proposing to increase the number of inventoried ICU beds from 10 to 16. The IHFPB Inventory of Health Care Facilities shows that an need for one additional bed in the applicant's F-004 Planning Area.

The 2007 workload for this department totaled 3,128 patient days. Based upon the Board's target occupancy of 60% this volume supports the need for 14.2 or 15 beds.

The population of this planning area is projected to increase by 7.1% between 2005 and 2015. This amounts to 3.5% over the next 4 years which is when the first full year of operation will be complete this would increase the number of patient days by 109 days which would then justify 14.78 beds. In 2007, the applicant also went on diversion/bypass 20 times for periods ranging from 1hr and 55 minutes up to 88hrs and 25 minutes. The total time on diversion was 26.5 days . A log of that by-pass time is appended to this attachment. This by-pass effects the ICU in several ways, when the Medical Surgical Unit is full, the ICU can not move patients out to monitored beds and free space in the ICU and on the other side when the ICU is full the ambulances which bring patients to the hospital must be diverted to other facilities which means that patients

might require ICU care initially.

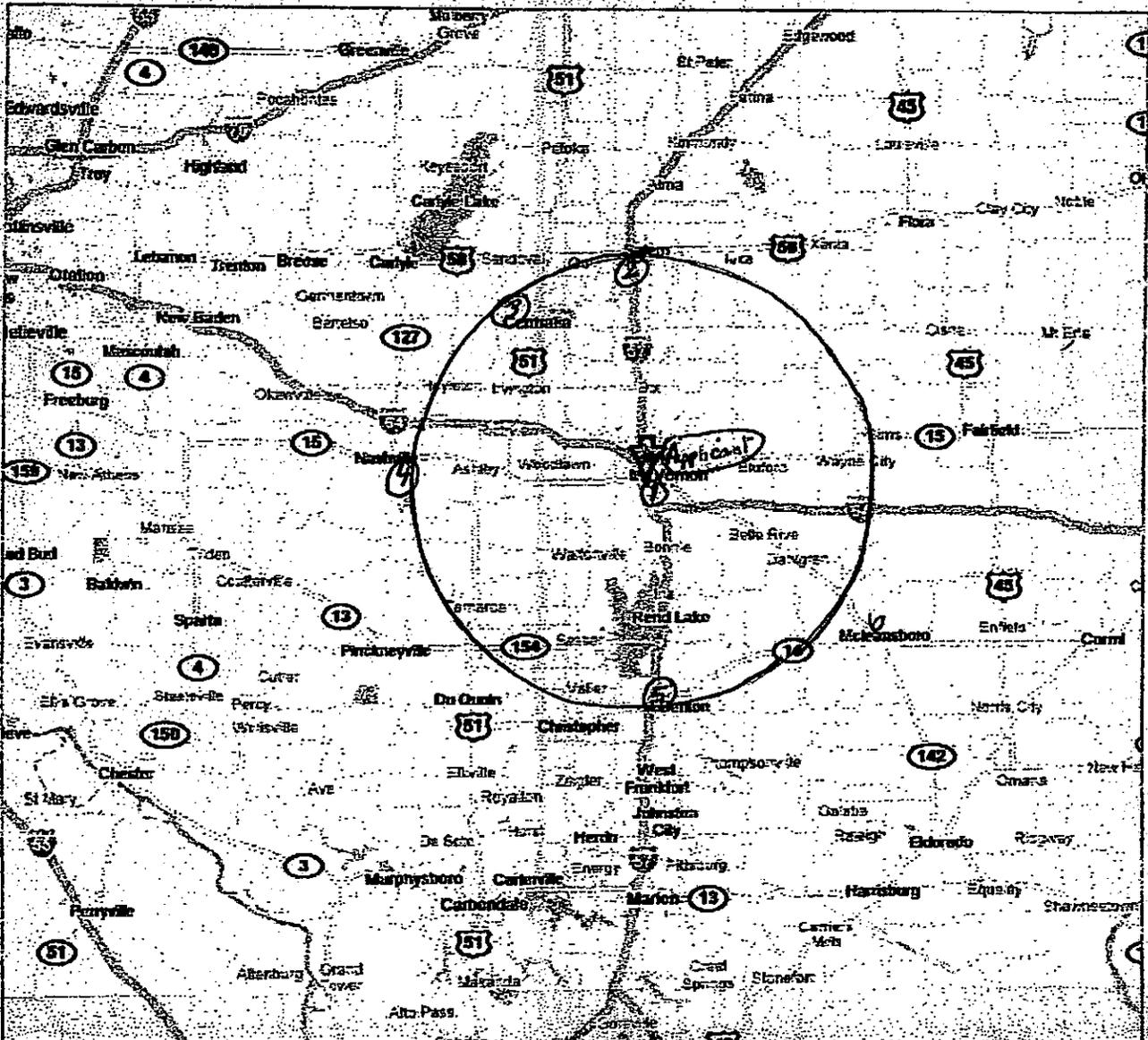
The applicant averaged 2.47 patients being admitted to ICU per day so if the facility was on bypass for 26.5 days it could be projected that the facility would have admitted an additional 66 Patients which with an average length of stay of 3.46 days this would have resulted in another 228 patient days. When those patient days are added to the 2007 patient days the total patient days would be 3,358 patient days which at the target occupancy would support the need for 15.3 or 16 beds, which is the number the applicant proposes to have.

**ATTACHMENT ACUTE-2**



Address Veterans Memorial Dr & S  
42nd St  
Mt Vernon, IL 62864

Get Google Maps on your phone  
Text the word "GMAPS" to 466453



**Illinois Hospitals Within 30 Minutes Travel Time of the Applicant Facility**

Hospital	Distance From Proposed Facility	Travel Time
1. Crossroads Community Hospital - Mt. Vernon	1.6 miles	5 minutes
2. Salem Township Hospital	26.1 miles	31 minutes
3. St. Mary's Hospital in Centralia	25.6 miles	31 minutes
4. Washington County Hospital in Nashville	31.3 miles	37 minutes
5. Franklin Hospital in Benton	24.4 miles	30 minutes

6. Hamilton Memorial 28.06 miles 41 minutes

**Diversion/Bypass  
2008**

	Date/Time On		Date/Time Off		Length of Time on Diversion	Reason for Diversion
1	1/14/08	1525	1/15/08	1415	22 hrs. 50 min.	Staffing
2	1/20/08	2130	1/23/08	1315	63 hrs. 45 mins.	Staffing
3	2/3/08	2320	2/6/08	0550	54 hrs. 30 mins.	Critical/monitored bed availability
4	2/7/08	0100	2/7/08	1040	9 hrs 40 mins.	Staffing
5	2/26/08	1634	2/27/08	1908	26 hrs. 34 mins.	Bed availability
6	2/29/08	0654	2/29/08	1750	10 hrs. 56 mins.	Staffing/Census
7	3/14/08	2140	3/16/08	1920	45 hrs. 40 mins.	Staffing/bed availability
8	3/18/08	0620	3/19/08	0630	24 hrs. 10 mins.	Internal disaster - power outage
9	3/21/08	0932	3/21/08	1552	6 hrs. 20 mins.	Staffing
10	4/16/08	1734	4/17/08	1400	20 hrs. 26 mins.	Critical/monitored bed availability
11	4/21/08	1616	4/22/08	1419	22 hrs. 3 mins.	Critical/monitored bed availability
12	5/15/08	1900	5/16/08	1430	19 hrs. 30 mins.	Staffing
13						
14						
15						
16						
17						
18						
19						

**Diversion/Bypass  
2007**

	Date/Time On		Date/Time Off		Length of Time on Diversion
1	01/02/07	2040	01/03/07	1454	18 hrs. 14 mins.
2	01/04/07	0806	01/05/07	1026	26 hrs. 20 mins.
3	01/08/07	1455	01/09/07	2132	30 hrs. 37 mins.
4	01/16/07	1045	01/16/07	1900	8 hrs. 15 mins.
5	02/13/07	0240	01/15/07	0600	51 hrs. 20 mins.
6	02/23/07	1740	02/24/07	1423	20 hrs. 43 mins.
7	02/26/07	1800	02/28/07	2000	50 hrs. 0 mins.
8	04/13/07	0435	04/15/07	0929	52 hrs. 54 mins.
9	04/24/07	0920	04/24/07	2218	12 hrs. 58 mins.
10	05/10/07	1405	05/12/07	0700	40 hrs. 55 mins.
11	06/12/07	1355	06/15/07	1410	73 hrs. 15 mins.
12	07/10/07	1115	07/11/07	1500	27 hrs. 45 mins.
13	07/23/07	1820	07/25/07	1005	39 hrs. 45 mins.
14	08/21/07	1415	08/22/07	1100	20 hrs. 45 mins.
15	08/23/07	0721	08/24/07	0028	17 hrs. 7 mins.
16	09/24/07	2215	09/05/07	1410	1 hr. 55 mins.
17	09/24/07	1820	09/28/07	1045	88 hrs. 25 mins.
18	10/03/07	1710	10/04/07	0757	14 hrs. 47 mins.
19	10/21/07	2231	10/30/07	2135	23 hrs. 4 mins.
20	12/3/07	2202	12/04/07	1515	17 hrs. 13 mins.

**SECTION IX. REVIEW CRITERIA RELATING TO COMPREHENSIVE REHABILITATION SERVICES (REHAB)**

This section is applicable to all projects proposing to establish or to add rehabilitation beds.

**A. Criterion 1110.630.b, Access Variance to Computed Bed Need**

Read the criterion and, if applicable, provide the following information:

1. A map showing the location of all of the other facilities in the planning area which offer inpatient rehabilitation services.
2. A list of the other rehabilitation programs in the planning area showing the distance and travel time to each.
3. A detailed description of the access restrictions, if any, for each of the area facilities.
4. Documentation that the number of beds proposed will not exceed the number needed, at the target occupancy rate, to meet the health care needs of the population identified as having restricted access.

**APPEND DOCUMENTATION AS ATTACHMENT REHAB-1 AFTER THE LAST PAGE OF THIS SECTION.**

**B. Criterion 1110.630.c, Staffing Requirements**

Read the criterion and for those positions described, provide the following information:

1. The name and qualifications of the person currently filling the job.
2. Letters of intent from potential employees.
3. Applications filed for a position.
4. Signed contracts with the required staff.
5. A detailed explanation of how the positions will be filled.

**APPEND DOCUMENTATION AS ATTACHMENT REHAB-2 AFTER THE LAST PAGE OF THIS SECTION.**

**Criterion 1110.630.b, Access Variance to Computed Bed Need**

The proposed project while technically classified as the establishment of a new category of service because the applicant will be licensed as a new facility, is in reality a replacement for an existing service in the old facility which is being replaced as a part of this application. The existing facility has 23 beds, while the new facility will have only 10 beds. There is only one other provider of rehabilitation services in the applicant's planning area which is all of HSA V. (See the appended map to see the location of the two facilities). The two facilities are 42.72 miles and 48 minutes travel time from each other and both are located in the middle of the HSA one to the North and 1 to the South in close proximity to Interstate 57. (See the second map showing HSA V.)

Herrin Hospital does not have any admission restrictions to their facility, but the travel time is excessive for the residents of the northern half of HSA V.

If the applicant were to discontinue the service totally a need for 9 additional beds would be created. The proposed reduction in beds from 23 to 10 reduces the number of excess beds in the planning area to 1 bed.

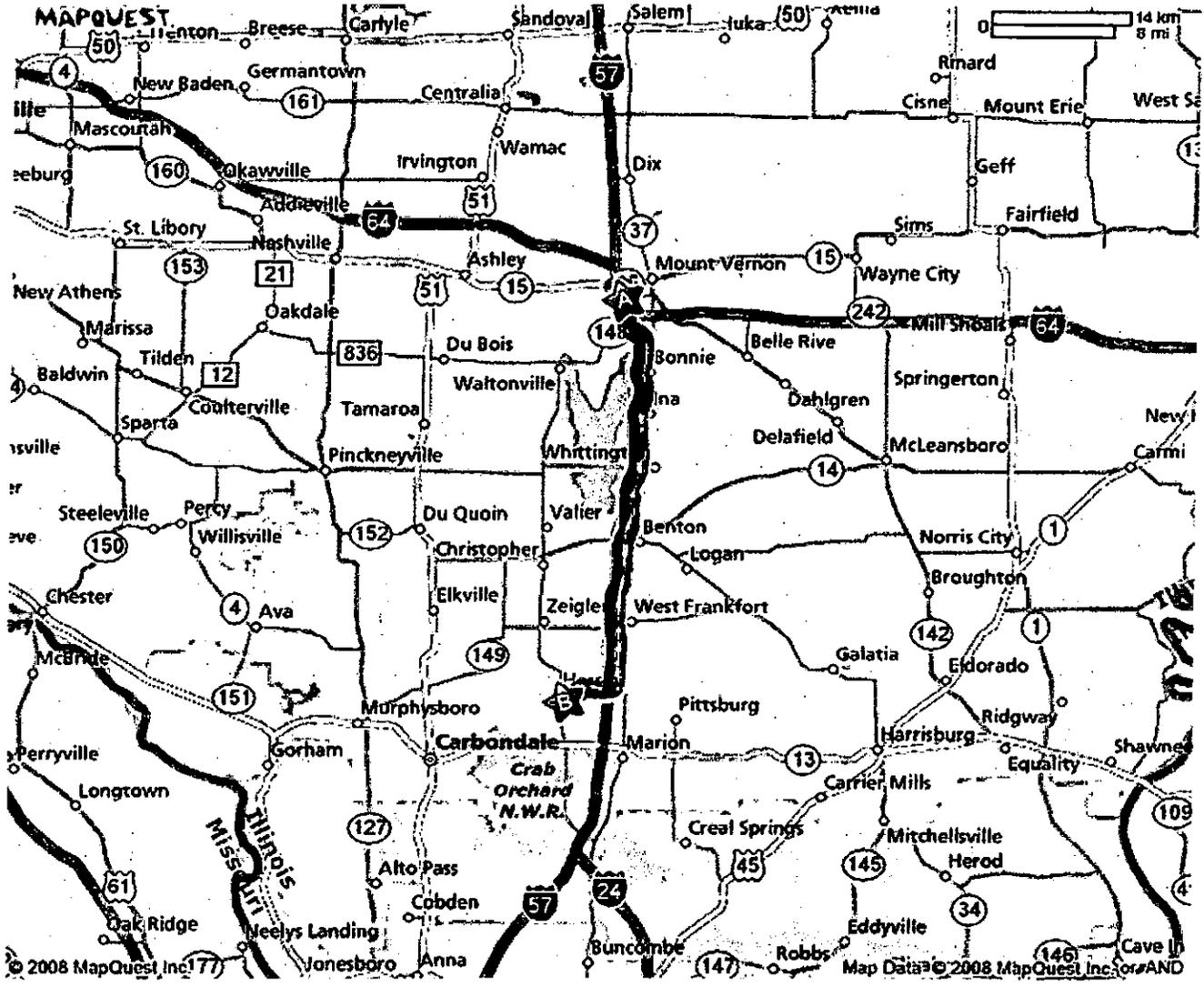
Based upon the historical utilization the applicant and the Board's 85% occupancy target the facility can justify 9.1 or 10 beds. Since this is the existing facility's historical utilization it appears reasonable to assume that these are the patients who would not have reasonable geographic access to Herrin Hospital if the existing facility's beds were not replaced at the new facility.

The State Board has established a minimum unit size of 15 beds for this service, however, given the rural nature of this planning area and the utilization experienced by the existing facility over several years, it does not appear that a 15 bed unit would be appropriately utilized while the proposed 10 bed unit would be.

Estimated Time: 48 minutes    Estimated Distance: 42.72 miles

B: Herrin Hospital: 201 S 14th St, Herrin, IL 62948, (618)942-2171

Total Time: 48 minutes    Total Distance: 42.72 miles



- A. The applicant Facility
- B. Herrin Hospital



- 1.. The Applicant Facility
- 2.. Herrin Hospital

**Criterion 1110.630.c, Staffing Requirements**

The applicant currently operates a Comprehensive Rehabilitation Unit which is fully staffed and has either on premises or through contractual agreements access to all of the staff required by this review criterion. A list of the individuals and their qualifications for the positions listed in this criterion are shown below:

**Medical Director- Dr. H.G. Thompson**

Medical Director of Rehabilitation for 18 years at Good Samaritan Regional Health Center, Board Certified in Family Practice, and Board Certified in Geriatrics

**Rehabilitation Nursing Supervisors:**

Wendy Williams, RN, CRRN, Director  
Angie Summers, RN CRRN, Assistant Clinical Manager

**Physical Therapist**

Madona Syxiengmay, RPT  
Alice Martin, PTA  
Lori Simmons, PTA

**Occupational Therapist**

Jenny Charlton, OTR/L  
Amanda Gaines, COTA,  
Shelly Macbeth, MOTR?L  
Kinny Merchant, OTR/L

**Social Worker**

Nancy Lane, MSW

**Speech Pathologist**

Randi Rothschild, MS SLP

**Psychologist**

Lydia Williams, PHD

**Vocational Counselor or Specialist**

Department of Rehabilitation Services/ Jefferson County  
Lisa Briak, Masters in Rehabilitation, CRC(Certified Rehabilitation Counselor)  
Vocational Rehabilitation Counselor  
Robin Matthews, MSW - Vocational Rehabilitation Counselor

**Dietician**

Yvette Peterson, RD

Pharmacist  
Monica Heinzman PharmD

Audiologist

David Lane, Audiologist

Prosthetist or Orthotist:  
J.E. Hanger, Inc.

Dentist:  
Bruce Thackery, DMD

**SECTION XII. REVIEW CRITERIA RELATING TO OPEN HEART SURGERY (OHS)**

This section is applicable to all projects proposing to establish the open heart surgery category of service.

**A. Criterion 1110.1230.a, Peer Review**

Read the criterion and submit a detailed explanation of your peer review program.

**APPEND DOCUMENTATION AS ATTACHMENT OHS-1 AFTER THE LAST PAGE OF THIS SECTION.**

**B. Criterion 1110.1230.b, Establishment of Open Heart Surgery**

Read the criterion and provide the following information:

1. The number of cardiac catheterizations (patients) performed in the latest 12-month period for which data is available.
2. The number of patients referred for open heart surgery following cardiac catheterization at your facility, for each of the last two years.

**APPEND DOCUMENTATION AS ATTACHMENT OHS-2 AFTER THE LAST PAGE OF THIS SECTION.**

**C. Criterion 1110.1230.c, Unnecessary Duplication of Services**

Read the criterion and address the following:

1. Contact all existing facilities within 90 minutes travel time of your facility which currently provide or are approved to provide open heart surgery to determine what the impact of the proposed project will be on their facility.
2. Provide a sample copy of the letter written to each of the facilities and include a list of the facilities sent letters.
3. Provide a copy of all of the responses received.

**APPEND DOCUMENTATION AS ATTACHMENT OHS-3 AFTER THE LAST PAGE OF THIS SECTION.**

**D. Criterion 1110.1230.d, Support Services**

Read the criterion and indicate on a service by service basis which of the services listed in this criterion are available on a 24-hour inpatient basis and explain how any services not available on a 24 hour inpatient basis can be immediately mobilized for emergencies at all times.

**APPEND DOCUMENTATION AS ATTACHMENT OHS-4 AFTER THE LAST PAGE OF THIS SECTION.**

**E. Criterion 1110.1230.e, Staffing**

Read the criterion and for those positions described under this criterion provide the following information:

1. The name and qualifications of the person currently filling the job.
2. Letters of interest from potential employees.
3. Application filed for a position.
4. Signed contracts with the required staff.
5. A detailed explanation of how you will fill the positions.

**APPEND DOCUMENTATION AS ATTACHMENT OHS-5 AFTER THE LAST PAGE OF THIS SECTION.**

**Criterion 1110.1230.a, Peer Review**

The proposed Open Heart Surgery Service is a replacement for the program currently provided by the hospital in its existing location.

The Peer Review Program which is currently in place in the existing hospital will continue to be used in the new hospital.

A copy of the Peer Review Program procedures are appended to this Attachment.

**ATTACHMENT OHS-1**

# GOOD SAMARITAN REGIONAL HEALTH CENTER MEDICAL STAFF

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**Policy Title:** Medical Staff Quality Council  
**Date:** January 2003  
**Revised:** December 2005, September 2006

**MEC Approval:**

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MEDICAL STAFF PRESIDENT  
GOOD SAMARITAN REGIONAL HEALTH CENTER  
(Medical Executive Committee Approval 9/11/06)

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## *MEDICAL STAFF POLICY AND PROCEDURE*

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**PURPOSE:** To follow a consistent process for the evaluation and monitoring of the various dimensions of practitioner performance, which include technical quality of care, quality of service, resource utilization, peer and coworker relationships, and contributions to the hospital and the community. This will be accomplished through identification and timely resolution of peer review cases as part of the performance improvement process. To ensure that practitioners have a leadership role in peer review and performance activities to improve clinical and non clinical processes, practitioners participate in the development and ongoing evaluation of Medical Staff Performance Improvement activities. Performance data are aggregated for consideration by the Credentials Committee at reappointment.

**Definitions:** For the purpose of this policy, a peer is defined as any licensed M.D. or D.O. or D.D.S./D.M.D. with equivalent qualifications, i.e. physician, oral surgeon. A practitioner is defined as a licensed M.D. or D.O. or D.D.S./D.M.D., as well as licensed CRNAs, APNs, PAs, NPs, and credentialed RNs.

**STATEMENT OF POLICY:** Clinical and nonclinical peer review information and data generated by or at the request of a Medical Staff Department/Medical Staff or Hospital Committee and/or its leaders is used to evaluate and improve the quality of patient care and practitioner performance. The Medical Staff President, Department or Committee Chairperson, or other appointed Medical Staff Committee has the authority to conduct quality appraisal reviews as necessary, in accordance with the Bylaws.

Peer review cases should be screened within 30 days of identification; preliminary peer review done within 30 days after screening; and final Council disposition at the next regularly scheduled meeting. If there are questions of the practitioner about the case, the final Council determination/disposition should be done approximately 30-60 days after answers are provided. If no answers are provided, the Council may make its determination at the next regularly scheduled meeting thereafter.

## Medical Executive Committee

The Medical Executive Committee (MEC) shall be ultimately responsible for monitoring/evaluating Medical Staff Department/services and for organizing the quality assurance activities of the Medical Staff as well as the mechanisms used to collect, evaluate & revise such activities.

## Medical Staff Quality Council

1. **Composition/Terms.** Good Samaritan Regional Health Center Medical Staff Quality Council (MSQC) is composed of:
  - a. A Chairperson appointed by the Medical Staff President and approved by the MEC;
  - b. The Chairperson of each Department. Each Department Chairperson will hold a three year term. At the end of the three year term, the then-current Department Chairperson will fill the position for the next three year term;
  - c. Two practitioner designees from each Medical Staff Department (appointed by the Medical Staff President);
  - d. Administrative Medical Director (ex officio);
  - e. Quality Appraisal Services staff representative(s);
  - f. Vice President of Patient Care Services; and
  - g. Hospital President
  - h. Medical Director of Pathology for blood review (ad hoc)

Appointed members shall hold the position for a term of three years. The MSQC Chairperson shall be appointed for a three year minimum term. The MSQC Chairperson cannot be a current Department Chairperson. The Medical Staff President shall appoint replacements to fill any vacancy in the term of any appointed MSQC member. All such appointments shall be subject to the MEC's approval.

2. **Meetings.** The MSQC will meet on at least a monthly basis, or more frequently as needed, as determined by the MSQC Chairperson.
3. **Duties.**
  - a. Processes or outcomes on which the Hospital collects data using Medical Staff approved criteria include, but are not limited to, the following:
    - ◆ Medical assessment and treatment of patients;
    - ◆ Use of medications;
    - ◆ Use of blood and blood components;
    - ◆ Use of operative and other procedures;
    - ◆ Efficiency of clinical practice patterns;
    - ◆ Significant departures from established patterns of clinical practice;
    - ◆ Complaints or grievances from patients, coworkers, or others directed towards practitioners;
    - ◆ Referrals made from root causes analyses of Sentinel Events, and
    - ◆ Adherence to Medical Staff Bylaws and policies.

- b. These processes and outcomes are measured using the following classification of clinical indicators:
- ◆ Type 1: Rules, law, general principles of medicine. (A Type 1 indicator represents a rule, standard, generally recognized professional guideline or law. It should always be performed.)
  - ◆ Type 2: Very unusual events that require professional judgment to determine deviation from the standard. (A Type 2 indicator represents a very unusual event within the hospital and would require analysis by peers in order to determine cause, effect, and severity.)
  - ◆ Type 3: Rates (A Type 3 indicator exists only to cause a rate to be created and returned to the Department/Committee. No records need to be evaluated. These rates would be broken down by service, Department, or individual practitioner.)
- c. The MSQC is responsible for review of all Type 2 cases. This is accomplished via performance improvement activities through individual clinical case review. Outcome variances of the processes reviewed and Medical Staff Risk Management/Patient Safety issues may be referred by the Medical Staff Committees/Departments to the MSQC for review and recommendations.
- d. Pertinent policy and process information from the MSQC will be shared with the Medical Staff Departments for review.
- e. When a case is being reviewed by the MSQC, appropriate standards of care, references from the literature, relevant clinical guidelines or other information from evidence-based medicine shall be taken into consideration.

## PROCEDURE:

### 1. Responsibility:

- a. **MSQC Chairperson:** Conducts the meetings, ensures oversight of clinical review processes in collaboration with the Quality Appraisal Services staff or his/her designee, and ensures that Medical Staff Performance Improvement Activities are conducted and reported to the MEC. The MSQC Chairperson will ensure that meeting minutes are submitted to the MEC for confirmation and/or further recommendations.
- b. **MSQC Member:** Performs clinical reviews during the MSQC meetings, presents cases and opinion from the clinical review to the MSQC for categorization. MSQC members will ensure that MSQC meeting reports of action/recommendations are taken back to the respective Medical Staff Departments.
- c. **Quality Review Nurse:** Performs initial clinical review utilizing the criteria established by each Medical Staff Department and/or MSQC. Refers clinical cases which are found to be variances from the criteria to the MSQC for peer review with the Clinical Review Summary form attached which identifies the reason for review.

- d. **Quality Appraisal Services Staff:** Assists in the preparation of agendas in collaboration with the MSQC Chairperson, prepares medical records for Practitioner Review by attaching Clinical Review Summary sheets, and aggregates monthly clinical review activity for the MSQC.

Provides Committee with findings regarding Illinois Foundation for Healthcare Quality issues, issues related to patterns/trends, and provides reports, related to clinical review activities, to the Medical Staff Department Chairperson. The Vice President of Systems Improvement in collaboration with Quality Appraisal Services staff will report to the Board of Directors.

## 2. **Physician Nursing Liaison Committee:**

A Physician Nursing Liaison Committee is established as a subcommittee of the Medical Staff Quality Council to evaluate relationship issues between the medical staff and hospital staff. Complaints about practitioners that are behavioral in nature will be received by this committee and validated as outlined below:

- a. Any complaint regarding practitioner behavior will be directed to the Medical Staff Office.
- b. The appropriate Department Chairperson and Vice President of Patient Care will promptly notify the practitioner and investigate the complaint and determine if it is valid. In the absence of the respective Department Chairperson, the President of the Medical Staff will assume the responsibility of the investigation. If the President is unavailable, the President-elect will assume the responsibility. In the absence of the Vice President of Patient Care, the Administrator on Call will assume the responsibility.
- c. If a complaint is valid, it will be considered as a variance from Type I Indicators and a Rule letter will be sent to the practitioner from the Quality Department indicating the variance and placed in the practitioner's quality file for tracking and trending.
- d. Goal performance is 0 validated complaints in a rolling twelve month reporting period. Acceptable performance is 2 validated complaints in a rolling twelve month period. If more than two validated complaints about a practitioner are received in a rolling twelve month period, the Medical Staff Quality Council will review the complaints and recommend actions as deemed appropriate.
- e. Complaints that are deemed invalid will be tracked by the Liaison Committee and if there is a trend recognized in the number of invalid complaints from an individual or individuals, the issue will be addressed appropriately.
- f. If there are any conflicts of interest with the individuals designated to validate complaints, another reviewer will be named by the MSQC Chairperson.

- g. If there is disagreement between the individuals designated to validate issues then a second opinion will be obtained from the President of the Medical Staff, or in their absence, the President-elect of the Medical Staff.
- h. Issues will be addressed timely and will include input from the individuals identified in the complaint. Practitioners have the right to bring a challenge to the MSQC regarding the decision of the individuals validating the complaint.

**2. Procedure for Type 1 and Type 3 Indicators:**

- a. Quality Appraisal Services will coordinate the accumulation of data for Indicators Type 1 and Type 3. Information and rates (numbers) shall be shared with the respective Department Chair at least quarterly for incorporation into a regular report to the Department. Rates or numbers are to be reviewed regularly against recognized benchmarks in order to determine overall practice variation within a specialty or within the institution.
- b. Type 1 variations are deviations from accepted rules and expectations. A pattern in this area will not necessarily warrant an action or response. Ongoing problems reflected in patterns should be reported to the MSQC with all pertinent documentation. If a pattern continues it will be referred to the MEC.
- c. Type 3 indicators identifying patterns of performance at variance with a benchmark or the norm shall be evaluated by the MSQC utilizing CQI techniques/tools. If analysis shows a pattern of deviation, it will be reviewed intensively and process improvement sought. Recommendations will be made to the MEC.

**3. Procedure for Type 2 Indicators:**

- a. Quality Review Nurse identifies cases on an ongoing basis meeting the quality indicators as outlined by the Medical Staff and/or MSQC. The Quality Review Nurse reviews the records utilizing criteria as established by the Medical Staff. A Clinical Review Summary form (Attachment A or Attachment B) is initiated for those cases which do not demonstrate compliance with these criteria and is forwarded for review by the MSQC.
- b. The case in question will be reviewed by an individual physician assigned each month on a rotating basis from the MSQC. The reviewing physician will determine if the case warrants presentation to the full committee. The physician reviewer will then prescore the case to be presented to the full committee as outlined in Attachment C. The physician of record will be notified in writing that their case is being reviewed by the committee and will have an opportunity to respond.
- c. Each referred case is reviewed by the MSQC and assigned a category according to the definitions established by the Medical Staff as outlined in Attachment D.

4. **Process Following MSQC Review:**

- a. If analysis shows deviation attributed to Hospital processes, findings and recommendations will be forwarded to the appropriate Hospital Department for review and response.
- b. The practitioner will be notified in writing of the results of the review.
- c. The MSQC may, in its sole discretion, elect to request a peer review by an independent third party peer reviewer when there is a need for clarification or confirmation of a suspected deviation from the standard of care, a conflict of interest (or a perception of conflict of interest) exists, or a specialty level review is warranted. Any time the care has been deemed inappropriate, the practitioner may request that the MSQC obtain an outside peer review. Independent third party peer reviewers shall be selected by the MSQC.
- d. If further information or review is necessary, the MSQC may request the following actions:
  - ◆ The involved practitioner will be notified and will be required to provide his/her rationale or justification either in writing within 30 days or by attending the next MSQC meeting; or
  - ◆ Request an additional review by another practitioner in the Department.
- e. If a practitioner fails to respond within 30 days, the MSQC will make a determination on the case with the information available, and the practitioner will be notified of the determination.
- f. After reviewing all available information, the MSQC shall take action, as appropriate. MSQC actions shall include providing written follow-up to the practitioner and/or making a recommendation to the MEC regarding appropriate corrective action in response to issues identified during the review.
- g. Written minutes of each MSQC meeting shall be maintained, and shall be submitted to the MEC at its next regularly scheduled meeting following each MSQC meeting.

5. **Confidentiality of Peer Review Information:**

- a. The MSQC's activities are confidential peer review activities, and the confidentiality of any information or records generated by the MSQC will be respected. Quality Appraisal Services will maintain copies of all minutes, reports, worksheets and other data in a manner ensuring strict confidentiality. These files will be available to the MSQC Committee. A written Confidentiality Policy provides for restricted access to such documentation by qualified individuals.

- b. Peer review records will be accessible only to those who are responsible for, or who participate in, MSQC-initiated peer review activity and to those responsible for surveying hospitals to ascertain the existence of an ongoing effective performance improvement efforts.
- c. The confidential nature of the information will be maintained in accordance with the Illinois Medical Studies Act (735 ILCS 5/8-2101 - 2105).

Attachment A

St. Mary's-Good Samaritan, Inc.

Mt. Vernon Campus

Quality/Risk Assessment

Department of \_\_\_\_\_

Patient \_\_\_\_\_ M.R.# \_\_\_\_\_ Attending MD \_\_\_\_\_

Admitted: \_\_\_\_\_ Disch: \_\_\_\_\_ Consulting MDs \_\_\_\_\_

Admitting Diagnosis: \_\_\_\_\_

Significant Medical History: \_\_\_\_\_

Procedures: \_\_\_\_\_

Please check all that apply:

\_\_\_ Cardiac/respiratory arrest during or within 48 hours of invasive procedure or surgery

\_\_\_ Unplanned transfer to ICCU

\_\_\_ Unplanned readmission within 7 days of previous inpatient hospitalization

\_\_\_ Unplanned admission within 48 hours of outpatient surgery

\_\_\_ Unplanned organ injury during invasive procedure

\_\_\_ Unanticipated return to surgery

\_\_\_ Neurological deficit or CVA not present upon admission

\_\_\_ Renal failure not present upon admission

\_\_\_ Pulmonary embolus/thrombophlebitis not present upon admission

\_\_\_ CHF/pulmonary edema not present upon admission

\_\_\_ GI Bleed unrelated to primary diagnosis

\_\_\_ Other Complications: \_\_\_\_\_

Summary by R.N.: SEE ATTACHED SHEET

**Peer Review:**

Comments/conclusions of reviewing physician: \_\_\_\_\_

Are there any hospital based processes in need of improvement? If yes, please describe:

Should this case be presented verbally to the Department/Committee?  No  Yes

Signature: \_\_\_\_\_ Date: \_\_\_\_\_

Attachment B

St. Mary's-Good Samaritan, Inc. Mt. Vernon Campus  
Mortality Review Department of \_\_\_\_\_

Name: \_\_\_\_\_ Age: \_\_\_\_\_

MR# \_\_\_\_\_

Attending: \_\_\_\_\_ Surgeon: \_\_\_\_\_ Consulting: \_\_\_\_\_

Admit Date: \_\_\_\_\_ Expiration Date: \_\_\_\_\_

Hospice? \_\_\_\_\_ Coroner's Case? \_\_\_\_\_ Perioperative Death? \_\_\_\_\_ ASA Class \_\_\_\_\_

Admission Diagnosis: \_\_\_\_\_

Significant History: \_\_\_\_\_

Did patient have a chronic end stage disease? \_\_\_\_\_

Surgery? \_\_\_\_\_

Invasive Procedures: \_\_\_\_\_

Was patient coded?  Yes  No  DNR \_\_\_\_\_

Was patient a donor?  Yes  No Was donor consent/declination signed on chart?  Yes  No

Did patient meet criteria for autopsy?  Yes  No Was autopsy performed?  Yes  No

Cause of death from physician documentation: \_\_\_\_\_

None on chart at time of review \_\_\_\_\_

Comments: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Section A:

- Death expected given the patient's condition/prognosis upon admission & documented in H & P
- Death expected given the evolution of the patient's condition during the course of inpatient stay & documented by the physician in the patient's chart
- Death was a result of the implementation of an appropriately executed advanced directive

Section B: (Automatic referral for peer review)

- Death within 48 hours of diagnostic/invasive procedure (not otherwise explained in Section A)
- Death of patient unseen by attending physician/surgeon
- Unanticipated Patient Death
- Other: \_\_\_\_\_

**Peer Review:**

Comments/conclusions of reviewing physician:

---

---

Are there any hospital based processes in need of improvement? If yes, please describe:

---

---

Should this case be presented verbally to the Quality Council?       No     Yes

Signature: \_\_\_\_\_ Date: \_\_\_\_\_

## Attachment C

### Preliminary Physician Reviewer Scoring Form

Medical Record Number: \_\_\_\_\_

Physician Questions: \_\_\_\_\_  
\_\_\_\_\_

*Outcome:*

- 1. no adverse outcome
- 2. minor/temporary adverse outcome (complete recovery expected)
- 3. major/permanent adverse outcome (complete recovery NOT expected)
- 4. death

*Affect on patient care:*

- 1. Care not affected
- 2. Increased level of monitoring/observation (e.g. vital sign checks)
- 3. Additional treatment/intervention (e.g. IV fluids)
- 4. Life sustaining treatment/intervention (e.g. intubation, pressor support, CPR, prolonged LOS)

*Documentation:*

- A. No issue with documentation
- B. Documentation is not present
- C. Documentation does not substantiate clinical course and treatment
- D. Documentation not timely to communicate with other caregivers
- E. Documentation illegible
- F. Other: \_\_\_\_\_

*Problem identification:*

- A. No issues with physician care
- B. Diagnosis
- C. Judgment
- D. Technique/skill
- E. Communication or implementation of treatment plan
- F. Policy compliance
- G. Supervision of house staff or AHPs
- H. Other: \_\_\_\_\_

*Overall Physician Care:*

- 1. Care Appropriate
- 2. Care questionable or unusual or controversial
- 3. Care inappropriate

*Exemplary Physician Care:*

- 1. Documentation Exemplary
- 2. Care Exemplary

*Are there system problems, processes, or nursing care issues that need to be addressed?*

- No
- Yes

If yes, please describe: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

## Attachment D

### CASE SCORING OPTIONS

**Patient Outcome**

1	No adverse outcome
2	Minor/temporary adverse outcome (complete recovery expected)
3	Major/permanent adverse outcome (complete recovery NOT expected)
4	Death

**Affect on Patient Care**

1	Care not affected
2	Increased level of monitoring/observation (e.g. vital sign checks)
3	Additional treatment/intervention (e.g. IV fluids)
4	Life sustaining treatment/intervention (e.g. intubation, pressor support, CPR, prolonged LOS)

**Documentation (select all that apply):**

A	No issue with documentation
B	Documentation is not present
C	Documentation does not substantiate clinical course and treatment
D	Documentation not timely to communicate with other caregivers
E	Documentation illegible
F	Other:

**Physician Problem Identification (check all that apply):**

A	No issues with physician care identified
B	Issue with physician diagnosis
C	Issue with physician judgment
D	Issue with physician technique/skill
E	Issue with physician communication or implementation of treatment plan
F	Issue with physician policy compliance
G	Issue with physician supervision of AHP or house staff
H	Other:

**Overall Physician Care (check one):**

1	Care appropriate
2	Care questionable or unusual or controversial
3	Care inappropriate

**Exemplary Physician Care**

A	Documentation exemplary
B	Care exemplary

**Non-Physician Issues**

Are there system problems, processes, or nursing care issues that need to be addressed?

\_\_\_\_\_ No  
 \_\_\_\_\_ Yes

If yes, please describe: \_\_\_\_\_

**Criterion 1110.1230.b, Establishment of Open Heart Surgery**

This criterion reads as follows:

“Establishment of Open Heart Surgery - Review Criterion. The applicant must document that a minimum of 200 open heart surgical procedures will be performed during the second year of operation or that 750 cardiac catheterizations were performed in the latest 12 month period for which data is available. Anticipated open heart surgical volume must be documented by historical referral volume of at least 200 patients directly referred following catheterization at the applicant facility to other institutions for open heart surgery for each of the last two years.”

The applicant facility performed 74 Open Heart Surgery procedures in 2007, which does not meet the 200 procedure level required by this criterion. However, the criterion's second option to meet this criterion is that the applicant facility have performed more than 750 cardiac catheterizations in 2007. The hospital's cardiac catheterization volume for 2007 totaled 1,087 catheterizations which exceeds the number required by this criterion.

Due to the increase in Therapeutic Cardiac Catheterization and the resultant decrease in Open Heart Surgery Volume it is clear the applicant will not achieve the 200 procedure target level established by the Board. However, the program has been in place at the existing hospital for a number of years with high quality outcomes, and it is recommended that Open Heart Surgery be available in order to perform therapeutic catheterization. In 2007 the applicant performed 387 therapeutic catheterization, if only 1/3 of those patients would have had open heart surgery as they did in the past the applicant would have easily met the 200 procedure minimum.

Given the location of this facility, in an HSA where only two other hospitals provide this service, and both of those facilities are more than 45 minutes travel time from the proposed facility. Memorial Hospital of Carbondale is 64 minutes and 67.7 miles from the proposed facility and Heartland Regional Medical Center in Marion is 47 minutes and 45.7 miles from the proposed new hospital.

The applicant was originally approved for this service under a conditional permit and having met the requirements of the conditional permit those conditions were removed by the State Planning Board.

The volume of cardiac catheterizations supports the need to have an open heart surgery under the Board's rules, and the applicant's history of providing high quality care supports the continuation of this necessary service.

**Criterion 1110.1230.c, Unnecessary Duplication of Services**

This criterion reads as follows: "The applicant must document that the volume of any existing service within 90 minutes travel time from the applicant will not be reduced below 350 procedures annually for adults and 75 procedures annually for pediatrics. Documentation shall consist of proof of contact of all facilities within 90 minutes travel time currently providing open heart surgery to determine the projected impact the project will have on existing open heart surgery volume.

A letter was sent to each of the four facilities in Illinois which are within 90 minutes of the proposed new hospital site (Memorial Hospital in Belleville, St. Elizabeth's Hospital in Belleville, Memorial Hospital of Carbondale, in Carbondale, and Heartland Regional Medical Center located in Marion) describing the proposed project and requesting that they advise the applicant of any potential impact of the proposed project on their workload. Memorial Hospital of Carbondale responded that they did not anticipate any substantial impact on their Open Heart Surgery program.

Since this project is for the replacement of an existing facility with a well established Open Heart Surgery program it is believed that this project would not have any adverse impact on any of the existing programs, and would not reduce the volume at any of the existing hospitals.

December 7, 2007

# St. Mary's Good Samaritan

Incorporated

Cosponsored by Felician Services, Inc.  
and SSM Health Care

Mr. Timothy F. Brady  
Administrator  
St. Elizabeth's Hospital  
211 South Third Street  
Belleville, IL 62220



RE: Good Samaritan Regional Health Center  
Open Heart Surgery Service

Dear Mr. Brady:

Good Samaritan Regional Health Center is planning to relocate from its current site at 605 North 12<sup>th</sup> Street in Mount Vernon, Illinois to Veterans Memorial Drive and South 42<sup>nd</sup> Street in Mount Vernon, Illinois. Good Samaritan Regional Health Center provides open heart surgical services at the existing location, and intends to continue to provide open heart surgical services at the proposed relocated hospital.

This project involves relocation of an existing health care facility to a new site. Therefore, the Illinois Health Facilities Planning Board requires that we notify existing providers of the proposed program in order to determine any anticipated impact. Please advise Good Samaritan Regional Health Center if you believe this relocation will have any impact on your facility. You may direct any correspondence pertaining to this to:

Michael Warren  
Vice President, Clinical Development  
Good Samaritan Regional Health Center  
605 North 12<sup>th</sup> Street  
Mount Vernon, IL 62864

Thank you for your attention to this matter.

Sincerely,

Gerald W. Lefert  
President and Chief Executive Officer  
St. Mary's Good Samaritan, Inc.

605 North 12th Street  
Mt. Vernon, IL 62864  
618.242.4600

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 CHIEF EXECUTIVE OFFICER  
 HEARTLAND REGIONAL MEDICAL  
 CENTER  
 333 WEST DEYOUNG  
 MARION IL 62959

PS Form 3800, June 2004 Instructions

**Criterion 1110.1230.d, Support Services**

All of the ancillary and support services required by this criterion will be provided on a 24 hour per day basis as they are in the existing hospital.

**ATTACHMENT OHS-4**



# MEMORIAL HOSPITAL OF CARBONDALE

January 15, 2008

## VIA FEDERAL EXPRESS

Michael Warren  
Vice President, Clinical Development  
Good Samaritan Regional Health Center  
605 North 12<sup>th</sup> Street  
Mount Vernon, Illinois 62864

Re: Good Samaritan Regional Health Center  
Open Heart Surgery Service  
Cardiac Catheterization Service

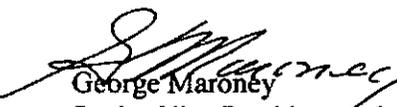
Dear Mr. Warren:

We are in receipt of your letter wherein you describe how Good Samaritan Regional Health Center is planning to relocate from its current site at 605 North 12<sup>th</sup> Street in Mt. Vernon, Illinois to Veterans Memorial Drive and South 42<sup>nd</sup> Street, also in Mount Vernon. We understand that Good Samaritan Regional Health Center provides open heart surgical services as well as cardiac catheterization services at the existing location and that you intend to continue to provide these services at the proposed relocated hospital.

We do not anticipate any dramatic or substantial impact from this relocation on Memorial Hospital of Carbondale. Therefore, so long as Good Samaritan Regional Health Center meets the state's minimum utilization criteria for open heart surgery and cardiac catheterization services, we would be supportive of the proposed relocation and re-initiation of services at the new location.

If you have any questions regarding this letter, please do not hesitate to contact me.

Sincerely,

  
George Maroney  
Senior Vice President and Administrator  
Memorial Hospital of Carbondale

C: Jeffrey Mark, Executive Secretary, Illinois Health Facilities Planning Board

db

405 West Jackson Street | PO Box 10000  
Carbondale, IL 62902-9000

TEL 618-549-0721  
FAX 618-529-0449

[www.sih.net](http://www.sih.net)

**Criterion 1110.1230.e, Staffing**

The applicant currently operates an Open Heart Surgery Program as well as a very active Cardiac Catheterization Program. These program will continue to be staffed by existing staff the required information regarding the individual staff is appended to this Attachment.

**ATTACHMENT OHS-5**

## ***CURRICULUM VITAE***

**NAME:** John Ward Watson, M.D.

**DATE OF BIRTH:** October 3, 1958

**SOCIAL SECURITY NUMBER:** 243-96-9849

**PLACE OF BIRTH:** West Jefferson, North Carolina

**MARITAL STATUS:** Married, Lianne Lee, 1985

**HOME ADDRESS:** 170 Allison Way  
Hollidaysburg, PA 16648  
(814) 693-2457 Cell ~~(717) 818-2862~~ 814-391-6602  
(Email) heart4labs@atlanticbb.net

### **EDUCATION:**

1976-1978: Appalachian State University, Boone, North Carolina

1978-1980: BA Wake Forest University, Winston-Salem, North Carolina

1980-1984: M.D. Bowman Gray School of Medicine, Winston-Salem, North Carolina

### **POSTDOCTORAL TRAINING:**

1984-1985: Intern in Surgery, New Hanover Memorial Hospital, Wilmington, NC

1987-1988: Intern in Surgery, Wilford Hall USAF Medical Center, Lackland AFB, TX

1988-1991: Resident in Surgery, Wilford Hall USAF Medical Center, Lackland AFB, TX

1991-1992: Chief Resident in General Surgery, Wilford Hall USAF Medical Center

1992-1994: Fellow in Cardiothoracic Surgery, New England Deaconess Hospital, Boston, MA

PAGE 2

**PREVIOUS POSITIONS:**

January 1995- January 1996: Staff Cardiothoracic Surgeon, Kessler Medical Center

January 1996- May 1999: Chief Cardiothoracic Surgery, Kessler Medical Center

July 1999-June 2000: Clinical Associate Cardiac Surgery, Cleveland Clinic Foundation, Cleveland, OH

August 2000 - January 2005 Chief of Cardiothoracic Surgery at Bon Secours Holy Family Hospital, Altoona, PA

February 2005 - January 2006 Cardiothoracic surgeon with Cardiac and Thoracic Surgery Associates

**BOARD CERTIFICATION:**

American Board of Surgery: September 22, 1993 # 5910 Recertification 2004  
American Board of Thoracic Surgery: June 7, 1996 # 3858 Recertification 2005

**MILITARY SERVICE:**

1985-1999 Active Duty United States Air Force  
Rank at time of separation: Lt. Col.

**PREVIOUS ASSIGNMENTS:**

1985-1987: Flight Surgeon, 56<sup>th</sup> TAC Training Wing, MacDill AFB, FL

**LICENSURE:**

North Carolina # 33910  
Pennsylvania MD-071749-L

**AWARDS AND HONORS:**

"Iron Intern Award" Best performance as a general surgery intern, Presented by Chief Residents.

**MEMBERSHIP IN PROFESSIONAL SOCIETIES:**

Society of Air Force Clinical Surgeons  
Candidate Group, American College of Surgeons  
Affiliate Member, American College of Chest Physicians  
Candidate Group, Society of Thoracic Surgeons  
Fellow American College of Chest Physicians  
Associate Fellow, American College of Surgeons  
Fellow American College of Surgeons  
Fellow Society of Thoracic Surgeons  
Pennsylvania Medical Society

**PUBLICATIONS:**

1. Watson JW, Brown DR, Lally KP, et al. Complications of Extracorporeal Membrane Oxygenation in Neonates. South Med J. 83: 1262 – 1265, 1990.
2. Watson JW, Smith VC, Schmidt, et al. Automatic Implantable Cardioverter Defibrillator: Early Experience at Wilford Hall Medical Center, South Med J, 1991

**INVITED LECTURES:**

“Complications of Extracorporeal Membrane Oxygenation in Neonates”, Combined Pediatric and Surgery Conference, Santa Children’s Hospital, San Antonio, Texas.

“Thoracic Trauma”, Emergency Medical Technician Training Course, Kessler Medical Center, August 1997.

“Congenital Heart Disease”, General Surgery Residents Lecture Series, Kessler Medical Center, USAF 1995-1998

“Cardiovascular Surgery, Part One “The Heart””. Physician Assistant Students, St. Francis College, Latrobe PA, September 2000

“Pulmonary Surgery”, Physician Assistant Students, St. Francis College, Latrobe PA

“Cardiac and Pulmonary Surgery” Physician Assistant Students, St. Francis College, Latrobe PA, October 2001

PAGE 4

**PRESENTATIONS:**

"Complications of Extracorporeal Membrane Oxygenation in Neonates", Surgery Section, Southern Medical Association, 83<sup>rd</sup> Annual Assembly, Washington D.C., November 1989.

Automatic Implantable Cardioverter Defibrillator: Early Experience at Wilford Hall USAF Medical Center", Surgery Section, Southern Medical Association, 84<sup>th</sup> Scientific Assembly, Nashville, Tennessee, October, 1990.

Thoracic Surgical Oncology: Our Changing Specialty", 44<sup>th</sup> Annual Meeting, Society of Air Force Clinical Surgeons, April 1997.

"Myocardial Surgical Revascularization: Then and Now", 45<sup>th</sup> Annual Meeting, Society of Air Force Clinical Surgeons, April 1998.

"Aortic Valve Disease and the Enlarged Ascending Aorta; "Is Aortic Root Replacement Necessary?" Research Day at The Cleveland Clinic. June 2000

Curriculum Vitae

**John E. Codd, M.D.**

- Education:** St. Louis University School of Medicine-M.D. 1963  
Gonzaga University, Spokane-B.A. 1958  
Gonzaga High School, Spokane- 1954
- Board Certification:** American Board of Thoracic Surgery, 1971  
American Board of Surgery, 1970
- Post-Graduate Training:** St. Louis University Hospital, Cardiovascular Fellow 1969-70  
St. Louis University Hospital, Resident, 1968-69  
St. Louis University Hospital, Assistant Resident, 1964-67  
St. Louis University Hospital, Intern, 1963-64
- Positions:** Professor of Surgery  
Washington University School of Medicine  
St. Louis, MO  
January 2003 to present
- President  
St. Louis Heart Institute Cardiothoracic Surgeons, Inc.  
St. Louis, MO  
1984-2002
- Director of Cardiovascular Surgical Services  
DePaul Health Center  
Bridgeton, MO  
1984-2002
- Director of Cardiovascular Surgical Services  
St. Joseph Health Center  
St. Charles, MO  
1991-2002
- Chairman, Department of Surgery  
DePaul Health Center  
Bridgeton, MO  
1988-1990
- St. Louis University School of Medicine  
Professor of Surgery 1979-1984  
Associate Professor of Surgery 1975-1979  
Assistant Professor of Surgery 1971-1974
- John Cochran V.A. Hospital  
Chief of Cardiothoracic Surgery 1982-1984  
Chief of Surgery 1981-1982  
Chief, Unit II Surgery 1971-1974

Curriculum Vitae Cont'd

**John E. Codd, M.D.**

**Positions:**

Director of Cardiovascular Surgical Services  
SMGSI Open Heart Program  
Mt. Vernon, IL  
September, 2005 to July, 2006

Surgeon, St. Mary's Good Samaritan Medical Group  
Director, Vascular Clinic  
Mt. Vernon, IL  
December, 2006 to present

**Military Service:**

Major, USAF, March 1969  
Active Duty, August 1969-1971

**Awards and Achievements:**

St. Louis Heart Institute Cardiovascular Surgeons, Inc.

- Established four ongoing cardiothoracic surgical programs in the St. Louis area
- Established two satellite programs, one in Jefferson City, MO and the other in Mt. Vernon, IL
- Co-author of 112 papers and presented at 76 major meetings
- Received grant support from the Veteran's Administration for Research in Organ Preservation for Transplantation

St. Louis University Hospital

- Awarded NIH Fellowship for Research in Organ Transplantation

**Societies:**

St. Louis Thoracic Surgical Society, President

American Medical Association

American Association for Thoracic Surgery

American College of Chest Physicians

American Federation of Clinical Research

American Heart Association, Council Member

American Society for Artificial Internal Organs

American Society of Transplant Surgeons

Association for Academic Surgery

Association of V.A. Cardiologists

Central Surgical Association

Fellow, American College of Surgeons

Regional Dialysis and Transplant Association Scientific Board

St. Louis Metropolitan Medical Society, Council Member

St. Louis Cardiology Club

St. Louis Surgical Society

St. Louis Thoracic Surgical Society

Sigma XI

Society of Thoracic Surgeons

Society of Transplant Surgeons

Southwestern Dialysis and Transplantation Association

Southwestern Surgical Congress

The International Cardiac Transplantation Society

The International Cardiovascular Society

Transplantation Society

Western Dialysis and Transplant Society

Western Surgical Association

**TRAVES CRABTREE**

**PERSONAL DATA:**

Date of Birth: October 24, 1969

Place of Birth: Carbondale, IL.

Office Address: Department of Cardiothoracic Surgery  
Washington University School of Medicine  
3<sup>rd</sup> Floor, Queeny Tower  
St. Louis, MO  
(314) 362-7327

Home Address: 11565 Tivoli Lane  
St. Louis, MO  
(314) 567-1460

Family: Wife: Felicia Crabtree  
Children: Ellie (5), Abby (4), & Jakob (1)

**SPECIFIC SURGICAL INTERESTS:**

Off-pump coronary revascularization, mitral valve repair, aortic and aortic root surgery, arrhythmia surgery (ie. MAZE), noncardiac thoracic surgery, esophageal surgery, etc.

**TRAINING:**

Fellow in Cardiothoracic Surgery  
Washington University Dept. of Surgery  
July 2002-Present

Chief Resident in General Surgery  
University of Virginia Dept. of Surgery  
July, 2001-June, 2002

Resident in General Surgery  
University of Virginia Dept. of Surgery  
July, 1999-June, 2001

Surgical Infectious Disease Research Fellow  
University of Virginia Dept. of Surgery  
July, 1997-June, 1999

Resident in General Surgery  
University of Virginia Dept. of Surgery  
July, 1996-June, 1997

Intern in General Surgery  
University of Virginia Dept. of Surgery  
June, 1995-June, 1996

**EDUCATION:**

M.D., Southern Illinois University School of Medicine  
Springfield, IL.  
August, 1991-May, 1995

B.S., University of Illinois, Champaign-Urbana  
Major: Biology  
August, 1987-May, 1991

**CME CREDITS**

-Advanced Laparoscopic Techniques Course sponsored by  
SAGES. Cleveland, OH. Nov. 3-4, 2000.  
-Ultrasound for Surgeons course sponsored by ACOS.  
Orlando, FL. Oct. 8-9, 1998.

**HONORS/AWARDS:  
RECENT:**

-University of Virginia School of Medicine Resident  
Teaching Award-2002  
-Pharmacia/Upjohn Academic Achievement Resident  
Award-2000  
-John Horsley Memorial Prize for best publication among  
UVA medical alumni-2000  
-Dean Edwin Pullen Anatomy Resident Teaching Award  
(1998-1999)  
-Winner, Gold Medal Forum for best paper presented at the  
Southeastern Surgical Congress Annual Meeting, 1999.  
-Kass Fellowship Award Recipient for the presentation at  
the 36<sup>th</sup> Annual Meeting of the Infectious Disease Society  
of America, Denver, CO. 1998.  
-National Research Service Award Recipient, May 1998.

**MEDICAL SCHOOL:**

- UPJOHN Academic Achievement Award SIU Class of 1995 (Awarded to 1 student/yr by faculty selection)
- AOA (Selected in Junior Year)
- AOA President for SIU Class of 1995
- 1st and 2nd Year Academic Honors for completion of Research Honors Project
- Chosen as SIU Student Representative to attend the 1994 80th Annual Clinical Congress of the American College of Surgeons
- Class Representative, 1st and 2nd year

**UNDERGRADUATE:**

- summa cum laude
- Bronze Tablet (Highest University Recognition for Academic Achievement)
- University Honorary Distinction for Independent Research
- Phi Beta Kappa
- School of Life Sciences' Scholarship for Independent Research

**RESEARCH FUNDING:**

- May 1998-July 1999: **National Research Service Award #1F32GM19423-01** from the National Institutes of Health. The Neutrophil Response to Hemolysin-producing *E. coli*.

**RESEARCH AND PUBLICATIONS:**

1. Sawyer RG, **Crabtree TD**, Gleason TG, Antevil JL, Pruett TL. Impact of solid organ transplantation and immunosuppression on fever, leukocytosis, and physiologic response during bacterial and fungal infections. *Clin Transplant* 1999;13:260-265.
2. **Crabtree TD**, Gleason TG, Pruett TL, Sawyer RG. Trends in nosocomial pneumonia in surgical patients as we approach the 21st century: a prospective analysis. *Am Surg* 1999;65:706-709.
3. **Crabtree TD**, Pelletier SJ, Gleason TG, Pruett TL, Sawyer RG. Clinical characteristics and antibiotic utilization in surgical patients with *Clostridium difficile*-associated diarrhea. *Am Surg* 1999;65:507-511.
4. Gleason TG, **Crabtree TD**, Pelletier SJ, Karchmer T, Raymond DP, Pruett TL, Sawyer RG. Infection with antibiotic-resistant gram positive cocci predicts a poorer prognosis than infection with antibiotic-sensitive strains. *Arch Surg* 1999;134:1033-1040.
5. **Crabtree TD**, Pelletier SJ, Gleason TG, Pruett TL, Sawyer RG. Analysis of aminoglycosides in the treatment of gram-negative infections in surgical patients. *Arch Surg* 1999;134:1300-1308.

6. Pelletier SJ, **Crabtree TD**, Gleason TG, Banas LE, Patel SR, Pruett TL, Sawyer RG. Waiting for microbiologic data to direct therapy against nosocomial infections does not worsen outcome in febrile surgical patients. *Arch Surg* 1999;134:1293-1299.
7. **Crabtree TD**, Pelletier SJ, Gleason TG, Pruett TL, Sawyer RG. Gender-dependent differences in outcome after the treatment of infection in hospitalized patients. *JAMA* 1999;282:2143-2148.
8. Pelletier SJ, **Crabtree TD**, Gleason TG, Raymond DP, Oh CK, Pruett TL, Sawyer RG. Characteristics of infectious complications associated with mortality after solid organ transplantation. *Clin Transplant* 2000;14:401-408.
9. Pelletier SJ, **Crabtree TD**, Gleason TG, Pruett TL, and Sawyer RG. Bacteremia associated with central venous catheter infection is not an independent predictor of outcome. *J Am Coll Surg* 2000;190:671-680.
10. Pelletier SJ, Iezzoni JC, **Crabtree TD**, Hahn YS, Sawyer RG, Pruett TL. Prediction of graft fibrosis by clinical parameters and early macrovesicular steatosis after liver transplantation for hepatitis C virus. *Liver Transpl* 2000;6:44-53.
11. Claridge JA, **Crabtree TD**, Pelletier SJ, Butler K, Sawyer RG, Young JS. Persistent occult hypoperfusion is associated with a significant increase in infection rate and mortality in major trauma patients. *J Trauma* 2000;48:8-14.
12. Pelletier SJ, Raymond DP, **Crabtree TD**, Berg CL, Iezzoni JC, Hahn YS, Sawyer RG, Pruett TL. Hepatitis C-induced hepatitis allograft injury is associated with a pretransplant elevated viral replication rate. *Hepatology* 2000;32:418-426.
13. Pelletier SJ, Iezzoni JC, **Crabtree TD**, Raymond DP, Sawyer RG, Hahn YS, and Pruett TL. Pretransplant hepatitis C virus envelope diversity may be predictive of long-term outcome after liver transplantation. *Hepatology* 2000;32:375-381.
14. Jin L, Raymond DP, **Crabtree TD**, Houlgrave CW, Pelletier SJ, Pruett TL, Sawyer RG. Enhanced murine macrophage tumor necrosis factor receptor shedding by CpG in oligodeoxynucleotides. *J Immunol* 2000;165:5153-5160.
15. Raymond DP, **Crabtree TD**, Pelletier SJ, Gleason TG, Banas LE, Patel S, Pruett TL, Sawyer RG. Extremes of white blood cell count do not independently predict outcome among surgical patients with infection. *Am Surg* 2000;66:1124-1131.
16. **Crabtree TD**, Jin L, Raymond DP, Pelletier SJ, Houlgrave W, Gleason TG, Pruett TL, Sawyer RG. Preexposure of murine macrophages to CpG oligonucleotide results in a biphasic TNF- $\alpha$  response to subsequent LPS challenge. *Infect Immun* 2001;69:2123-2129.
17. Raymond DP, Pelletier SJ, **Crabtree TD**, Gleason TG, Pruett TL, Sawyer RG. Impact of bloodstream infection on outcomes among infected, hospitalized surgical patients. *Ann Surg* 2001;233:549-555.
18. **Crabtree TD**, Pelletier SJ, JL Antevil, Gleason TG, Pruett TL, and Sawyer RG. Cohort study of fever and leukocytosis as diagnostic and prognostic indicators in infected surgical patients. *World J Surg* 2001;25:739-744.
19. Sawyer RG, Raymond DP, Pelletier SJ, **Crabtree TD**, Gleason TG, Pruett TL. Implications of 2,457 consecutive surgical infections entering the year 2000. *Ann Surg* 2001;233:867-874.
20. Raymond DP, Pelletier SJ, **Crabtree TD**, Gleason TG, Hamm LL, Pruett TL, Sawyer RG. Impact of a rotating empiric antibiotic schedule on infectious mortality in an intensive care unit. *Crit Care Med* 2001;29:1101-1108.

21. Evans HL, Raymond DP, Pelletier SJ, **Crabtree TD**, Pruett TL, Sawyer RG. Diagnosis of intra-abdominal infection in the critically ill patient. *Current Opinion in Critical Care* 2001;7:117-21.
22. Raymond DP, Pelletier SJ, **Crabtree TD**, Schulman AM, Pruett TL, Sawyer RG. Surgical infection and the aging population. *Am Surg* 2001;67:827-832.
23. Evans HL, Raymond DP, Pelletier SJ, **Crabtree TD**, Pruett TL, Sawyer RG. Tertiary peritonitis (recurrent diffuse or localized disease) is not an independent predictor of mortality in surgical patients with intra-abdominal infection. *Surgical Infections* 2001;2:255-265.
24. Pelletier SJ, Raymond DP, **Crabtree TD**, Gleason TG, Pruett TL, Sawyer RG. Outcome analysis of intra-abdominal infection with resistant gram-positive organisms. *Surgical Infections* 2002;3:11-19.
25. **Crabtree TD**, Pelletier SJ, Raymond DP, Antevil JT, Gleason TG, Pruett TL, Sawyer RG. Effect of changes in surgical practice on the rate and detection of nosocomial infections: a prospective analysis. *Shock* 2002;17:258-262.
26. Pelletier SJ, Isaacs RB, Raymond DP, **Crabtree TD**, Spencer CE, Gleason TG, Pruett TL, Sawyer RG. Ethnic disparities in outcome from posttransplant infections. *Shock*, *in press*.
27. Jin L, Raymond DP, **Crabtree TD**, Pelletier SJ, Rudy CK, Pruett TL, Sawyer RG. Pre-exposure of murine macrophages to CpG ODN Results in NF- $\kappa$ B p50 homodimer-associated hypo-responsiveness. *Surgery* 2002;132(2):245-251.
28. Raymond DP, Pelletier SJ, **Crabtree TD**, Evans HL, Pruett TL, Sawyer RG. Impact of antibiotic resistant Gram negative bacilli infections on outcome in hospitalized patients. *Crit Care Med* 2003;31(4):1035-1041.
29. Pelletier SJ, Banas LE, Raymond DP, **Crabtree TD**, Gleason TG, Pruett TL, Sawyer RG. Effect of ethnicity on mortality after infection among hospitalized patients. (Submitted for publication).
30. **Crabtree T**, Smith M, Patterson A. Pulmonary Resection for Focal Lung Disease Secondary to Cystic Fibrosis (work in progress).
31. **Crabtree T**, Belle J, Patterson A, Cooper J, Meyers B. Utility of prophylactic minitracheostomy tube placement in lung resection patients at high risk for postoperative pulmonary complications: a randomized controlled trial (work in progress).

### Abstracts

1. Raymond DP, Pelletier SJ, **Crabtree TD**, Pruett TL, Sawyer. Recurrent pneumonia in hospitalized surgical patients: risk factors and outcomes. Submitted to the Society of Critical Care Medicine 30<sup>th</sup> International Educational and Scientific Symposium, 2001.
2. Raymond DP, Pelletier SJ, **Crabtree TD**, Schulman AM, Pruett TL, Sawyer. Surgical Infection and the Aging Population. Submitted to the Annual Meeting of the Southeastern Surgical Congress, New Orleans, LA. Feb. 4-6, 20001.
3. Jin L, Raymond DP, Pelletier SJ, **Crabtree TD**, Rudy CK, Pruett TL, Sawyer RG. Effect of CpG oligonucleotide pre-exposure on NF- $\kappa$ B activity in response to endotoxin. Submitted to the 62<sup>nd</sup> Annual Meeting of the Society of University Surgeons, Chicago, IL. Feb. 8-10, 2001.

4. Sawyer RG, Raymond DP, Pelletier SJ, **Crabtree TD**, Gleason TG, Pruett TL. 12K @ Y2K: Implications of 2,457 consecutive surgical infections entering the year 2000. Submitted to the 2000 Meeting of the Southern Surgical Association.
5. Pelletier SJ, Raymond DP, **Crabtree TD**, Iezonni JC, Hahn YS, Sawyer RG, Pruett TL. Hepatitis C-induced hepatic allograft injury associated with a pretransplant elevated viral replication rate. Presented at the 61<sup>st</sup> Annual Meeting of the Society of University Surgeons, Toronto, Ontario, February 10-12, 2000.
6. Houlgrave CW, **Crabtree TD**, Pelletier SJ, Jin L, Sawyer RG, Pruett TL. Sublytic concentrations of active and inactive E. coli alpha-hemolysin inhibit IL-8 secretion by human neutrophils. Accepted for presentation at the 1<sup>st</sup> International Congress on Cytokines and Chemokines In Infectious Diseases, Bethesda, MD, September 8-10, 1999.
7. **Crabtree TD**, Pelletier SJ, Jin L, Houlgrave W, Pruett TL, Sawyer RG. CpG DNA motifs cause early endotoxin sensitivity followed by delayed, IL-10 mediated insensitivity in macrophages. Presented at the American College of Surgeons Meeting, San Francisco, CA, October, 1999.
8. Pelletier SJ, **Crabtree TD**, Gleason TG, Pruett TL, Sawyer RG. Bacteremia associated with central venous catheters is not an independent predictor of outcome. Presented at the American College of Surgeons Meeting, San Francisco, CA, October, 1999.
9. Raymond DP, **Crabtree TD**, Pelletier SJ, Gleason TG, Banas LE, Patel S, Pruett TL, Sawyer, RG. Extremes of White Blood Cell Count Are Not Independently Predictive Of A Worse Outcome Among Surgical Patients With Infection. Accepted as a Gold Medal Forum Paper for the Annual Meeting of the Southeastern Surgical Congress, Lake Buena Vista, FL, Feb. 2000.
10. Pelletier SJ, Isaacs R, **Crabtree TD**, Gleason TG, Lobo P, Pruett TL, and Sawyer RG. Interracial differences in posttransplant infections. Accepted for presentation at the American Society of Transplantation Meeting, Chicago, IL, May, 1999. Published in *Transplantation* 1999;67:S94.
11. **Crabtree TD**, Pelletier SJ, Gleason TG, Sawyer RG, Pruett TL. Are aminoglycosides associated with increased mortality in surgical patients treated for gram negative infection? Accepted for presentation at the Surgical Infection Society Meeting, Seattle, WA, April 1999.
12. Gleason TG, **Crabtree TD**, Pelletier SJ, Raymond DP, Karchmer TB, Pruett TL, Sawyer RG. Infection with antibiotic-resistant gram positive cocci predicts a poorer prognosis than infection with antibiotic-sensitive strains. Presented at the Surgical Infection Society Meeting, Seattle, WA, April 1999.
13. Pelletier SJ, **Crabtree TD**, Gleason TG, Sawyer RG, Pruett TL. Waiting for microbiologic data to direct therapy against nosocomial infections does not worsen outcome in surgical patients. Presented at the Surgical Infection Society Meeting, Seattle, WA, April 1999.
14. **Crabtree TD**, Pelletier SJ, Gleason TG, Pruett TL, Sawyer RG. Prospective study of *Clostridium difficile* colitis in surgical patients. Presented at the Southeastern Surgical Congress, Tampa, FL, February, 1999. Winner of the Gold Medal Forum Award for best paper and presentation.
15. **Crabtree TD**, Zhou J, Houlgrave WC, Gleason TG, Pruett TL, Sawyer RG. Bacterial DNA Augments LPS Lethality But Induces Tolerance to LPS In Vitro. The 84<sup>th</sup> Annual Clinical Congress of the American College of Surgeons. 1998.

16. **Crabtree TD**, Gleason TG, Pruett TL, Sawyer RG. Trends in Nosocomial Pneumonia in Surgical Patients as we Approach the 21<sup>st</sup> Century: A Prospective Analysis. Abstract of the 41<sup>st</sup> Annual Meeting of the Midwest Surgical Association. 1998: paper #17.
17. **Crabtree TD**, Antevil JL, Gleason TG, Pruett TL, Sawyer RG. Prospective Study of Fever As A Diagnostic And Prognostic Indicator In Surgical Patients Treated For Suspected Infection. Abstract for the 18<sup>th</sup> Annual Meeting of the Surgical Infection Society. 1998: p. 46.
18. Raman, J., Divenere, S.W., **Crabtree, T.D.**, Trupin, S., M.D., Dawson, M.J. Demonstration of Biochemical Abnormalities in Placenta of Women with Abnormal Glucose Tolerance Using 31P NMR. Abstract of the 10th Annual Meeting of the Society of Magnetic Resonance in Medicine. 1991:Vol. 2, p. 642.
19. Xu, S., Raman, J., Divenere, S.W., **Crabtree, T.D.**, Trupin, S., Dawson, M.J. Biochemical Abnormalities in Placenta of Women with Abnormal Glucose Tolerance. Abstract of the Fourth Annual Cell & Molecular Biology/Molecular Biophysics Training Grant Research Symposium, Urbana, IL., Sept. 7, 1991.
20. **Crabtree, T.D.** In-vitro Studies of Normal Human Placental Tissue Using Phosphorus-31 Nuclear Magnetic Resonance Spectroscopy. Accepted for University Honorary Distinction for Independent Research at the University of Illinois. April, 1991. (Available upon request).
21. Pelletier SJ, **Crabtree TD**, Lillard T, McGory R, Ryan T, Sawyer RG, Hahn YS, Pruett TL. Increased preoperative quasispecies diversity may be predictive of long-term outcome after orthotopic liver transplantation for hepatitis C virus. Accepted for presentation at the American Society of Transplant Surgeons Meeting, Chicago, IL, May 1999.
22. Pelletier SJ, **Crabtree TD**, Lillard T, McGory R, Ryan T, Sawyer RG, Hahn YS, Pruett TL. Hepatitis C virus and liver transplantation: increased quasispecies diversity may predict recurrent hepatitis. Accepted for presentation at the 5<sup>th</sup> International Liver Transplantation Society Meeting, Pittsburgh, PA, August 1999.
23. Pelletier SJ, Iezzoni J, **Crabtree TD**, Sawyer RG, Hahn YS, Pruett TL. Clinical hepatitis after liver transplantation is predictive of hepatitis C virus-induced graft fibrosis. Accepted for presentation at the 6<sup>th</sup> International Symposium on Hepatitis C & Related Viruses Meeting, Bethesda, MD, June 1999.
24. Pelletier SJ, Raymond DP, **Crabtree TD**, Gleason TG, Pruett TL, Sawyer RG. Outcome analysis of intra-abdominal infection with resistant gram-positive organisms. Submitted to the Annual Meeting of the Southeastern Surgical Congress, Lake Buena Vista, FL, Feb. 2000.
25. Raymond DP, Pelletier SJ, **Crabtree TD**, Pruett TL, Sawyer RG. Blood stream infection is not an independent predictor of mortality in surgical patients. Presented at the 5<sup>th</sup> World Congress on Trauma, Shock, Inflammation, and Sepsis - Munich, Germany, February 29-March 4, 2000 and published in *Shock* 2000; 13: suppl. 1:136.
26. Pelletier SJ, Banas LE, Raymond DP, **Crabtree TD**, Gleason TG, Patel S, Pruett TL, Sawyer RG. Ethnicity independently predicts mortality associated with infection in surgical patients. Submitted to the 20<sup>th</sup> Annual Meeting of the Surgical Infection Society, Providence, RI, May, 2000.
27. Raymond DP, Pelletier SJ, **Crabtree TD**, Gleason TG, Hamm LL, Calfee DP, Pruett TL, Sawyer RG. Improvement in outcomes following the initiation of a rotating empiric

antibiotic schedule in an ICU. Accepted to the 20<sup>th</sup> Annual Meeting of the Surgical Infection Society, Providence, RI, May, 2000.

28. Raymond DP, Jin L, Pelletier SJ, **Crabtree TD**, Gleason TG, Pruett TL, Sawyer RG. Macrophage TNF-alpha receptor synthesis, expression, and shedding in response to CpG oligonucleotide exposure. Submitted for presentation at the American College of Surgeons Clinical Congress, Chicago, IL, October 22-27, 2000.

## BOOKS

**Crabtree TD**, Foley E, Sawyer RG. Board Review Series: General Surgery. Lippincott Williams and Wilkins, Philadelphia, PA, (April 2000).

**Crabtree TD**, Foley E, Sawyer RG. Board Review Series: Surgical Specialties. Lippincott Williams and Wilkins, Philadelphia, PA, (May 2000).

## BOOK CHAPTERS

**Crabtree TD**, Moon MR. Complications of Coronary Revascularization in Complications in Surgery by Doherty GM, Mulholland M (Eds). Lippincott Williams and Wilkins, Ann Arbor (2004).

Pruett TL, **Crabtree TD**, Pelletier SJ. Surgical Antiseptics Chapter in Disinfection, Sterilization, and Preservation, 5<sup>th</sup> Edition. By Seymour S. Block. Lippincott Williams and Wilkins, Media, PA, (2002).

Cephas G, **Crabtree TD**. Surgical Nutrition Chapter in Board Review Series: General Surgery. Ed. Crabtree TD, Foley E, Sawyer RG. Lippincott Williams and Wilkins, Philadelphia, PA (April 2000).

**Crabtree TD**. Liver Chapter in Board Review Series: General Surgery. Ed. Crabtree TD, Foley E, Sawyer RG. Lippincott Williams and Wilkins, Philadelphia, PA (April 2000).

**Crabtree TD**. Surgical Infections Chapter in Board Review Series: General Surgery. Ed. Crabtree TD, Foley E, Sawyer RG. Lippincott Williams and Wilkins, Philadelphia, PA (April 2000).

**Crabtree TD**. Hernias and Lesions of the Abdominal Wall Chapter in Board Review Series: General Surgery. Ed. Crabtree TD, Foley E, Sawyer RG. Lippincott Williams and Wilkins, Philadelphia, PA (April 2000).

<b>NBME Part 1 Score:</b>	Raw Score: 251	Percentile Ranking: 99 <sup>th</sup>
<b>NBME Part 2 Score:</b>	Raw Score: 256	Percentile Ranking: 99 <sup>th</sup>
<b>Inservice exam</b>	PGY-1	Percentile Ranking: 99 <sup>th</sup>
	PGY-2	Percentile Ranking: 99 <sup>th</sup>
	PGY-3	Percentile Ranking: 99 <sup>th</sup>
<b>General Surgery Qualifying Exam</b>		Percentile Ranking: 99 <sup>th</sup>

Board Certified in General Surgery after passing oral boards

**RALPH JAMES DAMIANO, JR., M.D.**

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St. Louis, MO 63110

314-362-7327 (office phone)  
314-747-0917 (fax)  
e-mail:  
damianor@wustl.edu

Birthplace and Date: White Plains, New York; 11/03/54  
Marital Status Married on May 12, 1979, to Diane Louise Fenzel  
Ellicott City, Maryland  
Children: Nicholas (b. 4/11/83)  
Cara (b. 10/9/85)  
Devon (b. 4/20/87)

**MEDICAL LICENSURE:**

Diplomate of National Board of Medical Examiners, March 1981  
North Carolina Medical License #32678, August 1988  
Virginia State Medical License #0101043574, March, 1989  
Pennsylvania State Medical License #MD-058352L, March, 1996  
Missouri State Medical License #2000 152 513, April, 2000  
Illinois State Medical License #36111563, June, 2004

**BOARD CERTIFICATION:**

American Board of Surgery September, 1990  
American Board of Thoracic Surgery June, 1992  
American Board of Thoracic Surgery Recertified December, 2002

**UNDERGRADUATE EDUCATION:**

Dartmouth College, B.A., Summa cum laude  
August 1972-June 1976

**UNDERGRADUATE HONORS AND ACHIEVEMENTS:**

Summa cum laude  
Phi Beta Kappa  
Rufus Choate Scholar, 1972-1976  
President, Gamma Delta Chi Fraternity  
Member, Interfraternity Council  
Varsity Crew

**MEDICAL SCHOOL:**

Duke University School of Medicine  
Durham, N.C.  
August 1976-May 1980

**MEDICAL SCHOOL HONORS AND ACHIEVEMENTS:**

Alpha Omega Alpha  
Social Vice President, Sophomore Class

**POSTGRADUATE TRAINING:**

July 1980 - June 1981: Intern in Surgery  
Duke University Medical Center  
Durham, North Carolina

July 1981 - June 1982: Junior Assistant Resident in Surgery  
Duke University Medical Center  
Durham, North Carolina

July 1982 - June 1984: Research Fellow, Recipient of National  
Institute of Health National Research Service Award  
Duke University Medical Center  
Durham, North Carolina

July 1984 - June 1987: Senior Assistant Resident in Surgery  
Duke University Medical Center  
Durham, North Carolina

July 1987 - June 1988: Chief Resident in Surgery  
Duke University Medical Center  
Durham, North Carolina

July 1988 - June 1989: Teaching Scholar in Cardiac Surgery  
Duke University Medical Center  
Durham, North Carolina

**POSTGRADUATE HONORS AND AWARDS:**

July 1982 - June 1984 United States Public Health Service  
Individual National Research Service Award  
National Institute of Health

July 1991 - July 1993 American College of Surgeons Faculty Fellowship Award  
"Electrophysiologic Consequences of Surgical Ischemia"

June 1997 Computerworld Smithsonian Award  
"Robotically Assisted Microsurgery for Coronary  
Bypass Grafting"

**ACADEMIC APPOINTMENTS:**

July 1989 - June 1995: Assistant Professor of Surgery  
Director, Surgical Electrophysiology  
Medical College of Virginia  
Richmond, Virginia

July 1989 - June 1995: Assistant Professor of Surgery  
McGuire Veterans Administration Hospital  
Richmond, Virginia

July 1991 - March 1996: Medical Director  
Richmond Memorial Hospital/MCV Heart Program  
Richmond, Virginia

**ACADEMIC APPOINTMENTS** (continued)

- July 1995 - March 1996: Associate Professor of Surgery  
Director, Surgical Electrophysiology  
Director, Cardiothoracic Surgical Research Laboratories  
Medical College of Virginia
- July 1995 - March 1996: Associate Professor  
McGuire Veterans Administration Hospital  
Richmond, Virginia
- March 1996 - April 2000: Professor of Surgery  
Chief, Division of Cardiothoracic Surgery  
Program Director  
Associate Director, Penn State Cardiovascular Center  
Milton S. Hershey Medical Center  
Penn State University  
Penn State Geisinger Health System  
Hershey, Pennsylvania
- July 1996 - April 2000 Professor of Surgery and Cellular and  
Molecular Physiology  
Chief, Division of Cardiothoracic Surgery  
Associate Director, Penn State Cardiovascular Center  
Milton S. Hershey Medical Center  
Penn State University  
Penn State Geisinger Health System  
Hershey, Pennsylvania
- January 1999 - April 2000 Co-Director  
Penn State Cardiovascular Center
- April 2000 - Present Professor of Surgery  
Chief of Cardiac Surgery  
Washington University School of Medicine  
St. Louis, Missouri
- July 2000 - Present John M. Shoenberg Professor of Surgery  
Chief of Cardiac Surgery  
Washington University School of Medicine  
St. Louis, Missouri

**HOSPITAL APPOINTMENTS:**

- July 1989 - March 1996 Medical College of Virginia  
Richmond, Virginia
- July 1989 - March 1996 McGuire VA Hospital  
Richmond, Virginia
- July 1989 - March 1996 Richmond Memorial Hospital  
Richmond, Virginia

**HOSPITAL APPOINTMENTS** (continued)

May 1992 - March 1996	Henrico Doctors' Hospital Richmond, Virginia
March 1996 - April 2000	Milton S. Hershey Medical Center Hershey, Pennsylvania
April 2000 - Present	Barnes-Jewish Hospital St. Louis, Missouri

**ORGANIZATIONS:**

Eagle Scout  
Phi Beta Kappa, 1976  
Alpha Omega Alpha, 1980  
Association for Academic Surgery, 1989  
Richmond Academy of Medicine, 1990  
David C. Sabiston, Jr., Surgical Society, 1989  
Virginia Surgical Society, 1991  
American College of Surgeons (Associate Fellow), 1991  
Council on Cardiothoracic and Vascular Surgery of the American Heart Association., 1992  
Society of Thoracic Surgeons, 1992  
North American Society of Pacing and Electrophysiology, 1992  
Richmond Surgical Society, 1993  
Cardiac Surgery Biology Club, 1993  
American Physiological Society, 1993  
American College of Surgeons (Fellow), 1994  
American Association for Thoracic Surgery, 1994  
American Association for the Advancement of Science, 1994  
Surgical Biology Club III, 1994  
Southern Thoracic Surgical Association, 1994  
Young Surgeons Society, 1995  
Southern Surgical Association, 1995  
Society for Thoracic Surgical Education, 1996  
Thoracic Surgery Directors Association, 1996  
Hinkle Society, 1996  
Hershey Surgical Society, 1996  
Society of Clinical Surgery, 1996  
Society of University Surgeons, 1997  
Pennsylvania Association of Thoracic Surgery, 1997  
International Society of Minimally Invasive Cardiac Surgery, 1998  
American Surgical Association, 2000  
Erlanger-Graham Society, 2000  
St. Louis Thoracic Surgical Society, 2001  
American Heart Association (Fellow), 2002  
Halstead Society, 2003  
American College of Cardiology, 2003

COMMITTEES:

University:

October 1987 - June 1989	Patient Care Management Subcommittee of the Medical Center Information Systems Advisor Committee Duke University Medical Center
December 1989 - March 1996	Surgical Quality Assurance Committee Medical College of Virginia
January 1990 - March 1996	Intensive Care Unit Committee Richmond Memorial Hospital
January 1991 - March 1996	Surgical Quality Assurance Committee Richmond Memorial Hospital
September 1993 - March 1996	Research Committee MCV Heart Center Richmond, Virginia
August 1994 - March 1996	Chairman, Surgical Quality Assurance Committee Medical College of Virginia
August 1994 - May 1995	Faculty Practice Committee, Department of Surgery Medical College of Virginia
September 1994 - March 1996	Medical Staff Quality Assessment and Improvement Committee Medical College of Virginia
October 1994 - March 1996	Medical Staff Quality Improvement Committee Richmond Memorial Hospital
January 1995 - March 1996	J.B. Foote Foundation Grant Peer Review Board Medical College of Virginia
July 1995 - March 1996	M.D./Ph.D. Committee Medical College of Virginia
April 1996 - April 2000	Surgical Council Penn State University
April 1996 - April 2000	Executive Committee Penn State Cardiovascular Center
April 1996 - April 2000	Operating Room Committee Penn State University
April 1996 - April 2000	Research Committee Penn State Cardiovascular Center
April 1996 - April 2000	Cardiothoracic Service Board Penn State University
April, 1996 - April 2000	Medical Director, Perfusion Program Penn State University

COMMITTEES - University (continued)

September 1996 - November 1996	Search Committee for Chief, Internal Medicine Penn State University
September 1996 - January 1997	Medicare Task Force, Chairman Penn State University
January 1997 - January 1998	Albumin Task Force Penn State University
July 1997 - April 2000	Department of Surgery, Promotion & Tenure Committee Penn State University
July 1997 - April 2000	Residency Directors Committee Penn State Geisinger Health System
November 1997 - May 1998	Search Committee, Chair of Department of Anesthesia Penn State Geisinger Health System
November 1998 - March 1999	Fee for Service Compensation Advisory Committee Penn State Geisinger Health System
January 1999 - September 1999	Material Management Redesign Project Co-Chairman Penn State Geisinger Health System
January 1999 - April 2000	Executive Committee Penn State University College of Medicine
March 1999 - April 2000	Elected Member, Regional Council Penn State Geisinger Health System
August 1999 - April 2000	Ad-Hoc Bylaws Committee, Hershey Region Penn State Geisinger Health System
August 1999 - April 2000	Compensation Committee, Hershey Medical Center Penn State Geisinger Health System
September 1999 - April 2000	Research Advisory Committee, Department of Surgery Penn State Geisinger Health System
September 1999 - April 2000	Billing Advisory Committee Penn State University
April 2000 - Present	Venture Capital Committee Washington University School of Medicine
June 2000 - Present	Finance Committee, Division of Cardiothoracic Surgery Washington University School of Medicine

**COMMITTEES -- University (continued)**

- June 2000 – Present  
Chairman, Cardiac Service Board  
Washington University School of Medicine/Barnes-Jewish  
Hospital
- June 2000 – Present  
Co-Chairman, Heart Services Leadership Committee  
Washington University School of Medicine/Barnes-Jewish  
Hospital
- April 2001 – Present  
Co-Chairman, OR Efficiency Task Force  
Washington University School of Medicine/Barnes-Jewish  
Hospital
- November 2001 – Present  
Program Director and Affiliate Liaison  
Skaggs Community Hospital Cardiac Surgery Program

**State:**

- January 1995 - March 1996  
American Heart Association  
VA Affiliate Peer Review Committee  
Richmond, Virginia
- May 1999 - April 2000  
PA Chapter of American College of Cardiology Expert  
Panel Response System
- June 1999  
Consultant, Chief of Cardiac Surgery; Lehigh Valley  
Hospital Search Committee  
Allentown, Pennsylvania
- January 2002 – April 2002  
Chairman, Search Committee  
Skaggs Community Hospital Chief of Cardiac Surgery  
Branson, Missouri
- January 2003 – April 2004  
Chairman, Search Committee  
Good Samaritan Hospital Chief of Cardiac Surgery  
Mt. Vernon, Illinois

**National:**

- July 1993 - January 1995  
Cardiac Electrical Problems Subcommittee Ad Hoc  
Committee for Cardiothoracic Surgical Practice  
Guidelines
- August 1994 - January 2000  
Coordinating Committee of Continuing Education for  
Thoracic Surgery (CCCETS)  
Chicago, Illinois
- May 1995 - July 1997  
Lead Advisory Board  
Ventritex Inc.; Sunnyvale, CA

COMMITTEES - National (continued)

January 1996	Ad hoc Member Surgery, Anesthesiology and Trauma Study Section Division of Research Grants National Institutes of Health
July 1996 - Present	Member, Anesthesiology Radiology and Surgery Peer Review Committee American Heart Association
November 1996 - Present	Advisory Board Computer Motion, Inc.; Goleta, CA
September 1997 - Present	Medical Advisory Board Kensey Nash Corporation; Exton, PA
October 1997 - December, 1999	Member, National American Heart Association Research Committee
December 1997 - December 1999	Examination Consultant Committee American Board of Thoracic Surgery; Evanston, IL
January 1998 - Present	Editorial Review Group Chair, Cardiothoracic Surgery Doody Publishing
January 1998 - January 1999	Surgeon Advisory Board US Surgical Corporation; Norwalk, CT
January 1998 - Present	Research Committee Thoracic Surgery Research Foundation
May 1998 - Present	Cardiac Surgery Advisory Board Medtronic, Inc.; Minneapolis, MN
June 1998	Congress Chairman Second Annual International Congress on Computers and Robotics in the Operating Room Santa Barbara, CA
July 1998 - June 2002	Member, Surgery and Biomedical Engineering Study Section Division of Research Grants National Institutes of Health
November 1998 - March 1999	Surgery Advisory Board 3M/Sarns Corp.; St. Paul, MN
November, 1999 - Present	Executive Committee Council on Cardiothoracic and Vascular Surgery American Heart Association
December, 1999 - Present	Clinical Advisory Committee Medical Image Computer & Computer Assisted Intervention 2000

COMMITTEES - National (continued)

March 2000	Consultant, Robert Wood Johnson School of Medicine University of Medicine and Dentistry of New Jersey Search Committee for Chief of Cardiothoracic Surgery
April 2000 - Present	Scientific Advisory Board Atricure, Inc., West Chester, OH
April 2000 - Present	Scientific Advisory Board AFx, Inc.; Fremont, CA
June 2000 - Present	Co- Chairman, Cardiothoracic Residents Committee American Association for Thoracic Surgery
September 2000 - Present	Surgical Advisory Board Terumo Cardiovascular; St. Paul, Minnesota
June 2001 - July 2003	Chairman, Cardiothoracic Residents' Committee American Association for Thoracic Surgery
October 2001 - Present	Committee on Video-Based Education American College of Surgeons
April 2002 - Present	Research Advisory Committee American Association for Thoracic Surgery
November 2002 - Present	Treasurer, Society of Clinical Surgery
November 2002 - June 2003	Program Committee International Society of Minimally Invasive Surgery
January 2003 - Present	Ad Hoc Research Advisory Committee American Association for Thoracic Surgery
January 2003 - Present	International Advisory Board World Heart Foundation
September, 2003 - Present	Chairman, Education Subgroup AATS Retreat
January 2004 - Present	Board of Directors International Society of Minimally Invasive Surgery
January 2004 - April 2004	Program Chairman Adult Cardiac Surgery Symposium AATS
April 2004 - Present	Program Chairman Cardiac Surgery Biology Club
May 2004 - Present	Program Committee American Association for Thoracic Surgery

COMMITTEES - National (continued)

May 2004 – Present

Chairman, Postgraduate Course Advisory Committee  
American Association for Thoracic Surgery

December 2004 – Present

Member, Workforce on Annual Meeting/TechCon  
Society of Thoracic Surgeons

GRADUATE STUDENT TRAINING:

Jitendra Palmar, FRCS	1989-1990	Consultant in Cardiothoracic Surgery Walsgrave Hospital Coventry, England
Michael K. Belz, M.D.	1990-1991	Department of Medicine Medical College of Virginia
Brian K. Holdaway, M.D.	1991-1992	Department of Medicine Medical College of Virginia
Neri M. Cohen, M.D., Ph.D.	1991-1993	Department of Surgery Medical College of Virginia Present Position: Assistant Professor of Surgery Medical College of Virginia
Steven L. Maskal, M.D.	1993-1995	Department of Surgery Medical College of Virginia
Gary L. Harrington, M.D.	1993-1995	Department of Surgery Medical College of Virginia
Jennifer S. Lawton, M.D.	1994-1996	Department of Surgery Medical College of Virginia Present Position: Assistant Professor of Surgery Washington University School of Medicine
A. Mark Jayawant, M.D.	1995-1997	Department of Surgery Medical College of Virginia
Dong-Ping Hua, M.D.	1995-1997	Department of Surgery Renji Hospital Shanghai, China
Edward Stephenson, M.D.	1996-1998	Department of Surgery Hershey Medical Center Present Position: Assistant Professor of Surgery Penn State University
Christopher Ducko, M.D.	1997-1999	Department of Surgery Hershey Medical Center
Eric Hoenicke, M.D.	1998-2000	Department of Surgery Hershey Medical Center

**GRADUATE STUDENT TRAINING (CONTINUED):**

Robert Strange, M.D.	1999-2001	Department of Surgery Hershey Medical Center
Sunil Prasad, MD	2000-2002	Department of Surgery Washington University School of Medicine
Michael Diodato, MD	2001-2003	Department of Surgery Washington University School of Medicine
Sydney Gaynor, MD	2002-2004	Department of Surgery Washington University School of Medicine
Yosuke Ishii, MD	2002-2004	Department of Surgery Washington University School of Medicine
Sinichi Mizutani, MD	2002-2004	Department of Surgery Washington University School of Medicine
Greg Byrd, BA	2003-2005	Department of Surgery Washington University School of Medicine
Sandip Prasad, BA	2003-2004	Department of Surgery Duke University Medical School
Spencer Melby, MD	2004-2006	Department of Surgery Washington University School of Medicine
Ashraf Al-Dadah	2004-2005	Department of Surgery Washington University School of Medicine

**THESIS COMMITTEES:**

Kathy W. Kuelz	MS	Biomedical Engineering	1991
Christopher J. Hyatt	MS	Biomedical Engineering	1992
Sylvia Frerk	MS	Biomedical Engineering	1993
David H Keeler	MS	Biomedical Engineering	1993
Samir S. Shah	MS	Biomedical Engineering	1994
Lahn M. Fendelender	MS	Biomedical Engineering	1995
Suresh Gurunathan	MS	Biomedical Engineering	1996
Robert Shaffer	MS	Physiology	1996
Greg Byrd	MS	Physiology	2004

**GUEST REVIEWER:**

American Journal of Physiology  
Annals of Thoracic Surgery  
Circulation  
Journal of Cardiac Surgery  
Pacing and Clinical Electrophysiology  
American Heart Journal  
European Journal of Cardiothoracic Surgery

**GUEST REVIEWER (continued):**

Heart Surgery Forum  
Journal of the American College of Surgeons

**EDITORIAL BOARDS:**

Journal of Thoracic and Cardiovascular Surgery  
Journal of Laparoendoscopic and Advanced Surgical Techniques  
Asian Cardiovascular and Thoracic Annals  
Journal of Cardiovascular Surgery  
New Surgery: Molecular Basis of Surgical Disease and New Technology  
Journal of Surgical Research

**EDITORIAL POSITIONS:**

December 1998 - Present      Journal of Thoracic & Cardiovascular Surgery:  
Associate Editor

January 1998 - Present      Cardiothoracic Surgery, Doody Publishing  
Editorial Review Group Chair

**RESEARCH FUNDING:**

Agency	Title	Amount	Period of Support	Role
John B. Foote Grant-in-Aid	Physiological Consequences of Bundle Branch Block	\$ 7,875	1/90 - 12/90	PI
VCU Grant-in-Aid	Effect of Bundle Branch Block on Ventricular Function and Fibrillation	7,000	1/90 - 12/90	PI
Virginia Commonwealth University	Electrophysiologic Consequences of Ventricular Distention	6,972	1/91- 12/91	PI
Telectronics Pacing Systems, Inc.	Electrophysiological Consequences of Acute Ventricular Distention	8,000	7/90- 6/92	PI
American College of Surgeons	Electrophysiological Consequences of Surgical Ischemia	60,000	7/91- 6/93	PI
The Upjohn Company	The Efficacy of Gelfoam Sterole Powder Paste as a Bone Hemostatic Agent During Cardiopulmonary Bypass Surgery	94,000	9/91- 9/93	PI
NIH National Research Service Award	Electrophysiological Consequences Consequences of Surgical Ischemia	59,800	9/90 - 8/92	Sponsor
American Heart Assoc. (Va. Affiliate)	Role of Ventricular Fibrillation During Internal Defibrillation	55,000	7/92- 6/94	Collab Invest

RESEARCH FUNDING (continued)

Agency	Title	Amount	Support	Role
Virginia Commonwealth Small Grant Award	Electrophysiological Predictors of Postoperative Atrial Fibrillation	5,645	7/93- 6/94	PI
American Heart Assoc. (Va. Affiliate)	Hyperpolarized Cardiac Arrest During Surgical Ischemia: A New Approach to Myocardial Protection	54,770	7/93- 6/95	PI
NIH National Research Service Award	Hyperpolarized Cardiac Arrest During Surgical Ischemia	59,800	10/93- 9/95	Sponsor
Ventritex, Inc.	New Defibrillation Techniques Using Real-time VF Waveform Analysis	56,720	4/94- 3/95	Collab Invest
American Heart Assoc. (Va. Affiliate)	Defining a Vulnerable Period of Defibrillation	65,000	7/94- 6/96	Collab Invest
NIH National Research Service Award	Pathophysiology of Surgical Ischemia and Cardioplegia	59,800	9/94- 8/96	Sponsor
NIH RO1	Hyperpolarized Arrest During Surgical Global Ischemia	1,004,000	4/95- 3/99	PI
Whitaker Foundation	Probabilistic Nature of Defibrillation	179,998	4/95- 3/98	Collab Invest
NIH National Research Service Award	The Physiology of Hyper- polarized Cardioplegic Arrest	60,500	7/95- 6/97	Sponsor
A.D. Williams Research Fellowship	Hyperpolarizing Cardiac Arrest with Nicorandil	2,000	6/95- 9/95	Sponsor
Ventritex, Inc.	A New Defibrillation Technique Using Real-time VF Waveform Analysis	67,270	7/95- 6/96	Collab Invest
Carbomedics, Inc.	Tissue overgrowth on biolite coated and uncoated annuloplasty rings	50,000	7/97- 6/98	PI
Penn State University	Physiology of Hyperpolarized Arrest	10,000	7/97- 6/98	Sponsor
Penn State University	Cell Volume Regulation During Cardioplegia	10,000	7/97- 6/98	Sponsor
Penn State University	Waldhausen Research Fellowship	29,000	7/97-	Sponsor
Computer Motion	Robotically-assisted Microsurgery	80,000	10/96- 7/98	PI

RESEARCH FUNDING (continued)

Agency	Title	Amount	Period of Support	Role
NIH National Research Service Award	The Effect of Cardioplegia on Myocyte Volume Regulation	59,800	1/98-12/00	Sponsor
Medtronic, Inc.	Minimally Invasive MAZE Procedure	40,000	3/98-6/99	PI
Kensey-Nash Corp.	Novel Anastomotic Devices	10,000	1/99-12/99	PI
Penn State University	The Effect of Cardioplegia On Myocyte Volume Regulation	4,500	7/99-6/00	PI
Penn State University	Novel Strategies in Donor Heart Preservation	10,000	7/99-6/00	PI
Computer Motion	Beating Heart Endoscopic CABG	10,000	7/99-6/00	PI
NIH National Research Service Award	Human Myocyte Volume Regulation	59,800	7/99-6/01	Sponsor
Medtronic, Inc.	Minimally Invasive Cardiac Surgery Training Grant	30,000	2/00-1/01	Sponsor
Boston Scientific, Inc.	Endoscopic Epicardial Ablation	55,000	1/00-12/01	PI
US Surgical Corp.	Minimally Invasive Cardiac Surgery	200,000	1/00 - 11/01	PI
Medtronic, Inc.	Pulmonary Outcomes after Beating Heart Surgery	100,000	7/00 - 6/03	PI
Enable, Inc.	Minimally Invasive Arrhythmia Ablation	80,000	7/00 - 6/02	PI
NIH R44	Minimally Invasive Maze Procedure	\$760,000	7/01-6/04	PI
AMed, Inc.	The Use of Right Heart Bypass to Facilitate Endoscopic CABG	\$6,000	10/01-12/01	PI
NIST ATP Grant #00-00-4466	Dual-Phase Small Caliber Vascular Prosthesis	\$582,610	1/02-12/04	PI
Heartstent	Evaluation of Aorto-Coronary Conduit	\$55,000	11/01-6/02	PI

RESEARCH FUNDING (continued)

Agency	Title	Amount	Period of Support	Role
NIH R01 HL32257	Surgical Treatment of Cardiac Arrhythmias	\$1,143,194	4/00 07/03	Co-PI
Computer Motion Inc.	A Prospective Randomized Study to Investigate the Use of the Zeus Robotic Surgical System for Assisting in the Anastomosis of LIMA to LAD in CABG	\$305,409	07/01- 09/02	PI
Computer Motion Inc.	A prospective randomized study to investigate the use of the ZEUS system for endoscopic harvesting of the left internal mammary artery (LIMA) in subjects undergoing a coronary artery bypass graft (CABG) procedure	\$177,225	07/01 - 09/02	PI
Computer Motion Inc.	A prospective, multi-center study to investigate the use of the ZEUS MicroWrist Robotic Surgical System to assist in the anastomosis of the left internal mammary artery (LIMA) to the left anterior descending artery (LAD) in a coronary artery bypass graft (CABG) procedure	\$150,255	07/02 - 07/03	PI
AtriCure	Use of the AtriCure Bipolar Coagulation System to Create Linear Lesions during Cardiac Surgery	\$69,574	01/02 - 01/04	PI
Converge Medical Inc.	Study to Evaluate Safety and Performance of the Sutureless Anastomotic System (SAS) for creating coronary anastomoses	\$114,533	11/02 - 09/03	PI
Guidant	Investigational Plan for the Guidant Syncrus™ Internal Cardioversion System	\$119,850	07/02 - 09/03	PI
Medtronic	Effects on the Pulmonary System of Placing a Patient on Cardiopulmonary Bypass	\$110,501	07/01 - present	PI
Howard Hughes Medical Institute	Research Training Fellowship	\$26,500	07/03- 06/04	Mentor
NIH 2 401 HL032257-21	Surgical Treatment of Cardiac Arrhythmias	\$1,530,000	08/03- 07/07	PI

RESEARCH FUNDING (continued)

Agency	Title	Amount	Period of Support	Role
AtriCure, Inc.	RESTORE-SR: A prospective, multi-center study with case-matched controls to evaluate the safety and efficacy of the AtriCure bipolar System for the treatment of Continuous Atrial Fibrillation as adjunct therapy to elective open-heart surgery	\$366,700	05/04-11/06	Co-PI
MCRI (On-X)	Thromboembolic Related Complications—Randomized Trial of Previous and Current Generation Mechanical Prostheses	\$274,275	03/04-3/11	Co-PI
NIH 1 F32 HL78136-01	Research Training Fellowship	\$40,000	07/04-06/06	Mentor

## BIBLIOGRAPHY

### Publications

1. Damiano RJ, Ungerleider RM, Lofland GK, Williams JM, Quick G, Cox JL: Reversal of flow through chronic coronary collateral vessels. *J Surg Res* 30:544, 1981.
2. Jones DP, Damiano RJ, Cox JL, Wolfe WG: The effect of altitude-induced hypoxia on regional myocardial blood flow. *J Thorac Cardiovasc Surg* 82:216, 1981.
3. Damiano RJ, Jr., Asano T, Smith PK, Douglas JM, Jr., Ferguson TB, Jr., Cox JL: Right ventricular isolation: electrophysiologic and hemodynamic effects. *Surg Forum* 34:270, 1983.
4. Damiano RJ, Jr., Asano T, Smith PK, Ferguson TB, Small KW, Cox JL: Functional consequences of right ventricular isolation. *Surg Forum* 35:348-50, 1984.
5. Blanchard SM, Damiano RJ, Jr., Asano T, Cox JL, Lowe JE: Distant and local effects on unipolar epicardial recordings. *IEEE Frontiers of Engineering and Computing in Health Care - 1984*, pp 220-223, 1984.
6. Cox JL, Bardy GH, Damiano RJ Jr., German LD, Fedor JM, Kisslo JA, Packer DL, Gallagher JJ: Right ventricular isolation procedures for non-ischemic ventricular tachycardia. *J Thorac Cardiovasc Surg* 90:212-224, 1985.
7. Damiano RJ, Jr., Tripp HF, Jr., Asano T, Small KW, Ideker RE, Cox JL: Effect of right ventricular isolation and unilateral sympathectomy on ventricular fibrillation threshold: surgical approaches to ventricular fibrillation. *Surg Forum* 36:230-232, 1985.
8. Blanchard SM, Damiano RJ, Jr., Smith WM, Ideker RE, Lowe JE: Estimating electrograms between unipolar electrode sites. *IEEE Frontiers of Engineering and Computing in Health Care - 1985*, pp 1128-1131, 1985.
9. Damiano RJ, Jr., Smith PK, Tripp JF, Jr., Asano T, Small KW, Lowe JE, Ideker RE, Cox JL: The effect of chemical ablation of the endocardium on ventricular fibrillation threshold. *Circulation* 74:645-652, 1986.
10. Tripp HF, Lewis W, Veronee C, Damiano RJ, German LD, Lowe JE: Effects of acute tachycardia on left ventricular high energy compound metabolism and subsequent tolerance to ischemia. *J Thorac Cardiovasc Surg* 92: 931-935, 1986.
11. McCann RL, Makhoul R, Damiano R: Diagnosis of arteriovenous fistula by venous oxygen saturation: case report. *J Vasc Surg* 3:921-923, 1986.
12. Ferguson TB, Jr., Damiano RJ, Jr., Smith PK, Buhman WC, Cox JL: The electrophysiologic effects of calcium channel blockade during standard hyperkalemic, hypothermic cardioplegic arrest. *Ann Thorac Surg* 41:622-629, 1986.
13. Damiano RJ, Jr., Asano T, Smith PK, Ferguson TB, Jr., Douglas JM, Jr., Cox JL: Electrophysiologic effects of surgical isolation of the right ventricle. *Ann Thorac Surg* 42:65-69, 1986.
14. Damiano RJ, Jr., and Sabiston DC, Jr.: Cardiac neoplasms in *Essentials of Surgery*. (Ed.) David C. Sabiston, Jr., W.B. Saunders, Philadelphia, pp 1163-1169, 1987.

15. Damiano RJ, Jr., Tripp HF, Jr., Asano T, Small KW, Jones RH, Lowe JE: Left ventricular dysfunction and dilatation resulting from chronic supraventricular tachycardia. *J Thorac Cardiovasc Surg* 94:135-143, 1987.
16. Damiano RJ, Jr., Rotolo FS, Postlethwait RW, Myers WC: Adenocarcinoma of the stomach: Changing patterns over the last 4 decades. *Ann Surg* 205: 1-8, 1987.
17. Blanchard SM, Damiano RJ, Asano T, Smith WM, Ideker RE, Lowe, JE: The effects of distant cardiac electrical events on local activation in unipolar epicardial electrograms. *IEEE Trans Biomed Eng* 34(7):539-546, 1987.
18. Ferguson TB, Jr., Smith LS, Smith PK, Damiano RJ, Jr., Cox JL: Electrical activity of the heart during hyperkalemic hypothermic cardioplegic arrest: site of origin and relationship to specialized conduction tissue. *Ann Thorac Surg* 43:373-379, 1987.
19. Damiano RJ, Jr., Blanchard SM, Asano T, Cox JL, Lowe JE: Effects of distant potentials on unipolar electrograms in an animal model utilizing the right ventricular isolation procedure. *J Am Coll Cardiol* 11:1100-1109, 1988.
20. Damiano RJ, Jr., Asano T, Smith PK, Ferguson TB, Cox JL: Hemodynamic consequences of right ventricular isolation: the contribution of the right ventricular free wall to cardiac performance. *Ann Thorac Surg* 46:324-330, 1988.
21. Damiano RJ, Jr., Asano T, Smith PK, Ferguson TB, Jr., Cox JL: Right ventricular free wall isolation: Effects on regional myocardial blood flow. *Ann Thorac Surg* 46:391-395, 1988.
22. Damiano RJ, Jr.: Principles of Cardiac Arrhythmias, 4th Edition, Edited by Chung, EK, *Ann Surg* 210:682-683, 1989.
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170. Mizutani S, Bloch JB, Prasad SM, Diodato MD, Schuessler RB, Damiano RJ Jr., Lawton JS: The ATP-sensitive potassium channel ameliorates cell swelling secondary to hyperkalemic cardioplegia. *Ann Thorac Surg*, in press.
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184. Prasad SM, Byrd GD, Flagg TP, Gomes J, Damiano RJ Jr, Nichols CG, Lawton JS: The sarcolemmal KATP channel underlies the regulation of hyperkalemic cardioplegia-induced myocyte swelling and reduced contractility. Submitted, *J Thoracic Cardiovasc Surg*
185. Moazami N, Affleck DG, Moon MR, Pasque MK, Lawton JS, Bailey MS, Damiano RJ Jr: Morbidity and mortality of cardiac surgery following renal transplantation. Submitted, *J Card Surg*
186. Gaynor SL, Byrd GD, Diodato MD, Ishii Y, Lee AM, Prasad SM, Gopal J, Berube D, Schuessler RB, Damiano RJ Jr.: Microwave ablation for atrial fibrillation: Dose response curves in the cardioplegia-arrested and beating heart. Submitted, *Ann Thorac Surg*
187. Gaynor SL, Lawton JS, Gleva MJ, Damiano RJ Jr., Moon MR: Laser assistance for extraction of chronically implanted endocardial leads: Infectious versus non-infectious indications. Submitted.
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189. Ishii Y, Kronengold RT, Virmani R, Rivera EA, Goldman SM, Prechtel EJ, Schuessler RB, Damiano RJ Jr: A novel bioengineered drug-eluting small caliber vascular graft. Submitted
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191. Moon MR, Pasque MK, Munfakh NA, Melby SJ, Lawton JS, Moazami N, Codd JE, Crabtree TD, Damiano RJ Jr: Prosthesis-patient mismatch following aortic valve replacement: Impact of age and body size on late survival. Submitted.
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193. Moazami N, Moon MR, Pasque MK, Lawton JS, Bailey MS, Damiano RJ Jr: Strategies for temporary mechanical support: Contemporary experience with pulsatile and non-pulsatile support systems. Submitted, *Heart Surg Forum*

#### Abstracts

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51. Prasad S, Maniar HS, Schuessler R, Damiano RJ Jr. Epicardial ablation of the beating heart: Progress towards an off-pump MAZE procedure. International Society of Minimally Invasive Cardiac Surgeons, June 2001. Munich, Germany.
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#### INVITED LECTURESHIPS

1. Surgical Approach to Ventricular Arrhythmias: Procedures and Results. Immediate Issues in Cardiology: MCV Cardiology Conference, Williamsburg, Virginia. May 7, 1989.
2. Surgical Management of Ventricular Tachycardia. Update in Cardiology, Virginia Heart Institute, Richmond, Virginia. October 12, 1989.
3. Surgical Treatment of Arrhythmias. Special Topics in Critical Care Nursing Conference. MCV Department of Nursing, Richmond, Virginia. March 28, 1990.
4. Surgical Implantation of Dual Chamber Pacing Systems. Implantation and Evaluation of an Implantable Cardioverter/Defibrillator. Postgraduate Colloquium on Pacing and Arrhythmia Control. Teletronics Pacing Systems. Cancun, Mexico. May 8-11, 1990.
5. New Surgical Approaches to the Treatment of Cardiac Arrhythmias. Sudden Cardiac Death. Practical Issues in Primary Care, MCV Continuing Education, Virginia Beach, Virginia. August 11, 1990.

6. Surgical Treatment of Arrhythmias. Update 1990, Cardiac Arrhythmias; Virginia Heart Institute, Richmond, Virginia. September 21, 1990.
7. Surgical Management of Sudden Cardiac Death. The Eastern Surgical Society Annual Meeting, Richmond, Virginia. April 19, 1991.
8. Surgical Approaches to Ventricular Arrhythmias. Implantation and Evaluation of Implantable Cardioverter Defibrillators. Cardiovascular Hemodynamics of Stress, Rest, and Exercise. Sudden Death Symposium, Teletronics Pacing Systems, Sydney, Australia. October 1-11, 1990.
9. Cardiac Mapping. Surgical Approaches to Ventricular Arrhythmias. January Pacing Seminar. Teletronics Pacing Systems, Snowmass, Colorado. January 24-25, 1991.
10. Surgical Implantation of Dual Chamber Pacing Systems. Update on Lead Technology. Postgraduate Colloquium on Pacing and Arrhythmia Control. Teletronics Pacing Systems. San Antonio, Texas. April 22-25, 1991.
11. State of the Art Lecture: Implantable Cardioverter Defibrillators. Postgraduate Course, Society of Thoracic Surgery. San Francisco, California. February 17, 1992.
12. Intraoperative mapping. Surgery for Ventricular Arrhythmias. ICD's as a Bridge to Transplantation. Postgraduate Colloquium on Pacing and Arrhythmia Control. Teletronics Pacing Systems. Orlando, Florida. February 19-20, 1992.
13. Surgical Implantation of Dual Chamber Pacing Systems. Extraction of Chronic Pacing Leads. Surgical Complications of Pacing. Surgery for Ventricular Arrhythmias. Postgraduate Colloquium on Pacing and Arrhythmia Control. Teletronics Pacing Systems. Orlando, Florida. February 18-20, 1993.
14. The Role of KATP Channels in Myocardial Stunning. Frontiers in Perioperative Myocardial Stunning. Gensia Pharmaceuticals. San Diego, CA. September 10, 1993.
15. Coronary Artery Surgery 1994: Current State-of-the Art. Mary Washington Hospital Medical Staff Grand Rounds. Fredericksburg, VA. December 17, 1993.
16. Implantation of Dual Chamber Pacemakers. Complications of Pacemaker Insertion: Non Thoracotomy Defibrillators. 37th Postgraduate Colloquium on Pacing and Arrhythmia Control. Teletronics Pacing Systems. San Diego, CA. January 13-14, 1994.
17. Aortic Dissections: Current Management. Southside Regional Hospital Surgical Grand Rounds. Petersburg, VA. October 3, 1995.
18. The Electrophysiology of Ischemia and Cardioplegia: Implications for Myocardial Protection. Surgical Biology Club III. New Orleans, LA. October 22, 1995.
19. The Rise and Fall of Arrhythmia Surgery: Lessons Learned from Surgical Extinction. Surgery Grand Rounds, Hershey Medical Center. June 13, 1996.
20. Cardiac Defibrillation: Why is it probabilistic? Division of Bioengineering Seminar Series, Penn State University, State College, PA. June 18, 1996.
21. The Electrophysiology of Ischemia and Cardioplegia. Surgical Research Conference, Hershey Medical Center, September 11, 1996.

22. The Role of Potassium Channel Openers in Myocardial Protection. How-to-Session, American Heart Association, New Orleans, LA. November 13, 1996
23. Invited discussant: The University of Alabama, Birmingham. Experience with left ventricular assist devices. Southern Surgical Assoc. West Palm Beach, Fla. December 3, 1996.
24. Is there an Alternative to Potassium Cardioplegia? Surgery Grand Rounds. Medical University of South Carolina, Charleston, SC, January 21, 1997.
25. Lessons learned from surgical extinction. Cardiology Grand Rounds. Hershey Medical Center, March 3, 1997.
26. Invited discussant: Improved event free survival following transmyocardial laser revascularization versus medical management in patients with unreconstructable coronary artery disease. American Assoc. of Thoracic Surgery. Washington, D.C. May 6, 1997
27. Innovative new techniques in the surgical treatment of arrhythmias. Symposium Chairman. North American Society of Pacing and Electrophysiology. New Orleans, LA. May 8, 1997.
28. Minimally invasive microsurgery in the year 2000. Program Moderator. Computers and Robotics in the OR2000. Santa Barbara, CA. June 20, 1997
29. Hemostasis in Cardiac Surgery. Dinner Conference. St. Lukes Hospital. Kansas City, MO. July 31, 1997.
30. Computers and robotics in minimally invasive cardiac surgery. Cardiac Symposium. California Center for Cardiothoracic Surgery. Thousand Oaks, CA. September 6, 1997.
31. Robotics in surgery. Susquehanna Chapter of IEEE. Hershey, PA. September 9, 1997.
32. New surgical approaches to the management of CAD. 16th Annual Lion-Hearted Meeting. Hershey, PA September 12, 1997.
33. Future Innovations for CABG: Robotic Surgery. Utrecht MICABG Course. Utrecht, Netherlands. September, 26, 1997.
34. Robotic Surgery: Potential impact on closed chest CABG on the beating heart. Utrecht MICABG Workshop III. Utrecht, Netherlands. September 27, 1997.
35. Cell swelling and cardioplegia: A new etiology for postoperative myocardial dysfunction. Surgical Biology Club III. Chicago, IL. October 12, 1997.
36. Myocardial protection during cardiac surgery. Department of Cellular and Molecular Biology Seminar. Penn State College of Medicine, Hershey, PA October 28, 1997.
37. Hyperpolarizing cardioplegia: advantages over traditional solutions. Cardiovascular Seminar. American Heart Assoc. Orlando, FL November 10, 1997
38. Robotics and Operatory Environmental Control. New Era Cardiac Care: Minimally Invasive Techniques. Palm Springs, CA. January 9, 1998.

39. Will robotic assistance enable us to perform totally endoscopic CABG? Facts and Myths of Minimally Invasive Cardiac Surgery. Current Trends in Thoracic Surgery IV. New Orleans, LA. January 24, 1998.
40. Minimally invasive cardiac surgery: the dawning of a new era. Cardiovascular Center Grand Rounds. Penn State Geisinger Health System. Hershey, PA March 2, 1998.
41. Robotically assisted microsurgery: the next frontier in the development of minimally invasive cardiac surgery. Fifth Annual Heart and Lung Surgery Update. Lehigh Valley Hospital. Allentown, PA. March 28, 1998.
42. Robotically assisted endoscopic coronary artery bypass grafting. Board of Visitors, Milton S. Hershey Medical Center. Hershey, PA, April 30, 1998.
43. The future of robotics in cardiovascular surgery. Medtronic Senior Advisory Board. Boston, MA, May 2, 1998.
44. New surgical and catheter ablation techniques to treat atrial fibrillation. Chairperson. North American Society of Pacing and Electrophysiology. San Diego, CA, May 7, 1998.
45. Enabling endoscopic coronary artery bypass grafting. 2nd International Congress on Computers and Robotics in the Operating Room. Santa Barbara, CA. June 18, 1998.
46. Computer-assisted endoscopic CABG. Latest Techniques in Minimally Invasive Cardiac Surgery. Brussels, Belgium. September 19, 1998.
47. Minimally invasive coronary artery bypass surgery. Moderator. Latest Techniques in Minimally Invasive Cardiac Surgery. Brussels, Belgium. September 19, 1998.
48. Total endoscopic multivessel coronary revascularization. Transcatheter Cardiovascular Therapeutics X. Washington, DC. October 9, 1998.
49. Minimally invasive cardiac surgery. Cardiovascular Disease: Prevention and Disease Management for Women: Rural Women's Health Initiative. Penn State University. November 3, 1998.
50. Assist devices and the total artificial heart. 3 M Surgeons Advisory Board. Wonewok, Minnesota. November 6, 1998.
51. Robotics in minimally invasive coronary artery bypass. The Magic of Minimally Invasive Thoracic Surgery. Cincinnati, OH. November 13, 1998.
52. Endoscopic coronary artery bypass grafting: a clinical reality. Cardiology Grand Rounds, Hershey Medical Center, Hershey, PA, December 14, 1998.
53. The cardiac operating room in the next millennium: Innovative new technology for minimally invasive CABG. Moderator. Evolving Techniques and Technologies in Minimally Invasive Cardiac Surgery. San Antonio, TX. January 23, 1999.
54. Robotically-assisted CABG: The U.S. experience at The Future of Cardiac Surgery. The Possibilities and Realities. Medtronic, Inc. San Antonio, TX. January 24, 1999.
55. Endoscopic Coronary Artery Bypass Grafting: From concept to Reality. Surgical Grand Rounds, Hershey, PA. February 11, 1999.

56. Total endoscopic multivessel revascularization. Cardiovascular Interventions 1999. Tampa, FL. February 26, 1999.
57. Robotically-assisted cardiac surgery: the US Experience. Cobe Cardiovascular Summit. Keystone, CO. March 19, 1999.
58. Endoscopic coronary artery bypass grafting: Cardiac Surgery Biology Club. New Orleans, LA. April 18, 1999.
59. Minimally invasive cardiac surgery. Mini-Medical School. Hershey Medical Center, Hershey, PA. April 20, 1999.
60. Robotique et chirurgie coronaire. Amicale des Cardiologues de Paris et sa RÉgion. Paris, France. May 20, 1999.
61. Robotic Coronary Surgery. Keynote address. International Society for Minimally Invasive Cardiac Surgery. Paris, France. May 22, 1999.
62. Minimally invasive cardiac surgery: Is there a there there? US Bancorp Piper Jaffray Conference, Minneapolis, MN. June 17, 1999.
63. The emergency of robotics in minimally invasive cardiac surgery. Third International Congress on Computers and Robotics in the OR 2000. July 15, 1999.
64. Advanced Technologies in the OR 2000 (Moderator). Third International Congress on Computers and Robotics in the OR 2000. July 15, 1999.
65. The Mighty Zeus: The Role of Computers and Robotics in the Operating Room of the Future. Challenges in Critical Care. PA Chapter of Society of Critical Care Medicine. Hotel Hershey, Hershey, PA. August 27, 1999.
66. Session Chairman. Off-pump closed chest CABG. Fifth Utrecht MICABG Workshop, Utrecht, Netherlands. September 3, 1999.
67. Closed chest, off-pump coronary artery bypass grafting: The Zeus( Experience. Fifth Utrecht MICABG Workshop. Utrecht, Netherlands. September 3, 1999.
68. Computer-assisted coronary bypass grafting: an enabling technology for endoscopic microsurgery. Society for Minimally Invasive Therapy. Boston, MA. September 17, 1999.
69. Visiting Professor: Endoscopic coronary artery bypass grafting: From concept to reality. Barnes Jewish Hospital, Washington University, St. Louis, MO. October 1, 1999.
70. Minimally Invasive Cardiac Surgery and Microsurgical Robotics. At "Emerging Technologies in Laparoscopic Surgery", General Session. American College of Surgeons. San Francisco, October 11, 1999.
71. Robotics in Cardiac Surgery. Surgical Grand Rounds. University of Medicine and Dentistry, New Jersey, New Brunswick, New Jersey. October 30, 1999.

72. Endoscopic coronary artery bypass grafting. Southern Thoracic Surgical Association. Rio Mar, Puerto Rico. November 3, 1999.
73. Moderator. Preconditioning and Myocardial Protection. American Heart Association. Atlanta, Georgia, November 9, 1999.
74. Endoscopic coronary artery bypass grafting: Initial clinical experience. Visiting Professor. London Health Sciences Center, London, Ontario. November 19, 1999.
75. Minimally invasive coronary artery bypass grafting. Advanced Critical Care Update Symposium. Hershey, PA. December 15, 1999.
76. Robotically-assisted cardiac surgery. Cardiology Grand Rounds. Temple University. Philadelphia, PA. December 17, 1999.
77. Setting up the operating room of the future. 6th Annual Current Techniques & Technologies. Fort Lauderdale, FL, January 29, 2000.
78. Robotic assistance for endoscopic CABG: Early clinical experience. 6th Annual Current Techniques & Technologies. Fort Lauderdale, FL. January 29, 2000.
79. Minimally invasive cardiac surgery: The evolution of a revolution. Bear Stearns West Coast Cardiovascular Symposium. San Francisco, CA. February 10, 2000.
80. Robotic coronary artery bypass grafting: initial clinical experience. Robotics in Cardiac Surgery: The First North American Perspective. Ohio State University. February 11, 2000.
81. Endoscopic Cardiac Surgery: early clinical experience. Cardiology Grand Rounds. Washington University, St. Louis. Barnes Jewish Hospital. February 23, 2000.
82. Robotically assisted coronary artery bypass grafting. Cardiothoracic Surgery Grand Rounds, UCLA. Los Angeles. February 28, 2000.
83. Minimally invasive cardiac surgery: where is it all going? Susquehanna Chapter of American Assoc. Critical Care Nurses. Hershey medical Center. Hershey, PA. March 2, 2000.
84. Robotically-assisted coronary artery bypass grafting. Adult Cardiac Surgery Symposium. American Association for Thoracic Surgery. Toronto, Ontario, Canada. April 30, 2000.
85. Update on surgical robotics. Cardiac Surgery Biology Club. American Association for Thoracic Surgery. Toronto, Ontario, Canada. April 30, 2000.
86. The next frontier in cardiac surgery: creating the digital surgeon. MICS and Its Future. Medtronic Fellows Course. Medtronic PRL. Minneapolis, Minnesota. May 18, 2000.
87. Surgical approaches to off pump CABG. MICS and Its Future. Medtronic Fellows Course. Medtronic PRL. Minneapolis, Minnesota. May 18, 2000.
88. Robotic cardiac surgery; past, present and future. Third International Congress on Computers and Robotics. Santa Barbara, California. July 20, 2000.
89. Visiting Professor: The next frontier in cardiac surgery: Creating the digital surgeon. University of Alabama. Birmingham Cardiovascular Society. September 7, 2000.

90. Beating heart surgery: from sternotomy to endoscopy. 9<sup>th</sup> Annual Contemporary Cardiothoracic Surgery course. St. Louis, Missouri. September 23, 2000.
91. Robotically –assisted cardiac surgery: present state of the art. 9<sup>th</sup> Annual Contemporary Cardiothoracic Surgery course. St. Louis, Missouri. September 23, 2000.
92. Robotically-assisted coronary artery bypass. Missouri Chapter of the American College of Cardiology. St. Louis, Missouri. October 7, 2000.
93. Moderator: Is off-pump coronary bypass superior to on-pump? American College of Surgeons, Chicago, Illinois. October 23, 2000.
94. Moderator: Cardiothoracic Surgical Forum Session I: Innovations/neonatal-congenital. American College of Surgeons, Chicago, Illinois. October 23, 2000.
95. Current status of the Zeus robotic system in cardiac surgery. Innovative Techniques in Cardiac Surgery. What is the Future? American College of Surgeons, Chicago, Illinois. October 27, 2000.
96. Robotically-assisted cardiac surgery: present state of the art. Ehrenhaft Lecture. University of Iowa, Iowa City, Iowa. October 28, 2000.
97. Beating heart surgery: A to Z. Course Director. Medtronic Minimally Invasive Surgery. St. Louis, Missouri. November 10, 2000.
98. Moderator: Current Trends in Surgical Revascularization. American Heart Association, New Orleans, Louisiana. November 14, 2000.
99. Robotics in open heart surgery. Update 2000. American College of Chest Physicians, Cancun, Mexico. December 6, 2000.
100. Total arterial revascularization. Update 2000. American College of Chest Physicians, Cancun, Mexico. December 6, 2000.
101. Minimally invasive coronary surgery: a look into the future. Internal Medicine Grand Rounds. Washington University School of Medicine, St. Louis, Missouri. January 25, 2001.
102. Robotic assisted cardiac surgery. Minimally Invasive Surgery in the New Millennium, Washington University Institute for Minimally Invasive Surgery. St. Louis, Missouri, January 26, 2001.
103. Myocardial revascularization using robotics. Postgraduate Program. Society of Thoracic Surgeons, New Orleans, Louisiana. January 28, 2001.
104. Moderator. Adult cardiac surgery scientific session. Society of Thoracic Surgeons, New Orleans, Louisiana. January 29, 2001.
105. Computer Motion Update: Robotics. New Technology Symposium. Society of Thoracic Surgeons, New Orleans, Louisiana. January 29, 2001.
106. Visiting Professor. University of Toronto, Toronto General Hospital. Toronto, Ontario, Canada. February 8, 9, 2001.
107. Advances in coronary bypass surgery. Cardiology Resident Conference. Washington University School of Medicine. St. Louis, Missouri. February 13, 2001.

108. Robotics and minimally invasive cardiac surgery. Visiting Professor, Surgery Grand Rounds. St. Francis Medical Center, Pittsburgh, Pennsylvania. March 16, 2001.
109. Robotics and coronary surgery: Hype or hope? Invited lecture. American College of Cardiology. Orlando, Florida. March 20, 2001.
110. The present status of robotics in cardiac surgery. Visiting Professor. Visionaries in Medicine and Science Series of the Age of Innovation. Newark Beth Israel Medical Center. Newark, New Jersey. April 4, 2001.
111. Robotic cardiac surgery: Human skill meets high-tech precision. Mini-Medical School, Washington University School of Medicine. St. Louis, Missouri. April 12, 2001.
112. Robotically-assisted coronary bypass grafting: An enabling technology for endoscopic cardiac surgery. 12<sup>th</sup> Annual Cardiology Spring Fling. Barnes-Jewish Hospital, St. Peters. St. Peters, Missouri. April 19, 2001.
113. Update on robotic cardiac surgery. Society of American Gastrointestinal Endoscopic Surgeons. St. Louis, Missouri. April 20, 2001.
114. The future of minimally invasive cardiac surgery: Can we compete with angioplasty? Medical Grand Rounds, St. Luke's Hospital. Chesterfield, Missouri. April 24, 2001.
115. Robotic cardiac surgery. Middle East Medical Assembly. American University of Beirut. Beirut, Lebanon. May 11, 2001.
116. Robotic cardiac surgery. Middle East Medical Assembly. American University of Beirut. Beirut, Lebanon. May 11, 2001.
117. Robotic cardiac surgery: Present state of the art. Medical Grand Rounds. DePaul Medical Center, St. Louis, Missouri. June 22, 2001.
118. Robotic Surgery and CABG with the Zeus System. International Society for Minimally Invasive Cardiac Surgery. Munich, Germany. June 28, 2001.
119. New Approaches in Arrhythmia Surgery. International Society for Minimally Invasive Cardiac Surgery. Munich, Germany. June 29, 2001.
120. The Operating Room of the Future. Anesthesiology Grand Rounds. Washington University School of Medicine, St. Louis, Missouri. July 25, 2001.
121. Who needs new toys—Arterial grafting is the final answer. Emerging Therapies in Cardiovascular Disease. Kauai, Hawaii. August 3, 2001.
122. No slips and no errors: The Maze Procedure. Emerging Therapies in Cardiovascular Disease. Kauai, Hawaii. August 3, 2001.
123. Is there really a robot in the future? Emerging Therapies in Cardiovascular Disease. Kauai, Hawaii. August 3, 2001.
124. New Frontiers in Minimally Invasive Cardiac Surgery. ICHE Annual Summer Symposium. Poplar Bluff, Missouri. August 25, 2001

125. Robotic Cardiac Surgery. Department Heads Meeting. Barnes-Jewish Hospital, St. Louis, Missouri. September 7, 2001.
126. Robotically-Assisted Cardiac Surgery: The Beginning of a New Era. BJC Healthcare Case Managers' Conference. St. Louis, Missouri. September 25, 2001.
127. Emerging Atrial Fibrillation Ablation Technologies. Second International Forum on Emerging Alternatives vs. Traditional Treatments. Orlando, Florida. October 26, 2001.
128. Moderator, Poster Session. Advances in Surgical Treatment of Ischemic Heart Disease. American Heart Association. Anaheim, California. November 13, 2001.
129. Minimally Invasive Coronary Surgery: Can We Compete with Angioplasty? Medical Grand Rounds, St. Joseph's Hospital. St. Charles, Missouri. November 29, 2001.
130. The Role of Robotics in Cardiac Surgery. The David Boyd Lecture. Lahey Clinic, Burlington, Massachusetts. December 5, 2001.
131. Minimally Invasive Coronary Artery Bypass Grafting: Can We Compete with Angioplasty? Heart Center Grand Rounds. Duke Medical Center. Durham, North Carolina. December 12, 2001.
132. Robotics in Cardiac Surgery: The Zeus Experience in Coronary Surgery. New Era Cardiac Care 2002. Dana Point, California. January 5, 2002.
133. Atrial Fibrillation (Moderator) STS/AATS Tech-Con 2002. Fort Lauderdale, Florida. January 27, 2002
134. Surgical Treatment of Atrial Fibrillation. Invited Lecture. Edwards Lifesciences. STS, Fort Lauderdale, Florida. January 28, 2002.
135. Robotics in Coronary Bypass Grafting: Present State of the Art. Coalescent Surgical Educational Symposium. Las Vegas, Nevada. February 9, 2002.
136. Robotics in Cardiac Surgery: The Road to Salvation or a Dead End? CREF 2002. Pathophysiology and Techniques Cardiopulmonary Bypass. San Diego, California. February 22, 2002.
137. Emerging Therapy for Atrial Fibrillation. Cardiac Surgery Symposium for Thoracic Surgery Residents. St. Jude Medical. Minneapolis, Minnesota. March 8, 2002.
138. Robotics in Cardiac Surgery: Where Are We Going? Academy of Surgery of Detroit. Detroit, Michigan. April 11, 2002.
139. Robots Doing Heart Surgery: The New Era. Annual Heart Research Center Lecture, Oregon Health and Science University. Portland, Oregon. April 26, 2002.
140. Surgical Treatment of Atrial Fibrillation. Cardiothoracic Surgical Grand Rounds. Visiting Professor. Oregon Health and Science University. Portland, Oregon. April 27, 2002.
141. Developing the Academic Surgeon—A Symposium. Co-Chairman. 82<sup>nd</sup> Annual Meeting of the AATS. Washington, DC. May 4, 2002.
142. Surgery for Atrial Fibrillation. 82<sup>nd</sup> Annual Meeting of the AATS. Edwards Lifesciences. Washington, DC. May 6, 2002.

143. Moderator, C. Walton Lillehei Resident Forum Session. 82<sup>nd</sup> Annual Meeting of the AATS. Washington, DC. May 7, 2002.
144. Surgical Isolation of the Pulmonary Veins: Techniques, Results, Indications. Mini-course 9: Catheter Ablation of Atrial Fibrillation. NASPE. San Diego, California. May 8, 2002.
145. Robotic Cardiac Surgery; Human Skill Meets High Tech Precision. Washington University School of Medicine Mini-Med School. St. Louis, Missouri. May 16, 2002.
146. Ischemic Mitral Regurgitation: Evaluation, Clinical Implications and Treatment Options. Course Director. St. Louis, Missouri. June 1, 2002.
147. Second Annual Surgical Treatment of Atrial Fibrillation Conference. Conference Director. New York New York. June 19, 2002.
148. An Overview of Current Alternative Energy Sources for the Treatment of Atrial Fibrillation. Second Annual Surgical Treatment of Atrial Fibrillation Conference. New York, NY June 20, 2002
149. Bipolar Radiofrequency Ablation: Initial Clinical Experience. Second Annual Surgical Treatment of Atrial Fibrillation Conference. New York, NY June 20, 2002.
150. Atrial Fibrillation Session. Moderator. International Society of Minimally Invasive Surgery. New York, New York. June 22, 2002.
151. Ischemic Mitral Regurgitation. Grand Rounds Dinner. Cape Girardeau, Missouri. August 29, 2002.
152. Surgical Management of Atrial Fibrillation. Practical Management of Arrhythmias. Washington University School of Medicine CME Conference. St. Louis, Missouri. September 14, 2002.
153. Maze Procedure: Which is the Best Energy Device? Controversies in Adult Cardiac Surgery. Promedica International. Alfredo Trento, Program Director. Los Angeles, California. October 4, 2002.
154. Totally Endoscopic CABG. Controversies in Adult Cardiac Surgery. Promedica International. Alfredo Trento, Program Director. Los Angeles, California. October 4, 2002.
155. Cardiac Surgery Video Session. Coordinator and Presiding Officer. American College of Surgeons. San Francisco, California. October 7, 2002.
156. The Maze IV Procedure for Atrial Fibrillation: A Simplified Operation using Bipolar Radiofrequency Ablation. Cine Clinic. American College of Surgeons. San Francisco, California. October 9, 2002.
157. New Technologies for Surgical Ablation of Atrial Fibrillation. Atrial Fibrillation: Mechanisms and Management. Symposium. Aurora Health Care. Milwaukee, Wisconsin. October 17, 2002.
158. Recent Advances in the Surgical Treatment of Atrial Fibrillation. Visiting Professor, Case Western Reserve Hospital. Cleveland, Ohio. November 5, 2002.
159. Moderator. Novel Methods of Myocardial Revascularization Session. American Heart Association. Chicago, Illinois. November 18, 2002.
160. Recent Advances in Coronary Artery Surgery. Medical Grand Rounds. Phelps County Hospital. Rolla, Missouri. December 11, 2002.

161. Recent Advances in the Surgical Treatment of Arrhythmias. Missouri Chapter, American College of Cardiology Regional Meeting. St. Louis, Missouri. December 12, 2002.
162. Minimally Invasive Cardiac Surgery: A New Era has Begun. Sicilian Cultural Association of St. Louis. St. Louis, Missouri. January 9, 2003
163. The Future of Robotics in Cardiac Surgery: How the Information Technology Will Transform Our Specialty. Universität München, Cardiac Surgery in the Future—What Can Be Expected. Munich, Germany. January 18, 2003.
164. Surgical Treatment of Atrial Fibrillation. Mitral Valve Repair XII. Los Angeles, California. January 28, 2003.
165. Computer Assisted Coronary Surgery. Society of Thoracic Surgeons. Computer Motion Booth. San Diego, California. January 31, 2003.
166. The Cox-Maze Procedure for Atrial Fibrillation. Team Approach to Pediatric Cardiac Disease. Vail, Colorado. March 4, 2003.
167. Cardiac Bypass Surgery Done the Robotic Way. Washington University Mini-Med School. St. Louis, Missouri. March 20, 2003.
168. Robotic Cardiac Surgery: The Information Age Enters the Operating Room. Rotary Club of St. Louis; St. Louis, Missouri. March 27, 2003.
169. Surgical Treatment of Atrial Fibrillation. AtriCure Course; Miami, Florida. April 12, 2003
170. Developing the Academic Surgeon Symposium. Co-Moderator and Program Organizer. American Association for Thoracic Surgery; Boston, Massachusetts. May 3, 2003.
171. New Tools for Atrial Fibrillation Surgery. Postgraduate Course Lecture. American Association for thoracic Surgery; Boston, Massachusetts. May 4, 2003.
172. New Energy Sources for Atrial Fibrillation. Recent Advanced in the Management of Valvular Heart Disease. Moderator and Program Organizer. St. Louis, Missouri. May 17, 2003.
173. Robotic Myocardial Revascularization in the OR of the 21<sup>st</sup> Century. Society of Cardiac Surgeons Annual Meeting. Quebec, Canada. June 9 – 10, 2003.
174. The Cox-Maze Procedure: The gold Standard and Its Shortcomings. Third Annual Surgical Treatment of Atrial Fibrillation. Moderator and Program Organizer. San Francisco, California. June 18 – 19, 2003.
175. Surgical Treatment of Atrial Fibrillation. Atricure Training Seminar. St. Louis, Missouri. July 19, 2003.
176. Recent Advances in the Surgical Treatment of Atrial Fibrillation. Visiting Professor. Cardiology Grand Rounds, Torrance Memorial Medical Center. Torrance, California. July 21, 2003.
177. Alternative Energy Sources for the Surgical Ablation of Atrial Fibrillation. Atrial Fibrillation Summit. Cleveland Clinic Foundation. August 1, 2003.
178. The Role of Robotics in the Operating Room of the 21<sup>st</sup> Century. Tech Connect 2003. St. Louis, Missouri. October 1, 2003.

179. Ablation Therapy for Atrial Fibrillation. Visiting Professor, University of Pittsburgh. Weekly Cardiothoracic Residents' Conference. Pittsburgh, Pennsylvania. October 15, 2003
180. Surgery for Atrial Fibrillation: Old and New Techniques/Indications. Invited Lecture. American Heart Association. Orlando, Florida. November 10, 2003.
181. How to Make a Robot Work for You. Moderator. American Heart Association. Orlando, Florida. November 10, 2003.
182. Molecular Aspects of Myocardial Protection. Moderator. American Heart Association. Orlando, Florida. November 11, 2003.
183. Alternative Energy Sources for Atrial Fibrillation. Epicardial Ablation on the Beating Heart: Progress Towards an Off-Pump Maze Procedure. Current Status of Mitral Valve Surgery. Hong Kong, China. November 13, 2003.
184. Robotics in Cardiac Surgery: The Road to Salvation or a Dead End? 14<sup>th</sup> Annual International Surgical Symposium. Hong Kong, China. November 15, 2003.
185. Surgery for Atrial Fibrillation: Present Status and Future Directions. Annual Lehman Lecture, University of Virginia. Charlottesville, Virginia. November 23, 2003.
186. Minimally Invasive Cardiac Surgery: An Update. Medical Grand Rounds. Christian Hospital Northeast. St. Louis, Missouri. January 9, 2004.
187. Surgery for Atrial Fibrillation. Visiting Professor. Grand Rounds, Loyola University School of Medicine. Chicago, Illinois. January 15, 2004.
188. Fourth Annual Surgical Treatment of Atrial Fibrillation. Course Organizer. San Antonio, Texas. January 23, 24, 2004.
189. Invited Lectures: a) Perioperative Management and Long Term Results of Atrial Fibrillation Surgery. b) Ablation Devices for Atrial Fibrillation: How Do We Judge the New Technology? c) The Future of Atrial Fibrillation Surgery. Fourth Annual Surgical Treatment of Atrial Fibrillation. San Antonio, Texas. January 23, 2004.
190. Atrial Fibrillation. Moderator. STS/AATS Tech-Con 2004. San Antonio, Texas. January 25, 2004.
191. Invited Lecture. New Energy Sources for Atrial Fibrillation Ablation. National Cardiovascular Center. Osaka, Japan. February 15, 2004.
192. a) Robotics in Cardiac Surgery: How Do We Judge New Technology. b) Surgical Treatment of Atrial Fibrillation: Progress Towards a Minimally Invasive Approach. c) Developing an Academic Career: From the Bottom to the Top. 34<sup>th</sup> Annual Meeting of the Japanese Society for Cardiovascular Surgery. Fukuoka, Japan. February 20, 2004.
193. An Assessment of the New Technology of AF Ablation. Atrial Fibrillation: Emerging Techniques. New Orleans, Louisiana. March 6, 2004
194. Atrial Anatomy for the Ablating Physiologist: American College of Cardiology. New Orleans, Louisiana. March 7, 2004.

195. Minimally Invasive Cardiac Surgery: How Do We Assess the Risk of Heart Operations. Washington University Mini-Medical School. St. Louis, Missouri. April 1, 2004.
196. Chronic Atrial Fibrillation Associated with Mitral Valve Regurgitation: Surgical Options and Results. Advanced Cardiac Techniques in Surgery. New York, New York. April 21, 2004.
197. Navigating the NIH: A Guide to the Grant Review Process. Granstmanship Course. 84<sup>th</sup> Annual Meeting of the American Association for Thoracic Surgery. Toronto, Ontario, Canada. April 24, 2004.
198. Future Directions in Atrial Fibrillation Surgery. Cardiac Surgery Biology Club Annual Meeting. Toronto, Ontario, Canada. April 24, 2004.
199. Chairman. Adult Cardiac Surgery Symposium. 84<sup>th</sup> Annual Meeting of the American Association for Thoracic Surgery. Toronto, Ontario, Canada. April 25, 2004.
200. New Surgical Approaches to Atrial Fibrillation. Advances in the Surgical Treatment of Atrial Fibrillation. Toronto, Ontario, Canada. April 26, 2004.
201. Course Organizer and Co-Chairman. Recent Advances in the Management of Valvular Heart Disease. St. Louis, Missouri. May 8, 2004.
202. A Rational Surgical Approach to Atrial Fibrillation. Grand Rounds. Birmingham, Alabama. July 15, 2004.
203. Moderator: Surgical Treatment of Atrial Fibrillation. International Society of Minimally Invasive Surgery. London, United Kingdom. June 25, 2004.
204. Course Director. Clinical Training Seminar of the Bipolar Radiofrequency Approach to Ablation. St. Louis, Missouri. July 22, 2004.
205. Course Director. Clinical Training Seminar of the Bipolar Radiofrequency Approach to Ablation. St. Louis, Missouri. September 18, 2004.
206. Minimally Invasive Cardiac Surgery: How Do We Decrease Operative Risk? Medicine Grand Rounds, Patient First Medical Group. Washington, Missouri. September 24, 2004.
207. New Approaches for Surgical Atrial Fibrillation Ablation with Open Heart Surgery. Atrial Fibrillation Summit. Cleveland Clinic, Cleveland, Ohio. October 2, 2004.
208. How Helpful are the New Energy Options in the Mini-Maze Procedure? Controversies in Adult Cardiac Surgery. Santa Monica, California. October 7, 2004.
209. A New Modification of the Cox-Maze Procedure Utilizing Bipolar Radiofrequency Ablation. American College of Surgeons, Video Session. New Orleans, Louisiana. October 11, 2004.
210. Minimally Invasive Surgery for Atrial Fibrillation: What Do We Need to Know? Minimally Invasive Cardiac Surgery Symposium. Sapporo, Japan. October 20, 2004.
211. How Helpful Are the New Energy Options for the Mini-Maze Procedure? 57<sup>th</sup> Annual Meeting of Japanese Association for Thoracic Surgery. Sapporo, Japan. October 21, 2004.
212. The Future of Arrhythmia Surgery. Keynote Address. Japanese Association for Thoracic Surgery. Sapporo, Japan. October 22, 2004.

213. Advances in Surgical Devices. New Arrhythmia Technologies Retreat. Indian Lakes Resort, Illinois. October 30, 2004.
214. Visiting Professor. Beth Israel Deaconess Medical Center, Harvard Medical School. Boston, Massachusetts. November 17, 2004
215. Minimally Invasive Cardiac Surgery. Holiday Inn. Carlinville, Illinois. November 30, 2004.

## Curriculum Vitae

**Nader Moazami, M.D.**

Updated: October 6, 2004

### Personal Information:

Sex: Male  
Date of Birth: March 8, 1966  
Citizenship: U.S.  
Home Address: 52 Claverach Dr.  
Clayton, MO 63105  
(314) 725-3894

Office Address: Division of Cardiothoracic Surgery  
Queeny Tower, Suite 3108  
One Barnes-Jewish Hospital Plaza  
St. Louis, MO 63110-1013  
(314) 362-8008 – FAX: (314) 747-4216  
E-mail: moazamin@msnotes.wustl.edu

### Education:

Undergraduate:  
New York University, New York, NY  
Dates of Attendance: 1984-1988  
Degree: B.A., Biochemistry (Honors), Magna Cum Laude, Phi Beta Kappa

Medical School:  
Columbia University, College of Physicians & Surgeons, New York, NY  
Dates of Attendance: 1988-1992  
Degree: M.D. (AOA)

General Surgery Internship and Residency:  
Columbia-Presbyterian Medical Center, New York, NY  
Dates of Attendance: 1992-1998  
Chief Resident: 7/19/98-6/1999  
Thoracic Organ Procurement Team: 1995-1996

Cardiothoracic Surgery Fellowship:  
Cleveland Clinic Foundation, Dept. of Thoracic and Cardiovascular Surgery, Cleveland, OH  
Dates of Attendance: 1998-2001  
Chief Resident: 7/2000 – 7/2001

**Academic Position:** Assistant Professor of Surgery  
Director of Cardiac Transplantation  
Washington University School of Medicine  
Department of Surgery  
Division of Cardiothoracic Surgery  
August 2001 – Present

**Memberships:** American Heart Association - Board Member - Local Chapter,  
November 2002 – Present  
Association for Academic Surgery - Active Member -  
November 15, 2002 – December 31, 2004  
International Society for Heart & Lung Transplantation  
January 1, 2004 – Present  
Society of Thoracic Surgeons – Member  
January 28, 2004 – Present  
Mid-America Transplant Services – Medical Affairs,  
Executive Committee Member  
February 2, 2004 – Present  
Heart Failure Society of America – Member  
May 10, 2004 – Present

**Honors & Awards:** Alpha Omega Alpha Honor Medical Society  
Phi Beta Kappa (Junior)  
Research Grant, NIH  
Research Grant, Dept. of Surgery, Columbia University  
Research Grant, CarboMedics, Inc.  
Clinical Trials Award, Presbyterian Hospital, New York  
Research Grant, Vascutech, Inc.  
Raven-Lippincott Award for Best Presentation at ASAIO  
Blakemore Research Award  
Jerome S. Coles Scholar  
Gregor-Brown Award in Chemistry  
Merck Award in Chemistry  
Distinguished Research Award  
Dean's List  
Dean's Student Award

**Board Certification:**  
American Board of Surgery #44600, November 2, 1999  
American Board of Thoracic Surgery #6821, June 6, 2003

**Professional Activities:**

Review Manuscript Articles for:

1. Journal of Thoracic and Cardiovascular Surgery
2. Journal of Heart and Lung Transplantation
3. International Society of Heart and Lung Transplantation

**Research Experience:**

1. Mount Sinai Hospital, Dept. of Biochemistry, New York  
Dates: 1986, 1987  
Director: Diana S. Beattie, Ph.D.  
Subject: Oxidative phosphorylation
2. New York University, New York  
Dates: 1987-1988  
Director: Charles T. Grubmeyer, Ph.D.  
Subject: Protein chemistry and mechanisms of enzyme action  
Thesis: Modification of an Essential Residue at the Active Site of Histidinol Dehydrogenase
3. NIH Grant: Columbia-Presbyterian Hospital, Dept. of Surgery, New York  
Dates: 1989-1990  
Director: Michael R. Treat, M.D.  
Subject: Application of Lasers to Tissue Welding  
New York University, Dept. of Biochemistry, Honors Program in Biochemistry
4. Research Fellow: Div. of Cardiothoracic Surgery, Dept. of Surgery, Columbia Univ.  
Dates: 1995-1996  
Director: Mehmet C. Oz, M.D.  
Subjects: Ventricular assist devices, Percutaneous aortic valve replacement, Strategies to modify ventricular remodeling

**Bibliography:**

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2. **Moazami N**, Oz MC, Bass LS, Treat MR. Reinforcement of colonic anastomoses with a laser and dye-enhanced fibrinogen. Arch Surg 1990; 125(11):1452-4.
3. Bass LS, **Moazami N**, Poscidio J, Oz MC, LoGerfo P, Treat MR. Changes in type I collagen following laser welding. Lasers Surg Med 1992; 12(5):500-5.

4. **Moazami N**, Bessler M, Argenziano M, Choudhri AF, Cabreiza SE, Oz MC. Transluminal aortic valve placement: A feasibility study with a newly designed collapsible aortic valve. *ASAIO J* 1996; 42(5):M381-385.
5. Roberts JK, Mohr JP, **Moazami N**, Oz MC. Microembolic signals in patients with left ventricular assist devices. *Stroke* 1996; 27(10):1915-6.
6. Argenziano M, **Moazami N**, Thomashaw B, Edsall J, Chun Y, Prager KM, Gorenstein LA, Rose EA, Steinglass KM, Ginsburg ME. Extended indications for lung volume reduction surgery in advanced emphysema. *Ann Thorac Surg* 1996; 62(6):1588-97.
7. Argenziano M, **Moazami N**, Catanese KA, Gardocki MT, Clavenna MW, Rose EA, Scully BE, Levin HR, Oz MC. Diagnosis and management of LVAD endocarditis. *Cardiovascular Engineering* 1997; 2(1):11-15.
8. Goldstein DJ, **Moazami N**, Seldomridge JA, Laio H, Ashton RC, Naka Y, Pinsky DJ, Oz MC. Circulatory resuscitation with left ventricular assist device support reduces interleukins 6 and 8 levels. *Ann Thorac Surg* 1997; 63(4), 971-974.
9. **Moazami N**, Argenziano M, Roberts K, Catanese KA, Mohr JP, Rose EA, Oz MC. Asymptomatic microembolism in patients with long-term left ventricular assist support. *ASAIO Journal* 1997; 43(3), 177-180.
10. Argenziano M, Catanese KA, **Moazami N**, Gardocki MT, Weinberg AD, Clavenna MW, Rose EA, Scully BE, Levin HR, Oz MC. The influence of infection on survival and successful transplantation in patients with left ventricular assist devices. *J Heart Lung Transplant* 1997; 16(8):822-31.
11. **Moazami N**, Schimenti B, Argenziano M, Oz MC. Minimally invasive saphenectomy for coronary artery bypass surgery. *Surgical Rounds* 1997; 20(3):94-8.
12. **Moazami N**, Argenziano M, Williams M, Cabreiza SB, Oz MC, Nowygrod R. Photo-oxidized bovine arterial grafts: short-term results. *ASAIO J* 1998; 44(1):89-93.
13. Argenziano M, Chouhri AF, **Moazami N**, Rose EA, Smith CR, Levin HR, Smerling AJ, Oz MC. Randomized, double-blind trial of inhaled nitric oxide in LVAD recipients with pulmonary hypertension. *Ann Thorac Surg* 1998; Feb 65(2):340-5.
14. **Moazami N**, Argenziano M, Levin H, Rose EA, Oz MC, Burkhoff D. Inflow valve regurgitation during left ventricular assist device support may interfere with reverse ventricular remodeling. *Ann Thorac Surg* 1998; 65(3):628-31.
15. Argenziano M, Dean D, **Moazami N**, Williams M, Goldstein DJ, Cabreriza SE, Burkhoff D, Rose EA, Oz MC, Dickstein ML. Inhaled nitric oxide is not a myocardial

- depressant in a porcine model of heart failure. *J Thorac Cardiovasc Surg* 1998; 115(3):700-8.
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  17. Farman J, Goldstein DJ, Sugalski MT, **Moazami N**, Amory S. Bouveret's syndrome: diagnosis by helical CT scan. *Clin Imaging* 1998; Jul-Aug. 22(4):240-2.
  18. Campell A, **Moazami N**, Ditkoff BA, Kurtz E, Estabrook A, Schnabel F. Short-term Outcome of Chronic Immunosuppression on the Development of Breast Lesions in Premenopausal Heart and Lung Transplant Patients. *J Surg Res* 1998. Jul 15;78(1):27-30.
  19. Itescu S, Tung TC, Burke EM, Weunber A, **Moazami N**, Atrip JH, Suci-Foca N, Rose EA, Oz MC, Michler RE. Preformed IgG antibodies against major histocompatibility complex class II antigens are major risk factors for high-grade cellular rejection in recipients of heart transplantation. *Circulation* 1998; 98(8):786-93.
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  22. Smedira NG, **Moazami N**, Golding CM, McCarthy PM, Apperson-Hansen C, Blackstone EH, Cosgrove DM. Clinical experience with 202 adults receiving extracorporeal membrane oxygenation for cardiac failure: survival at five years. *J Thorac Cardiovasc Surg*. 2001; 122(1):92-102.
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  24. **Moazami N**, Smedira NG. Temporary Mechanical Support. *J Card Surg* 2001;16(3):193-202.
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29. **Moazami N**, Moon MR, Lawton JS, Bailey M, and Damiano RJ. Axillary artery cannulation for extracorporeal membrane oxygenator support in adults: An approach to minimize complications. *J Thorac Cardiovasc Surg* 2003;126(6):2097-8.
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32. Rovner A, Thanigaraj S, Rogers JG, **Moazami N**, Lasala JM. Spontaneous Multivessel Coronary Artery Dissection in a Young Asymptomatic Patient. *J Inter Card* 2004;17(2):123-7.
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39. Lee R, Brown RN, **Moazami N**, Young J, Clemson B, Hill J, et al. Rejection with hemodynamic compromise: Risks, trends, outcomes and improvements. *Journal of Heart and Lung Transplantation* (Submitted 5/03).
40. Shah NR, Goldstein JA, Balzer DT, Lasala JM, and **Moazami N**. Transcatheter Repair of Recurrent Postinfarct Ventricular Septal Defects. *Ann Thorac Surg*; 2004(78) (Submitted 2/04).
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42. **Moazami N**, Ewald G, Moorehead S, Bourge RC, Brown RN, Wagoner LE, Boehmer JP, Kasper EK, O'Donnell J, Rayburn BK, Czerska B, and the Cardiac Transplant Research Database @ U. of Alabama, Birmingham, AL. Does type or constituent of preservation solutions influence early graft failure after cardiac transplantation? A multi-institutional study. (Submitted – *J of Heart and Lung Transplantation* – 6/04).
43. **Moazami N**, Moon MR, Pasque MK, Lawton JS, Bailey M, and Damiano RJ. Strategies for temporary mechanical support: Should ECMO be abandoned for treatment of cardiogenic shock in adults? (Submitted – *ASAIO Journal* – 8/04).
44. **Moazami N**. Ventricular Assist Devices: Past, Present and the Future. (Submitted – *Business Briefing: US Cardiology* 2004) 7/04.
45. Jaramillo A, Cambell LG, Ramachandran S, Liu W, Shipley JM, Rogers JG, **Moazami N**, Itohara S, Senior RM. Different Roles for Matrix Metalloproteinase-9 in the Pathogenesis of Cardiac Allograft Rejection. (Submitted – *Am J of Transplantation*) 8/04.

46. **Moazami N**, Affleck DG, Moon MR, Pasque MK, Lawton JS, Bailey MS, Damiano RJ Jr. Morbidity and Mortality of Cardiac Surgery Following Renal Transplantation. (Submitted – Ann Thorac Surg 9/04).
47. **Moazami N**, Pasque MK. An Approach to LVAD Explantation during Heart Transplantation. (Submitted – Ann Thorac Surg 9/04).
48. **Moazami N**, OZ MC. Natriuretic Peptides in the Perioperative Management of Cardiac Surgery Patients. (Submitted - Ann Thorac Surg 9/04).

**Presentations:**

1. **Moazami N**, Argenziano M, Levin H, Rose EA, Oz MC, Burkhoff D. Inflow valve regurgitation interferes with reverse LV remodeling during LVAD support. American Heart Association, 69<sup>th</sup> Annual Scientific Sessions. New Orleans, 1996.
2. **Moazami N**, Argenziano M, Roberts K, Catanese C, Levin H, Rose E, Oz MC. Asymptomatic microembolism inpatients with long-term left ventricular assist support. American Society of Artificial Internal Organs, Washington DC, May 1996.
3. **Moazami N**, Bessler M, Argenziano M, Choudhri AF, Cabreiza SE, Oz MC. Transluminal aortic valve placement: a feasibility study with a newly designed collapsible aortic valve. American Society of Artificial Internal Organs, Washington DC, May 1996.
4. **Moazami N**, Smedira NG, McCarthy PM, Golding CM, Lytle BW, Cosgrove DM. Clinical experience with 229 adults on ECMO: Survival at 5 years. American Association for Thoracic Surgery, 80<sup>th</sup> Annual Meeting, Toronto, Canada, May 2000.
5. **Moazami N**, Smedira NG, McCarthy PM, Golding CM, Lytle BW, Blackstone EH, and Cosgrove DM. Extracorporeal Life Support in Adults. The Fifth International Conference on Circulatory Support Devices for Severe Cardiac Failure. New York City, September 2000.
6. **Moazami N**, Katzan I, Smedira NG, McCarthy PM, Lytle BW, Delos M, Cosgrove DM. Safety and Efficacy of Intra-arterial Thrombolysis for Perioperative Stroke after Cardiac Surgery. The 37<sup>th</sup> Annual Meeting of the Society of Thoracic Surgeons Meeting. New Orleans, Louisiana. January 2001.
7. **Moazami N**, Rice TW, DeCamp MM, Murthy S, Blackstone EH. Aggressive Therapy of Stage III Non-small cell lung cancer and metachronous brain metastases. Presented at the 81<sup>st</sup> Annual Meeting of the American Association for Thoracic Surgery, San Diego, California, May 2001.

8. **Moazami N**, Diodato MD, Moon MR, Pasque MK, Lawton JS, Herren RL, Bailey MS, and Damiano RJ Jr. "Does Functional Mitral Regurgitation Improve with Isolated Aortic Valve Replacement?" American College of Cardiology – 52<sup>nd</sup> Annual Scientific Session, Chicago, IL. March 31-April 1, 2003.
9. **Moazami N**, Pasque MK, Moon MR, Herren RL, Bailey MS, Lawton JS, and Damiano RJ Jr. Mechanical Support for Isolated Right Ventricular Failure in Post-Cardiotomy Patients. ISHLT, Vienna, April 8-13, 2003.
10. **Moazami N**. "Outcomes of patients removed from the heart transplant waiting list". American Transplant Congress, Washington, DC. June 3, 2003.
11. **Moazami N**, Affleck DG, Jackson, Hill L, De Wet C, Avidan M, Tymkew H, Moon M, and Damiano R. Inhaled prostacyclin is a safe and effective alternative to nitric oxide for treatment of pulmonary hypertension and right heart failure after cardiothoracic surgery. Western Thoracic Surgical Association Meeting, Carlsbad, CA. June 19, 2003.
12. Kuhn K, **Moazami N**, Shelton K, Weber M. Ventricular Assist Devices: Parts for the Heart. ISHLT San Diego, CA. March 2004.
13. **Moazami N**, Ewald G, Moorehead S, Bourge RC, Brown RN, Wagoner LE, Boehmer JP, Kasper EK, O'Donnell J, Rayburn BK, Czerska B, and the Cardiac Transplant Research Database @ U. of Alabama, Birmingham, AL. Does type or constituent of preservation solutions influence early graft failure after cardiac transplantation? A multi-institutional study. American Transplant Congress, Boston, MA. May 2004.
14. **Moazami N**, Moon M, Pasque M, Lawton J, Bailey M, and Damiano R. Strategies for Temporary Mechanical Support: Should ECMO Be Abandoned for Treatment of Cardiogenic Shock in Adults? Presented at the 50<sup>th</sup> Anniversary of The American Society of Artificial Internal Organs, Washington DC, June 2004.

#### Teaching:

1. 2002 Cardiology Spring Fling – CME – Host: Barnes-Jewish St. Peters Hospital. Dr. Moazami's presentation "Progress and Future Perspectives in Mechanical Circulatory Support", April 4, 2002.
2. Host: Missouri Chapter of the American College of Cardiology. Dr. Moazami's presentation "Surgical Therapies for Heart Failure", November 14, 2002, Columbia, MO.
3. Abiomed, Inc. – BVS 5000 – Bi-Ventricular Support System Training Seminar. Dr. Moazami taught cardiothoracic surgeons, anesthesiologists, nephrologists, pulmonologists, intensivists, cardiologists, and operating room staff, in the

- metropolitan St. Louis area on the design, operation, and clinical use of the BVS 5000. Also performed an acute implant in two animal models for bi-ventricular support. Washington University Clinic Research Science Laboratory. November 19, 2002.
4. Host: Washington University Continuing Medical Education. Current Concepts in Congestive Heart Failure Symposium. Dr. Moazami's presentation "Mechanical Circulatory Support: Are we ready for permanent VADS?" December 7, 2002.
  5. Abiomed, Inc. – Implantation of the Abiomed BVS and AB Ventricle. Dr. Moazami taught cardiothoracic surgeons and cardiologists in the metropolitan St. Louis area on the scope, implantation, and clinical use of the AB Ventricle. This lab lecture and presentation was held in the Clinical Science Research area of Washington University School of Medicine on September 25, 2004.

**Films:**

1. **Moazami N**, Argenziano M, Gorenstein LA, Steinglass KM, Ginsburg ME. The clamshell technique for bilateral volume reduction pneumectomy. New York Society for Thoracic Surgery, November 1995.

## Curriculum Vitae

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Date of Birth: February 18, 1961

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Marital Status: Married, Paula Munfakh

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Pre-Medical Education: B.S., Cellular and Molecular Biology, 1981  
 University of Michigan  
 Ann Arbor, Michigan

Medical Education: M.D., 1985  
 University of Michigan  
 Ann Arbor, Michigan

**Graduate Clinic and Research Experience:**

1985 - 1986 Intern in General Surgery  
 University of Kentucky Hospital  
 Lexington, Kentucky

1986 - 1988 Resident in General Surgery  
 University of Kentucky Hospital  
 Lexington, Kentucky

1988 - 1989 Research Fellow-Laboratory of Willard M. Dagger, M.D.  
 Department of Surgery, Division of Cardiovascular Surgery  
 Massachusetts General Hospital  
 Boston, Massachusetts

**Graduate, Clinic and Research Experience continued:**

- 1989 – 1990 Resident in General Surgery  
Department of Surgery  
University of Kentucky Hospital  
Lexington, Kentucky
- 1990 – 1991 Administrative Chief Resident  
Department of Surgery, General Surgery  
University of Kentucky Hospital  
Lexington, Kentucky
- 1991 – 1993 Resident in Cardiothoracic Surgery  
Department of Surgery  
Medical College of Virginia Hospitals  
Richmond, Virginia

**Academic Positions:**

- 2001 – present Associate Professor of Surgery  
Washington University School of Medicine  
St. Louis, Missouri
- 1999 – 2001 Associate Professor of Surgery  
Section of Cardiothoracic Surgery  
Louisiana State University School of Medicine  
New Orleans, Louisiana
- 1993 – 1999 Assistant Professor of Surgery  
Section of Cardiothoracic Surgery  
Louisiana State University School of Medicine  
New Orleans, Louisiana

**Board Certifications:**

American Board of Thoracic Surgery  
Certificate No. 5537, 1994

American Board of Surgery  
Certificate No. 37899, 1992

National Board of Medical Examiners  
Certificate No. 09871R, 1986

**Medical Licensure:**

State of Missouri  
License No. 200128232, issued 2001

State of Louisiana  
License No. 09871R, issued 1993

**Medical Licensure continued:**

State of Kentucky  
License No. 24634, issued 1986

State of Michigan  
License No. 4301050786, issued 1987

**Awards and Honors:**

William J. Branstrom Freshman Prize  
University of Michigan, 1979

James B. Angell Scholar  
University of Michigan, 1980 and 1981

Class Honors  
University of Michigan, 1979, 1980, and 1981

School of Literature, Science & Arts Academic Scholarship  
University of Michigan, 1979, 1980 and 1981

Highest Distinction Graduate  
University of Michigan, 1981

Phi Beta Kappa Honor Society

Schemm Academic Scholarship  
University of Michigan Medical School  
Ann Arbor, Michigan

Alpha Omega Alpha Honor Medical Society Membership  
1984 to present

Frederick A. Coller Surgical Scholar Award, 1989  
University of Kentucky

Resident Paper Award, 2<sup>nd</sup> Prize, 1990  
American College of Surgeons  
Kentucky Chapter

Ben Eiseman Surgical Scholar Award, 1990  
University of Kentucky

**Hospital Appointments:**

7/2001-present Christian Hospital Northeast  
St. Louis, MO

7/2001-present Barnes-Jewish Hospital  
St. Louis, MO

**Hospital Appointments continued:**

- 1993-2001 University Hospital (MCLA)  
New Orleans, Louisiana
- ✓ 1993-2001 West Jefferson Medical Center  
Marrero, Louisiana
- 1994-2001 Toure Infirmary  
New Orleans, Louisiana
- 1995-2001 Meadowcrest Hospital  
Gretna, Louisiana
- ✓ 1996-2001 Kenner Regional Medical Center  
Kenner, Louisiana
- ✓ 1996-2001 Memorial Medical Center  
New Orleans, Louisiana
- 1996-2001 East Jefferson General Hospital  
Metairie, Louisiana
- 1998-2001 Doctors Hospital of Jefferson  
Metairie, Louisiana
- 1999-2001 Tulane University Medical Center  
New Orleans, Louisiana

**Research:**

- 1988-1989 Laboratory of William Daggett, M.D.  
Professor, Department of Surgery, Massachusetts  
  - ◆ General Hospital  
Boston, Massachusetts
  - ◆ Myocardial protection of the hypertrophied heart
  - ◆ Myocardial preservation using various cardioplegic solutions in the isolated rat heart model
  - ◆ Myocardial oxygen consumption studies using the isolated, cross perfused dog heart model
- 1979-1982 Laboratory of Stanley J. Watson, M.D., Ph.D.  
Professor, Department of Neuroscience  
University of Michigan Medical School  
  - ◆ Opiate receptor kinetics
  - ◆ Autoradiograph localization of opiate receptor in rat C.N.S.
  - ◆ Study of the ontogenic development of opioid peptides in the rate C.N.S., using immunocytochemistry

## Professional Society Memberships:

American Medical Association	1982
Fellow, American College of Chest Physicians	1994
Fellow, American College of Surgeons	1995
Louisiana Chapter, American College of Surgeons	1995
New Orleans Surgical Society	1995
Society of Thoracic Surgeons	1995
Southeastern Surgical Congress	1995
Southern Medical Association	1995
Southern Thoracic Surgical Association	1995

## Publications:

1. Khachaturian H., Alessi N.E., Munfakh N.A., Watson, S.J.: Ontogeny of opioid and related peptides in the rat C.N.S. and pituitary: An Immunocytochemical Study, *Life Science*, 1983; 38 Supp I: 61-64.
2. Khachaturian H., Alessi N.E., Lewis M.E., Munfakh N.A., Fitzsimmons M., Watson S.J.: Development of Hypothalamic Opioid Neurons: A Combined Immunocytochemical and 3-H Thymidine Autoradiographic Study, *Neuropeptides*, 1985; Feb (4-6): 477-480.
3. Endcan E.D., Schwarcz T.H., Barker, D.E., Munfakh N.A., Wilson-Nealy R., Hyde G.L.: Hip Disarticulation: Factors Affecting Outcome. *J Vasc Surg*. 1991; 14(3): 398-404.
4. Steinberg, J.B., Doherty N.E., Munfakh, N.A., Geffin G.A., Titus J.S., Hoaglin D.C., Denenberg A.F., Daggett W.M.: Oxygenation Cardioplegia: The Metabolic and Functional Effects of Glucose and Insulin, *Ann Thorac Surg*, 1991, 51(4): 620-629.
5. Munfakh N.A., Steinberg J.B., Titus J.S., Denenberg A.G., O'Keefe D.D., Daggett W.M., Geffin G.A.: Protection of the Hypertrophied Myocardium by Crystalloid Cardioplegia, *J Surg Res*, 1991, 51(6): 447-456.
6. Allyn J.W., Teplick R., Steinberg J.B., Munfakh N.A., Geffin G.A., Titus J.S., Daggett W.M.: Norepinephrine increases the economy of pressure development in isolated canine hearts, *Am J Physiol*, 1993; 263, H7150H721.
7. Schwartz R.W., Munfakh N.A., Zwang T.N., Strodel W.E., Lee E., Thompson N.W.: Non-functioning cystic neuroendocrine neoplasms of the Pancreas. *Surgery*, 1994; 115: 645-9.
8. Webb W., Harrison L., Helmcke F., Camino A., Munfakh N.A., Heck H., Moulder P.: Carbon dioxide field flooding minimizes residual intracardiac air after open heart operations. *Ann of Thorac Surg*, 1997; 64:1489-91.
9. Crumb W.J., Pigott J.D., Nenova N., Munfakh N.A., Harrison L.H., Heck H.A., Clarkson C.W., Roca T.P.: Fatty acid block of the transient outward current in the adult human atrium. *J Pharm & Exp Thera* 1999; 289:386-91.
10. Carmeci C., Munfakh N.A., Brooks J.W., Abdominal Apoplexy. *So Med J*, 1998; 91: 273-74.

**Publications continued:**

11. Nevov N.I., Crumb W.J., Munfakh N.A., Pigott J.D., Clarkson C.W.: Unique Effects of Extracellular Potassium on the Human Atrial Transient Outward Current. Submitted to American Journal of Physiology.
12. Tan C.W., Munfakh N.A., Helmcke F., Abourame A., Caspi J., Glancy D.L.: Congenital Cardiovascular malformations. Submitted to American Journal of Cardiology.
13. Caspi J., Zalstein E., Zucker N., Appelbaum A., Harrison L.H., Munfakh N.A., Ferguson T.B. Jr., Heck H., Stopa A., White M., Fontenot E.: Surgical management of tetralogy of Fallot in the first year of life. *Ann Thorac Surg* 1999;68:1344-349.
14. Caspi, J., Pettitt, T., Fontenot, E., Stopa, A., Heck, H., Munfakh, N., Ferguson, T.B., Harrison, L.: The beneficial hemodynamic effects of selective patent vertical vein following repair of obstructed total anomalous pulmonary venous drainage in infants. *European Journal of Cardio-Thoracic Surgery* 20 (2001) 830-834

**Abstracts:**

1. Munfakh N.A., Steinberg J.B., Geffin G.A., O'Keefe D.D., Daggett W.M.: Protection of the Hypertrophic Myocardium by Crystalloid Cardioplegia. The Association for Academic Surgery, Nov., 1990.
2. Steinberg J.B., Doherty N.E., Munfakh N.A., Geffin G.A., Titus J.S., Hoaglin D.C., Deneberg A.G., Daggett W.M.: The Addition of Glucose and Insulin to Oxygenated Cardioplegia Solution. International Society of Heart Research, Aug., 1990.
3. Allyn J.W., Teplick R., Steinberg J.B., Munfakh N.A., Geffin G.A., Daggett W.M.: Norepinephrine does not Result in Oxygen-Wasting in Isolated Canine Hearts. Society of Cardiovascular Anesthesiology, May, 1990.
4. Khachaturian H., Munfakh N.A., Alessi N.E., Watson S.J.: Comparative Otogeny of Three Opioid Systems in the rat C.N.S., International Narcotics Research Conference, Garmish, W. Germany, June:1983.
5. Khachaturian H., Alessi N.E., Lewis M.E., Munfakh N.A., Watson S.J.: Ontogeny of Opioid and Related Peptides in the Rat Brain and Pituitary, Society of Neuroscience, 1983.

**Presentations:**

1. Munfakh N.A., Khachaturian H., Watson S.J.: an ontogenic approach to the question of multiple substance localization within the same hypothalamic neurons. Presented to the Medical Student Research Forum, University of Michigan Medical School, September, 1982.
2. Munfakh N.A., Schwatz R.W, Barker D.E., Hyde G.L.: A 22 Year Experience with Hip Disarticulation. Presented to the Kentucky Surgical Society, Cincinnati, OH, May 1987.

3. Munfakh N.A., Steinberg J.B., Geffin G.A., O'Keefe D.D., Daggett, W.M., "Protection of the Hypertrophied myocardium by Crystalloid Cardioplegia". Presented to the Association for Academic Surgery, Houston, TX, November 1990.
4. Damiano R.J., Munfakh N.A., Ellenbogen K.A., Wood M.A., Stambler B.S., Spratt J.A., and Wechsler A.S.: "Implantable Cardioverter Defibrillators (ICD) and Concomitant Cardiac Surgical Procedures: Efficacy, Morbidity and Mortality". Presented to Virginia Surgical Society, 1993.

**Presentations continued:**

5. Munfakh N.A., Harrison L.H., Webb W.R.: "Mitral Valve Repair". Presented to the Louisiana Chapter of the American College of Surgeons, New Orleans, LA. January 1996.
6. Munfakh, N.A.: "Use of TEE in Assessing the Patient for Mitral Valve Repair – the Surgeons Perspective". Presented to ECHO, New Orleans, LA. April 1997.
7. Munfakh, N.A.: "Mitral Valve Repair – the Surgeon's Perspective". Presented to ECHO, New Orleans, LA. April, 1998.
8. Munfakh, N.A.: "Aortic and Mitral Valvuloplasty: timing of the Surgery and the Role of Intraoperative TEE". Presented to ECHO New Orleans, New Orleans, LA. April 1999.
9. Munfakh, N.A., "Mitral Valve Repair" presented to San Antonio Cardiology Society, American Heart Association, San Antonio, TX, January 2000.
10. Munfakh, N.A., "Mitral Valve Repair – Surgical Perspective" presented to ECHO New Orleans, LA. June 2, 2001, New Orleans, LA.

# 4/6

**John Paul Rice RNFA**

1712 Warren Avenue Apt # 7  
Mount Vernon, IL 62864  
618-751-3347

**Education:**

1980 Lincoln Land Community College, Springfield, IL  
Associate Degree in Nursing

**Experience:**

02/2006 - present St. Mary's Good Samaritan Regional Health Center, Mount Vernon, IL  
CVOR Coordinator/RNFA  
Duties include but not limited to cost containment and process improvement for all aspects for the cardiac surgery service line. Increase cost effectiveness and improve level of professionalism to optimize surgeon and patient satisfaction. Streamline service line to become more efficient use of resources and staff. Provide education and leadership in a supervisory capacity and as a clinical coach. Provide input on staff evaluations in anticipation of transfer of that responsibility. Evaluate revise and write policies and procedures in collaboration with the director of the department. Maintain relationship with vendors to facilitate surgeon and patient needs. RNFA for on and off pump CABG, complex cardiovascular, thoracic procedures, vein harvesting utilizing endoscopic and "no touch bridge" technique. Perform all surgical roles in cardiac surgery and RNFA, scrub and circulate general surgical and obstetrical procedures.

01/2004 - 02/2006 Blessing Hospital, Quincy, IL  
CVOR Nurse Manager/RNFA  
New heart and vascular center, responsibilities include staff education and staff development. Overseeing construction and preparing two new CVOR suites for procedures. The new department and surgical suites guided successfully through JCAHO and IDPH inspections. Development of policies and procedures and development of performance improvement initiatives, manage and prepare project, capital and operational budgets, monitor charges and billing for accuracy and proper budgetary assignment and tracking. Oversee all aspects of three cost centers: CVOR, Perfusion and Cardiac Anesthesia. Maintain departments within budgets while implementing 5.25% budgetary reductions for the final quarter of the 2005 fiscal year. Maintain relationship with vendors of supplies, equipment and

- aide in negotiating pricing. Perform RNFA duties for on and off pump CABG, complex cardiovascular, thoracic, and vascular procedures. Perform permanent pacemaker/automatic internal defibrillator insertion and peripheral vascular procedures. Vein harvested for conduit during coronary artery bypass grafting utilizing the "no touch bridge" technique. Performing all surgical roles in CVOR, including mentoring/teaching all roles including vein harvesting and wound closure.
- 07/1993-11/2003      Memorial Medical Center, Springfield, IL  
 Responsibilities include on and off pump CABG, complex cardiovascular, thoracic, vascular and peripheral vascular procedures. Vein harvesting for coronary bypass utilizing the "no touch bridge" technique, additional experience in LVAD, RVAD, VATS, ICD and pacemaker procedures. Ability to function in all CVOR surgical roles including charge nurse, preceptor, and training duties in CVOR.
- 10/1990-07/1993      St. John's Hospital, Springfield, IL  
 RNFA Cardiac Surgery  
 Responsibilities include on and off pump CABG, complex cardiovascular, thoracic, vascular and peripheral-vascular procedures. Additional experience in VATS, ICD, PPM, IABP and blood salvaging systems. Ability to function in all cardiac surgery surgical roles.
- 11/1989-09/1990      St. Francis Medical Center, Monroe, LA  
 Registered Nurse Cardiac Surgery  
 Responsibilities include scrub, circulate and charge nurse duties in cardiac surgery. Additional duties for blood salvaging systems and IABP insertion and monitoring in cardiac surgery, Registered Nurse in CVRU as a bridge nurse for the immediate postoperative phase.
- 06/1987-11/1989      St. John's Hospital, Springfield, IL  
 Registered Nurse Cardiac Surgery  
 Duties included scrub, circulating, blood salvaging systems, and IABP.
- 01/1987-06/1987      Intracorp, Springfield, IL  
 Medical Case Management/Rehabilitation Specialist
- 06/1983-01/1987      St. John's Hospital, Springfield, IL  
 Registered Nurse CPU  
 Responsibilities included telemetry interpretation, patient care, preceptor, and charge nurse on a 69 bed cardiopulmonary step down unit.

05/1980-06/1983

St. John's Hospital, Springfield, IL

Registered Nurse 6 Neuro IMC

Responsibilities included patient care on 21 bed general/surgical  
neurology floor with 6 bed IMC craniotomies and major head traumas.

Duties also included charge nurse for entire floor of Neurology and  
EENT.

**Kristina Marie Feig**

301 Leafland Avenue  
Centralia, Illinois 62801  
(618)533-1965

**Objective:** To obtain a position as a surgical technologist with an opportunity for advancement as a Registered Nurse.

**Education:** Chamberlain College of Nursing  
St. Louis, MO  
Associate Degree in Nursing

Kaskaskia College  
Centralia, IL  
General Studies

Nashville State Technical Institute  
Nashville, TN  
Surgical Technology, Certificate  
Related courses: microbiology, anatomy & physiology, pharmacology, chemistry, medical terminology, and introduction to surgical technology.

Rend Lake College  
Ina, IL  
LPN and General Studies  
Incomplete (LPN), Completed

**Experience:** Good Samaritan Hospital  
Mt. Vernon, IL  
January 3, 2005- present  
Certified Surgical Technologist  
Open Heart Certified Surgical Technologist, August 1, 2005 to present

St. Mary's Good Samaritan Hospital  
Centralia, IL  
October 2001 - December 31, 2004  
Certified Surgical Technologist, Surgical Technologist Preceptor, and Surgical Information Systems Computer Coordinator.

**Activities:** Association of Surgical Technologists  
High Honors Student  
President of Parent Teacher Organization

**References available on request.**

**Kristina Marie Feig**

301 Leafland Avenue  
Centralia, Illinois 62801  
(618)533-1965

**References:**

Van Bates, surgical technology instructor  
Nashville, TN 37221  
(615) 353-3340

Mark Walker, Certified Registered Nurse First Assistant  
1031 Monroe  
Carlyle, IL 62231  
(618) 594-8028

Tracy Walton, Registered Nurse  
515 East Third Street  
Centralia, IL 62801  
(618)532-6750

Kyle E. Bevis  
Registered Nurse Open Heart Circulator

Currently circulating Cardiothoracic surgery including Coronary Artery Bypass Grafting, Aortic and Mitral Valve Replacements, Thoracic surgery, Aneurysm repairs and other vascular procedures.

I started working in General Surgery in 1979 as a circulating nurse. I transferred to the Open Heart Team when the program began in March 2001. I was sent to DePaul Hospital and St. Josephs Hospital in St. Louis, Missouri for on the job training in their heart program. We also received multiple inservices for training purposes. In November 2001, I went to Oakwood Heritage Hospital , Michigan for First Assistant training program. Following this program, I assisted on cardiothoracic cases for approximately 5 years. I then transferred to the Open Heart Circulator position.

Kathleen J Kretzer  
Registered Nurse Open Heart Scrub

Currently scrubbing Cardiothoracic surgery including Coronary Artery Bypass Grafting, Aortic and Mitral Valve Replacements, Thoracic surgery, Aneurysm repairs and other vascular procedures.

I started working in General Surgery in 1992 as a circulating nurse, crossed trained for scrubbing after attending a scrub technique class. I then transferred to the Open Heart Team in August of 2002. I was trained on the job with an experienced scrub. I was sent to St. Joseph Hospital for on the job training. I attended classes for operating the Intra-Aortic Balloon Pump. I was inserviced by the Perfusionist.

Heather L. Pace  
Registered Nurse Open Heart Circulator

Currently circulating Cardiothoracic surgery including Coronary Artery Bypass Grafting, Aortic and Mitral Valve replacements, Thoracic surgery, Aneurysm repairs and other vascular procedures.

I started as a circulator in General Surgery in February 2001. I then transferred to the Open Heart team in April 2003. I was trained on the job with an experienced circulator for approximately twenty cases and then started circulating cases and taking call. During my training, I attended classes for operating the Intra-Aortic Balloon Pump. I also attended a Basic EKG class and was inserviced by the perfusionist.

**\*\*CONFIDENTIAL RESUME\*\***

**SANDY GUPTA, BS, MT, CCP**

7147 Sue Lane

Rockford, IL 61111

Home: (815) 633-0670

Email: [Sandhya1002@hotmail.com](mailto:Sandhya1002@hotmail.com)

- OBJECTIVE:** To obtain a position as a staff perfusionist.
- EDUCATION:** The Johns Hopkins School of Perfusion Technology, Baltimore, MD, 7/92 to 12/93. Cumulative GPA 4.0/4.0.
- University of Illinois, Chicago, IL, 12/90. B.S., Medical Laboratory Technology. Cumulative GPA 5.0/5.0, Dean's List. Certified Medical Technologist.
- College of Lake County, Grayslake, IL. 1987-89. A.S. Medical Laboratory Technician (MLT), Cumulative GPA 4.0/4.0, Highest Honors.
- University of Wisconsin, Milwaukee, WI, 1979-81. Microbiology, Immunology, and Human Parasitology. GPA 4.0/4.0
- EXPERIENCE:**
- Rockford Surgical Services, Rockford, IL, May 2003 – Present, Perfusionist, Clinical responsibilities include adult cardiopulmonary bypass, IABP, blood gases, ACT, record keeping, QC, and on call responsibilities.
  - Ingalls Memorial Hospital, Harvey, IL, 1994-May 2003, Perfusionist.
  - Columbus Cabrini Hospital, Chicago, IL, 1994-1998, Perfusionist. Clinical responsibilities include adult cardiopulmonary bypass, VADS, IABP, autotransfusion, blood gases, hemodynamic monitoring, ACT, QC, correlation studies, proficiency testing, PTCA standby, and on-call responsibilities.
  - The Johns Hopkins Hospital, Baltimore, MD, 7/92-12/93  
Clinical experience included adult and pediatric perfusion, hemodynamic monitoring, blood gases and ACT, circulatory arrest, LA-FA bypass, IABP, VADS, ECMO, CPS, hemoconcentration, autotransfusion, heart and liver transplants, and isolated limb perfusion.  
**Clinical Perfusion Affiliations:**  
Medical College of Virginia, Richmond, VA, July 1993  
Northwestern Memorial Hospital, Chicago, IL August 1993
  - Abbott Laboratories, Abbott Park, IL, Feb 91-July 92, Research & Development Technologist. Responsible for developing protocols, blood typing, research projects, documentation, and quality control.
- CERTIFICATION:** Licensed Perfusionist, IL, 2002, #214-000071  
Certified Clinical Perfusionist, 1995, National Percentile Rank 98%  
Medical Technology Registry #184257, 1991, National Percentile Rank 99.98%  
Medical Laboratory Technician Registry #040866, 1989, National record high score.
- HONORS:** Outstanding Achievement Award, University of Illinois, 1991  
Medical Technology Faculty Scholarship, University of Illinois, 1990  
Outstanding Scholar Award, College of Lake County, IL, 1989
- REFERENCES:** Available upon request.

## CURRICULUM VITAE

Frank M. Eaton, M.D.

### Current Position:

Medical Director of Anesthesia  
St. Mary's Good Samaritan Hospital  
Mt. Vernon, IL

Medical Director of Anesthesia  
St. Mary's Good Samaritan Hospital  
Centralia, IL

President  
Southern Illinois Anesthesiology, Ltd.

### Personal Information:

17726 N. Hails Ln.  
Mt. Vernon, IL 62864  
Born November 25, 1959  
Married (Michelle, 5/93)  
Children (Kyle Christopher, 4/18/94  
Evan Mitchell, 3/12/97)  
Social Security #441-70-1642

Home Phone (618) 755-0094  
Home Fax (618) 755-0095  
Office Phone (618) 241-1137

### Education:

1978-82 B.S. in Chemical Engineering with Honors  
University of Oklahoma, Norman, Oklahoma

1982-86 M.D.  
University of Oklahoma, Oklahoma City, Oklahoma

### Postgraduate Training

1986-87 Internship, Rotating  
Saint Louis University Health Sciences Center, St. Louis, Missouri

1986-90 Resident, Anesthesiology  
Saint Louis University Health Sciences Center, St. Louis, Missouri

### Board Certification and Licensure:

Diplomat, National Board of Medical Examiners, 1987  
Diplomat, American Board of Anesthesiology, 1991  
Missouri, R2K06  
Illinois, 036-103229

### Previous Professional Experience:

1990-1991	Instructor Department of Anesthesiology Saint Louis University Health Sciences Center
1991-2000	Assistant Professor Department of Anesthesiology Saint Louis University Health Sciences Center
2000	Associate Professor Department of Anesthesiology Saint Louis University Health Sciences Center
2000-pres	Medical Director of Anesthesia St. Mary's Good Samaritan Hospital Mt. Vernon, IL
2005-pres	Medical Director of Anesthesia St. Mary's Good Samaritan Hospital Centralia, IL

### Clinical Staff Appointments:

1990-2000	Attending Anesthesiologist Saint Louis University Health Sciences Center St. Louis, Missouri
1990-1996	Attending Anesthesiologist John Cochran VA Medical Center St. Louis, Missouri
1990-2000	Attending Anesthesiologist Cardinal Glennon Children's Hospital St. Louis, Missouri
2000-pres	Attending Anesthesiologist St. Mary's Good Samaritan Hospital Mt. Vernon, IL
2005-pres	Attending Anesthesiologist St. Mary's Good Samaritan Hospital Centralia, IL

### Professional Society Memberships:

American Society of Anesthesiologists  
International Spine Intervention Society  
Missouri Society of Anesthesiologists  
Illinois Society of Anesthesiologists  
St. Louis Society of Anesthesiologists  
Association of Anesthesia Clinical Directors  
Society for Technology in Anesthesia  
Jefferson County Medical Society

### Honorary Societies, Honors and Awards

1990                      Chief Resident, Department of Anesthesiology  
                                 Saint Louis University Health Sciences Center

### Professional Services:

#### Past Teaching Responsibilities at Saint Louis University Health Sciences Center

Anesthesiology Resident Curriculum  
    Basic Science Seminars, 1990-2000  
    Core Anesthesiology Lectures, 1990-2000  
    Advanced Subspecialty Lectures, 1990-2000

Anesthesiology Resident Clinical Supervision, 1990-2000

## Publications:

### Papers

Eaton, FM, Mai-Lombardo, J, The Challenge: Improving OR Turnover Time, Surgical Services Management, September, 1997.

Eaton FM, Krucylak PE, Foroughi V, Baudendistel LJ: A Real-Time Status Monitor as a Tool for Operating Room Management. The Internet Journal of Anesthesiology 1998; Vol2N1: <http://www.ispub.com/journals/IJA/Vol2N1/real.htm> . Published January 1, 1998; Last Updated January 1, 1998.

### Published Abstracts

Krucylak, PE, Foroughi,V, Eaton, FM, Baudendistel, LJ, Anesthesia Data Management Systems as a Tool for Total Quality Management of Operating Rooms, IARS, March, 1997.

Eaton, FM, Krucylak, PE, Foroughi, V, Baudendistel, LJ, A Real-Time Status Monitor as a Tool for Operating Room Management, ASA, October, 1997.

### Exhibits

Krucylak, PE, Foroughi,V, Eaton, FM, Baudendistel, LJ, Anesthesia Data Management Systems as a Tool for Total Quality Management of Operating Rooms, IARS, March, 1997.

### Poster Presentations

Eaton, FM, Krucylak, PE, Foroughi, V, Baudendistel, LJ, A Real-Time Status Monitor as a Tool for Operating Room Management, ASA, October, 1997.

Fisch, C, Eaton, FM, Foroughi, V, A Fully Integrated Surgical Information Management System. Midwest Anesthesiology Residents Conference, Chicago, Illinois. April, 1997.

### Research Interests

- Computers in Anesthesia
- Use of automated database systems in operating room management
- Automated anesthesia records as a tool for TQM

## Committee Memberships and Directorships

### Departmental:

- |            |  |
|------------|--|
| 1990-2000  | Coordinator<br>Morbidity and Mortality Conference<br>Department of Anesthesiology<br>Saint Louis University Health Sciences Center |
| 1992-1995  | Co-Director of Clinical Services<br>Department of Anesthesiology<br>Saint Louis University Health Sciences Center                  |
| 1992-1998  | Director, Quality Improvement<br>Department of Anesthesiology<br>Saint Louis University Health Sciences Center                     |
| 1995-1996  | Director of Clinical Services<br>Department of Anesthesiology<br>Saint Louis University Health Sciences Center                     |
| 1995-2000  | Director of Medical Informatics<br>Department of Anesthesiology<br>Saint Louis University Health Sciences Center                   |
| 1993-1996  | Member, Clinical Competency Committee<br>Department of Anesthesiology<br>Saint Louis University Health Sciences Center             |
| 1995-1996  | Member, Research Committee<br>Department of Anesthesiology<br>Saint Louis University Health Sciences Center                        |
| 1998- 2000 | Director, Clinical Quality Improvement<br>Department of Anesthesiology<br>Saint Louis University Health Sciences Center            |
| 1998- 2000 | Member, Steering Committee<br>Department of Anesthesiology<br>Saint Louis University Health Sciences Center                        |

Hospital:

- |           |  |
|-----------|--|
| 1992-1995 | Member, Operating Room Committee<br>Saint Louis University Health Sciences Center                      |
| 1994-1997 | Member, Patient Services Committee<br>Saint Louis University Health Sciences Center                    |
| 1995-1997 | Member, Quality Improvement Committee<br>Saint Louis University Health Sciences Center                 |
| 1996      | Member, Ad Hoc Committee on Operating Room Scheduling<br>Saint Louis University Health Sciences Center |
| 1995-1999 | Chairman, Operating Room Committee<br>Saint Louis University Health Sciences Center                    |
| 1997-2000 | Member, Clinical Quality Management Committee<br>Saint Louis University Health Sciences Center         |
| 1997-2000 | Member, Executive Committee<br>Saint Louis University Health Sciences Center                           |
| 1998-2000 | Member, Ad Hoc Committee on Operating Room Utilization<br>Saint Louis University Hospital              |
| 1999-2000 | Chairman, Credentials Committee<br>Saint Louis University Hospital                                     |
| 1999-2000 | Vice-President, Medical Staff<br>Saint Louis University Hospital                                       |

- 2000- pres      Member, OB Committee  
St. Mary's Good Samaritan Hospital  
Mt. Vernon, IL
  
- 2000- pres      Member, Critical Care Committee  
St. Mary's Good Samaritan Hospital  
Mt. Vernon, IL
  
- 2000- pres      Member, Nursery Committee  
St. Mary's Good Samaritan Hospital  
Mt. Vernon, IL
  
- 2000- pres      Member, Orthopedics Team  
St. Mary's Good Samaritan Hospital  
Mt. Vernon, IL
  
- 2000- pres      Member, Heart Team  
St. Mary's Good Samaritan Hospital  
Mt. Vernon, IL
  
- 2000- pres      Member, Ad Hoc Group on OR Management  
St. Mary's Good Samaritan Hospital  
Mt. Vernon, IL
  
- 2003-pres      Member, Credentials Committee  
St. Mary's Good Samaritan Hospital  
Mt. Vernon, IL
  
- 2005-pres      Member, OB Committee  
St. Mary's Good Samaritan Hospital  
Centralia, IL

**Waqas Khan MD**

130 Breezy Hills Cove  
 Grand Forks, ND 58201  
 701.795.0268  
 wkhan@altru.org

**CERTIFICATION:** FMGEMS 1990  
 FLEX 1991  
 Board Eligible in Pediatrics-1993  
 Diplomate American Boards in Anesthesiology - 2001

**TRAINING:** March 1997 - January 1999  
 Resident in Anesthesiology - Northwestern Memorial  
 Hospital Chicago.

July 1993 - January 1995  
 Resident in Anesthesiology - Cook County Hospital, Chicago

June 1990 - June 1993  
 Resident in Pediatrics - University of Illinois at Chicago

**EMPLOYMENT** August 2000-Current  
 Staff Anesthesiologist, Altru hospital, Grand Forks, ND  
 Instructor, Department of Surgery  
 University of North Dakota Medical School, Grand Forks

July 1999- June 2000  
 Staff Anesthesiologist - Mount Sinai Hospital, Chicago  
 Instructor in Anesthesiology-Finch University of Health  
 Sciences, Chicago

March 1999- June 1999  
 Staff Anesthesiologist - Northwestern Memorial Hospital, Chicago  
 Instructor in Anesthesiology - Northwestern University, Chicago

March 1995 - February 1997  
 Staff Pediatrician - Illinois Masonic Medical Center, Chicago

**EDUCATION** 1983 - 1989 Nishtar Medical College, Multan, Pakistan  
 1980 - 1982 Gordon College, Rawalpindi, Pakistan  
 1974 - 1980 St. Mary's Cambridge School, Rawalpindi, Pakistan

**INTERESTS** Reading, Writing, Squash, Tennis, Skiing, Hunting

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# Kent Fair CRNA

## *Objective*

Providing anesthesia for surgical procedures, including cardiac and chest surgery

## *Education*

University of Illinois  
Barnes School of Nursing  
Barnes/Washington University School of Nurse Anesthesia

## *Positions Held*

St. Mary's Hospital, Centralia, Illinois 1976-1978  
Randell, Gonzales, Guzman  
Anderson Hospital, St. Elizabeth's Hospital 1978-1985  
Jewish Hospital of St. Louis 1985-1994  
Washington University Department of Anesthesia 1994-1997  
Anesthesia Associates of Belleville  
Memorial Hospital 1997-2001  
St. Mary's/ Good Samaritan Hospital 2001-2003  
Southern Illinois Anesthesiology  
St. Mary's/ Good Samaritan 2003-present

## *References*

Dr. John Watson, Cardiac Surgeon  
Dr. Kal White, Anesthesiologist  
Dr. Waqqas Khan, Anesthesiologist

Primary Business Address  
1011 Wilshire Dr.  
Mount Vernon, Illinois  
62864

Phone: 618-242-4150  
Cell: 618-237-0737  
E-mail: wottu@charter.net

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# Kent Fair CRNA

## *Professional Organizations*

American Association of Nurse Anesthetists  
Southern Illinois Anesthesia Association

## *Accreditation*

Council on Recertification of Nurse Anesthetists  
Recertification No. 27112 7/31/2008

## *Volunteer Experience*

Cardiac Surgery  
Hospital Sacre Coeur  
Milot, Haiti

## *Licenses and Certificates*

Illinois RN 041-171927  
Illinois APN 209-000375

## ANESTHESIA PRIVLEDGES

### Regional Techniques

Spinal, Epidural: thoracic, lumbar, labor.  
Nerve Blocks  
Axillary, supraclavicular, scalene.  
Femoral, ankle.

### General

All general anesthetics, including, thoracic, cardiac, and major vascular

### Monitoring

Skilled in placement and use of all monitoring devices, including, Swan-Ganz placement, central line placement, and arterial lines.

Tranesophageal Echocardiography  
Echo study and monitoring

# CURRICULUM VITAE

**JONATHAN SORENSON, CRNA, DNSc**  
4204 ARAGON COURT  
SWANSEA, ILLINOIS 62226  
TELEPHONE/FAX (618) 234-9284  
PAGER (618) 338-2511  
CELLULAR (618) 407-1815

## SUMMARY OF EXPERIENCE

Over nineteen years experience in the health care field including direct patient care, clinical management of patients and administration of anesthesia services. Background includes over ten years experience administering regional and general anesthesia to all ASA Classifications of patients. Experienced in organizing the capital needs for an anesthesia department. Revised and adapted a QA/QI tracking system for Touchette Regional Hospital's anesthesia department, as well as anesthesia assessment and discharge documentation. Active in the revision of established policies and procedures, along with the creation of new policies regarding labor anesthesia services.

## EDUCATION

- 2002      **Doctor of Nursing Science (DNSc)**  
            *University of Tennessee Health Science Center Memphis.*  
            Graduation December , 2002
- 1991      **Masters' in Nursing Science**  
            *University of Texas Health Science Center, Houston.*  
            Granted an Air Force Scholarship while attending anesthesia  
            School in a civilian program. As a Graduate Nurse Anesthetist,  
            Preceptored senior anesthesia students at M.D. Anderson  
            Cancer Center and Southeast Memorial Hospital.  
            Served as a representative for the anesthesia program to the  
            Graduate curriculum for the University of Texas Health  
            Science Center, Houston.
- 1986      **Bachelors' in Nursing Science**  
            *Pacific Lutheran University, Tacoma, Washington.*

EMPLOYMENT HISTORY

- 08/05      Staff CRNA (Relief Services)  
*Greenville Regional Hospital, Greenville, Illinois*
- 08/04-  
present      Faculty Program of Nurse Anesthesia  
*Barnes-Jewish College of Nursing*  
Responsibilities included didactic preparation of first year students to prepare them for entry into the clinical arena for delivery of anesthesia. Cadaver lab instruction for anatomy and physiology instruction.
- 08/03-  
03/04      Interim Program Coordinator-Nurse Anesthesia Specialization  
*Southern Illinois University Edwardsville*
- 07/03-  
12/03      Assistant Professor Nurse Anesthesia Program  
*University of Tennessee Health Science Center Memphis*  
Responsible for the cardiovascular/vascular anesthesia content for the nurse anesthesia program. Assisted in the development of course syllabi and various anesthesia related courses
- 07/02-  
08/03      Assistant Program Coordinator-Nurse Anesthesia Specialization  
*Southern Illinois University Edwardsville*  
Duties include the overseeing of clinical students in various clinical settings, as well as didactic responsibilities. Records maintained in accordance with the guidelines of the Council of accreditation.
- 01/02-  
12/04      Staff Nurse Anesthetist  
*Belleve Memorial Hospital, Belleville, Illinois*  
Responsible for the administration of regional and general anesthesia to a diverse population. Cardiac as well as obstetrical services performed in an autonomous environment.
- 03/99-  
01/02      Chief Nurse Anesthetist/Anesthesia Department Manager  
*Touchette Regional Hospital, Centreville, Illinois.*  
Responsible for staffing and administrative duties for the Department of Anesthesia. Quality Improvement, budgeting and peer evaluations are implemented and maintained. Anesthesia liaison to hospital administration as well as other departments.

EMPLOYMENT HISTORY—(continued)

- 04/98-  
06/02      Clinical Instructor Southern Illinois University at Edwardsville.  
                    *Clinical Coordinator at Touchette Regional Hospital.*  
Responsibilities to include didactic instruction to senior, junior and  
freshmen anesthesia students. Restructuring of core curriculum to  
enhance the learning experience. Clinical instruction of senior and  
junior anesthesia students. Main emphasis on regional anesthesia and  
anesthesia administration in small community hospital settings.
- 05/95-  
present      Sorenson Anesthesia Services P.C.  
                    *Locums Tenens Illinois and Missouri.*
- 01/02-  
12/04      Belleville Memorial Hospital  
                    *Anesthesia Associates of Belleville*  
Staff Nurse Anesthetist.
- 02/95-  
01/02      Staff CRNA  
                    *Touchette Regional Hospital, Centreville, Illinois.*  
Capable in the administration of general anesthesia to all  
ASA classification of surgical patients with a strong background  
in OB anesthesia. Regional techniques to include: (1) spinal,  
(2) epidural, (3) interscalene, (4) supraclavicular, (5) caudal,  
(6) scapular, (7) intercostal, (8) axillary, (9) femoral,  
(11) peribulbar/retrobulbar, and, (12) ankle blocks. Proficient  
in central venous access and line placement, as well as the  
placement of arterial catheters. Active participation in  
numerous neonatal resuscitations. ACLS Instructor/Provider  
working closely with nursing inservice.
- 10/94-  
02/95      Contract CRNA  
                    *Scott Air Force Base, Illinois.*  
Responsibilities included the administration of anesthetics  
to a wide variety of surgical and non-surgical procedures.  
Proficient in the administration of general as well as regional  
Techniques which include spinals, epidurals, and nerve blocks.

Jonathan Sorenson, CRNA, DNSc

EMPLOYMENT HISTORY—(continued)

- 11/91-  
10/94      Staff CRNA  
            *United States Air Force, Scott AFB, Illinois.*  
Responsibilities included the administration of anesthetics on  
A wide variety of surgical and non-surgical procedures.  
Proficient in the administration of general and various  
regional techniques. Qualified in the placement of invasive  
lines. Taught EKG and central venous access and monitoring to  
nurse intern students. Taught basic and advanced airway  
management to EMT students. ACLS Instructor/Provider  
at Scott Medical Center and in the Azores.
- 06/91-  
10/91      Locum Tenens CRNA  
            *Houston, Texas.*  
Administration of general and regional anesthetics in hospital  
outpatient surgery centers.
- 01/94-  
04/94      Staff RN-Agency Nursing Critical Care Specialties  
            *Houston, Texas*  
Intensive Care Units, Post Anesthesia Care Units and  
Emergency Departments.
- 01/89-  
12/89      Staff RN  
            *Southwest Memorial Hospital, Houston, Texas*  
Emergency Department and Post Anesthesia Care Unit.
- 12/86-  
12/88      Staff RN  
            *St. Joseph Hospital, Tacoma, Washington.*  
Staff nurse Post Anesthesia Care Unit. Taught emergency airway  
Management to new employees. Preceptored senior nursing  
Student for a semester in the Post Anesthesia Care Unit.

CERTIFICATIONS

American Association of Nurse Anesthetists #42052  
ACLS Instructor/Provider

LICENSURE

Registered Professional Nurse-Illinois #041-272021  
Registered Advanced Practice Nurse-Illinois #209-000414  
Registered Advanced Practice Nurse-Missouri #129825  
Advanced Nurse Practitioner-Texas 549856  
Registered Nurse-Washington #RN00090831  
Registered Nurse-Oregon #96006246

PRESENTATIONS

American Association of Nurse Anesthetist—Assembly of School Faculty—2003  
(Poster Presentation--Dissertation)  
Southern Nurses' Research Society-2003  
(Poster Presentation—Dissertation)  
Illinois Association Nurse Anesthetists—Fall 2001  
(Fast Trach™ Laryngeal Mask Airway)  
Missouri Association of Nurse Anesthetists—Spring 2001  
(Brachial Plexus Blockade)  
Illinois Association Nurse Anesthetist—Fall 1999  
(Hands On Session—Lower Extremity Blockade)

14205 N McRaven Ln.  
Mt. Vernon, IL 62864

Phone 618-204-5283  
E-mail brooksgreger@hotmail.com

## Brooks Ross Greger II

SOC Sec #  
462-91-8040

### Objective

To obtain a position as a CRNA that will allow me to utilize my clinical and educational experience while actively gaining new knowledge.

### Education

2004-2006 Texas Wesleyan University Fort Worth, TX  
**Master of Science in Nurse Anesthesia**  
Expected Graduation December 15, 2006

1997-2002 University of Central Arkansas Conway, AR  
**Bachelor of Science in Nursing**  
Graduated as member of Kappa Rho Chapter of Sigma Theta Tau Honors Society of Nursing

### Work experience

2005-present Texas Tech Health Science Center Lubbock, TX  
**Graduate Student**  
Perform post-operative anesthetic assessments on in-house patients

2002-2004 Baylor University Medical Center Dallas, TX  
**Registered Nurse**  
Worked in Surgical/Transplant ICU

1999-2002 Conway Regional Medical Center Conway, AR  
**Nursing Assistant**  
Performed EKGs, phlebotomy, telemetry tech, post-cardiac cath care, nursing assistance

### References

David Fincher, CRNA – Clinical Coordinator for Nurse Anesthesia Residency at Texas Tech University Medical Center. 806-743-2981

James Roberts, M.D. of Anesthesiology – O.R. Director. 806-775-8300

Jack Bolton, M.D. of Anesthesiology – 806-775-8300

Ron Banister, M.D. of Anesthesiology – 806-775-8300

### Professional memberships

American Association of Nurse Anesthetists 2004-present

**Accreditations and  
licenses**

State of Texas Nursing License 2002-present  
Advanced Cardiac Life Support 2002-present  
Basic Life Support 1999-present  
Pediatric Advanced Life Support 2004-present

**Anesthesia Clinical  
Rotations**

**Texas Tech University Medical Center of Lubbock**

- Specialty rotations in pediatric, vascular, neuro, OBGYN, and general surgery  
anesthesia

**Plaza Medical Center of Fort Worth**

- Specialty rotation in cardiothoracic anesthesia

**Wagqas Khan MD**

130 Breezy Hills Cove  
 Grand Forks, ND 58201  
 701.795.0266  
 wkhan@altru.org

**CERTIFICATION:** FMGEMS 1990  
 FLEX 1991  
 Board Eligible in Pediatrics-1993  
 Diplomate American Boards in Anesthesiology - 2001

**TRAINING:** March 1997 - January 1999  
 Resident in Anesthesiology - Northwestern Memorial  
 Hospital, Chicago.

July 1993 - January 1995  
 Resident in Anesthesiology - Cook County Hospital, Chicago

June 1990 - June 1993  
 Resident in Pediatrics - University of Illinois at Chicago

**EMPLOYMENT**

*Aug 03 - Present - Southern Illinois Anesthesiology, LTD*  
 August 2000 - Current - *Jul-03*  
 Staff Anesthesiologist, Altru hospital, Grand Forks, ND  
 Instructor, Department of Surgery  
 University of North Dakota Medical School, Grand Forks

July 1999 - June 2000  
 Staff Anesthesiologist - Mount Sinai Hospital, Chicago  
 Instructor in Anesthesiology - Finch University of Health  
 Sciences, Chicago

March 1999 - June 1999  
 Staff Anesthesiologist - Northwestern Memorial Hospital, Chicago  
 Instructor in Anesthesiology - Northwestern University, Chicago

March 1995 - February 1997  
 Staff Pediatrician - Illinois Masonic Medical Center, Chicago

**EDUCATION**

1983 - 1989 Nishtar Medical College, Multan, Pakistan  
 1980 - 1982 Gordon College, Rawalpindi, Pakistan  
 1974 - 1980 St. Mary's Cambridge School, Rawalpindi, Pakistan

**INTERESTS**

Reading, Writing, Squash, Tennis, Skiing, Hunting

**Waqqas Khan MD**

130 Breezy Hills Cove  
 Grand Forks, ND 58201  
 701.795.0268  
 wkhan@altru.org

**CERTIFICATION:** FMGEMS 1990  
 FLEX 1991  
 Board Eligible in Pediatrics-1993  
 Diplomate American Boards in Anesthesiology - 2001

**TRAINING:** March 1997 - January 1999  
 Resident in Anesthesiology - Northwestern Memorial Hospital, Chicago.

July 1993 - January 1995  
 Resident in Anesthesiology - Cook County Hospital, Chicago

June 1990 - June 1993  
 Resident in Pediatrics - University of Illinois at Chicago

**EMPLOYMENT** August 2000-Current  
 Staff Anesthesiologist, Altru hospital, Grand Forks, ND  
 Instructor, Department of Surgery  
 University of North Dakota Medical School, Grand Forks

July 1999- June 2000  
 Staff Anesthesiologist - Mount Sinai Hospital, Chicago  
 Instructor in Anesthesiology-Finch University of Health Sciences, Chicago

March 1999- June 1999  
 Staff Anesthesiologist - Northwestern Memorial Hospital, Chicago  
 Instructor in Anesthesiology - Northwestern University, Chicago

March 1995 - February 1997  
 Staff Pediatrician - Illinois Masonic Medical Center, Chicago

**EDUCATION** 1983 - 1989 Nishtar Medical College, Multan, Pakistan  
 1980 - 1982 Gordon College, Rawalpindi, Pakistan  
 1974 - 1980 St. Mary's Cambridge School, Rawalpindi, Pakistan

**INTERESTS** Reading, Writing, Squash, Tennis, Skiing, Hunting

# Scott Alan Boss

406 Huron Avenue  
Lubbock, Texas  
79416

Phone (806)784-0103  
E-mail  
scottieboss@sbcglobal.net

## Objective

Permanent staff position as Certified Registered Nurse Anesthetist.

## Summary of qualifications

A varied background of experience and skills developed over my work history, have enabled me to effectively perform in the following ways:

Establishing and maintaining cooperative and productive rapport with others

Clinical knowledge as a Registered Nurse in the ER, OR, Critical Care settings

Technical skills in research, data gathering, software program development and evaluation methods

Familiarity with interpreting and disseminating policy, procedures, rules and guidelines

Conscientious and thorough work ethic by way of reliable and accountable personal performance

## Education

2004- Dec Master of Science in Nurse Anesthesia; Texas Wesleyan University; Fort Worth, Texas

1995-1998 Master of Arts in Public Management; Midwestern State University, Wichita Falls, Texas

1996-1999 Bachelor of Science in Nursing; Midwestern State University, Wichita Falls, Texas

1986-1989 Bachelor of Arts Political Science and Public Administration; Midwestern State University, Wichita Falls, Texas

## Professional experience

2005-2006 Texas Tech University Medical Center Lubbock, Texas

### Resident Registered Nurse Anesthetist:

Provision of anesthetic care at Level I Trauma Center under supervision, to include: pre- and post-operative assessments, regional blocks, central/invasive line insertion and monitoring, pediatric, obstetric, general anesthesia, monitored anesthetic care, and PACU monitoring. Specialties included: General, Vascular, Orthopedic, Pediatric, OB/GYN, Pain Management, Neurosurgery, Kidney transplantation, ENT, Trauma, Genitourinary, and Ophthalmology.

2006 Plaza Medical Center Fort Worth, Texas

### Resident Registered Nurse Anesthetist:

Provision of anesthetic care at private hospital care provider under supervision, to include: pre- and post-operative assessments, regional blocks, central/invasive line insertion and monitoring, general anesthesia, and monitored anesthetic care. Specialties included: Cardio-Pulmonary, Plastics, Neurosurgery, General, Orthopedic, Vascular, Cardiac Catheter Lab, and Cardioversions.

2004 United Regional Healthcare System Wichita Falls, Texas

**ICU / CCU Staff Registered Nurse:**

Assessing and implementing critical care needs of patients with life-threatening injuries of chronic and acute origins. Training in administering critical care medications, ACLS protocols, ventilatory patients, ICP and IABP monitoring, hemodynamics, external pacemakers, recovery of postoperative CABG, craniotomy, trauma, pulmonary and vascular procedures

2002-2003 United Regional Healthcare System Wichita Falls, Texas

**OR Clinical Applications Coordinator:**

Development and coordination of OR operational activities related to creation and maintenance of doctor's preference cards. Responsible for establishing and maintaining rapport with surgeons/assistants. Development and transfer of updated OR information system and electronic documentation. Training of OR staff in usage of operating systems. Calculation and tabulation of monthly surgery stats to financial officer. Oversight of OR schedulers to intercept errors.

2001- 2002 United Regional Healthcare System Wichita Falls, Texas

**ICU / CCU Staff Registered Nurse:**

Assessing and implementing critical care needs of patients with life-threatening injuries of chronic and acute origins. Training in administering critical care medications, ACLS protocols, ventilatory patients, ICP and IABP monitoring, hemodynamics, external pacemakers, recovery of postoperative CABG, craniotomy, trauma, pulmonary and vascular procedures

2000-2001 United Regional Healthcare System Wichita Falls, Texas

**Operating Room Registered Nurse:**

Responsible for assessing patients perioperatively for care needs.  
Monitored and Staff assisted in maintaining surgical asepsis for operative procedures.  
Prepared, planned, and coordinated logistic organization of procedure specifics and evening surgery schedule, supervising eight personnel.  
Performed quality improvement goals and tracking reports to surgery director.

1999-2000 Graham Regional Medical Center Graham, Texas

**ER / ICU / Medical / Surgical Staff Registered Nurse**

Provided care for 26 bed Medical / Surgical inpatient facility; triage, acute treatment, stabilization of ER clientele at 7 bed Level IV Trauma facility.  
Provided critical care needs for postoperative patients including hemodynamics monitoring, ACLS protocols, ventilatory assisted patients, etc.  
Supervised three LVNs and one aide.  
Resolved staffing issues, secured transport / transfer of critical patients, and provided training to subordinates.

**Other Skills**

Extensive computer experience involving database management and graphics applications including: Microsoft Office, Lotus, MS-DOS, WordPerfect 5.1, FoxPro 2.6, Harvard Graphics, Excel, iPath, Surgiserver, Powerpoint, etc. Trained in various research and audit techniques, statistical measures, and technical writing skills.

**Accreditations**

Cardiopulmonary Resuscitation, Advanced Cardiac Life Support, Pediatric Advance Life Support, Advanced Trauma Life Support, and Trauma Nursing Core Curriculum. Additional training in case management (TDMHMR), serious incident investigation techniques (TX DPRS), Prevention and Management of Aggressive Behavior (TDMHMR).

**Licensure**

Licensed Registered Nurse in the state of Texas

**Extracurricular activities**

Phi Sigma Kappa Fraternity: President, Secretary, Chairman of Community Service, Alumni, and Social Committees; Intramural Football, Softball, Soccer, Tennis, Flickerball, Greek Week.

MSU Nursing Program: Program Evaluation Committee student representative 1998  
MSU Nursing Program: Curriculum Committee student representative 1999

Volunteer work for Founder's Lions Club, Cub Scout Pack 122, Habitat for Humanity, Wichita Falls Citizens' Traffic Advisory Committee, and Helen Farabee Mental Health Public Advisory Committee

**Awards received**

Pi Sigma Alpha National Political Science Honor Society  
Sigma Theta Tau International Nursing Honor Society  
Phi Sigma Kappa, Sigma Tetarton Chapter Alumni of the Year 1990  
Arthur E Beyer Scholarship Recipient  
Parrish-Abbott Scholarship Recipient  
W.T. Waggoner Scholarship Recipient  
Texas Association of Operating Room Nurses Scholarship Recipient 1999  
Priddy Foundation Scholarship Recipient  
Texas Nurses Association Scholarship Recipient 1999  
Texas Nurses Association Individual Achievement Award 1999

**References**

Professional and personal references available upon request

**David E. Lees CRNA**

RR1 box 270A  
Marshall, Mo 65340  
660 831 1608  
dleescma@yahoo.com

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**Summary: Curriculum Vitae**

**Experience:** Lees Anesthesia Services PC Marshall, Mo  
**Nurse Anesthetist** May 1998 to Present

- Independent practice of anesthesia.
- Providing permanent and temporary anesthesia coverage.

Marshall Anesthesiology Marshall Mo  
**CRNA Partner** May 1998 to Present

- Provide anesthesia in a department with two other Certified Registered Anesthetists.
- Participate in providing anesthetic techniques of General, Regional and Monitored Anesthesia Care for a monthly case load of 220 procedures.
- Participate in a busy pain clinic providing diagnostic and therapeutic nerve blocks.
- Competent in placing invasive monitors.

Anesthesiology Associates Of Akron INC. Akron Ohio  
**Staff CRNA** July 1988 to May 1998

- Active in cardiothoracic anesthesia cases.
- Large anesthesia care team.
- 12,000 anesthetics per year.
- Level 1 trauma experience.
- Invasive monitoring placement.
- Busy Epidural service for Obstetrics.
- Interests include complicated plastic surgery cases, ENT, and orthopedics.

Mercy Medical Center Springfield Ohio  
**CRNA member Trauma Team** February 1986 to July 1988

- Member of a group of Active duty U.S. Airforce CRNA's that provided after hours coverage for this level II trauma center relating to anesthesia.

United States Air Force Wright-Patterson AFB Ohio  
**Captain, CRNA** October 1984 to August 1988

- Provided anesthesia service of busy military hospital with the

**Additional Training:**

- 2004 Regional Anesthesia workshop University of Iowa.
- 2004 ACLS and BLS Neonatal resuscitation course updated.
- Continuing Education 40 credits every two years.
- 1985 Training for Hyperbaric Medicine Diving Wright-Patterson AFB Ohio.

**Awards:**

- 1984 Received Hilda Salomen Award Best Case Study "Anesthesia for Superior Vena Cava Obstruction Syndrome." Pennsylvania Association Of Nurse Anesthetists.
- 1979 Phi Theta Kappa Honor Fraternity.

**License:**

- 2001 Licensed as a Professional Registered Nurse, State of Illinois.
- 2001 Licensed Advanced Practice Nurse, State of Illinois.
- 1998 Licensed as a Professional Registered Nurse, State Of Missouri.
- 1998 Recognized Registered Professional Nurse eligible to practice as an Advanced Practice Nurse Anesthetist State of Missouri.
- 1996 recognized Professional Registered Nurse Certificate of Authority as a Advanced Practice Nurse Anesthetist State of Ohio.
- 1985 Licensed as a Professional Registered Nurse, State of Ohio.
- 1981 Licensed as a Professional Registered Nurse, in the Commonwealth of Pennsylvania.
- 1984 Certified Nurse Anesthetist by the Council on Certification American Association of Nurse Anesthetists.
- Continually meet requirements to recertify through the Council on Recertification.

**Affiliations:**

American Association of Nurse Anesthetists.

**References:**

Available upon request

following subspecialties, General Surgery, Neurosurgery, Vascular, Orthopedics, Plastic, ENT, and Urology.

- member Hyperbaric Dive Team, inside observer for treatment dives.
- Commissioned Officer US Air Force, Honorable Discharge

McKeesport Hospital  
RN

McKeesport Pa  
July 1981 to September 1982

- Staff Registered Nurse Medical Surgical managed 3-11 nursing needs on Medical, Surgical floor.
- Surgical intensive care experience managing acute and long term surgical patients, also experienced trauma nursing including; ventilators and invasive monitoring.

Decatur Ambulance Service  
EMT-A

Decatur IL  
September 1977 to June 1979

- Responded to trauma and other emergency calls.
- Provided life support and transport before Paramedic services were available.

United States Navy  
HM2, E5

U.S. Naval Air Station Jacksonville FL  
June 1969 to June 1973

- Advancement to Hospital corpsman 2nd class in twenty four months.
- Worked as a ward corpsman in a large Naval Hospital during Viet Nam era caring for wounded active duty men and also a large population of retired military and dependents.
- Held sick call Naval Air Station Dispensary.
- On the job training as xray technician.
- On the job training as pharmacy technician.
- Petty Officer in charge of medical storeroom, ordered and maintained supplies for Naval Dispensary.
- Stood Petty Officer of the Day watch.
- Honorable Discharge.

**Education:**

McKeesport Hospital School of Nurse Anesthesia and McKeesport PA  
California University of Pennsylvania  
**Bachelors of Science Nurse Anesthesia**

St. Margaret's Memorial Hospital  
Diploma Nursing

Pittsburgh, PA

Richland Community College  
Associate of Science

Decatur IL

DAVID PETER RAKEY CRNA  
531 NORTH TYLER  
TRENTON, IL 62293-1073

HOME 618-224-2747  
WORK 618-257-5162

SS# 492-60-0569 DOB 12-11-52  
AANA # 028853 RECERTIFICATION EXPIRES 07-04  
IL APN # 209-001244 EXPIRES 5-04  
IL RN # 041-287433 EXPIRES 5-04

EDUCATION:

BARNES HOSPITAL SCHOOL OF NURSING  
8-71 THRU 9-73 DIPLOMA

BARNES HOSPITAL SCHOOL OF NURSE ANESTHESIA  
10-75 THRU 10-77 DIPLOMA

EXPERIENCE:

JEWISH HOSPITAL OF ST. LOUIS  
216 SOUTH KINGSHIGHWAY  
ST. LOUIS, MO 63110  
STAFF CRNA 10-77 THRU 8-96

BELLEVILLE MEMORIAL HOSPITAL  
4500 MEMORIAL DRIVE  
BELLEVILLE, IL 62222  
PRACTICE GROUP: ANESTHESIA ASSOCIATES OF BELLEVILLE  
STAFF CRNA 9-96 THRU PRESENT

DEPENDENTS:

RUTH LYONS RAKEY DOB 9-16-60 SS# 323-60-6985  
AARON MARK JONDRO DOB 8-21-85 SS# 350-76-4829

HEALTH HISTORY

DAVID P. RAKEY

CURRENT: HYPERTENSION, RX ZESTRIL 10 MG QD

NON-SMOKER

AGE 50 5' 9" 210LB

SURGICAL: 4-93 RADICAL NECK FOR CA OF TONSIL  
POST-OP RADIATION THERAPY X 6 WEEKS

RUTH RAKEY

CURRENT: GOOD HEALTH, NO MEDS

NON-SMOKER

AGE 42 5'9" 153LB

MEDICAL: 3-02 PNEUMONIA, TX WITH ANTIBIOTICS

SURGICAL: 1-00 VAGINAL HYSTERECTOMY  
10-99 BREAST BIOPSY; BENIGN

AARON JONDRO

CURRENT: GOOD HEALTH, NO MEDS

NON-SMOKER

AGE 17 5' 11" 230"

SURGICAL: TONSILECTOMY 8-02

CURRENT FAMILY PHYSICIAN (INTERNIST)

BRAD RINGHOFFER

# 4 PARK PLAZA

SWANSEA, IL

618-277-7500

HEALTH HISTORY

DAVID P. RAKEY

CURRENT: HYPERTENSION, RX ZESTRIL 10 MG QD

NON-SMOKER

AGE 50 5' 9" 210LB

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POST-OP RADIATION THERAPY X 6 WEEKS

RUTH RAKEY

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MEDICAL: 3-02 PNEUMONIA, TX WITH ANTIBIOTICS

SURGICAL: 1-00 VAGINAL HYSTERECTOMY  
10-99 BREAST BIOPSY; BENIGN

AARON JONDRO

CURRENT: GOOD HEALTH, NO MEDS

NON-SMOKER

AGE 17 5' 11" 230"

SURGICAL: TONSILECTOMY 8-02

CURRENT FAMILY PHYSICIAN (INTERNIST)

BRAD RINGHOFFER

# 4 PARK PLAZA

SWANSEA, IL

618-277-7500

### **SECTION XIII. REVIEW CRITERIA RELATING TO CARDIAC CATHETERIZATION (CATH)**

This section is applicable to all projects proposing to establish or modernize a cardiac catheterization category of service or to replace existing cardiac catheterization equipment.

#### **A. Criterion 1110.1330.a, Peer Review**

Read the criterion and submit a detailed explanation of your peer review program.

**APPEND DOCUMENTATION AS ATTACHMENT CATH-1 AFTER THE LAST PAGE OF THIS SECTION.**

#### **B. Criterion 1110.1330.b, Establishment or Expansion of Cardiac Catheterization Service**

Read the criterion and, if applicable, submit the following information:

1. A map (8 1/2" x 11") showing the location of the other hospitals within the planning area.
2. The number of cardiac catheterizations performed for the last 12 months at each of the hospitals shown on the map.
3. Provide the number of patients transferred directly from the applicant's hospital to another facility for cardiac catheterization services in each of the last three years.

**APPEND DOCUMENTATION AS ATTACHMENT CATH-2 AFTER THE LAST PAGE OF THIS SECTION.**

#### **C. Criterion 1110.1330.c, Unnecessary Duplication of Services**

Read the criterion and, if applicable, submit the following information.

1. Copies of the letter sent to all facilities within 90 minutes travel time which currently provide cardiac catheterization. This letter must contain a description of the proposed project and a request that the other facility quantify the impact of the proposal on its program.
2. Copies of the responses received from the facilities to which the letter was sent.

**APPEND DOCUMENTATION AS ATTACHMENT CATH-3 AFTER THE LAST PAGE OF THIS SECTION.**

#### **D. Criterion 1110.1330.d, Modernization of Existing Cardiac Catheterization Laboratories**

Read the criterion and, if applicable, submit the number of cardiac catheterization procedures performed for the latest 12 months.

**APPEND DOCUMENTATION AS ATTACHMENT CATH-4 AFTER THE LAST PAGE OF THIS SECTION.**

#### **E. Criterion 1110.1330.e, Support Services**

Read the criterion and indicate on a service by service basis which of the listed services are available on a 24 hour basis and explain how any services not available on a 24 hour basis will be available when needed.

**APPEND DOCUMENTATION AS ATTACHMENT CATH-5 AFTER THE LAST PAGE OF THIS SECTION.**

**F. Criterion 1110.1330.f, Laboratory Location**

Read the criterion and, if applicable, submit line drawings showing the location of the proposed laboratories. If the laboratories are not in close proximity explain why.

**APPEND DOCUMENTATION AS ATTACHMENT CATH-6 AFTER THE LAST PAGE OF THIS SECTION.**

**G. Criterion 1110.1330.g, Staffing**

Read the criterion and submit a list of names and qualifications of those who will fill the positions detailed in this criterion. Also provide staffing schedules to show the coverage required by this criterion.

**APPEND DOCUMENTATION AS ATTACHMENT CATH-7 AFTER THE LAST PAGE OF THIS SECTION.**

**H. Criterion 1110.1330.h, Continuity of Care**

Read the criterion and submit a copy of the fully executed written referral agreement(s).

**APPEND DOCUMENTATION AS ATTACHMENT CATH-8 AFTER THE LAST PAGE OF THIS SECTION.**

**I. Criterion 1110.1330.i, Multi-institutional Variance**

Read the criterion and, if applicable, submit the following information:

1. A copy of a fully executed affiliation agreement between the two facilities involved.
2. Names and positions of the shared staff at the two facilities.
3. The volume of open heart surgeries performed for the latest 12-month period at the existing operating program.
4. A cost comparison between the proposed project and expansion at the existing operating program.
5. The number of cardiac catheterization procedures performed in the last 12 months at the operating program.
6. The number of catheterization laboratories at the operating program.
7. The projected cardiac catheterization volume at the proposed facility annually for the next 2 years.
8. The basis for the above projection.

**APPEND DOCUMENTATION AS ATTACHMENT CATH-9 AFTER THE LAST PAGE OF THIS SECTION.**

**Criterion 1110.1330.a, Peer Review**

The existing hospital currently provides cardiac catheterization services with an established Peer Review Program which will be continued in the new facility. A copy of the Peer Review Program is appended to this attachment.

**ATTACHMENT CATH-1**

**ST. MARY'S GOOD SAMARITAN, INC.**

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Policy No. \_\_\_\_\_  
Page 1 of 1

**POLICY: Cath Lab Quality Reviews**

**POLICY SUBJECT:** Review of all Cath Lab statistics and adverse treatment events for quality peer review.

**Implemented:** August, 2000

**Departments Involved:** Quality Appraisal Services  
Medical Staff

**Revised:**

**Reviewed:** April, 2007

**Administrative Approval:**  
Michelle Darnell, V.P. Systems Improvement

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**PURPOSE:** To follow a consistent process for the evaluation and monitoring of the quality of practitioner performance, this includes technical quality of care and quality of service. This will be accomplished through identification and timely resolution of peer review cases as part of the performance improvement process.

**POLICY:** Clinical and nonclinical peer review information and data generated by or at the request of the Cardiac Catheterization Lab is used to evaluate and improve the quality of patient care and practitioner performance.

**PROCEDURE:**

1. Based upon criteria established by the Cath Lab and approved by the MSQC, cases are identified for peer review during a quarterly Cath Lab Quality Committee meeting.
2. For those cases meeting the case selection criteria, a summary of the case is composed by the Cath Lab RN.
3. This summary is presented to the Cath Lab Quality Committee by the involved physician.
4. A committee determination of case categorization is made.
5. Statistical information and case review information is forwarded to the Medical Staff Quality Committee which is the oversight committee for the Medical Staff Peer Review Process.

**ST. MARY'S GOOD SAMARITAN, INC.**

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Policy No. \_\_\_\_\_  
Page 1 of 1

**POLICY: Open Heart Program Quality Reviews**

**POLICY SUBJECT:** Review of the Open Heart Program statistics and adverse treatment events for quality peer review.

**Implemented:** March, 2001

**Departments Involved:** Quality Appraisal Services  
Medical Staff

**Revised:** October, 2005

**Reviewed:** April, 2007

**Administrative Approval:**  
Michelle Darnell, V.P. Systems Improvement

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**PURPOSE:** To follow a consistent process for the evaluation and monitoring of the quality of practitioner performance, this includes technical quality of care and quality of service. This will be accomplished through identification and timely resolution of peer review cases as part of the performance improvement process.

**POLICY:** Clinical and nonclinical peer review information and data generated by or at the request of the Cardiac Catheterization Lab is used to evaluate and improve the quality of patient care and practitioner performance.

**PROCEDURE:**

1. Based upon criteria established by the Open Heart Program Team, cases are identified for peer review during a quarterly Open Heart Quality Committee meeting.
2. For those cases meeting the case selection criteria, a summary of the case is composed by the Cardiovascular Thoracic Surgery Office.
3. This summary is presented to the Open Heart Quality Committee by the involved physician. A committee determination of case categorization is made.
4. In addition to the Cardiology and Cardiothoracic physician members, the committee includes a representative from Washington University Hospital in St. Louis, Missouri.
5. Statistical information and case review information is forwarded to the Medical Staff Quality Committee which is the oversight committee for the Medical Staff Peer Review Process.

***St. Mary's Good Samaritan, Inc***  
***National Quality Data Base Membership***

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■ Good Samaritan's Cardiac Cath Lab is a reporting member of the American College of Cardiology Quality Data Base.

■ Good Samaritan Regional Health Center's Open Heart Program is a reporting member of the STS Open Heart Surgery Quality Data Base.

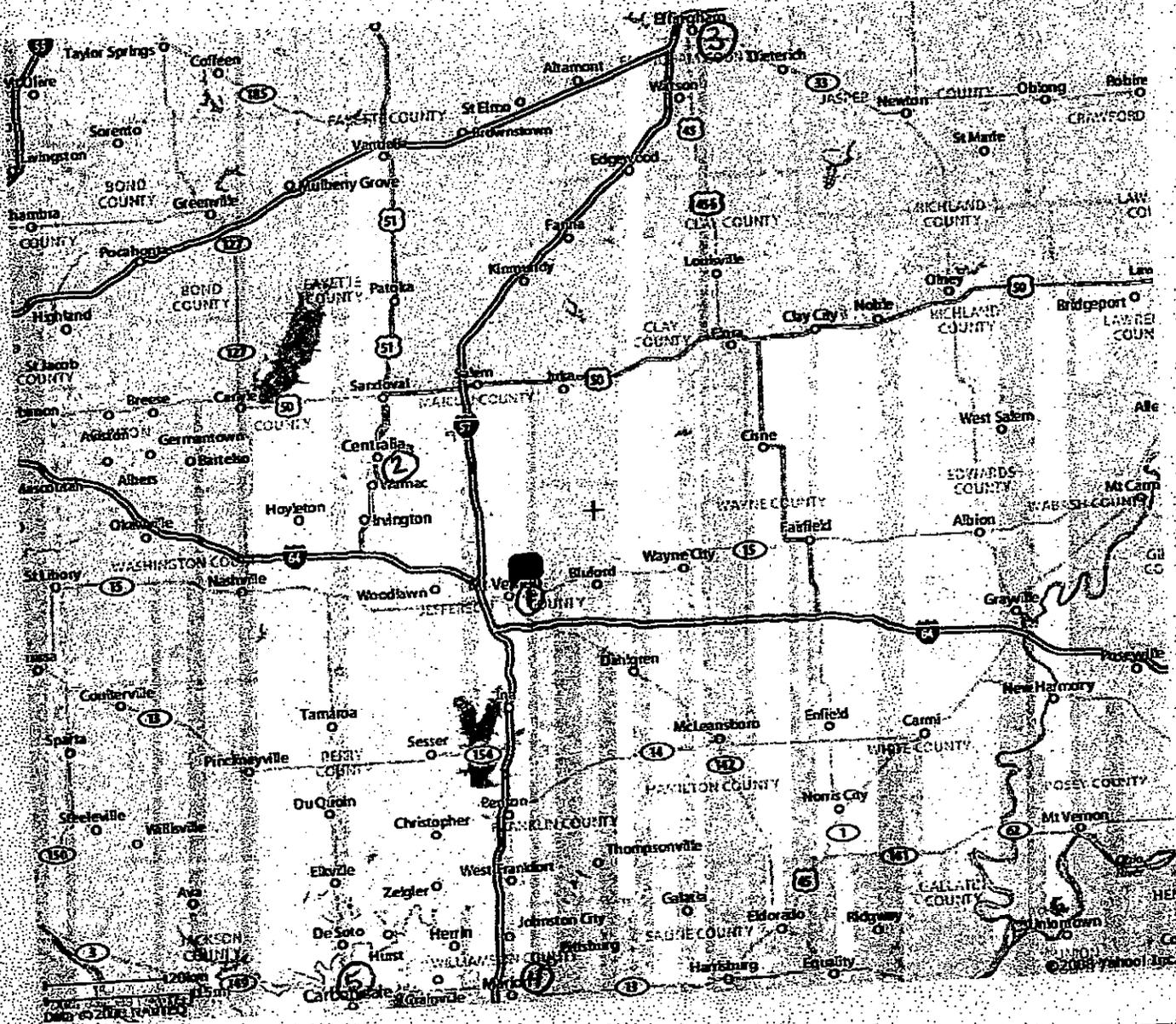
**Criterion 1110.1330.b, Establishment or Expansion of Cardiac Catheterization Service**

This project is technically for the establishment of a new category of service because the project is for the construction of a new health care facility. However, as was stated earlier in the application the project is actually for the replacement of an existing hospital which has operated a busy cardiac catheterization program for several years. The facility's 2007 volume total 1,087 cardiac catheterizations which is well in excess of the 400 procedure level established by the Board. In order to justify the two laboratories proposed for this project the applicant's workload would need to be 800 procedures. The 2007 volume nearly doubles that volume.

Since this is an existing program which is being replaced at a location within the same community the project will not have a negative impact on any of the existing programs. St. Mary's Hospital in Centralia is a related program which refers many of its interventional procedures to the applicant facility due to the availability of Open Heart Surgery back-up.

St. Anthony's hospital is located more than an hour away from the proposed facility and has not opened a program which was approved more than 5 years ago. It does not appear to be reasonable to hold another facility accountable for this long period of inactivity.

The applicant's historical utilization clearly indicates the ability to meet the Board's target utilization rates from the time the facility is opened.



	Facility	Distance (miles)	Travel Time (Minutes)	Volume
1.	Applicant	N/A	N/A	1,087(2007)
2.	St. Mary's Centralia	24.95	31	
3.	St. Anthony's Hospital Effingham	68.28	69	0*
4.	Heartland Regional Medical Center - Marion	45.71	48	1,073 (2006)
5.	Memorial Hospital Carbondale	57.07	63	2,898 (2006)

\* Permit to establish Cardiac Cath approved in 2002 program never started.

**Criterion 1110.1330.c, Unnecessary Duplication of Services**

The applicant has sent letters to all of the facilities in the planning area who are approved to offer cardiac catheterization services. A copy of the letter and a list of the facility's to which it was sent is appended to this application. Memorial Hospital of Carbondale responded that they do not anticipate any substantial impact from the relocation of the hospital on their facility workload..

None of the existing facilities which are currently operating cardiac catheterization programs have volumes below 200 procedures and because the applicant currently provides cardiac catheterization services and the new facility is being constructed in the same community, the proposed project will not have a negative impact on any other program in the planning area. The referral patterns are expected to remain the same as they were with the existing site.

December 7, 2007

# St. Mary's Good Samaritan

Incorporated

Cosponsored by Felician Services, Inc.  
and SSM Health Care

Mr. George Maroney  
Senior Vice President and Administrator  
Memorial Hospital of Carbondale  
405 West Jackson Street  
Carbondale, IL 62901



RE: Good Samaritan Regional Health Center  
Cardiac Catheterization Service

Dear Mr. Maroney:

Good Samaritan Regional Health Center is planning to relocate from its current site at 605 North 12<sup>th</sup> Street in Mount Vernon, Illinois to Veterans Memorial Drive and South 42<sup>nd</sup> Street in Mount Vernon, Illinois. Good Samaritan Regional Health Center provides cardiac catheterization services at the existing location, and intends to continue to provide cardiac catheterization services at the proposed relocated hospital.

This project involves relocation of an existing health care facility to a new site. Therefore, the Illinois Health Facilities Planning Board requires that we notify existing providers of the proposed program in order to determine any anticipated impact. Please advise Good Samaritan Regional Health Center if you believe this relocation of cardiac catheterization services will have any impact on your facility. You may direct any correspondence pertaining to this to:

Michael Warren  
Vice President, Clinical Development  
Good Samaritan Regional Health Center  
605 North 12<sup>th</sup> Street  
Mount Vernon, IL 62864

Thank you for your attention to this matter.

Sincerely,

Gerald W. Lefert  
President and Chief Executive Officer  
St. Mary's Good Samaritan, Inc.

605 North 12th Street  
Mt. Vernon, IL 62864  
618.242.4600

[www.smgsi.com](http://www.smgsi.com)

**SENDER: COMPLETE THIS SECTION**

- Complete items 1, 2, and 3. Also complete item 4 if Restricted Delivery is desired.
- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mailpiece, on the front if space permits.

1. Article Addressed to:

GEORGE MARONEY  
SENIOR VICE PRESIDENT AND  
ADMINISTRATOR  
MEMORIAL HOSPITAL OF CARBONDALE  
405 WEST JACKSON STREET  
CARBONDALE IL 62901

2. Article Number

(Transfer from service label)

7002 2410 0002 8364 4599

PS Form 3811, February 2004

Domestic Return Receipt

102585-02-M-1540

**COMPLETE THIS SECTION ON DELIVERY**

A. Signature  Agent  Addressee  
*George Maroney*

B. Received by (Printed Name) C. Date of Delivery  
*George Maroney 12/20/07*

D. Is delivery address different from item 1?  Yes  
 If YES, enter delivery address below:  No  
*P.O. BOX 10,000  
 CARBONDALE IL 62902*

3. Service Type  
 Certified Mail  Express Mail  
 Registered  Return Receipt for Merchandise  
 Insured Mail  C.O.D.

4. Restricted Delivery? (Extra Fee)  Yes

**SENDER: COMPLETE THIS SECTION**

- Complete items 1, 2, and 3. Also complete item 4 if Restricted Delivery is desired.
- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mailpiece, or on the front if space permits.

1. Article Addressed to:

BRUCE MERRELL  
PRESIDENT  
ST. MARY'S HOSPITAL  
400 NORTH PLEASANT  
CENTRALIA IL 62801

2. Article Number

(Transfer from service label)

7002 2410 0002 8364 4612

PS Form 3811, February 2004

Domestic Return Receipt

102585-02-M-1540

**COMPLETE THIS SECTION ON DELIVERY**

A. Signature  Agent  Addressee  
*Bruce Merrell*

B. Received by (Printed Name) C. Date of Delivery  
*Bruce Merrell 12-20*

D. Is delivery address different from item 1?  Yes  
 If YES, enter delivery address below:  No

3. Service Type  
 Certified Mail  Express Mail  
 Registered  Return Receipt for Merchandise  
 Insured Mail  C.O.D.

4. Restricted Delivery? (Extra Fee)  Yes

**SENDER: COMPLETE THIS SECTION**

- Complete items 1, 2, and 3. Also complete item 4 if Restricted Delivery is desired.
- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mailpiece, or on the front if space permits.

1. Article Addressed to:

DANIEL J. WOODS  
EXECUTIVE VICE PRESIDENT AND  
ADMINISTRATOR  
ST. ANTHONY'S MEMORIAL HOSPITAL  
503 NORTH MAPLE STREET  
EFFINGHAM IL 62401

2. Article Number

(Transfer from service label)

7002 2410 0002 8364 4605

340

**COMPLETE THIS SECTION ON DELIVERY**

A. Signature  Agent  Addressee  
*Daniel J. Woods*

B. Received by (Printed Name) C. Date of Delivery  
*Daniel J. Woods 12-20-07*

D. Is delivery address different from item 1?  Yes  
 If YES, enter delivery address below:  No

3. Service Type  
 Certified Mail  Express Mail  
 Registered  Return Receipt for Merchandise  
 Insured Mail  C.O.D.

4. Restricted Delivery? (Extra Fee)  Yes

PS Form 3811, February 2004

Domestic Return Receipt

102585-02-M-1540

2. Article Number

(Transfer from service label)

7002 2410 0002 8364 4582

TIMOTHY E. SCHMIDT  
CHIEF EXECUTIVE OFFICER  
HEARTLAND REGIONAL MEDICAL  
CENTER  
333 WEST DEYOUNG  
MARION IL 62959

1. Article Addressed to:

- Complete items 1, 2, and 3. Also complete item 4 if Restricted Delivery is desired.
- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mailpiece, or on the front if space permits.

3. Service Type  
 Certified Mail  Express Mail  
 Registered  Return Receipt for Merchandise  
 Insured Mail  C.O.D.

4. Restricted Delivery? (Extra Fee)  Yes

B. Received by (Printed Name) C. Date of Delivery  
*Steve Draheim 12-20*

D. Is delivery address different from item 1?  Yes  
 If YES, enter delivery address below:  No



**MEMORIAL HOSPITAL  
OF CARBONDALE**

January 15, 2008

**VIA FEDERAL EXPRESS**

Michael Warren  
Vice President, Clinical Development  
Good Samaritan Regional Health Center  
605 North 12<sup>th</sup> Street  
Mount Vernon, Illinois 62864

Re: Good Samaritan Regional Health Center  
Open Heart Surgery Service  
Cardiac Catheterization Service

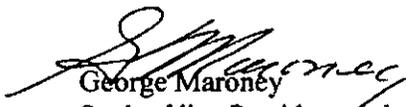
Dear Mr. Warren:

We are in receipt of your letter wherein you describe how Good Samaritan Regional Health Center is planning to relocate from its current site at 605 North 12<sup>th</sup> Street in Mt. Vernon, Illinois to Veterans Memorial Drive and South 42<sup>nd</sup> Street, also in Mount Vernon. We understand that Good Samaritan Regional Health Center provides open heart surgical services as well as cardiac catheterization services at the existing location and that you intend to continue to provide these services at the proposed relocated hospital.

We do not anticipate any dramatic or substantial impact from this relocation on Memorial Hospital of Carbondale. Therefore, so long as Good Samaritan Regional Health Center meets the state's minimum utilization criteria for open heart surgery and cardiac catheterization services, we would be supportive of the proposed relocation and re-initiation of services at the new location.

If you have any questions regarding this letter, please do not hesitate to contact me.

Sincerely,

  
George Maroney  
Senior Vice President and Administrator  
Memorial Hospital of Carbondale

C: Jeffrey Mark, Executive Secretary, Illinois Health Facilities Planning Board

db

405 West Jackson Street | PO Box 10000  
Carbondale, IL 62902-9000

TEL 618-549-0721  
FAX 618-529-0449

[www.sih.net](http://www.sih.net)

**Criterion 1110.1330.d, Modernization of Existing Cardiac Catheterization Laboratories**

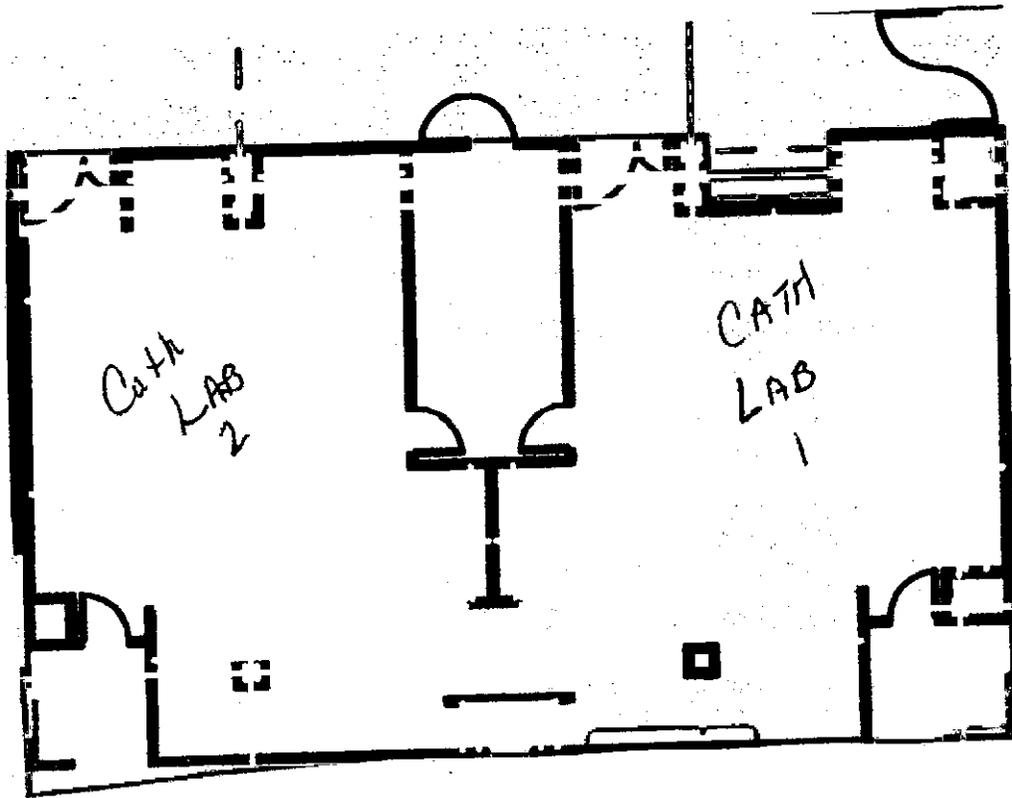
Technically this criterion is not applicable to this project since the proposed project is for the establishment of a new facility rather than a modernization. However if the Board determines that this criterion is applicable the applicant's historical workload of 1,087 procedures in 2007 meets all of the Board's standards for appropriate utilization for 2 laboratories.

**Criterion 1110.1330.e, Support Services**

All of the support services listed are currently available in the existing facility and will continue to be available when the new facility opens.

**Criterion 1110.1330.f, Laboratory Location**

The proposed project calls for two catheterization laboratories to be located adjacent to one another on the first floor of the new replacement hospital. This location will make it easier for the outpatients to access the laboratories as well as allow for the most efficient use of staff. Having the two laboratories adjacent to one another allows for easy access to supplies and it eliminates unnecessary duplication of space and supplies.



**Criterion 1110.1330.g, Staffing**

The existing facility currently provides cardiac catheterization and will continue to provide the same level of service at the new replacement facility. The staff in place now will simply move to the new facility when it opens. The staff names and their qualifications are shown in the documents appended to this attachment.

**ATTACHMENT CATH-7**

**BRIAN C. JONES, M.D.**

Cardiovascular Specialists of Illinois, Ltd.  
605 North 12<sup>th</sup> Street  
Mount Vernon, Illinois 62864  
(618) 241-1350

**PROFESSIONAL EXPERIENCE**

- GOOD SAMARITAN REGIONAL HEALTH CENTER** MOUNT VERNON, ILLINOIS  
Active Staff, November 2000 to present, interventional cardiologist  
Cardiac catheterization, Angioplasty, Rest and Stress Echocardiography,  
Permanent Pacemakers
- MERCY HOSPITAL OF PITTSBURGH** PITTSBURGH, PENNSYLVANIA  
Active Staff, March 1992 to October 2000, interventional cardiologist  
Cardiac catheterization, Angioplasty (including balloon angioplasty, direc-  
tional atherectomy, rotational atherectomy, extraction atherectomy, stenting),  
Rest and Stress Echocardiography  
Founding Member, Mercy Heart Institute  
Member, Quality Oversight Committee, Mercy Heart Institute, 1993 to October 2000  
Member, Catheterization Laboratory Quality Oversight Committee, 1998 to October 2000
- OHIO VALLEY GENERAL HOSPITAL** MCKEES ROCKS, PENNSYLVANIA  
Active Staff, March 1992 to October 2000, consulting cardiologist  
Permanent pacemakers, Echocardiography  
Chairman, Pharmacy and Therapeutics Committee, 1999 to October 2000
- BETHESDA HOSPITAL** ZANESVILLE, OHIO  
Active Staff, August 1986 to March 1992, invasive cardiologist  
Director, Cardiac Catheterization Services, 1986 to 1991  
Cardiac catheterization, Permanent pacemakers, Rest and Stress Echo-  
cardiography  
Chairman, Emergency Department and Special Care Committee, 1990 to 1991
- GOOD SAMARITAN MEDICAL CENTER** ZANESVILLE, OHIO  
Active Staff, August 1986 to March 1992, consulting cardiologist  
Permanent pacemakers, Rest and Stress Echocardiography

**PROFESSIONAL TRAINING**

- DIVISION OF CARDIOLOGY**  
**UNIVERSITY OF FLORIDA** GAINESVILLE, FLORIDA  
Clinical and American Heart Association Research Fellow, July 1985 to June 1986  
Clinical Fellow, July 1983 to June 1985
- MEDICAL UNIVERSITY OF SOUTH CAROLINA** CHARLESTON, SOUTH CAROLINA  
Resident in Internal Medicine, July 1981 to June 1983  
Intern in Medicine, July 1980 to June 1981

## EDUCATION

UNIVERSITY OF NORTH CAROLINA  
AT CHAPEL HILL

CHAPEL HILL, NORTH CAROLINA

Doctor of Medicine, May 11, 1980  
Bachelor of Science in Medicine, May 15, 1977

THEODORE ROOSEVELT HIGH SCHOOL  
Diploma, June 2, 1974

KENT, OHIO

## RESEARCH

SCIMED LIFE SYSTEMS  
Co-Investigator, RADIUS Stent, 1996 to 1997

PITTSBURGH, PENNSYLVANIA

TELECTRONICS PACING SYSTEMS  
Investigator, META Pacemaker, 1988

ZANESVILLE, OHIO

AMERICAN HEART ASSOCIATION  
Clinician Scientist, Echocardiographic Quantitation of Coronary Perfusion, 1985 to 1986

GAINESVILLE, FLORIDA

MCNEIL PHARMACEUTICAL  
Junior Investigator, Bepridil, 1984-1986

GAINESVILLE, FLORIDA

## PUBLICATIONS

Geiser, Connetta, Limacher, Stockton, Oliver, and Jones, "A Second-generation Computer-based Edge Detection Algorithm for Short-axis, Two-dimensional Echocardiographic Images: Accuracy and Improvement in Interobserver Variability," *J Amer Society of Echocardiography* 3:79-90, Mar-Apr, 1990.

## BOARD CERTIFICATIONS

AMERICAN BOARD OF INTERNAL MEDICINE  
Diplomate in Cardiovascular Disease, November 20, 1985  
Diplomate in Internal Medicine, September 14, 1983

## MEDICAL LICENSURE

State of Illinois, October 10, 2000  
Commonwealth of Pennsylvania, February 24, 1992  
State of Ohio, August 14, 1986  
State of Florida, July 6, 1983  
State of South Carolina, July 20, 1981

## PROFESSIONAL ASSOCIATIONS

American College of Cardiology, Fellow  
Society for Cardiac Angiography and Interventions, Fellow

**AMR EL-SHAFEI, M.D.**  
400 South 14<sup>th</sup> Street, Suite 1011  
St. Louis, Missouri 63103

**Education:**

9/1985 – 12/1991	Medical School Cairo University Hospital Cairo, Egypt
1/92 – 2/92	Break
3/92 – 2/93	Internship Cairo University Hospitals Cairo, Egypt
3/93 – 2/96	Cardiology Residency Cairo University Hospitals Cairo, Egypt
3/96 – 6/96	Assistant Lecturer Cardiology Department Cairo University Hospitals Cairo, Egypt
7/96 – 6/99	Internal Medicine Residency St. Louis University St. Louis, MO
7/99 – 6/02	Cardiology Fellowship St. Louis University St. Louis, MO
7/02 – 12/02	Cardiac Imaging Fellowship / Cardiac MRI St. Louis University / Washington University St. Louis, MO

**Honors:**

- Medical School: Graduated with “Excellent with Honors” December 1991
- Appreciation Certificate from The Egyptian Medical Syndicate for obtaining Master Degree (M.Sc.) in Cardiovascular Medicine with “Excellent” grade, November 1995
- The abstract titled “D-lactate Encephalopathy” won first prize in the ACP – Missouri Chapter among the abstracts sent from St. Louis University

- Kinsella award 1999 / 2000: the best graduating resident from the Department of Medicine at St. Louis University Hospital
- "Fellow of the Year" from the division of Cardiology, St. Louis University Hospital for the year 2000
- Selected as the "Chief of Cardiology Fellow" for the year 2000-2001

1996 – 1997 Internship  
St. Louis University Hospital  
St. Louis, MO

1993 – 1996 Cardiology Fellowship  
Cairo University Hospitals  
Cairo, Egypt

1992 – 1993 Internship  
Cairo University Hospitals  
Cairo, Egypt

7/1997 –8/1/1997 Electrophysiology  
Cleveland Clinic Foundation  
Cleveland, OH

1985 – 1991 Medical School  
Cairo University Hospitals  
Cairo, Egypt

**Licensure and Certification:**

State of Missouri medical license  
American Board of Internal Medicine with a sub-specialty in Cardiovascular Disease.

**Memberships**

Egyptian Medical Syndicate  
Egyptian Hypertension League  
Egyptian Society of Cardiology  
American College of Physicians  
American Medical Association  
American College of Cardiology

**Naeem A. Khan, M.D., S.C., F.A.C.C., F.A.C.P., F.A.C.I.P., F.C.C.P.**

*Diplomate American Board of Cardiovascular Disease  
Diplomate American Board of Internal Medicine  
Fellow Council of Clinical Cardiology American Heart Association*

618-532-8575  
618-532-8574

1050 N. King Jr. Dr. - Suite 108  
Centralia, Illinois 62801

TEACHING AND ACCOMPLISHMENTS:

1. Clinical Instructor in Medicine, Barnes Jewish Hospital, Washington University Medical School.
2. Society of Anesthesiology of Southern Illinois.
3. Professional Education of Staff Physicians at St. Mary's Hospital, through lectures, discussions and consultations. Over 200 Cardiology consultations per year.
4. Education and teaching of surrounding physicians and technicians in M-Mode and 2-D and Doppler color flow echocardiography (color dopper flow since 1988). M-Mode 2-dimensional since 1982. Exercise stress echocardiography since 1986. Persantine Thallium studies since 1986. Dobutamine and pharmacological stress echocardiograms since 1990. Transesophageal echo since 1987, all vascular duplex doppler, carotid, peripheral vascular and transcranial dopplers since 1995.
5. Lectures arranged through American Heart Association for public education to groups such as Stroke Club, etc.
6. Lectures to American Association of Retired Persons, when needed.
7. Lectures to local community Lions Club, Ladies Club, Shriners Club as needed.
8. Electrocardiography and Cardiovascular topics to local nurses at St. Mary's Hospital since 1982.
9. Technicians in cardiovascular services, vascular sonographers, echocardiogram sonographers, monitor technician nurses for holter, electrocardiogram and stress.
10. Introduced Stress Thallium and Persantine Thallium Nuclear Cardiology Studies, stress and pharmacological nuclear cardiology studies at St. Mary's Hospital since 1982.
11. Introduced Stress echocardiography 1986, and Dobutamine Echocardiogram as well as interpreting these tests for surrounding hospitals and helping the community since 1986.
12. Introduced venous and arterial duplex doppler ultrasonography to the area as well as interpreting these tests for surrounding hospitals again helping the community since 1985.

Naeem A. Khan, M.D., S.C., F.A.C.C., F.A.C.P., F.A.C.I.P., F.C.C.P.

*Diplomate American Board of Cardiovascular Disease*

*Diplomate American Board of Internal Medicine*

*Fellow Council of Clinical Cardiology American Heart Association*

105 King Jr. Dr. - Suite 108  
Centralia, Illinois 62801

618-532-8575  
618-532-8574

PROFESSIONAL ORGANIZATIONS, MEMBERSHIPS AND FELLOWSHIPS:

FELLOW AMERICAN COLLEGE OF PHYSICIANS, 1998

FELLOW AMERICAN COLLEGE OF CARDIOLOGY, 1990

FELLOW AMERICAN COLLEGE OF INTERNATIONAL PHYSICIANS, 1987

FELLOW COUNCIL OF CLINICAL CARDIOLOGY, AMERICAN HEART ASSOC., 1990

FELLOW AMERICAN COLLEGE OF CHEST PHYSICIANS, 1991

FELLOW COUNCIL OF GERIATRIC CARDIOLOGY (AMERICAN COLLEGE OF CARDIOLOGY), 1992

FELLOW SOCIETY OF CARDIAC ANGIOGRAPHY AND INTERVENTIONS

MEMBER AMERICAN SOCIETY OF ECHOCARDIOGRAPHY

MEMBER, AMERICAN MEDICAL ASSOCIATION

MEMBER, AMERICAN GERIATRIC SOCIETY

MEMBER, SOCIETY OF NUCLEAR CARDIOLOGY

MEMBER, PAKISTAN MEDICAL COUNCIL

MEMBER, AMERICAN MEDICAL ASSOCIATION

MEMBER, AMERICAN COLLEGE OF CARDIOLOGY, ILLINOIS CHAPTER

MEMBER MARION COUNTY MEDICAL SOCIETY, 1982 TO PRESENT

PRESIDENT MARION COUNTY MEDICAL SOCIETY, 1996-1997

MEMBER, PAKISTAN DOCTOR ASSOCIATION OF USA

**Naeem A. Khan, M.D., S.C., F.A.C.C., F.A.C.P., F.A.C.I.P., F.C.C.P.**

*Diplomate American Board of Cardiovascular Disease*

*Diplomate American Board of Internal Medicine*

*Fellow Council of Clinical Cardiology American Heart Association*

1050 ML King Jr. Dr. - Suite 108  
Centralia, Illinois 62801

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618-532-8574

**CV FOR NUCLEAR CARDIOLOGY**

1. COURSES-MARCH/APRIL 1982, ADVANCES IN NUCLEAR CARDIOLOGY, 4 DAY COURSE APPROXIMATELY 30 HOURS IN 1982 UNDER DIRECTION OF DR. BARRY VARRETT, YALE UNIVERSITY, NEW HAVEN, CONNECTICUT.
2. NUCLEAR CARDIOLOGY UPDATES AND COURSES AT THE AMERICAN COLLEGE OF CARDIOLOGY INCLUDING ATTENDING LECTURES ON RESEARCH, 1984-86-87-88-90-91-92-93-94-95-96-97 AND 98.
3. CONTEMPORARY NUCLEAR CARDIOLOGY 19 CREDIT HOURS OCTOBER 7 TO OCTOBER 9, 1996 AT THE HEART HOUSE LEARNING CENTER, AMERICAN COLLEGE OF CARDIOLOGY, BETHESDA, MARYLAND. PROGRAM #745. (UNDER DIRECTION OF DR. GERALD POHOST, DIRECTOR OF CARDIOLOGY, UNIVERSITY OF ALABAMA).
4. STATE OF THE ART REVIEW, CASE STUDIES. PRACTICAL CONCENTRATION. DIRECTOR OF THE PROGRAM, GERALD POHOST, M.D., DANIEL S. BERMAN, M.D., F.A.C.C., DIRECTOR OF NUCLEAR CARDIOLOGY, NIH, BETHESDA, MARYLAND.
5. 1966, ANAHEIM, CALIFORNIA, MARCH OF 1966, 8 HOURS, ADVANCES IN NUCLEAR CARDIOLOGY.
6. 1995, ACC CONVENTION, 3 HOURS UPDATING NUCLEAR CARDIOLOGY.
7. 1997, ATTENDED LECTURES IN NUCLEAR CARDIOLOGY AND RESEARCH PAPERS PRESENTED AT ANNUAL CONVENTION, AMERICAN COLLEGE OF CARDIOLOGY, NEW ORLEANS.
8. 1998, ATTENDED LECTURES ON RESEARCH NUCLEAR CARDIOLOGY, ATTENDED LECTURES IN NUCLEAR CARDIOLOGY, 1998 AT ATLANTA, AMERICAN COLLEGE OF CARDIOLOGY CONVENTION, APRIL, 1998.
9. 1998, ASSOCIATES IN MEDICAL PHYSICS, LLC, NUCLEAR LICENSING COURSE FOR PHYSICIANS, 200 HOURS, CLEVELAND, OHIO.
10. 1998 "THIRD ASNC TUTORIAL IN NUCLEAR CARDIOLOGY", NEW ORLEANS, LA, SEPTEMBER 11-13-16 HOURS.
11. 1 WEEK CLINICAL FELLOWSHIP IN NUCLEAR CARDIOLOGY WITH DR. BARRY SIEGEL, WASHINGTON UNIVERSITY, ST. LOUIS, MO, NOVEMBER 2 - NOVEMBER 6, 1998. EXTENSIVE EXPOSURE TO NUCLEAR CARDIOLOGY CASES, DISCUSSION, INCLUDING MUGGA STUDIES, PLANAR AND SPECT-PHARMACOLOGICAL STRESS STUDIES. REVIEW OF TEACHING FILES, AND CORRELATION OF ANGIOGRAPHIC STUDIES OF NUCLEAR CARDIOLOGY.

**Naeem A. Khan, M.D., S.C., F.A.C.C., F.A.C.P., F.A.C.I.P., F.C.C.P.**

*Diplomate American Board of Cardiovascular Disease*  
*Diplomate American Board of Internal Medicine*  
*Fellow Council of Clinical Cardiology American Heart Association*

1056 ML King Jr. Dr. - Suite 108  
Centralia, Illinois 62801

618-532-8575  
618-532-8574

CV FOR NUCLEAR CARDIOLOGY

1. NUCLEAR CARDIOLOGY AT THE POST GRADUATE CARDIOVASCULAR INSTITUTE, PESHAWAR, PAKISTAN UNDER THE GUIDANCE OF DR. AZIZ-MUFTI, M.D., F.A.C.C. WHO IS A BOARD CERTIFIED CARDIOLOGIST, ASSISTANT PROFESSOR AT THE SAME INSTITUTION AT KHYBAR MEDICAL COLLEGE AND ALSO HAS DONE 1 YEAR OF NUCLEAR CARDIOLOGY FELLOWSHIP AT THE UNIVERSITY OF ALABAMA.
2. REVIEWED CASES, SPECT AND PLANAR THALLIUM STUDIES.
3. IN CARDIOLOGY FELLOWSHIP, 1980-1982, PERFORMED AND INTERPRETED OVER 200 NUCLEAR CARDIOLOGY CASES UNDER THE CARE OF DIRECTOR OF NUCLEAR CARDIOLOGY RESEARCH AND CLINICAL PROGRAM, PROFESSOR BUNYAD HAIDAR DURING A COURSE OF 18 MONTHS IN NON-INVASIVE CARDIOLOGY. APPROXIMATELY 4 MONTHS WAS SPENT IN NUCLEAR CARDIOLOGY BOTH IN RESEARCH, PERFORMING INTERPRETATIONS AND PERFORMANCE OF TEH TESTS OVER A PERIOD OF 2 YEARS, 1980 TO 1982, APPROXIMATELY 500 HOURS IN NUCLEAR CARDIOLOGY.

**Naeem A. Khan, M.D., S.C., F.A.C.C., F.A.C.P., F.A.C.I.P., F.C.C.P.**

*Diplomate American Board of Cardiovascular Disease*

*Diplomate American Board of Internal Medicine*

*Fellow Council of Clinical Cardiology American Heart Association*

1050 East McCord - Suite 108  
Centralia, Illinois 62801

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CURRICULUM VITAE

(PAGE FOUR)

Teaching Appointments:

Clinical Instructor in Medicine at Jewish Hospital, Washington University School of Medicine, St. Louis, Missouri, 1990-present.

Instructor and lecturer to hospital staff physician members.

Association of Anesthesia, Southern Illinois Nursing Staff in local community hospital.

Associate Professor of Cardiology, Southern Illinois University 1998.

**Naeem A. Khan, M.D., S.C., F.A.C.C., F.A.C.P., F.A.C.I.P., F.C.C.P.**

*Diplomate American Board of Cardiovascular Disease*

*Diplomate American Board of Internal Medicine*

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Centralia, Illinois 62801

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618-532-8574

CURRICULUM VITAE

(PAGE THREE)

Hospital Committees:

Member Credential Committee, St. Mary's Hospital 1983 til present. Also served  
As Member of Quality Assurance Utilization Review, Credential and Critical Care  
And Pharmacy Committee.

General Secretary St. Mary's Hospital Medical Staff 1990-1991

Member Executive Committee St. Mary's Hospital 1987-1991

Organizations, Memberships and Fellows:

Fellow American College of Physicians, 1988

Fellow American College of International Physicians, 1987

Fellow American College of Cardiology, 1990

Fellow American College of Chest Physicians, 1991

Fellow Council of Geriatric Cardiology (American College of Cardiology), 1992

Member, American Society of Echocardiography

Member, American Medical Association and Marion County Medical Society

Member, American Geriatric Society

Member, Pakistan Medical Council

Member, American Society of Nuclear Cardiology, 1998

Fellow Society Cardiac Angiography and Intervention, 1998

Fellow American College of Angiology, 1999

**Naeem A. Khan, M.D., S.C., F.A.C.C., F.A.C.P., F.A.C.I.P., F.C.C.P.**

*Diplomate American Board of Cardiovascular Disease  
Diplomate American Board of Internal Medicine  
Fellow Council of Clinical Cardiology American Heart Association*

618-532-8575  
618-532-8574

1050 East McCord - Suite 108  
Centralia, Illinois 62801

CURRICULUM VITAE

(PAGE TWO)

Flex examination (1977)

Medical Residence – PG I, PG, II and PG III at Worcester, Massachusetts – Affiliated with University of Massachusetts Medical School, Worcester, Massachusetts (June 1977-June 1980)

Passed Board Internal Medicine – Diplomate American Board of Internal Medicine 1980

Cardiology Fellowship at University Hospital University of Medicine and Dentistry

of

New Jersey at Newark, New Jersey (June 1980-June 1982)

Chief of Subspecialty Fellows (1981-1982) University Hospital – University Hospital – University of New Jersey Subspecialty Fellowship Program

Passed boards in Cardiovascular Medicine ABIM November, 1989.  
Diplomate American Board of Cardiovascular Diseases

Post Training Appointments:

Presently in private practice with admitting and consulting privileges at:

- 1) St. Mary's Hospital, Centralia, IL, 1982-present
- 2) Consulting privileges at Salem Hospital, Salem, IL, 1982-present
- 3) Clinical Instructor in medicine at Jewish Hospital, Washington University, 1990-present
- 4) Chief of Internal Medicine 1988-1989 at St. Mary's Hospital, Centralia, IL

Special Committees:

Appointed Special Commission of Governor Thompson "Governor Commission For Insurance of the Elderly" 1988-89 (one of 5 physician members appointed in the State of Illinois)

**Naeem A. Khan, M.D., S.C., F.A.C.C., F.A.C.P., F.A.C.I.P., F.C.C.P.**

*Diplomate American Board of Cardiovascular Disease*  
*Diplomate American Board of Internal Medicine*  
*Fellow Council of Clinical Cardiology American Heart Association*

1050 East McCord - Suite 108  
Centralia, Illinois 62801

618-532-8575  
618-532-8574

CURRICULUM VITAE

PREMEDICAL:

Edwards College-Peshawar, Pakistan-High 1<sup>st</sup> Division, graduated 1968

MEDICAL COLLEGE:

Khyber Medical College-Pashawar, Pakistan (1968-1973)

Honors- Second position in final year of Medical College among approximately 150 students

Board Certification - American Board of Internal Medicine  
American Board of Cardiovascular Diseases

HONORS OBTAINED:

1. Second position among 150 students in final year Medical College
2. Chief of University Subspecialty Fellows 1982 at University Hospital, University of Medicine and Dentistry of New Jersey at Newark, New Jersey

House Job:

Six months in surgery and six months in medicine-Lady Reading Hospital-Peshawar, Pakistan  
(December 1973-November 1974)

In charge of medical ward and outpatient services- Shahnaz-Pahlavi Hospital, Bidjar, Iran  
(January 1975-November 1976)

Post Graduate Training in USA:

Passed ECFMG-Education Commission for Foreign Medical Graduates (January-1976)

Rotating Surgical Internship at Roger William Hospital, Providence, Rhode Island, Affiliated to  
Brown Medical College (June 1976-June 1977)

- 3) *Fellow Society for Cardiac Angiography and Interventions*
- 4) *Fellow Council on Clinical Cardiology*
- 5) *Fellow Society on Geriatric Cardiology*
- 6) *Member American College of Physicians*
- 7) *Member Southern Medical Association*
- 8) *Member Jefferson County Medical Society, Jefferson County, IL*

CME PROGRAMS GIVEN:

- 1) *"EKG: Designs and Patterns". July 21, 1999. Good Samaritan Regional Health Center, Mt. Vernon, Illinois.*
- 2) *"Upbeat in Cardiology". March 25, 1999. Given at Medical Staff meeting of Crossroads Community Hospital, Mt. Vernon, Illinois.*
- 3) *"CHF, what should we do? What can we do?". Symposium for primary care physicians at Holiday Inn, Mt. Vernon, Illinois. March 13, 1999.*
- 4) *"Case Records from Good Samaritan Regional Health Center," Mt. Vernon, Illinois. Given at the Quarterly Medical Staff Meeting on 12/01/98.*
- 5) *"Coronary Artery Disease and the Oddballs." September 4, 1997, Good Samaritan Regional Health Center, Mt. Vernon, Illinois.*
- 6) *"Acute MI: Can we do better?" October 23, 1996, Holiday Inn, Mt. Vernon, Illinois. Sponsored by Southern Illinois University School of Medicine, Springfield, Illinois.*
- 7) *"Molecular Cardiology" January 25, 1995, Ramada Hotel, Mt. Vernon, IL Sponsored by Southern Illinois University.*
- 8) *"Molecular Cardiology--Trends of the Future". Presented at King Edward Medical College, Lahore, Pakistan, on December 14, 1994. Program sponsored by New Britain General Hospital, Connecticut.*
- 9) *"Signal Averaged EKG". Presented at the Eleventh Annual Symposium of King Edward Medical College, Lahore, Pakistan, on December 19, 1990. Program sponsored by New Britain General Hospital, Connecticut.*
- 10) *"Current Status of Management of Hypertension". Presented at the International Symposium, Lahore, Pakistan, on December 21, 1990. Program sponsored by King Edward Alumni Association of North America.*

RESEARCH/PUBLICATIONS:

*Coronary Vasodilator Reserve:*

*Comparison of the Effects of Papaverine and Adenosine on Coronary Flow, Ventricular Function and Myocardial Metabolism (CIRCULATION 1991; 83: 294-303).*

*Chest Pains with Patent Coronary Arteries:*

*Syndrome "X" or Doctor "X"?*

*(CLINICAL RESEARCH: Vol. 37 p 841A 1989).*

*Doppler Echocardiographic Determinants of Clinical Outcome in Non-rheumatic Atrial Fibrillation: A Multivariate Discriminant Analysis. (CLINICAL RESEARCH: Vol 37 p 839, 1989).*

*Letter to the editor, New England Journal of Medicine, on clinical problem solving "Diverted by the Chief Complaint", November 23, 1995.*

APPOINTMENTS:

- 1) *Clinical Assistant Professor, Department of Medicine, SIU School of Medicine, Springfield, Illinois. July 1995-onwards.*
- 2) *Chairman Department of Medicine, Good Samaritan Regional Health Center, Mt. Vernon, IL. January 1996-December 1996.*
- 3) *Member Executive Committee, Good Samaritan Regional Health Center, Mt. Vernon, IL. January 1996-December 1996.*
- 4) *Director Cardiac Cath Lab, Good Samaritan Regional Health Center, Mt. Vernon, IL. July 1992-onwards.*
- 5) *Chairman CCU Committee, Good Samaritan Regional Health Center, Mt. Vernon, IL. January 94-onwards.*
- 6) *Member Credentials Committee, Council on Geriatric Cardiology. 1995 to 1998.*
- 7) *Medical Director, American Heart Association of Illinois, Jefferson County Division, 1992-onwards.*
- 8) *ACLS Course Director since 1993.*

FELLOWSHIP/MEMBERSHIPS:

- 1) *Fellow American College of Cardiology*
- 2) *Fellow American College of Chest Physicians*

# Mohammed Haseeb, M.D., F.A.C.C.

Cardiovascular Diseases

5 North 12th Street  
Mt. Vernon, IL 62864

Phone (618) 244-2525  
Fax (618) 244-3666

## EDUCATIONAL QUALIFICATIONS:

1998	Testamur, ASEeXAM
1991	Board Certification in Cardiovascular Disease
1987	Board Certification in Internal Medicine
1981	BSc (English) Punjab University, Lahore, Pakistan
1980	MBBS King Edward Medical College, Lahore, Pakistan
1973	HSSC Forman Christian College, Lahore, Pakistan

## TRAINING & EXPERIENCE:

7/92 Onward	Director of Cardiology and Director of Cardiac Cath Lab, Good Samaritan Regional Health Center, Mt. Vernon, IL
7/89 to 6/92	Chief of Cardiology, Paul B. Hall Regional Medical Center, Paintsville, KY
7/87 to 6/89	Fellow in Cardiology SUNY Health Science Center at Brooklyn, Brooklyn Hospital, Brooklyn, N.Y.
7/85 to 6/87	PG II & PG III Internal Medicine University of Wisconsin, Mount Sinai Medical Center, Milwaukee
7/84 to 6/85	PG I Internal Medicine Woodhull Hospital, Brooklyn, State University of New York, Downstate Medical Center, NY
10/81 to 9/82	Instructor in Anatomy King Edward Medical College Lahore, Pakistan
7/80 to 7/81	House Officer in Cardiology, Mayo Hospital Lahore, Pakistan

*CURRICULUM VITAE*

**Saiyed Aon Ali Mohib, M.D.**

**Personal Information:**

**Residence:** 5201 Atlantic blvd. Apt 170.  
Jacksonville, FL 32207.  
Tel. (904) 399 0359 (H) / (904) 631 4808 (M)

**Office address:** Section of Cardiology /Dept of Medicine.  
633 W 8<sup>th</sup> street.  
Jacksonville, FL 32209.  
Tel. (904) 244 3066.

**Email:** aonmohib@hotmail.com.

**Birth Date:** March 6, 1973.

**Place of Birth:** Quetta, Pakistan.

**Marital Status:** Married.

**Education:**

**07/00- present** Cardiovascular disease fellowship. ( Currently chief fellow )  
University of Florida at Jacksonville  
Section of Cardiology /Dept of Medicine.  
633 W 8<sup>th</sup> street.  
Jacksonville, FL 32209.  
Tel. (904) 244 3066.

**07/97- 06/00** Internal Medicine Residency  
Department of Medicine, M/C 787  
University of Illinois at Chicago  
840 S. Wood St.  
Chicago, IL 60612

**11/95- 06/97** Externship in Internal Medicine.  
Aga Khan University  
Karachi, Pakistan.

**10/90- 10/95** Medical school.  
Aga Khan University Medical College  
Karachi, Pakistan.

**06/88- 08/90** Government College Lahore. ( Pre- Medicine)

**06/88** Senior Cambridge examinations. (High school)

**QUALIFICATIONS:**

**Degrees.**

American Boards in Internal medicine 2000  
USMLE Step I, II and III certified.

**M.B, B.S (Pakistan). November 1995.**

**Research experience.**

1. Currently involved in a retrospective look at sex based differences in outcomes in-patients undergoing Transmyocardial Laser Revascularisation (TMR ) at our institution. The STS national database is used in our data analysis.
2. Sub investigator in the THRIVE multi center study. The aim of the study is to evaluate the efficacy of a recently approved oral anti thrombin in the treatment of DVTs and pulmonary embolisms.
3. Presented reviews on CAD in women and thrombolysis in the elderly. Both were part of the requirements of the cardiology fellowship training.
4. Evaluating the correlation between NYHA class and scores on depression scales in-patients being treated at the University of Florida at Jacksonville at this time.
5. Involved in a study prospectively evaluating the efficacy of the UltraFast CT scan as a predictor of future coronary events. Study was conducted in the University of Illinois with George Kondos, M.D as the PI.
6. Involved in a pilot study of evaluate the efficacy of the rollover test as a predictor of future eclampsia. This was part of the medical school training requirement in Pakistan.
7. Reviewed the trends of fungal infections in immune compromised patients admitted to the Aga Khan University between 1985- 1995. We demonstrated difference in the type of opportunistic infections in tuberculosis patients as compared to other etiologies of compromised immunity.
8. Conducted a KAP survey to obtain epidemiological data concerning rabies in Chanesar Goth (an urban squatter settlement in Karachi, Pakistan).
9. Evaluated the trends of bacterial/ fungal super infections in ulcerative colitis .Also looked at the time course between diagnosis and malignant transformation of the disease. Patients were followed for a period of 10-yrs.

**Procedures (anticipated total at the time of fellowship completion ).**

1. Heart catheterizations. 400.
2. Transthoracic echocardiograms. 1200.
3. Transesophageal echocardiograms. 100.
4. Swan- Ganz placement. 200.
5. Temporary pacemakers. 50.
6. Stress tests . 1500 supervised and read. Includes stress echo and nuclear perfusion imaging tests.
7. Holter interpretations. 500.

Anticipate being certified in nuclear cardiology by the time of graduation from cardiology fellowship in 6/03.

**Memberships.**

1. American College of Cardiology.
2. American Heart Association.
3. Pakistan Medical and Dental Council.

**Career aims** Private practice as an invasive (non-interventional ) cardiologist for the next five yrs. Will explore options regarding subspecialty training at that time.

#12

# St. Mary's Good Samaritan

INCORPORATED

Mt. Vernon Campus  
Cardiac Catheterization Labs  
Staff Roster

Name	Title	Position
Dale Pearce	RN	Director Cardiac Cath Lab
Bill Sandweg	RT	Supervisor Cath Lab
Michelle Smith	RN	Staffing Coordinator
Bonnie Maurer	RN	Staff RN Cath Lab
Christina Arnold	RN	Staff RN Cath Lab
Janet Kissner	RN	Staff RN Cath Lab
Jeanne Simons	RN	Staff RN Cath Lab
Lana Herman	RN	Staff RN Cath Lab
Lenita Miller	RN	Staff RN Cath Lab
Monica Allen	RN	Staff RN Cath Lab
Pamela Crabtree	RN	Staff RN Cath Lab
Steven Berkemeier	RN	Staff RN Cath Lab
Julie Garrison	RT	Scrub Tech Cath Lab
Linda Borowiak	RT	Scrub Tech Cath Lab
Elizabeth Frazier	RT	Scrub Tech Cath Lab
Sharon Moore	RT	Scrub Tech Cath Lab
Sandy Jones	Secretary	Secretary/Database Clerk

**Criterion 1110.1330.h, Continuity of Care**

The existing facility currently provides Open Heart Surgery Services and those services are proposed to be provided in the new hospital, therefore, no transfer agreement is required. The new replacement hospital will provide the full range of cardiac services on site.

**ATTACHMENT CATH-8**

**Criterion 1110.1330.i, Multi-institutional Variance**

**This criterion is not applicable to this project.**

**ATTACHMENT CATH-9**

**SECTION XXIV. REVIEW CRITERIA RELATING TO FINANCIAL FEASIBILITY (FIN)**

**SSM Health Care Corporation  
SSM Regional Health Services  
Good Samaritan Regional Health Center**

This section is applicable to all projects subject to Part 1120.

**Does the applicant (or the entity that is responsible for financing the project or is responsible for assuming the applicant's debt obligations in case of default) have a bond rating of "A" or better?**  
Yes  No .

**If yes is indicated, submit proof of the bond rating of "A" or better (that is less than two years old) from Fitch's, Moody's or Standard and Poor's rating agencies and go to Section XXX. If no is indicated, submit the most recent three years' audited financial statements including the following:**

- |                     |                                 |
|---------------------|---------------------------------|
| 1. Balance sheet    | 3. Change in fund balance       |
| 2. Income statement | 4. Change in financial position |

**APPEND THE REQUIRED DOCUMENTS AS ATTACHMENT FINANCIALS AND PLACE AFTER ALL OTHER APPLICATION ATTACHMENTS INCLUDING THE REMAINING ATTACHMENTS FOR THIS SECTION AND FOR SECTION XXX.**

**A. Criterion 1120.210.a, Financial Viability**

1. Viability Ratios

If proof of an "A" or better bond rating has not been provided, read the criterion and complete the following table providing the viability ratios for the most recent three years for which audited financial statements are available. Category B projects must also provide the viability ratios for the first full fiscal year after project completion or for the first full fiscal year when the project achieves or exceeds target utilization (per Part 1100), whichever is later.

Provide Data for Projects Classified as:	Category A or Category B (last three years)			Category B
Enter Historical and/or Projected Years:				
Current Ratio				
Net Margin Percentage				
Percent Debt to Total Capitalization				
Projected Debt Service Coverage				
Days Cash on Hand				
Cushion Ratio				

Provide the methodology and worksheets utilized in determining the ratios detailing the calculation and applicable line item amounts from the financial statements. Complete a separate table for each co-applicant and provide worksheets for each. Insert the worksheets after this page.

2. Variance

Compare the viability ratios provided to the Part 1120 Appendix A review standards. If any of the standards for the applicant or for any co-applicant are not met, provide documentation that a person or organization will assume the legal responsibility to meet the debt obligations should the applicant default. The person or organization must demonstrate compliance with the ratios in Appendix A when proof of a bond rating of "A" or better has not been provided.

**APPEND DOCUMENTATION AS ATTACHMENT FIN-1 AFTER THE LAST PAGE OF THIS SECTION.**

**B. Criterion 1120.210.b, Availability of Funds**

If proof of an "A" or better bond rating has not been provided, read the criterion and document that sufficient resources are available to fund the project and related costs including operating start-up costs and operating deficits. Indicate the dollar amount to be provided from the following sources:

- \_\_\_\_\_ Cash & Securities  
Provide statements as to the amount of cash/securities available for the project. Identify any security, its value and availability of such funds. Interest to be earned or depreciation account funds to be earned on any asset from the date of application submission through project completion are also considered cash.
- \_\_\_\_\_ Pledges  
For anticipated pledges, provide a letter or report as to the dollar amount feasible showing the discounted value and any conditions or action the applicant would have to take to accomplish goal. The time period, historical fund raising experience and major contributors also must be specified.
- \_\_\_\_\_ Gifts and Bequests  
Provide verification of the dollar amount and identify any conditions of the source and timing of its use.
- \_\_\_\_\_ Debt Financing (indicate type(s) \_\_\_\_\_)  
For general obligation bonds, provide amount, terms and conditions, including any anticipated discounting or shrinkage) and proof of passage of the required referendum or evidence of governmental authority to issue such bonds;  
For revenue bonds, provide amount, terms and conditions and proof of securing the specified amount;  
For mortgages, provide a letter from the prospective lender attesting to the expectation of making the loan in the amount and time indicated;  
For leases, provide a copy of the lease including all terms and conditions of the lease including any purchase options.
- \_\_\_\_\_ Governmental Appropriations  
Provide a copy of the appropriation act or ordinance accompanied by a statement of funding availability from an official of the governmental unit. If funds are to be made available from subsequent fiscal years, provide a resolution or other action of the governmental unit attesting to such future funding.
- \_\_\_\_\_ Grants  
Provide a letter from the granting agency as to the availability of funds in terms of the amount, conditions, and time or receipt.
- \_\_\_\_\_ Other Funds and Sources  
Provide verification of the amount, terms and conditions, and type of any other funds that will be used for the project.
- \_\_\_\_\_ TOTAL FUNDS AVAILABLE

**APPEND DOCUMENTATION AS ATTACHMENT FIN-2 AFTER THE LAST PAGE OF THIS SECTION.**

**C. Criterion 1120.210.c, Operating Start-up Costs**

If proof of an "A" or better bond rating has not been provided, indicate if the project is classified as a Category B project that involves establishing a new facility or a new category of service? Yes  No . If yes is indicated read the criterion and provide in the space below the amount of operating start-up costs (the same as reported in Section I of this application) and provide a description of the items or components that comprise the costs. Indicate the source and amount of the financial resources available to fund the operating start-up costs (including any initial operating deficit) and reference the documentation that verifies sufficient resources are available.

**Since the applicant is proposing to move staff and supplies directly from the old hospital to the new no start-up costs are anticipated**

**SECTION XXV. REVIEW CRITERIA RELATING TO ECONOMIC FEASIBILITY (ECON)**

This section is applicable to all projects subject to Part 1120.

**A. Criterion 1120.310.a, Reasonableness of Financing Arrangements**

Is the project classified as a Category B project? Yes  No . If no is indicated this criterion is not applicable. If yes is indicated, has proof of a bond rating of "A" or better been provided? Yes  No . If yes is indicated this criterion is not applicable, go to item B. If no is indicated, read the criterion and address the following:

Are all available cash and equivalents being used for project funding prior to borrowing?  Yes  
 No

If no is checked, provide a notarized statement signed by two authorized representatives of the applicant entity (in the case of a corporation, one must be a member of the board of directors) that attests to the following:

1. a portion or all of the cash and equivalents must be retained in the balance sheet asset accounts in order that the current ratio does not fall below 2.0 times; or
2. borrowing is less costly than the liquidation of existing investments and the existing investments being retained may be converted to cash or used to retire debt within a 60-day period.

**APPEND DOCUMENTATION AS ATTACHMENT ECON-1 AFTER THE LAST PAGE OF THIS SECTION.**

**B. Criterion 1120.310.b, Conditions of Debt Financing**

Read the criterion and provide a notarized statement signed by two authorized representatives of the applicant entity (in the case of a corporation, one must be a member of the board of directors) that attests to the following as applicable:

1. The selected form of debt financing the project will be at the lowest net cost available or if a more costly form of financing is selected, that form is more advantageous due to such terms as prepayment privileges, no required mortgage, access to additional debt, term (years) financing costs, and other factors;
2. All or part of the project involves the leasing of equipment or facilities and the expenses incurred with such leasing are less costly than constructing a new facility or purchasing new equipment.

**APPEND DOCUMENTATION AS ATTACHMENT ECON-2 AFTER THE LAST PAGE OF THIS SECTION.**

**C. Criterion 1120.310.c, Reasonableness of Project and Related Costs**

Read the criterion and provide the following:

1. Identify each department or area impacted by the proposed project and provide a cost and square footage allocation for new construction and/or modernization using the following format (insert after this page).

CLINICAL - COST AND GROSS SQUARE FEET BY DEPARTMENT OR SERVICE									
Department (list below)	A	B	C	D	E	F	G	H	Total Cost (G + H)
	Cost/Square Foot New	Mod.	Gross Sq. Ft. New	Circ.*	Gross Sq. Ft. Mod.	Circ.*	Const. \$ (A x C)	Mod. \$ (B x E)	
Contingency									
TOTALS									

\*Include the percentage (%) of space for circulation

2. For each piece of major medical equipment included in the proposed project, the applicant must certify one of the following:
  - a. that the lowest net cost available has been selected; or
  - b. that the choice of higher cost equipment is justified due to such factors as, but not limited to, maintenance agreements, options to purchase, or greater diagnostic or therapeutic capabilities.

**APPEND DOCUMENTATION AS ATTACHMENT ECON-3 AFTER THE LAST PAGE OF THIS SECTION.**

3. List the items and costs included in preplanning, site survey, site preparation, off-site work, consulting, and other costs to be capitalized. If any project line item component includes costs attributable to extraordinary or unusual circumstances, explain the circumstances and provide the associated dollar amount. When fair market value has been provided for any component of project costs, submit documentation of the value in accordance with the requirements of Part 1190.40.

**APPEND DOCUMENTATION AS ATTACHMENT ECON-4 AFTER THE LAST PAGE OF THIS SECTION.**

**D. Criterion 1120.310.d, Projected Operating Costs**

Read the criterion and provide in the space below the facility's projected direct annual operating costs (in current dollars per equivalent patient day or unit of service, as applicable) for the first full fiscal year of operation after project completion or for the first full fiscal year when the project achieves or exceeds target utilization pursuant to 77 Ill. Adm. Code 1100, whichever is later. If the project involves a new category of service, also provide the annual operating costs for the service. Direct costs are the fully allocated costs of salaries, benefits, and supplies. Indicate the year for which the projected operating costs are provided. **The direct operating cost per equivalent patient day for 2011 is \$1,680.70**

**E. Criterion 1120.310.e, Total Effect of the Project on Capital Costs**

Is the project classified as a category B project? Yes  No . If no is indicated, go to item F. If yes is indicated, provide in the space below the facility's total projected annual capital costs as defined in Part 1120.130.f (in current dollars per equivalent patient day) for the first full fiscal year of operation after project completion or for the first full fiscal year when the project achieves or exceeds target utilization pursuant to 77 Ill. Adm. Code 1100, whichever is later. Indicate the year for which the projected capital costs are provided. **Good Samaritan Regional Health Center's Capital Cost per Equivalent Patient Day is \$311.14.**

**F. Criterion 1120.310.f, Non-patient Related Services**

Is the project classified as a category B project and involve non-patient related services? Yes  No . If no is indicated, this criterion is not applicable. If yes is indicated, read the criterion and document that the project will be self-supporting and not result in increased charges to patients/residents or that increased charges are justified based upon such factors as, but not limited to, a cost benefit or other analysis that demonstrates the project will improve the applicant's financial viability.

**APPEND DOCUMENTATION AS ATTACHMENT ECON-5 AFTER THE LAST PAGE OF THIS SECTION.**



May 29, 2008

Mr. Jeffrey S. Mark  
Executive Secretary  
Health Facilities Planning Board  
525 West Jefferson Street, Second Floor  
Springfield, Illinois 62761

RE: Financing Arrangements

Dear Mr. Mark:

We, Sister Mary Jean Ryan, FSM, member of the Board of Directors of SSM Health Care Corporation, and June L. Pickett, Corporate Secretary of SSM Health Care Corporation, hereby certify that the selected form of debt financing will be at the lowest net cost available to us.

Sincerely,

*Sister Mary Jean Ryan, FSM*

Sister Mary Jean Ryan, FSM  
Board of Directors  
SSM Health Care Corporation

*June L. Pickett*

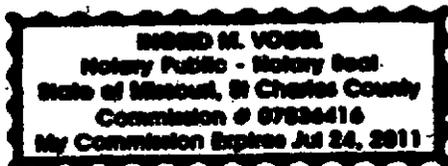
June L. Pickett  
Corporate Secretary  
SSM Health Care Corporation

SUBSCRIBED and SWORN to before me  
this 2<sup>nd</sup> day of June, 2008.

*Ingrid M. Vogel*  
Notary Public

SUBSCRIBED and SWORN to before me  
this 2<sup>nd</sup> day of June, 2008.

*Ingrid M. Vogel*  
Notary Public



477 N. Lindbergh Blvd.  
St. Louis, MO 63141-7832  
www.ssmhc.com

(314) 994 7800 phone  
(314) 994 7800 fax

ATTACHMENT ECON-2

CLINICAL - COST AND GROSS SQUARE FEET BY DEPARTMENT OR SERVICE										
Department (list below)	A	B	C		D	E	F	G	H	Total Cost (G + H)
	Cost/Square Foot New	Mod.	Gross Sq. Ft. New	Circ.*	Gross Sq. Ft. Mod. Circ.*	Const. \$ (A x C)	Mod. \$ (B x E)			
Pharmacy	319.01		2,070					660,358		660,358
Central Sterile Supply	319.01		2,495					795,938		795,938
Outpatient Testing	319.01		2,317					739,154		739,154
Outpatient Prep & Recovery	319.01		5,897					1,881,222		1,881,222
Infusion Center	319.01		1,665					531,157		531,157
Outpatient Procedure Rooms	319.01		2,535					808,699		808,699
Cardiac Catheterization	319.01		2,478					790,515		790,515
Diagnostic Radiology	319.01		6,275					2,001,809		2,001,809
Cardiac Diagnostic Testing	319.01		5,132					1,637,177		1,637,177
Nuclear Medicine	319.01		2,140					682,689		682,689
Emergency	319.01		10,762					3,433,222		3,433,222
EMS Facilities	319.01		390					124,415		124,415
Observation Beds	319.01		2,724					868,993		868,993
Surgery	319.01		10,780					3,438,964		3,438,964
Surgery Prep	319.01		4,020					1,282,434		1,282,434
Recovery	319.01		2,265					722,565		722,565
Hemodialysis	319.01		1,200					382,816		382,816

ATTACHMENT ECON-3

Respiratory Therapy	319.01		1,344				428,754		428,754
Physical Therapy	319.01		1,200				382,816		382,816
Occupational Therapy	319.01		444				141,642		141,642
ICU Beds	319.01		11,658				3,719,058		3,719,058
Rehab Beds	319.01		7,112				2,268,823		2,268,823
OB Beds	319.01		2,771				883,986		883,986
LDR	319.01		6,305				2,011,379		2,011,379
C-section Suite	319.01		1,018				324,756		324,756
New Born Nursery	319.01		1,219				388,877		388,877
Medical Surgical Beds	319.01		57,265				18,459,709		18,459,709
Hospice/Home Health	319.01		6,513				2,077,734		2,077,734
Contingency	\$32.21		162,594				\$5,237,742		\$5,237,742
TOTALS							\$57,107,403		\$57,107,403

\*Include the percentage (%) of space for circulation

There is no single piece of equipment which exceeds the capital expenditure minimum

**Criterion 1120.310.c, Reasonableness of Project and Related Costs**

These cost are for the total project cost not just the non-clinical section:

Preplanning Cost consist of the following

Contract Manager Preconstruction Fee \$511,194  
Project Definition Reimbursables - \$50,000

Site Survey and Soil Investigation consist of the following

Geotechnical Study - \$30,000  
Site Survey - \$30,000

Site Preparation consists of a single contract to grade site, establish roads and curbs - \$7,947,717

Off-site Work - Demolition of existing Facility \$1,500,000

Consulting and Other Fees Consist of the following:

AV Consulting - \$14,700  
Codes Consulting - \$75,000  
Food Service Consulting - \$75,000  
Shielding Consulting - \$30,000  
Legal Fees - \$30,000  
CON consulting - \$120,000  
Other Consultants -\$100,000  
Architectural Models - \$20,000  
State Fees -\$22,000  
Physicist Testing - \$25,000  
Moving Company - \$355,394  
Training and In-service -54,098

## SSM Health Care System, Missouri

**Primary Credit Analysts:**

Brian T Williamson  
Chicago  
(1) 312-233-7009  
brian\_williamson@  
standardandpoors.com

**Secondary Credit Analysts:**

Kevin Holloran  
Dallas  
(1) 214-871-1412  
kevin\_holloran@  
standardandpoors.com

**Credit Profile**

**Missouri Hlth & Educl Facs Auth, Missouri**

SSM Hlth Care Sys, Missouri

Missouri Hlth & Ed Facs Auth (SSM Health Care System)

Long Term Rating	AA-/Stable	Affirmed
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**Rationale**

Standard & Poor's Ratings Services affirmed its 'AA-' rating on Missouri Health and Education Facilities Authority's series 2002A and 2005B bonds and its 'AA-' underlying rating (SPUR) on various issuer's bonds, all issued for SSM Health Care System (SSMHC).

The rating reflects:

- A solid balance sheet characterized by 233 days' cash on hand, leverage of 38%, and a cash-to-debt ratio of 142% as of Sept. 30, 2007;
- Strong operating levels with a 3.8% operating margin as of the nine months ended Sept. 30, 2007 compared with 2.5% for the same period in 2006;
- A solid business base in diversified markets located primarily in St. Louis, Madison, Wis., and Oklahoma City; and
- Strong health system management.

Offsetting credit factors include the very competitive markets in which SSMHC's primary facilities are located; the potential for new debt in 2008 to fund capital expenditures; SSMHC's ability to close a deal to sell the hospital located in Blue Island, Ill; and construction risk associated with projects at various hospitals in the system.

SSMHC owns, manages, and is affiliated with 20 acute care and two nursing homes in four states: Missouri, Illinois, Wisconsin, and Oklahoma. With more than 5,000 affiliated physicians, 24,000 employees, and 5,002 licensed beds, SSMHC provides a wide range of services, including rehabilitation, pediatrics, home health, hospice, residential, and skilled

nursing care. SSMHC's health-related businesses include information systems and support services such as materials management and home care. SSMHC also owns an interest in Dean Health Insurance, Inc., which, through a wholly owned subsidiary, operates a group model health maintenance organization throughout southern Wisconsin.

For fiscal years ended Dec. 31, 2006 and 2005, SSMHC posted operating margins of 2.6% and 3.4%. These margins were down as it compared to operations for fiscal 2003 and 2004. The majority of the decline was due to challenges in Oklahoma City and Blue Island markets. As management has focused on all of its markets there has been a good turnaround in the St. Louis and Oklahoma City markets. Management continues to focus on cutting cost and increasing its utilization in all markets. For the nine months ended Sept. 30, 2007, SSMHC posted a 3.8% operating margin compared with 2.5% for the same period in 2006. An example of this can be seen when comparing 17 facilities that SSMHC reported for the period ended Sept. 30, 2007, compared with fiscal year-end 2006. In fiscal 2006, five of the aforementioned 17 facilities were operating at an acceptable level. For the first nine months of fiscal 2007, 11 of the 17 facilities are now operating at an acceptable level. The improved performance of the six facilities continued to add to the stronger performance of SSMHC. The balance sheet has remained relatively stable over the past couple of years. At Sept. 30, 2007, days' cash on hand was equal to 233 days, leverage was 38%, and the cash-to-debt ratio was 142%.

In the near future, SSMHC has plans to ramp up capital spending as it addresses facility maintenance. With the increased capital spending, SSMHC plans to issue new debt in fiscal 2008 but plans are not finalized. SSMHC does have some debt capacity but the new debt will be reviewed at a later date.

### Outlook

The stable outlook reflects SSMHC's solid business position in the markets in which it operates, coupled with the expectation of stable financial performance. The stable outlook also takes into account Standard & Poor's expectation that SSMHC should be able to manage any minor setbacks during the construction projects at its various facilities. Standard & Poor's anticipates that SSMHC's management will continue to strengthen the health system's balance sheet and maintain the positive strides that have been made in its various markets.

### Blue Island, Ill.

SSM Health Care has signed a letter of intent with Transition Healthcare Company, to purchase St. Francis Hospital and SSM Home Care's Blue Island home health and hospice operations. The letter of intent is a non-binding agreement that can lead to a purchase and sale agreement. Although the agreement does not guarantee the sale of the hospital, it is an official indication that SSM Health Care and Transition Healthcare Company are negotiating exclusively and that no other group is involved in the process.

### Debt Derivative Profile And Indexed Put Bonds

SSMHC has entered into seven swaps, of which six were floating-to-fixed-rate swaps on a total notional amount of \$674.3 million and one was a fixed-to-floating swap on a notional amount of \$50.0 million. UBS AG (AA) and Citibank N.A. (AA+) are the counterparties on all the interest rate swaps. Standard & Poor's assigned SSMHC a Debt Derivative Profile (DDP) score of '2' on a scale of

'1' to '4', with '1' representing the lowest risk and '4' the highest. The overall DDP score of '2' indicates that SSMHC's swaps do not pose significant additional risk to the credit quality. This is mainly a result of low counterparty risk, low termination risk, and good management oversight of the swap. The biggest risk for SSMHC is basis risk if interest rates rise in the future. The total net variable-rate debt exposure is approximately 27%.

With the indexed variable-rate put bond structure, SSMHC faces renewal risk in August 2010. The choices would be to:

- Renew the index put bonds, if the option is available;
- Convert to another variable-rate alternative, if the option is available;
- Refinance with the then-current market fixed rates; or
- Pay off the outstanding debt.

However, the bondholder may put the bonds early if a credit event occurs, including bankruptcy or payment default; taxability of the bonds; or the withdrawal or lowering of the rating on SSMHC's debt to 'A-' or below. SSMHC's current credit strength, evidenced by the 'AA-' rating, provides flexibility at this time. However, should the rating on SSMHC's debt decline to the 'A' category, it will have less financial flexibility and could experience a drop in unrestricted cash balances if the bonds are put (if the rating drops to 'A-') at a time when its credit profile is declining, putting added pressure on the rating. Standard & Poor's will continue to monitor the rating on SSMHC's debt through annually scheduled reviews and will incorporate any credit effect resulting from the series 2005B bond issue in the overall long-term rating.

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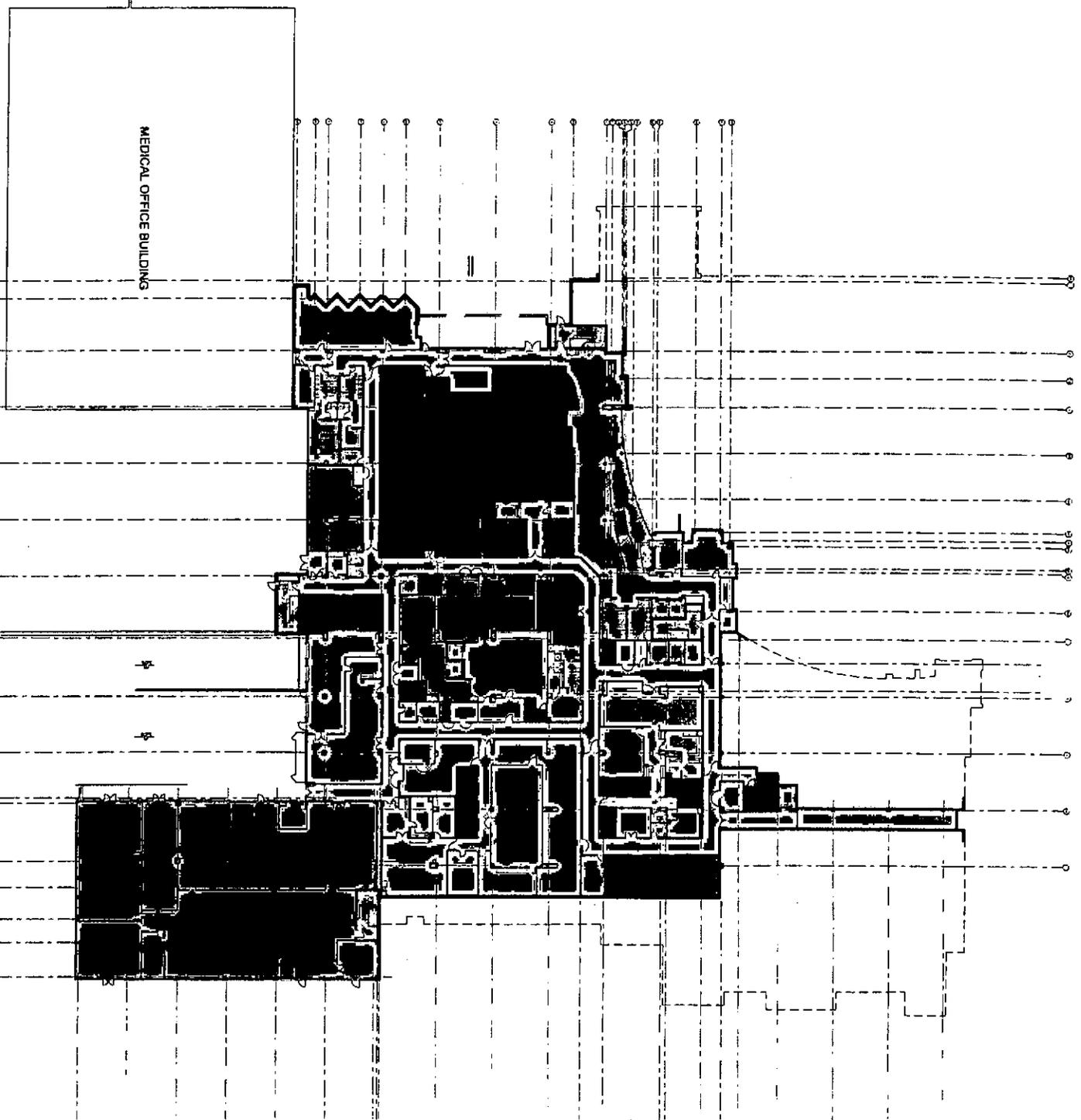
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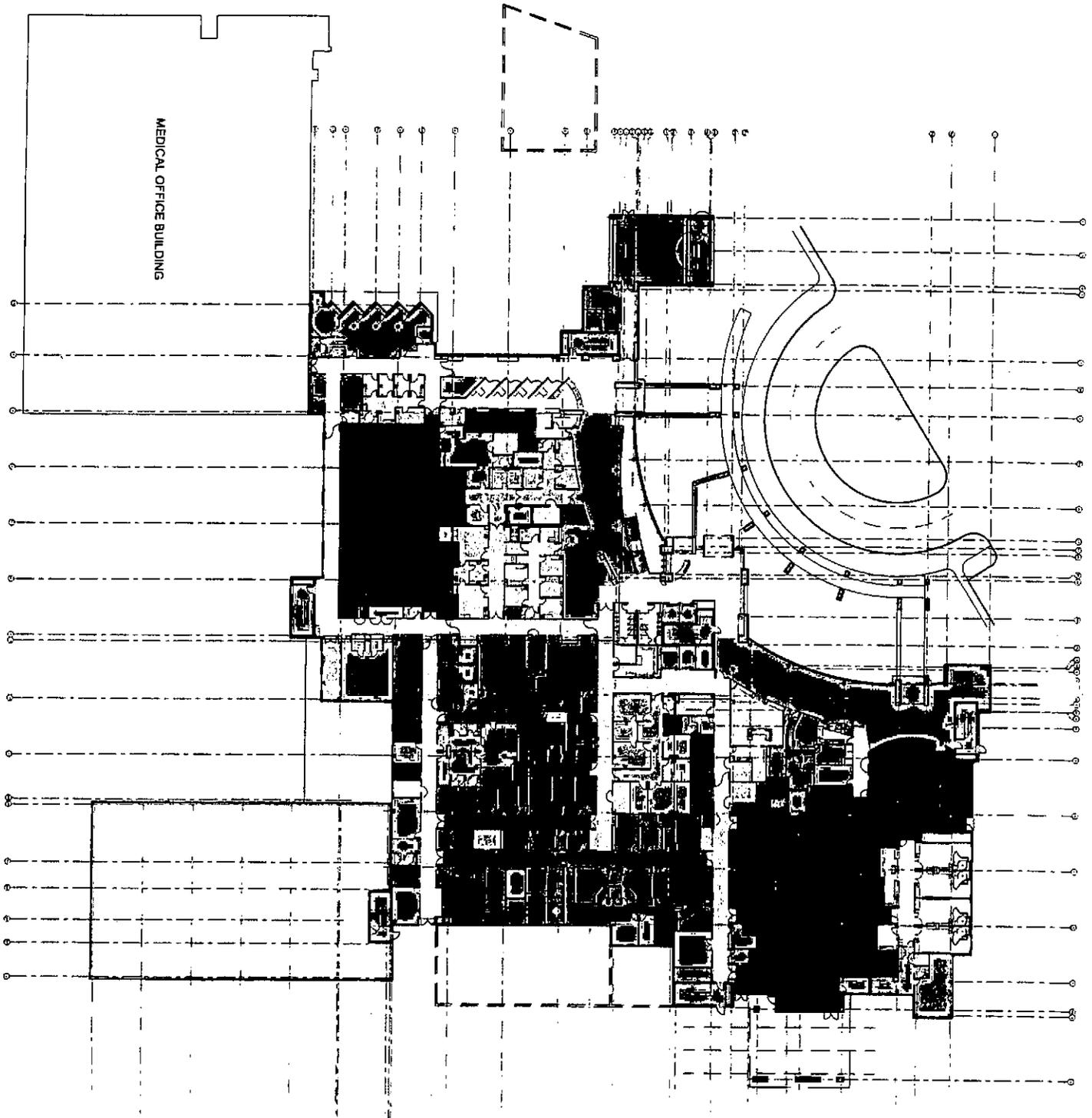


**New Good Samaritan Regional Health Center**  
**Garden Level Hospital Floor Plan**  
 April 2008

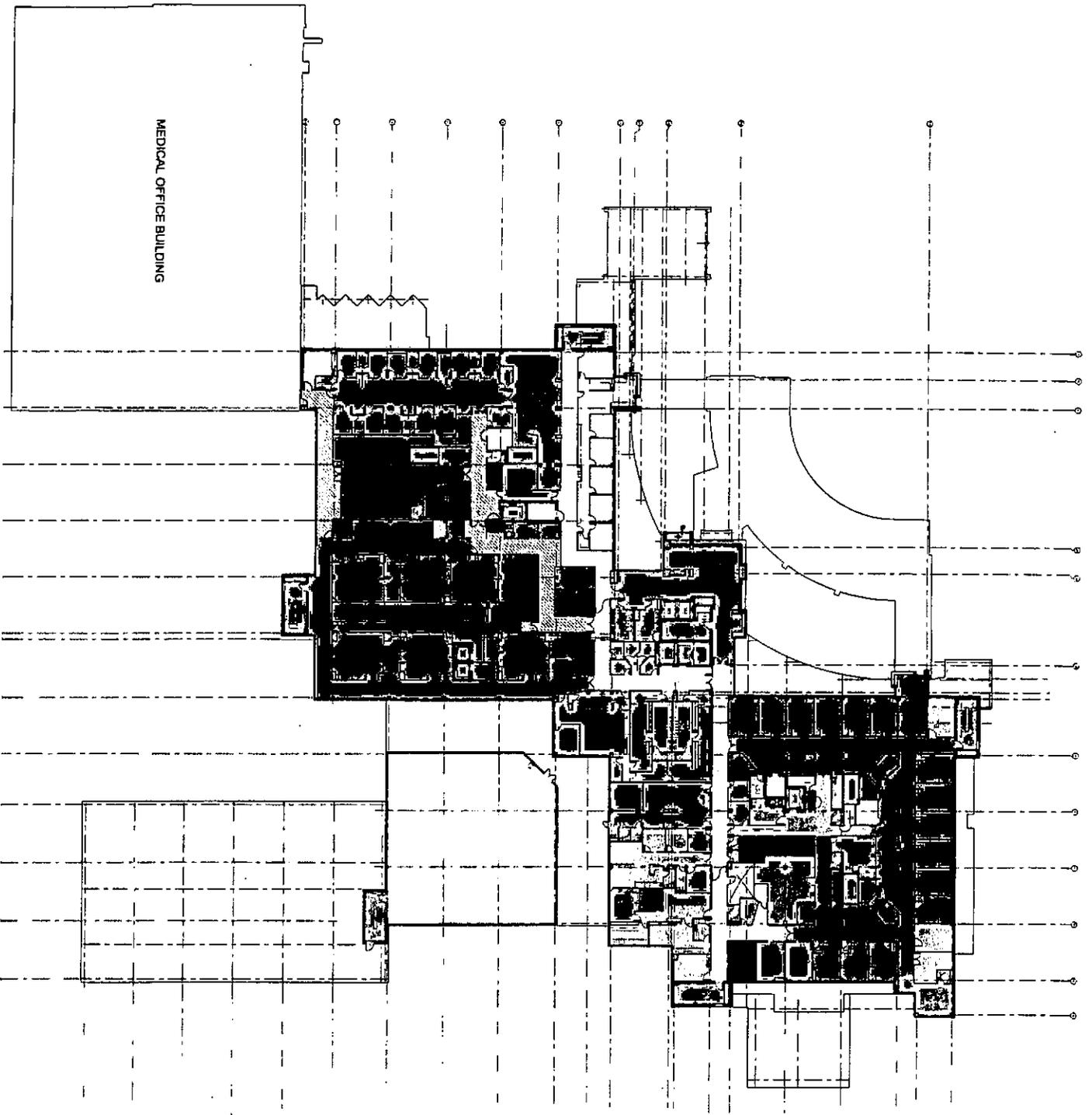
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	General Circulation
	Public Waiting / Public Toilets
	Administration
	Staff Facilities
	Materials Management
	Mechanical / Electrical / Plumbing
	Housekeeping
	Dietary
	Cafeteria
	Maintenance
	Hospice & Home Health
	Pharmacy
	Central Suite Processing
	Information Technology
	Clinical Engineering
	Tunnel to Future Expansion
	Energy Center

**New Good Samaritan Regional Health Center  
 First Level Hospital Floor Plan**

April 2008



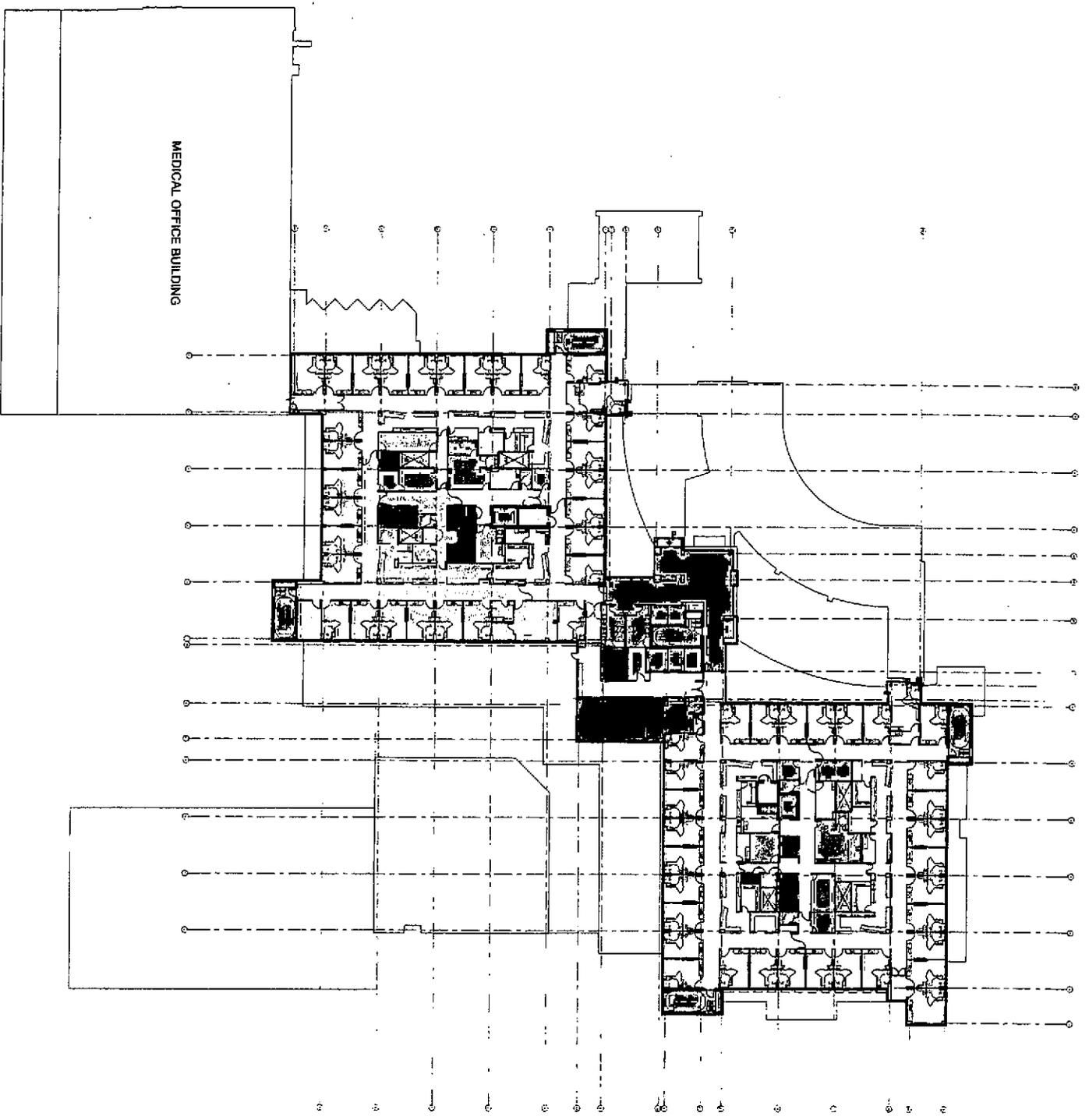
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	General Circulation
	Public Waiting / Public Toilets
	Administration
	Staff Facilities
	Materials Management
	Mechanical / Electrical / Plumbing
	Housekeeping
	Admitting / Registration
	Outpatient Testing
	Outpatient Prep. & Recovery
	Injection Center
	Ambulatory Care
	Cardiac Catheterization Labs
	Chapel / Pastoral Care
	Employee Health
	Diagnostic Radiology
	Cardiac Diagnostic Testing
	Nuclear Medicine
	Gift Shop / Volunteers
	Emergency
	EMS Services
	Pediatric Beds
	Coffee Shop



**New Good Samaritan Regional Health Center**  
**Second Level Hospital Floor Plan**

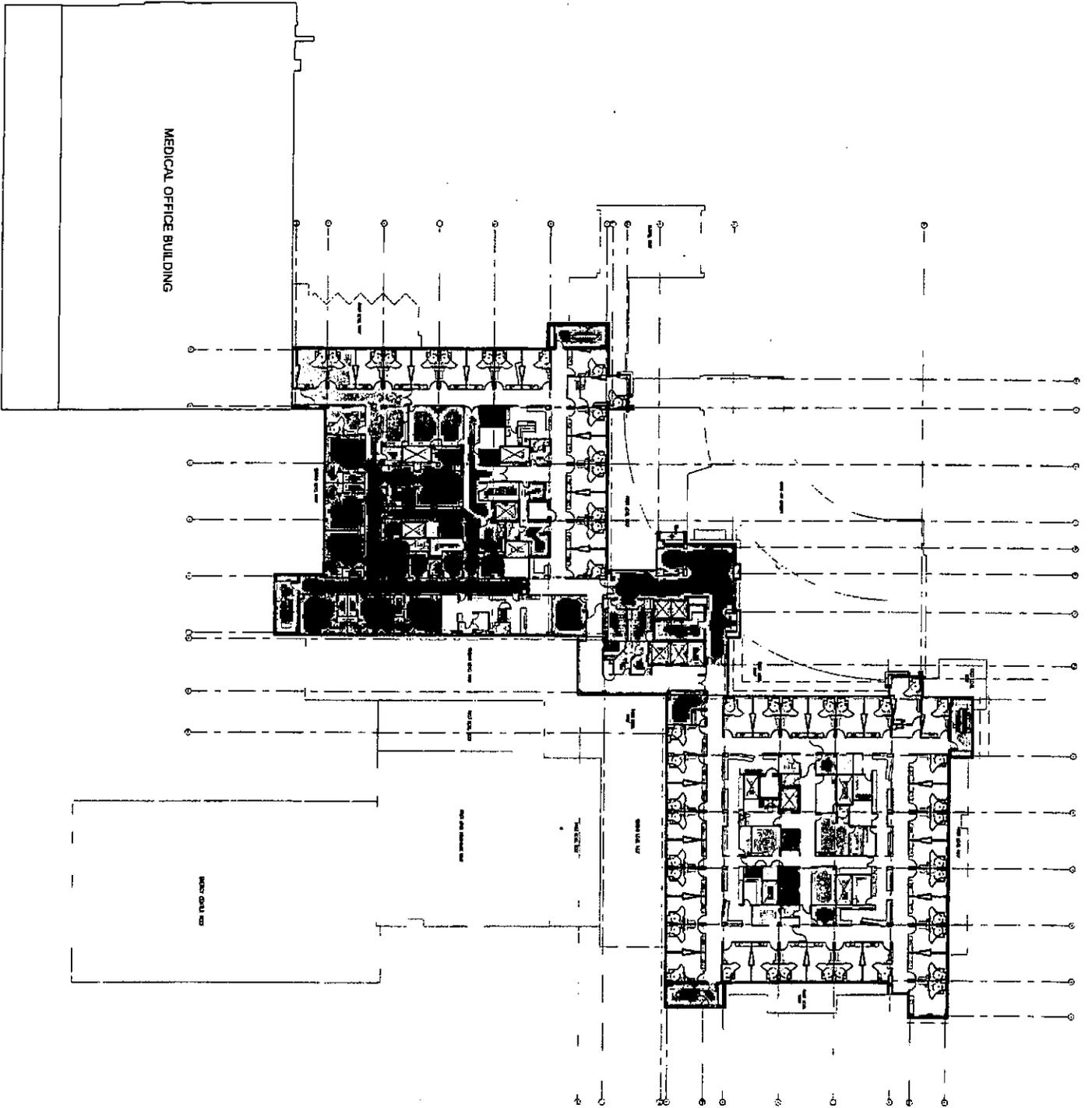
June 14, 2008

- Color Legend**
- Vertical Circulation
  - General Circulation
  - Public Waiting / Public Toilets
  - Administration
  - Staff Facilities
  - Materials Management
  - Mechanical / Electrical / Plumbing
  - Housekeeping
  - Surgery
  - Surgery Prep.
  - Surgery Recovery (PACU)
  - Nursing Administration
  - Clinical Engineering
  - Semi / Restricted Corridor
  - Hemodialysis
  - Intensive Care Beds
  - Respiratory Therapy



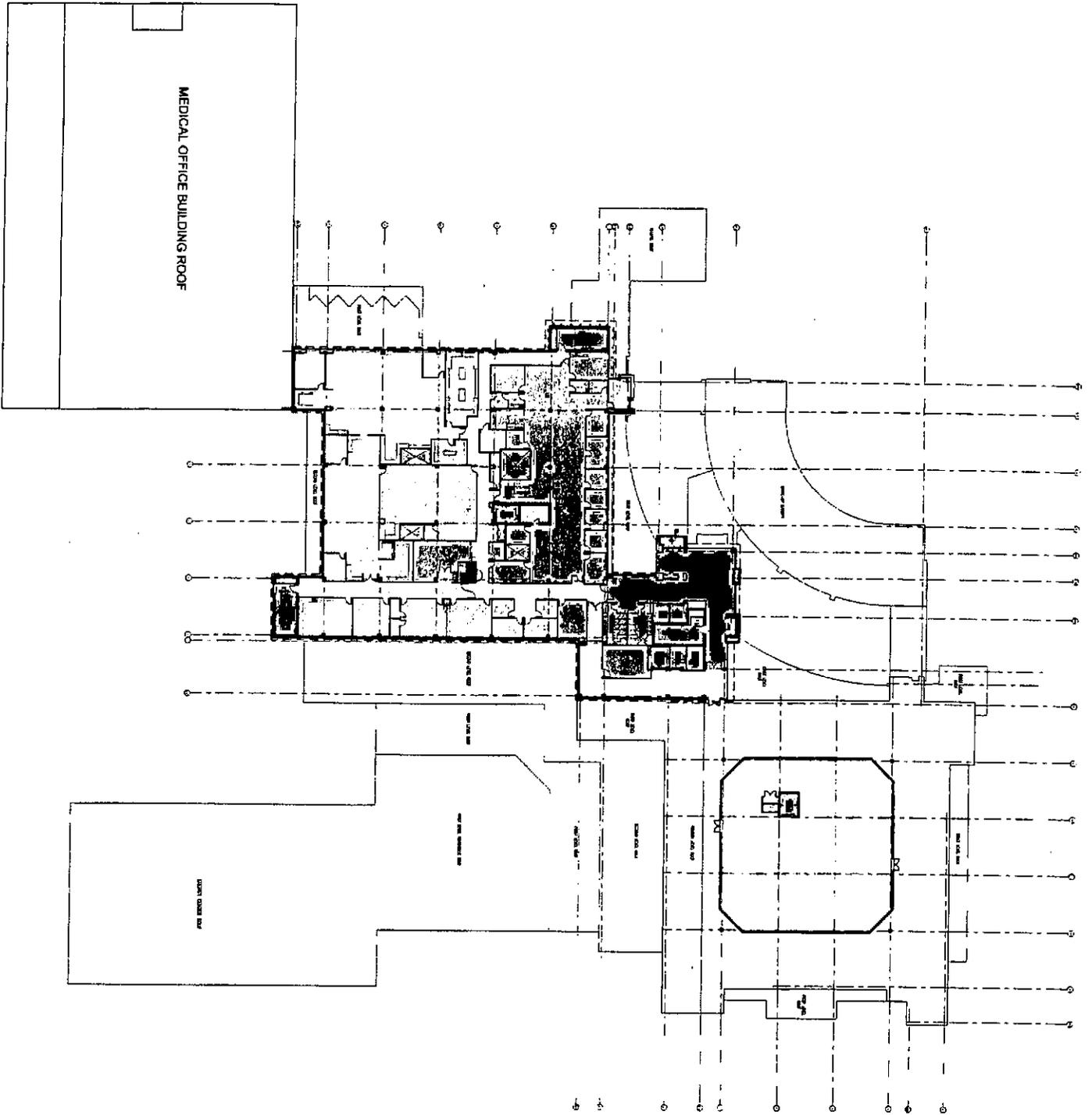
Color Legend	
	Vertical Circulation
	General Circulation
	Public Waiting / Public Toilets
	Administration
	Staff Facilities
	Materials Management
	Mechanical / Electrical / Plumbing
	Housekeeping
	Rehabilitation Beds
	Inpatient Physical Therapy
	Inpatient Occupational Therapy
	Medical / Surgical Beds

**New Good Samaritan Regional Health Center  
 Fourth Level Hospital Floor Plan**  
 June 12, 2008



Color Legend	
	Vertical Circulation
	General Circulation
	Public Waiting / Public Toilets
	Administration
	Staff Facilities
	Materials Management
	Mechanical / Electrical / Plumbing
	Housekeeping
	Obstetric Beds
	LDRP Rooms
	C-Section
	Newborn Nursery
	Medical & Surgical Beds

**New Good Samaritan Regional Health Center  
 Fifth Level Hospital Floor Plan**  
 April 1, 2008



Color Legend	
	Vertical Circulation
	General Circulation
	Public Waiting / Public Toilets
	Materials Management
	Mechanical / Electrical / Plumbing
	Housekeeping
	Hospice & Home Health
	Patient Accounts