

**Department of Health and Human Services  
Division of Licensing and Regulatory Services  
State House, Augusta, Maine  
Preliminary Analysis**

**Date:** 6/28/2007

**Project:** Proposal by Maine Medical Center

**Prepared by:** Phyllis Powell, M.A., Certificate of Need Manager  
Steven R. Keaten, Health Care Financial Analyst

**Directly Affected Party:** NONE

**Recommendation:** APPROVE

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Estimated Capital Expenditure per Applicant	\$12,198,000
Approved Capital Expenditure per CON	\$11,414,000
Maximum Contingency per CON	\$784,000
Total Approved Capital Expenditure with Contingency	\$12,198,000
Capital Investment Fund Impact per CON	\$0

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## INTRODUCTION

“Maine Medical Center (MMC) proposes to expand its Maine Medical Center Research Institute’s (MMCRI) facility by approximately 23,000 gross square feet at an estimated capital cost of \$12.2 million. The facility is located on MMC’s Scarborough campus. The proposed expansion will house principal investigators, their research teams and their support staff.”

“The project schedule forecasts the expansion being occupied at the beginning of MMC’s Fiscal Year 2009. The estimated annual incremental expenses for the first three year’s of operation are \$1,780,473, \$1,787,465 and \$1,794,466.”

“MMCRI is funded primarily through National Institutes for Health Center of Biomedical Research Excellence (COBRE) grants, other federal and private foundation grants. MMCRI is the only non-university affiliated research facility in the country to have received two COBRE grants.”

“MMC supports its research initiatives with excess operating revenue. MMCRI’s annual budget is approximately \$16,000,000; MMC support is approximately \$3,500,000 per year. MMC’s commitment to research is expected to increase to \$5,800,000 during the forecast period as MMCRI’s annual budget grows to approximately \$27,000,000.”

“MMCRI currently operates in compliance with applicable State and local laws and regulations; this project will not change that compliance. The building expansion will be built in compliance with Department of Environmental Protection and Town of Scarborough requirements.”

“Increasing MMC’s biomedical research efforts will improve patients’ access to experimental medical procedures, technologies and drugs in treating cancer, heart disease and other diseases. This improved access and the ensuing research results will significantly improve the health and welfare of persons currently being served by MMC as well as other health care facilities.”

“The project addresses chronic diseases on both a population-based and a patient-centered basis. MMCRI believes that furthering clinical and scientific knowledge will result in improvements to public health and patient safety, reductions in demand for health care services and increased effectiveness of clinical services. MMCRI research efforts advance access to evidence-based clinical practice.”

“The Department has determined that this project is subject to Certificate of Need review and approval, and that the project meets the requirements for a simplified review. (February 6, 2007, P. Powell to R. Linehan)”

## **I. Project Description**

### **A. From Applicant**

“MMC proposes to expand its MMCRI research facility to house 7 principal investigators, their research teams and administrative support staff. Increasing MMC’s biomedical research efforts will improve patients’ access to experimental medical procedures, technologies and drugs in treating cancer, heart disease and other diseases.”

“The existing research facility is located on MMC’s Scarborough campus. The existing 34,000 square foot facility is fully occupied and is incapable of supporting the additional research activity.”

“MMCRI is funded primarily through National Institutes for Health Center of Biomedical Research Excellence (COBRE) grants, and grants from other federal agencies and private foundations. MMCRI is the only non-university affiliated research facility in the country to have received two COBRE grants.”

“The State of Maine has invested \$45 million in biomedical infrastructure over the past five years. MMCRI has received approximately \$4.5 million of this investment and is using these funds to attract additional investment.”

“In autumn of 2005 MMCRI received its second COBRE grant from the NIH. The initial COBRE grant of \$10.6 million received in 2000 was used to study angiogenesis, the process by which new blood vessels grow. The 2005 \$10.7 million grant continues that field of study, and includes blood vessels’ normal function and dysfunction in human disease. The federally funded study could lead to greater understanding of such human ailments as coronary artery disease, peripheral vascular disease, stroke, vasculitis, and the vascular complications of diabetes and to a better understanding of how blood vessels feed tumors and what can be done to slow their growth.”

“MMCRI expects to double in size over the next five years, using the federal support, as well as a portion of the Maine BioMedical Research Bond proceeds that voters approved in November 2005. The growth areas include translational and clinical research. Translational research deals with taking ideas discovered in a laboratory and translating them into clinical care. Clinical research is preliminary medical testing on humans. Translational research and clinical research are the final stages of investigation necessary before a treatment can be more widely used.”

### **Facility Expansion**

“MMCRI’s facility expansion is a 23,000 square foot, multiple floor (2 floors and basement) addition to its existing facility located on MMC’s Scarborough campus. The expansion is scheduled to be occupied by the beginning of FY 2009.”

“The expansion provides additional laboratory space for bench research and space for translational and clinical research. The ground level supports translational and clinical research functions, providing convenient public access to these functions while the second floor provides more bench research

space. The lower level provides expanded vivarium / animal holding, general storage and mechanical space.”

“The schematic site plan and floor plans accompany this application as attachments.” (*Not attached. On file at CONU.*)

## **B. CONU Discussion**

MMC has submitted a proposal to expand their research facility in Scarborough by 23,000 square ft. The expansion will consist of an addition to the current facility consisting of two floors and a basement. This expansion will provide additional lab space for bench research, translational and clinical research as well as expanded space for vivarium/animal holding, general storage and mechanical space. MMC has run out of research space and has additional research projects willing to locate at the facility in Scarborough if additional research area is available.

## **II. Profile of the Applicant**

### **A. From Applicant**

#### **Name, Address, Type of Entity & Mission**

“Maine Medical Center  
22 Bramhall Street  
Portland, Maine 04102”

“Maine Medical Center (MMC) is a voluntary non-profit 501 (c) (3) organization.”

#### **MMC Mission:**

“The Maine Medical Center is dedicated to maintaining and improving the health of the communities it serves by:

- caring for the community by providing high quality, caring, cost effective health services;
- educating tomorrow’s care givers; and
- researching new ways to provide care.”

#### **Service Area:**

“MMC’s service area is the state of Maine. MMC’s primary service area is the 10-county region of central, southern, and western Maine; the 6-county region of Northern Maine is its secondary service area.”

#### **Primary Service Area**

“Androscoggin, Cumberland, Franklin, Kennebec, Knox, Lincoln, Oxford, Sagadahoc, Somerset, York”

**Secondary Service Area**

“Aroostook, Hancock, Penobscot, Piscataquis, Waldo, Washington”

**Licensed Capacity**

“MMC is licensed for 650 beds including 42 newborn beds.”

**Licenses, Certifications & Accreditations**

“Maine Medical Center is licensed by the State of Maine and accredited by the Joint Commission on the Accreditation of Health Care Organizations.”

**Maine Medical Center Research Institute**

81 Research Drive  
Scarborough, Maine 04074  
<http://mmcri.org>

“The Maine Medical Center Research Institute (MMCRI), established in 1991, is located on MMC’s Scarborough campus. MMCRI supports patient care and medical education at MMC, and introduces new and innovative diagnostic modalities into the area for the betterment of regional healthcare. As the home of research at MMC, MMCRI strives to provide a nurturing environment for the performance of scientific investigation.”

“The research programs of the institute are focused around three specialties: cardiovascular disease, cancer, and bone and mineral disease. Core strengths are molecular and cellular biology, outcomes and health services research, cytometry, and clinical research. Research at MMCRI has a strong connection to clinical problems. MMCRI’s goal is to apply the latest scientific advances to the problems that face physicians and patients in Maine.”

“MMCRI offers educational opportunities to scientists, physicians, and students in the area. MMCRI is part of the cooperative Interdisciplinary PhD Program in Functional Genomics with the University of Maine and the Jackson Laboratories.”

**MMCRI Mission Statement:**

“Biomedical research is integral to excellence in medical care. The mission of research at Maine Medical Center is to foster inquiry among our clinicians; support rigorous, focused scientific investigation; teach health care providers to engage in biomedical research; and bring beneficial discoveries to our patients, our community, and our world.”

“MMCRI provides an environment that:

- Pursues excellence in focused and sustainable basic, translational, clinical, and outcomes research;
- Uses research to enhance the care of our patients and our community;

- Encourages collaboration and multidisciplinary partnerships;
- Inspires clinicians to participate in rigorous scientific investigations;
- Fosters the growth of aspiring scientists; and
- Promotes investigators achieving national and international stature.”

### **MMCRI Organization:**

“MMCRI is divided into both laboratory based and clinical research divisions, including the Center for Molecular Medicine, the Center for Regenerative Medicine, the Center for Clinical and Translational Research, and the Center for Outcomes Research and Evaluation.”

“**The Center for Molecular Medicine (CMM)** was established in 1998 as the basic research center for MMCRI. The primary research focus of CMM is cardiovascular disease, with an emphasis on vessel wall biology and angiogenesis. Other areas of interest are cancer biology, bone disease, and stem cells.”

“**The Center of Regenerative Medicine (CRM)** was established in the spring of 2001 to facilitate the study of stem cells and their potential as therapeutic agents or alternatives in the clinical arena. This Center has strong collaborative ties with the Jackson Laboratories and the Biophysics group at University of Maine, Orono. A major emphasis of the program is in translational medicine, in order to expedite the discoveries made at the bench into clinically relevant advances in our current ability to treat the aging population of North America. Advances in this center will benefit the growing numbers of individuals who suffer with Parkinson's disease, Alzheimer's disease, diabetes, arthritis, osteoporosis, kidney failure and other diseases exponentially increasing in our aged population.”

“**The Center for Clinical and Translational Research (CCTR)** goal is the advancement of clinical and translational research in order to improve patient care outcomes and the nation’s health. The mission for the CCTR is to 1) tackle the major chronic diseases that are the centerpiece of Maine Medical Center’s signature clinical and clinical research programs, 2) build and support a centralized research infrastructure, and 3) build and strengthen ties with the basic science research being performed at MMCRI.”

“**The Center for Outcomes Research and Evaluation (CORE)** performs original, grant funded health services and outcomes research and randomized trials, assists in evaluation activities throughout Maine Medical Center and MaineHealth® and conducts independent evaluations through grants and contracts, assists in the medical education programs, and provides research design and statistical consultation throughout the institution.”

### **MMCRI Key Individuals**

“**Kenneth Ault, M.D.**, Associate Vice President for Research and Director, MMCRI, received his MD from Harvard in 1970 and is Board-Certified in Internal Medicine and Hematology. Research interests include bone marrow transplantation, hematology research and development, platelet disorders, platelet function and kinetics, non-Hodgkins lymphoma, immunology and flow cytometry, and applications for diagnostic hematology.”

**“Robert E. Friesel, Ph.D.,** Director, Center for Molecular Medicine, received his Ph.D. from George Washington University Medical Center in Washington, D.C. He obtained postdoctoral training in the Laboratory of Molecular Genetics at the National Institute for Child Health and Human Development. Dr. Friesel joined MMCRI in 1998 after 8 years as a principal investigator at the Holland Laboratory for the Biomedical Sciences at the American Red Cross. Dr. Friesel has served as a member of several peer review committees for a variety of funding agencies.”

**“Joseph Verdi, Ph.D.,** Director, Center for Regenerative Medicine, received his Ph.D. from the University of California at Los Angeles in 1991. He obtained postdoctoral training in Developmental Neuroscience at the California Institute of Technology. Dr. Verdi joined the Center for Molecular Medicine at Maine Medical Center Research Institute in 2002 after five years as the Director of the Laboratory of Neural Stem Cell Biology Laboratory, John P. Robarts Research Institute, and Assistant Professor, Department of Physiology and Genetics, Graduate Program in Neuroscience, University of Western Ontario, London, Ontario, Canada. Dr. Verdi has served as director, consultant and member of several medical and scientific committees.”

**“Jonathan Himmelfarb, M.D.,** Director, Center for Clinical and Translational Research, Division of Nephrology and Renal Transplantation, Department of Medicine, has the following research interests: The pathophysiology of the disease process linking uremia, inflammation, and malnutrition with cardiovascular complications in uremic patients and the effects of antioxidant therapy on inflammatory biomarkers. Hemodialysis graft thrombosis, complement and granulocyte activation during hemodialysis and biocompatible dialysis membranes in acute renal failure.”

**“Don M. Wojchowski, Ph.D.,** Director, Stem and Progenitor Cell Biology Program, graduated from Colby College; acquired biomedical research training at Boston's Children's Hospital; completed doctoral studies within a cell biology training program at the University of Massachusetts, Amherst; and then pursued postdoctoral studies at Harvard Medical School.”

“Research interests include molecular mechanisms that govern mammalian progenitor cell proliferation, survival and differentiation. Hematopoiesis (blood cell development) serves as a prime model system, and provides an exceptional example of sustained tissue regeneration from a multipotent progenitor pool. This developmental process also is frequently perturbed clinically (leukemias, blood cell disorders, cancer) and provides unique advantages for bench investigations (e.g., via transplantation, repopulation and in vitro expansion).”

“Erythropoiesis is another focus of investigations. Red blood cells form continuously at remarkable rates, and defects in their formation are common (e.g., anemias associated with chemotherapy and renal or chronic disease). Key factors that regulate erythropoiesis are incompletely understood, and investigations may reveal new targets for anti-anemia agents.”

“Director, Center for Outcome Research and Evaluation, is currently vacant.”

### **Affiliated Entities & Related Parties**

“Maine Medical Center is a subsidiary of MaineHealth®, a nonprofit organization.”

**MaineHealth®**

“465 Congress Street  
Suite 600  
Portland, Maine 04101  
<http://www.mainehealth.com>”

“MaineHealth®’s vision is to working together so our communities are the healthiest on America.”

“MaineHealth®’s primary service area is the following ten Maine counties: Androscoggin, Cumberland, Franklin, Kennebec, Knox, Lincoln, Oxford, Sagadahoc, Somerset and York.”

**MaineHealth® Members**

“Maine Medical Center – hospital; Maine Medical Partners – diagnostic, physician and practice management services; MMC Realty Corp - real estate. Maine Medical Center is involved in the following joint ventures:

- Maine Heart Center – joint venture with cardiologists, cardiac surgeons and anesthesiologists for managed care contracting;
- MMC Physician Hospital Organization (PHO) - a joint venture with the Portland Community Physicians Organization;
- New England Rehabilitation Hospital of Portland - joint venture rehabilitation hospital with HealthSouth;
- MMC/Maine General Medical Center Joint Venture Cath. Lab.;
- Cancer Care Center of York County –MMC/Southern Maine Medical Center/Goodall Hospital joint venture radiation therapy center.”

“Spring Harbor Hospital – psychiatric hospital.”

“NorDx – reference lab.”

“Home Health Visiting Nurses of Southern Maine – home health care.”

“Occupational Health & Rehabilitation, Inc. – joint venture limited liability corporation providing occupational health services.”

“Intellicare – joint venture providing telephone support services to medical practices.”

“Maine Molecular Imaging – joint venture providing positron emission tomography (PET) scans.”

“MaineHealth Vital Network - central monitoring system staffed by intensive care physicians and nurses for intensive care patients in multiple locations.”

“St. Andrews Hospital and Healthcare Center – hospital, nursing home, home health agency, physician practices and assisted living.”

“Miles Health Care – hospital, nursing home, home health agency, physician practices and assisted living.”

“Western Maine Health Care Inc. – hospital, nursing home, assisted living and physician practices.”

“Maine PHO – joint Physician-Hospital Organization (PHO) of the PHO’s of Maine General Medical Center, Southern Maine Medical Center, Maine Medical Center, Stephens Memorial Hospital and St. Mary’s Regional Medical Center.”

“Maine Behavioral Health Partnership – joint venture of MaineHealth®, Maine Medical Center, Sweetser, Spurwink, Southern Maine Medical Center, Spring Harbor Hospital and St. Mary’s Regional Medical Center providing behavioral health case management services for self-insured employers.”

“Synernet – not for profit organization providing group purchasing and consulting services for its member organizations.”

“MaineHealth® also has strategic affiliation agreements with Southern Maine Medical Center, Maine General Health, Mid Coast Health Services, and Sisters of Charity Health System.”

## **Financial Performance**

“MMC’s most recently available audited financial statements (Fiscal Year ending September 30, 2006) are on file with the Certificate of Need Unit and demonstrate MMC’s capacity to support the project financially.”

## **Quality Indicators**

“MMC believes that the fact that MMCRI is the only non-university affiliated research facility in the country to have received COBRE grants is a peer-reviewed indication of the quality of the research being performed by MMCRI, and MMC’s capacity to establish and operate projects in conformance with the National Institutes of Health’s rigorous standards.”

### **B. CONU Discussion**

#### **i. Criteria**

Relevant criteria for inclusion in this section are specific to the determination that the applicant is fit, willing and able to provide the proposed services at the proper standard of care as demonstrated by, among other factors, whether the quality of any health care provided in the past by the applicant or a related party under the applicant’s control meets industry standards;

#### **ii. Analysis**

This proposal is not, primarily, a new service for MMC but an expansion of existing research facility space located in Scarborough, Maine.

The Division of Licensing and Regulatory Services, Medical Facilities Unit acknowledges that Maine Medical Center is a fully licensed acute care hospital licensed in the State of Maine and is MaineCare and Medicare certified. The Division's most recent survey was completed on July 10, 2006. No major deficiencies were cited that would affect licensure. MMC was sited for numerous life safety code deficiencies. CMS notified MMC on August 30, 2006 that the deficiencies were standard level code deficiencies and a plan of correction was not required. MMC submitted a plan of correction on October 31, 2006 even though it was not necessary. The last Joint Commission report was completed on July, 2005. MMC passed and was fully accredited by the Joint Commission on November 2, 2005.

The applicant has shown a long standing ability to provide hospital based services within licensing standards.

The research facility is not licensed through the Division of Licensing and Regulatory Services, Medical Facilities Unit, CMS or by the Joint Commission. The CONU thought it was important to include this information on the hospital entity which operates the research facility.

MMCRI is the only non-university affiliated research facility in the country to have received two grants through the National Institutes for Health Center of Biomedical Research Excellence (COBRE).

### **iii. Conclusion**

Based on the discussion above the CONU recommends that the Commissioner determine that the applicant is fit, willing and able to provide the proposed services at the proper standard of care.

### III. Capital Expenditures, Financing and Compliance

#### A. From Applicant

##### MMCRI Expansion Estimated Capital Budget

Architect & Engineer Costs		
Basic Fees	940,000	
Reimbursables	66,000	
Traffic Consultants	10,000	
CAD Translation	<u>2,000</u>	
Architect & Engineer Costs		1,017,000
Construction Costs:		
Building	6,917,000	
Sitework	<u>913,000</u>	
Construction Costs		7,830,000
Construction-Associated Costs		
General Expenses/Permits	204,000	
Testing & Inspections	35,000	
DEP/Community mitigation	<u>60,000</u>	
Construction-Associated Costs		299,000
Finance Costs		
Insurance	7,000	
Interest during Construction	<u>474,000</u>	
Finance Costs		481,000
Furniture, Furnishings & Equipment		
Furniture & Furnishings	174,000	
Equipment	901,000	
Telecommunications	<u>472,000</u>	
Furniture, Furnishings & Equipment		1,547,000
Owner's Costs		
Signage	10,000	
Clerk of the Works	81,000	
Facility Project Management	40,000	
Purchasing PM	20,000	
I.S. Telecommunication PM	60,000	
Commissioning	<u>28,000</u>	
Owner's Costs		240,000
Owner's Contingency		<u>784,000</u>
<b>TOTAL CAPITAL BUDGET</b>		<b>\$12,198,000</b>

### Basis for Estimates

“The capital budget estimates have been developed by MMCRI, MMC Departments of Facilities Development, Planning, Purchasing, Information Services and Financial Planning in cooperation with Harriman Associates (project architect, design engineers and civil engineers), Wilson Architects (consulting architects) and Pizzagalli Construction Company (project construction manager).”

### Sources & Uses

“MMC proposes financing this project with Maine Health and Higher Education Finance Authority tax-exempt bonds. Terms are expected to be a fixed APR of 5% for a thirty year term.”

MMC currently carries an AA- credit rating from Standard & Poor’s, a highly regarded credit ratings company that evaluates an institution’s credit worthiness based on governance and management, as well as, financial operating performance.”

#### MMCRI Facility Expansion Sources & Uses of Funds

##### Uses

Construction, Fees & Equipment	\$11,724,000
Interest during Construction	<u>\$474,000</u>
<b>TOTAL</b>	<b>\$12,198,000</b>

##### Sources

Debt	\$12,198,000
Equity	<u>\$0</u>
<b>TOTAL</b>	<b>\$12,198,000</b>

### Reasonableness of Financing

“MMC provides the following table to demonstrate that the proposed borrowing is reasonable within the context of the portfolio of its Certificate of Need-authorized Master Facility Plan Phase One projects.”

### Master Facility Plan Phase 1 Projects Capital Budgets and Sources of Financing

	<u>CON Approved Projects</u>			<u>Projects Under Review</u>		<u>TOTAL</u>
	Women & Infants Facility	Central Utility Plant	Ambulatory Surgery Center	ED / Radiology Expansion	MMCRI Expansion	
USES	3,049,000	27,856,000	28,818,000	25,024,000	12,200,000	176,947,000
<b>SOURCES</b>						
Debt	62,865,000	-	-	-	12,200,000	75,065,000
Equity	20,184,000	27,846,000	28,818,000	25,024,000	-	101,872,000
Sources	83,049,000	27,846,000	28,818,000	25,024,000	12,200,000	176,937,000
<b>RATIO</b>						
Debt	76%	0%	0%	0%	100%	42%
Equity	24%	100%	100%	100%	0%	58%

#### Staffing

“MMCRI currently employs 18 principal investigators, 45 post doctoral/research assistant/graduate students, 13 technicians/nurses and 24 administrative/support staff.”

“MMCRI proposes increasing its staff by 7 principal investigators, 22 post doctoral/research assistant/graduate students, 11 technicians/nurses and 6 administrative/support staff.”

#### Recruitment and Retention

“As one of the largest private employers in Maine, MMC has a full-service Human Resources department to recruit staff. MMC recruits over 800 new/replacement staff each year.”

#### Financial and Economic Feasibility

“MMCRI is funded primarily through National Institutes for Health Center of Biomedical Research Excellence (COBRE) grants, and grants from other federal agencies and private foundations. MMCRI is the only non-university affiliated research facility in the country to have received COBRE grants. It is anticipated that MMCRI’s annual budget will increase from \$16 million to \$27 million during the next five years.”

“MMCRI has been very successful in securing funding for its research initiatives. MMC believes that this proven track record demonstrates the financial and economic feasibility of this project.”

“A list of MMCRI’s research grants and contracts accompanies this application as an attachment.”

“Governor Baldacci has targeted biomedical research as an economic engine, and the State has invested \$45 million in biomedical infrastructure over the past five years. MMCRI has received approximately \$4.5 million of this investment and is using these funds to attract additional investment.”

“Maine Medical Center supports its research activities with operating revenue in addition to the grants and contracts, which it receives for research. MMC’s research expenses appear on its Medicare/MaineCare Cost Report as nonreimbursable expenses. Neither Medicare nor MaineCare pay these expenses, nor the fully allocated General and Administrative costs assigned to research.”

“MMC supports its research initiatives with excess operating revenue. MMCRI’s annual budget is approximately \$16,000,000; MMC support is approximately \$3,500,000 per year. MMC’s commitment to research is expected to increase to \$5,800,000 during the forecast period as MMCRI’s annual budget grows to approximately \$27,000,000.”

**Incremental Expenses**

“MMC presents the following three-year projection of incremental operating and non-operating expenses. Building operations include building and grounds maintenance, housekeeping and environmental services, utilities.”

<b>MMCRI Facility Expansion Project</b>			
<b>Estimated Incremental Operating Expenses</b>			
<b>Fiscal Year</b>	<b>2009</b>	<b>2010</b>	<b>2011</b>
Building Operations	\$551,007	\$567,538	\$584,564
Annual Depreciation	660,636	660,636	660,636
Interest Expense	<u>568,829</u>	<u>559,292</u>	<u>549,266</u>
<b>TOTAL</b>	<b>\$1,780,473</b>	<b>\$1,787,465</b>	<b>\$1,794,466</b>

“MMC will be submitting our plans to the Town of Scarborough Planning Board, Maine Department of Environmental Protection and the Maine State Fire Marshall for their respective reviews. MMC will accept as a condition of approval of this application site and life safety approvals by the appropriate authorities.”

**B. CONU Discussion**

**i. Criteria**

Relevant criteria for inclusion in this section are specific to the determination that the economic feasibility of the proposed services is demonstrated in terms of:

1. Capacity of the applicant to support the project financially over its useful life, in light of the rates the applicant expects to be able to charge for the services to be provided by the project;
2. Applicant’s ability to establish and operate the project in accordance with existing and reasonably anticipated future changes in federal, State and local licensure and other applicable or potentially applicable rules;

**ii. Analysis**

An analysis of the Marshall & Swift valuation system (February, 2007 x Current Cost Multiplier-April., 2007 x Local Cost Multiplier) that projects cost for certain building classes, estimates that the cost per square foot to construct a new science building grade Class A Type excellent construction would be \$350.02 per square foot (\$326.82 x 1.05 Current Cost Multiplier x 1.02 Local Cost Multiplier). Given this estimate the projected cost to build a new building for this project would be \$8,050,460 (\$350.02 x 23,000 sq. ft.). This does not include higher costs for elevators, sprinkler systems, or specialized fume hoods etc. which would increase construction costs. MMC capital budget projects \$8,714,000 as the cost of construction/renovation. Their projected cost appears to be in line with Marshall & Swift estimates taking into consideration higher costs for elevators and sprinkler systems.

The CONU financial analysis considers information contained in the 2006 Almanac of Hospital Financial and Operating Indicators and generally accepted accounting standards in determining the financial capability of the hospital to support this proposed project.

The review of financial indicators is important because they present a fair and equitable representation of the financial health of an organization and can present appropriate comparisons. This provides a sound basis for a determination of whether the hospital has the ability to commit the financial resources to develop and sustain the project. While there are a number of indicators that are used in the industry, the ones applied to this review have been selected due to their direct relevance to the financial health of the applicant. The following analysis is based upon information provided by the applicant in its application. One item of terminology needs to be defined. Throughout the analysis, a comparison of high-performance and low-performance hospitals is referenced. These groups are based on the uppermost and lowermost quartiles of hospitals based on their return on investments. CONU chose not to specifically discuss return on investment, but instead to use that ratio to group all hospitals in regards to making a comparison to the particular project and applicant.

**Profitability:**

Non-profit hospitals need to perform at financially sustainable levels in order to carry out their public missions. An adequate operating margin is a key indicator of the financial health of a hospital.

According to the 2006 Almanac of Hospital Financial and Operating Indicators, operating margins in the high performing hospital group have seen greater improvements in margins while hospitals in the low performing group are sliding. High performing hospitals are doing better now than five years ago. Over the same time, lower performing hospitals are generally doing worse than five years ago. There is a widening gap between high and low performing hospitals. Improvement in operating profits for high-performing hospitals drives this widening performance gap. As a comparison, operating margins in the Northeast Region are considerably lower than in other regions.

	<b>2004 Northeast Median</b>	<b>2004 Maine State Median</b>	<b>2004 MMC's</b>	<b>2011 MMC's Proforma</b>
<b>Operating Margin</b>	1.60%	3.10%	3.05%	2.56%

The Maine State average for 2004 was 3.1%. MMC's in 2004 was 3.05, slightly below the average that puts them in the 50th percentile. The trend for the State of Maine has been inconsistent with a low of -1.2 to a high of 3.1 over the 2000 to the 2004 period. MMC had a spike in its operating margin in 2005 to 4.26% but went back to 3.85% in 2006.

The effect of this project on operating margins for the first three years of operation (2009-2011), as projected by the applicant, is an increase from 2.43% to 2.56%. This is not a significant impact on the operating margins for the hospital and is reflective of the conservative assumptions by the applicant.

#### Liquidity:

Liquidity measures a hospital's ability to manage change and provide for short-term needs for cash. Liquidity alleviates the need for decision making to be focused on short-term goals and allows for more efficient planning and operation of a hospital.

Days Cash On Hand is a ratio that is industry accepted, easily calculated, and used to determine a hospital's ability to meet cash demands.

According to the 2006 Almanac of Hospital Financial and Operating Indicators, high performing hospitals have approximately 80 days cash on hand while low performing hospitals have 45 days. Urban hospitals with revenues greater than \$150 million had approximately 81.9 days cash on hand in 2004.

	<b>2004 Northeast Median</b>	<b>2004 Maine State Median</b>	<b>2004 MMC's Average</b>	<b>2011 MMC's Proforma</b>
<b>Days Cash on Hand</b>	81.20 Days	73.40 Days	186.84 Days	192.97 Days

In 2004, the average days cash on hand from all sources for hospitals in the State of Maine was 73.4 days. The CONU calculated days cash on hand for MMC in 2004 as approximately 187 days indicating that MMC was between the 90th to 100th percentile. MMC's days cash on hand increased to 189 in 2005 and to 204 in 2006.

According to the same source, the average day's cash on hand between 2000 and 2004 remained about 68 days. Maine had 15% less days cash on hand than the Northeast Region at 80 days, 12 days more than the Maine average.

The impact of this proposed project has little effect with projected days cash on hand per applicant's assumptions ranging from 150 days cash on hand in 2009 to 193 days cash on hand in 2011. This project will not have a substantial impact on MMC's operating ability to meet its cash demands and MMC should be able to adequately support this project.

#### Capital Structure Ratios:

Many long-term creditors and bond rating agencies evaluate capital structure ratios to determine the hospital's ability to increase its amount of financing. During the past 20 years, the hospital industry has radically increased its percentage of debt financing. This trend makes capital structure ratios important to hospital management because these ratios are widely used by outside creditors. Values for these ratios ultimately determine the amount of financing available to a hospital. Debt service coverage is the most widely used capital structure ratio. Debt service coverage minimums are often seen as loan requirements when obtaining financing. Debt service coverage is the ratio of earnings plus depreciation and interest expense to debt service requirements. In 2004, the median Maine hospital's debt service coverage (DSC) was 3.45x.

	<b>2004 Northeast Median</b>	<b>2004 Maine State Median</b>	<b>2004 MMC's Average</b>	<b>2011 MMC's Proforma</b>
<b>Debt Service Coverage</b>	3.12	3.45	5.80	7.43

MMC had a DSC in 2004 of 5.80x which places the hospital in the range of 75th - 90th percentile. The statewide trend for 2000-2004 is inconsistent with a low of 2.39 in 2002 and a high of 3.71 in 2000. The DSC for MMC in 2005 increased to 8.99 and then declined slightly to 8.79 in 2006. The trend, as projected by MMC will be steady between 6.88 in 2009 to 7.43 in 2011 placing them near the 90th percentile.

MMC has the capacity and the ability to have adequate debt service coverage.

According to the 2006 Almanac of Hospital Financial and Operating Indicators, Fixed Asset Financing: "Low performance hospitals have historically used more debt to finance net fixed assets than high performance hospitals. With the removal of capital cost pass throughs, long term debt will become most costly relative to equity. High performance hospitals are restructuring their capital positions to reflect this shift in the relative costs of debt and equity capital. However, we expect fixed asset financing ratios to continue to remain stable during the next 5 (five) years as hospitals curtail their growth in new capital expenditures and reduce their reliance on long term debt."

	<b>2004 Northeast Median</b>	<b>2004 Maine State Median</b>	<b>2004 MMC's Average</b>	<b>2011 MMC's Proforma</b>
<b>Fixed Asset Financing</b>	62.9	54.3	38.0%	31.0%

The Northeast has considerably higher rates in financing fixed assets than other regions. The 2004 average for hospitals in the State of Maine was 54.3 percent in regards to fixed asset financing. In 2004, MMC's capital structure ratio was at 38 percent, which is between the 10th to 25th percentile for the State of Maine. For the years 2000-2004, hospitals with revenues similar to MMC averaged 68.4 percent. The fixed asset financing ratio over the past 5 years has remained relatively consistent in the State of Maine.

The applicant is not using any outside sources to fund this project which is consistent with the way MMC is spending funds on fixed assets. MMC's fixed asset financing ratio remains constant throughout the projected forecast period (2009-2011).

### Efficiency Ratios:

According to the 2006 Almanac of Hospital Financial and Operating Indicators, total asset turnover (TAT) provides an index of the number of operating revenue dollars generated per dollar of asset investment. Higher values for this ratio imply greater generation of revenue from the existing investments of assets. Larger hospitals usually have lower values for turnover than smaller hospitals. This can be attributed to two factors. First, larger hospitals are most likely to have newer physical plants. Second, capital intensity is often greater in larger hospitals due to more special services and higher levels of technology.

	2004 Northeast Median	2004 Maine State Median	2004 MMC's Average	2011 MMC's Proforma
Total Asset Turnover	1.06	1.18	0.74	0.70

In 2004, according to the source cited above, Maine hospitals had a TAT ratio of 1.18. For 2004, MMC had a TAT of .74 times decreasing to .73 times in 2005 and .64 times in 2006. This is indicative of the recent projects undertaken at MMC.

In the period of 2000 – 2004, there has been a steady increase in the TAT for Maine hospitals.

### **iii. Conclusion**

The CONU concludes that, as proposed, the applicant can financially support the project. Expected demands on liquidity and capital structure are expected to be adequate to support projected operations. Financing and turnover ratios show little impact on the organization as a whole from engaging in this project. The hospital has shown significant earnings which are not expected to be significantly impacted by this project. No borrowing costs will be passed on to payors as costs for this project will be funded by research grants and excess operating revenue from Maine Medical Center.

The applicant's projected cost for this project is also in line with CONUs' estimates using Marshall & Swift as a methodology.

CONU recommends the Commissioner determine that the economic feasibility of the project has been demonstrated.

## **IV. Need**

### **A. From Applicant**

“MMC currently supports over 200 residents and fellows in 11 residencies and 8 fellowships approved by the Accreditation Council for Graduate Medical Education. Residency and Fellowship accreditation require a strong, viable research program.”

“MMCRI research initiatives address such conditions as cardiovascular disease, cancer, Parkinson's disease, Alzheimer's disease, diabetes, arthritis, osteoporosis, kidney failure and other chronic diseases.”

“The current MMCRI facility does not have sufficient space to support the increase in research investigative teams necessary to carry out the required research. The purpose of this project is to provide an adequate physical plant to support the expansion of MMCRI’s research initiatives.”

## **B. CONU Discussion**

### **i. Criteria**

Relevant criteria for inclusion in this section are specific to the determination that there is a public need for the proposed services as demonstrated by certain factors, including, but not limited to:

- Whether, and the extent to which, the project will substantially address specific health problems as measured by health needs in the area to be served by the project;
- Whether the project will have a positive impact on the health status indicators of the population to be served;
- Whether the services affected by the project will be accessible to all residents of the area proposed to be served; and
- Whether the project will provide demonstrable improvements in quality and outcome measures applicable to the services proposed in the project;

### **ii. Analysis**

The applicant has provided documentation that its research facility is full and at capacity. They have the need for additional research space where research investigative teams can carry out required research. The type of research projects carried out at MMCRI address cardiovascular disease, cancer, Parkinson’s disease, Alzheimer’s disease, diabetes, arthritis, osteoporosis, kidney failure and other chronic diseases.

### **iii. Conclusion**

It was evident from the CONU’s site visit at the research facility that all the research area was occupied and being used for research and to expand would require additional space.

The CONU recommends that the Commissioner determine that the applicant has justified the need of this project based upon the above information.

## V. Alternatives

### A. From Applicant

“There are no viable alternatives to providing space for these research functions. Enlarging the MMCRI building is the most efficient option; separate facilities result in building and operational inefficiencies.”

### B. CONU Discussion

#### i. Criteria

That the proposed services are consistent with the orderly and economic development of health facilities and health resources for the State as demonstrated by:

- The impact of the project on total health care expenditures after taking into account, to the extent practical, both costs and benefits of the project and the competing demands in the local service area and statewide for available resources for health care;
- The availability of State funds to cover any increase in State costs associated with utilization of the project’s services; and
- The likelihood that more effective and accessible, or less costly. Alternative technologies or methods of service delivery may become available.

#### ii. Analysis

William A. Bremer, Bureau of Insurance assessment memorandum to Phyllis Powell, Manager CONU dated June 25, 2007 states the following:

“The Bureau of Insurance applied the assessment model that was previously developed internally with support from its consultant, Milliman, Inc., of Minneapolis, MN, in order to develop an estimate of the impact that this CON project is likely to have on private health insurance premiums in Maine Medical Center’s service area and in the entire state of Maine. I have worked with you and your staff at the CON Unit, using data and support from the U.S Census Bureau, the State Planning Office, the State Office of Integrated Access and Support, and the Bureau of Insurance, as well as Richard Linehan, Director of Planning, MMC, to perform this assessment.”

“The methodology compares the CON project’s Year 3 operating costs (adjusted to the year ending June 30, 2007) to the estimated private health insurance average premium per person for the same period—which is the period of time for which the 2006-2007 capital investment fund has been established. Based on the model, I estimate that the maximum impact of this CON project on private health insurance premiums in Maine Medical Center’s service area for the project’s third year of operation will be approximately \$0.033 per \$100 (0.033%) of premium. I further estimate that this project, in its third year of operation, will have an impact on statewide private health insurance premiums of approximately \$0.012 per \$100 (0.012%) of premium.”

Total approved 3rd year operating costs are projected to be \$1,794,466. It doesn't appear that any payors will share in this cost. Third year operating costs are supported by research grants and excess revenues over expenses by Maine Medical Center. The state budget should not be affected as MaineCare does not share in the costs as a payor.

There are no alternative considerations available to this project except for research teams to take their research projects to another facility possibly out-of-state and then the State of Maine would lose that economic development that is important to the State and community.

### **iii. Conclusion**

The CONU concurs with the assessment by the Bureau of Insurance. This project will pose a minimum financial impact to third party payors. The Bureau of Insurance recognized that 27 % of the operating costs of this project (\$465, 862) = de-trended third year operating cost (\$1,725,414 x 27%) will be born out of surplus revenues over expenses at MMC by all payors. Therefore, expenses to operate this project may have already been computed into the insurance rates MMC projects to receive for all services (\$277,654).

The CONU has determined the impact to the Maine budget to be \$0 as MaineCare does not share in reimbursable cost for research as a payor.

The CONU is unaware of the likelihood that more effective and accessible, or less costly alternative technologies or methods of service delivery may become available.

CONU recommends that the Commissioner determine that the proposed project is consistent with the orderly and economic development of health facilities in the State.

## **VI. State Health Plan**

### **A. From Applicant**

*“Health care in Maine will be based on sound research and designed to maximize patient outcomes and patient safety.”*

“Maine’s State Health Plan, Guiding Principles, p. 6.”

“The purpose of this project is to provide an adequate physical plant to support the expansion of MMCRI’s research initiatives. These research initiatives address such conditions as cardiovascular disease, cancer, Parkinson's disease, Alzheimer's disease, diabetes, arthritis, osteoporosis, kidney failure and other chronic diseases.”

“The project addresses chronic diseases on both a population-based and a patient-centered basis. MMCRI believes that furthering clinical and scientific knowledge will result in improvements to public health and patient safety, reductions in demand for health care services and increased effectiveness of clinical services. MMCRI research efforts advance access to evidence-based clinical practice.”

“The project is specifically designed to support further biomedical research. MMCRI has a history of publishing peer-reviewed research in the professional literature and fully intends to gather, maintain, and share data and information regarding the research activities that will be housed in this expansion. The project supports the continued expansion of MMCRI’s contributions toward total health knowledge through research.”

“Governor Baldacci has targeted biomedical research as an economic engine:

*“While the direct economic benefit from these state investments is important, we should not lose sight of the impact of the ground breaking health research being done at these institutions. Researcher are working to uncover new avenues for understanding the diseases that directly impact so many Maine people, and increase our cost of health care -- like diabetes, heart disease, Alzheimer’s and cancer. This is ground breaking research that will someday develop treatment or cures for diseases that at one point touch the lives of every person in Maine.”*

“(Governor Leads Rally for Bonds that Advance Maine Research and Development Initiatives, September 15, 2005)”

**B. CONU Discussion**

**i. Criterion**

Relevant criterion for inclusion in this section is specific to the determination that the project is consistent with the State Health Plan.

<u>State Health Plan goals targeted by Applicant include:</u>	<u>State Health Plan Priority</u>
Protect public health and safety	Highest Priority
Less than a 0.5% increase on regional insurance premiums	Priority Consideration

*The CONU received the required assessment by Dora Mills, M.D. Director, Maine Center For Disease Control and Prevention to Catherine Cobb, Director, Division of Licensing and Regulatory Services, and was sent via e-mail dated June 1, 2007, and makes the following comments:*

“The Maine Medical Center Research Institute (MMCRI) proposes to expand its 34,000 square foot facility in Scarborough by 23,000 square feet for the purposes of adding space for bench research and space for translational and clinical research.”

“The types of research supported by the MMCRI bring in Federal and other dollars to the State of Maine, adding to the state’s economy. The expansion does not appear to have a direct impact on the health care system except an indirect positive impact that is primarily population-based (advances toward cures and treatments). Many of the types of research supported by MMCRI are or can be done in a university or private laboratory (such as Jackson Laboratory) setting, where they are not subject to

Certificate of Need health assessment. Therefore, there is no direct relevance to the State Health Plan and the other questions answered in a health assessment.”

**ii. Analysis**

The CONU concurs with the assessment from the Maine Center For Disease Control and Prevention as noted above.

MMC has demonstrated that the project will protect public health and safety as research may lead to cures for chronic diseases.

MMC has demonstrated that this project exercises less than a 0.5% increase on regional insurance premiums as stated by the assessment from the Bureau of Insurance.

**iii. Conclusion**

The CONU recommends that the Commissioner determine that this application is consistent with the State Health Plan.

**VII. Outcome and Community Impact**

**CONU Discussion**

**i. Criteria**

Ensures high-quality outcomes and does not negatively affect the quality of care delivered by existing service providers.

**ii. Analysis**

This project is a research project and this section does not apply to this project.

**iii. Conclusion**

The CONU recommends that the Commissioner determine that this project ensures high-quality outcomes and does not affect the quality of care by existing service providers.

**VIII. Service Utilization Impact**

**CONU Discussion**

**i. Criteria**

Does not result in inappropriate increases in service utilization, according to the principles of evidence-based medicine adopted by the Maine Quality Forum, as established in Title 24-A, section 6951.

ii. **Analysis**

This project is a research project and this section and this section does not apply to this project.

iii. **Conclusion**

The CONU recommends that the Commissioner determine that this project will not result in inappropriate increasing in service utilization.

**IX. Other**

**CONU Discussion**

i. **Criterion**

Relevant criterion for inclusion in this section is related to the needed determination that the project can be funded within the Capital Investment Fund. 22 M.R.S.A. Sec. 335 (7).

ii. **Analysis**

This project was deemed reviewable as a simplified review and therefore does not apply to the CIF.

**X. Timely Notice**

**CONU Discussion**

Letter of Intent filed:	January 29, 2007
Subject to CON review letter issued:	February 6, 2007
Technical assistance meeting held:	February 28, 2007
CON application filed	March 9, 2007
CON certified as complete:	March 9, 2007
Public informational meeting held	April 20, 2007

The CONU has recommended that the Commissioner determine that a timely notice was given.

**XI. Findings and Recommendations**

Based on the preceding analysis, the CONU makes the following findings and recommendations:

- A. That the applicant is fit, willing and able to provide the proposed services at the proper standard of care as demonstrated by, among other factors, whether the quality of any health care provided in the past by the applicant or a related party under the applicant's control meets industry standards;
- B. The economic feasibility of the proposed services is demonstrated in terms of the:

1. Capacity of the applicant to support the project financially over its useful life, in light of the rates the applicant expects to be able to charge for the services to be provided by the project; and
  2. The applicant's ability to establish and operate the project in accordance with existing and reasonably anticipated future changes in federal, state and local licensure and other applicable or potentially applicable rules;
- C. That there is a public need for the proposed services as demonstrated by certain factors, including, but not limited to;
1. the project will substantially address specific health problems as measured by health needs in the area to be served by the project;
  2. the project will have a positive impact on the health status indicators of the population to be served;
  3. the services affected by the project will be accessible to all residents of the area proposed to be served; and
  4. the project will provide demonstrable improvements in quality and outcome measures applicable to the services proposed in the project;
- D. That the proposed services are consistent with the orderly and economic development of health facilities and health resources for the State as demonstrated by:
1. The impact of the project on total health care expenditures after taking into account, to the extent practical, both costs and benefits of the project and the competing demands in the local service area and statewide for available resources for health care;
  2. The availability of State funds to cover any increase in State costs associated with utilization of the project's services; and
  3. The likelihood that more effective, more accessible or less costly alternative technologies or methods of service delivery may become available;

In making a determination under this subsection, the commissioner shall use data available in the state health plan under Title 2, section 103, data from the Maine Health Data Organization established in chapter 1683 and other information available to the commissioner. Particular weight must be given to information that indicates that the proposed health services are innovations in high quality health care delivery, that the proposed health services are not reasonably available in the proposed area and that the facility proposing the new health services is designed to provide excellent quality health care.

- E. That the project is consistent with the State Health Plan;
- F. That the project ensures high-quality outcomes and does not negatively affect the quality of care delivered by existing service providers is not applicable;

G. That the project does not result in inappropriate increases in service utilization, according to the principles of evidence-based medicine adopted by the Maine Quality Forum is not applicable; and

H. That the project will not be funded within the Capital Investment Fund, 22 M.R.S.A. Sec.335 (7), since this is a simplified review, it was deemed a research project.

The CONU recommends that this project be **APPROVED**.