UNIVERSITY OF MASSACHUSETTS

Amherst • Boston • Dartmouth • Lowell • Worcester

Fiscal Year 2014 to 2018

Five-Year Capital Plan

September 2013

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Overview and Introduction

The University of Massachusetts has been providing high quality educational opportunities for Massachusetts residents and for students and faculty from all over the world for 150 years. The University's mission is to provide an affordable and accessible education of high quality and to conduct programs of research and public service that advance knowledge and improve the lives of the people of the Commonwealth, the nation, and the world. With five campuses located across the Commonwealth, the University is an economic engine and a catalyst for social development throughout the entire state.

The University was established in 1863 as the Massachusetts Agricultural College, located in Amherst. It became known as the Massachusetts State College in 1932 and in 1947 became the University of Massachusetts. The Worcester and Boston campuses were established in 1962 and 1964, respectively. The Lowell and Dartmouth campuses (previously the University of Lowell and Southeastern Massachusetts University, respectively) were consolidated into the University under Chapter 142 of the acts of 1991.

The University of Massachusetts is governed by a single Board of Trustees composed of 19 voting members and three non-voting members. The President of the University oversees the five-campus system and Chancellors manage the campuses located at Amherst, Boston, Dartmouth, Lowell, and the Medical School in Worcester.

University of Massachusetts funding sources are diverse and consist of the annual state appropriation from the Commonwealth of Massachusetts, student tuition and fee revenues and research grant funding from federal, state and private sources.

Each year the University of Massachusetts educates more than 68,000 students and confers almost 14,000 degrees at its five campuses located in Amherst, Boston, Dartmouth, Lowell and Worcester. The UMass campuses are noted for their diverse students and faculty and for their affordability in comparison with other institutions of higher education. Award-winning faculty members provide undergraduate and graduate students with research opportunities in a multitude of disciplines.

The University of Massachusetts is responsible for maintaining its physical assets which have a total replacement value of $4.6 billion over the five campuses of Amherst, Boston, Dartmouth, Lowell and Worcester (Medical School). The capital plan demonstrates planned five-year investments in campus facilities to support the University's mission, reduce maintenance costs and be environmentally responsible.

Per Board of Trustees Policy T93-122 (attached in Appendix D), all new construction or renovation projects with a total project cost of $1 million or greater shall be approved by the Board, new construction or renovation projects with a total project cost between $500K and $1 million shall be approved by the President, and all projects less than $500K shall be approved by Chancellors.

Each year, the University reviews and updates the overall five-year capital plan with the goals of updating the Board of Trustees on projects that are underway, identifying future needs and funding sources and developing a reasonable plan for making these investments over some period of time. The board approves the overall plan and projects slated for commencement over the next 24 month period are approved to begin.

			Estimated Cash Flow - Approved Projects				
Campus	**Total 5-Year Plan**	**Total Sept Approved Projects**	**FY14**	**FY15**	**FY16**	**FY17**	**FY18**
Amherst	$1,417,236,000	$1,414,736,000	$295,738,500	$303,983,500	$259,358,500	$98,137,500	$22,580,000
Boston	$1,291,935,410	$943,785,410	$227,867,555	$258,641,104	$241,950,000	$70,075,000	$31,000,000
Dartmouth	$721,328,374	$438,510,374	$118,832,607	$50,106,058	$45,841,155	$47,807,246	$53,041,626
Lowell	$1,516,400,000	$828,400,000	$150,303,480	$143,260,858	$102,788,000	$76,800,000	$42,900,000
Worcester	$523,597,500	$151,840,000	$300,000	$6,000,000	$14,300,000	$9,000,000	$9,500,000
TOTAL	**$5,470,497,284**	**$3,777,271,784**	**$793,042,142**	**$761,991,520**	**$664,237,655**	**$301,819,746**	**$159,021,626**
Projects	**255**	**183**					

Despite annual investments in our facilities, the age of each campus alone demonstrates the challenge to maintain and upgrade our assets (list campus ages)

- Amherst Campus - 65% built in 1960's & '70's; 25% prior to the 1950's
- Boston Campus - opened in 1974
- Dartmouth Campus - core of campus opened in 1970's
- Lowell Campus - most buildings date to pre-1975 merger
- Medical School - core campus opened 1970

The primary factor constraining investments in the capital plan is affordability. The funding sources available for capital investment, University funds including operating funds, donations and borrowing as well as State funds are limited. Earlier this year, the University launched a new initiative to enhance accountability and transparency. Woven within each of our key performance categories are the need for appropriate physical assets to help achieve goals. UMass Performance Accountable and On the Move,

- Student Experience & Success
- Educated Workforce and Engaged Citizenry
- World Class Research & Development Enterprise

- Enhanced Social Well Being
- Good Stewards of Resources
- Telling and Selling the UMass Story

Roles & Responsibilities

In addition to providing critical funding for capital projects, the Executive Office for Administration & Finance (EOAF) approves projects funded through the UMass Building Authority (UMBA). Prior to granting UMBA approval to undertake or finance a campus project, EOAF verifies that the project has been included on the University's Capital Plan.

In addition to the EOAF, the Division of Capital Asset Management and Maintenance (DCAMM), is a separate State Agency that reports to the EOAF and is responsible for managing State funded construction projects in collaboration with the impacted campus and UMBA. This includes overall management of the project such as design, procurement, construction and budget management. In general, each project is assigned a DCAMM project manager to oversee all aspects of the project and to communicate with the designated campus contact. In addition to managing projects, DCAMM works with the President's Office and UMBA as part of the annual process to develop the capital plan submission to the EOAF for inclusion in the five-year capital plan. This includes reviewing current projects and projected authorizations in support of UMass projects.

Collaboratively, the University is responsible for developing the five year capital plan which entails prioritizing projects, identifying funding sources and ensuring that strategic and campus priorities are being addressed.

President's Office

The President's Office is responsible for coordinating the overall capital plan for the University and based on a review of finances confirms the affordability of submitted plans. The President's Office works closely with the campuses to facilitate and coordinate the capital planning effort on an annual basis and for quarterly reporting purposes. The annual effort begins with the issuance of guidelines to campuses to ensure that each campus is submitting consistent information that will aid in presenting the plan to the Board of Trustees. Once the information is submitted, it is reviewed and analyzed in an effort to ensure that it is complete as well as to provide summary information of the submissions based on campus, funding source, and type of project. The President's Office also schedules on-site meetings with each campus to review the capital submission and to discuss priorities and how cost estimates were developed. Additionally, the President's Office coordinates the quarterly capital update to the Board which provides a status on approved projects funding and work plan along with identifying changes in the overall cost and scope of projects.

In addition to coordinating with the campuses, the President's Office is also responsible for coordinating with DCAMM on the submission of UMass priorities to the EOAF and for working with them to ensure that authorized bond bill earmarks are funded.

University of Massachusetts Building Authority (UMBA)

UMBA works with the President's Office and each campus to issue debt to finance capital projects and to manage UMBA financed and other capital projects in the capital plan. UMBA is

a distinct, public organization established by the Massachusetts Legislature in 1960. Its mission is to build facilities on the University of Massachusetts campuses including student dormitories, dining facilities, parking garages, academic buildings, laboratories, athletic facilities, heating plants, and other facilities, as well as providing funding for the repair and renovation of existing campus facilities. UMBA is responsible for completing an Executive Technical Review of each project prior to it being approved by the Board of Trustees in order to evaluate the project scope for feasibility and cost estimates for accuracy. UMBA is also responsible for the construction of facilities and hires architects, engineers and construction firms to design and build them. After the facilities are completed, they are used and maintained by the University while the Authority maintains ownership of the buildings.

Campuses
Each campus utilizes its own needs and experiences to develop a capital plan that reflects the strategic priorities for that campus. Per Board policy, each campus has developed a ten year capital master plan that is updated regularly and that then contributes to the five year plan that makes up the University capital program. The campuses must ensure that their capital plan is complete and that cost estimates used are conservative and comprehensive. In addition, each campus must evaluate its own operating budget to ensure that local source funds identified in the plan are available for capital purposes and can be used in support of the project identified in the plan.

Capital Planning Process

The Capital Planning process is currently being reviewed with campus leadership and the Board of Trustees. An update will be provided as soon as this process has been finalized.

Financial Plan

Each year, debt affordability is evaluated by each campus to determine if and when additional debt can be issued to finance capital projects. The most common metric used to determine a campus' ability to finance debt compares Debt service payments (interest and principle) to total operating expenditures. This indicator simply tells us how much of the annual operating budget must be set aside for long-term debt payments. It is extremely important to creditors who are planning to lend UMass money, or to purchase UMass bonds. The bond rating agencies believe that committing more than 10% of current revenues annually for payments to bond holders or other creditors is very risky for creditors. From the University's perspective, a high debt service to operations ratio could impact the interest rate that the University pays for its long-term debt and reduce the availability of funds for other priorities. The maximum debt service to operating expenditures ratio allowed is 8%. Below is the calculation of the debt service to operating expenditures ratio as calculated for the University's most recent financial indicators analysis as of FY13.

	Debt Service Ratio (projected)				
	FY14	**FY15**	**FY16**	**FY17**	**FY18**
Amherst	6.5%	6.3%	6.3%	6.7%	7.1%
Boston	5.0%	7.8%	7.8%	8.0%	7.8%
Dartmouth	8.8%	9.1%	8.9%	7.5%	7.4%
Lowell	5.9%	7.5%	7.5%	7.8%	8.0%
Worcester	5.7%	5.5%	5.4%	5.4%	5.2%

Each year as the campuses are developing their budget estimates for the coming fiscal year, non-discretionary expenses including debt service must be considered before all other budgetary needs. Annually, campus operating budgets include interest payments for outstanding debt in the category of interest on indebtedness. Principal payments are recorded on the Statement of Net Assets in the category of Bonds Payable. The FY14 budget includes principal and interest payments as follows for each campus:

	Principal + Interest					
	FY14	**FY15**	**FY16**	**FY17**	**FY18**	**TOTAL**
Amherst	$65,947	$66,782	$70,704	$78,811	$86,991	$369,235
Boston	17,591	29,740	32,139	34,256	34,654	$148,380
Dartmouth	$20,947	$21,894	$22,073	$19,252	$19,490	$103,656
Lowell	$20,924	$28,918	$31,119	$33,974	$37,383	$152,318
Worcester	$53,686	$52,891	$53,009	$54,917	$52,754	$267,257
TOTAL	**$179,095**	**$200,225**	**$209,045**	**$221,210**	**$231,272**	**$1,040,847**

Depending on the timing of starting new projects, funding source and the issuance of new debt, additional funds may be needed in the current year or will be budgeted for in subsequent years to meet capital funding needs.

There are four sources of funds that are used either individually or in combination with each other to support capital projects.

1. University – Local Funds – These are funds programmed within a campus's operating budget whose source is generated at the campus level through tuition and fees. Since campus revenues are generally needed to support ongoing educational costs, this funding source is not widely available for funding capital projects. An example of a project funded with University Local funds is the LNG Infrastructure Project that cost $1.2 million on the Amherst campus.
2. University – External Funding including Fundraising and Grants – These are funds generated at each campus through specific fund raising efforts or grant applications from federal, local or private sources. An example of a project funded with University External Funds is the Lederle Research Center faculty renovations on the Amherst campus that was partially funded with a $7.1 million grant from the NIH.
3. University – Borrowing – UMBA / HEFA / WCCC / Other – These are funds borrowed using UMBA, HEFA or WCCC for which the borrowing campus is responsible for principal and interest payments annually. An example of a project funded with University Borrowing is $51 million power plant expansion project on the Worcester campus.
4. State – GO Bonds, Life Sciences, Supplemental Appropriations – These are funds authorized, borrowed or appropriated by the State in support of capital projects. An example of a State funded project is the Claire T. Carney library on the Dartmouth campus where $46 million was committed through the State's higher education bond bill.

The Commonwealth of Massachusetts plays an integral role in the capital process for the University in terms of both directly funding projects as well as approving projects funded by other funding sources. On an annual basis, the EOAF develops its own five-year capital plan and conducts an analysis of how much debt can be issued over the life of the plan to address

capital needs while maintaining affordability standards. Annually, the EOAF will review its plan along with the amount of debt outstanding, interest rates and operating revenues to establish a bond cap or the amount of total debt that can reasonably be outstanding in a given year. If based on this analysis it is determined that additional debt is affordable, bonds will be issued in support of existing bond authorizations passed through legislation for specific purposes. Currently, there are two major State bond authorizations in support of the University for which bond only some of the bonds have been issued:

- Life Sciences – In June of 2008, authorization for bonds in support of the life sciences industry was passed. Among other initiatives relating to the Massachusetts Life Sciences Center, the legislation authorizes borrowing $500 million over a ten year period to fund capital investments and infrastructure improvements throughout the State to support the Life Sciences Industry. Of the total $241.9 million has been earmarked for UMass and to date $237 million has been issued. The following table summarizes the total earmarks and the issuance to date in support of Life Sciences at UMass.

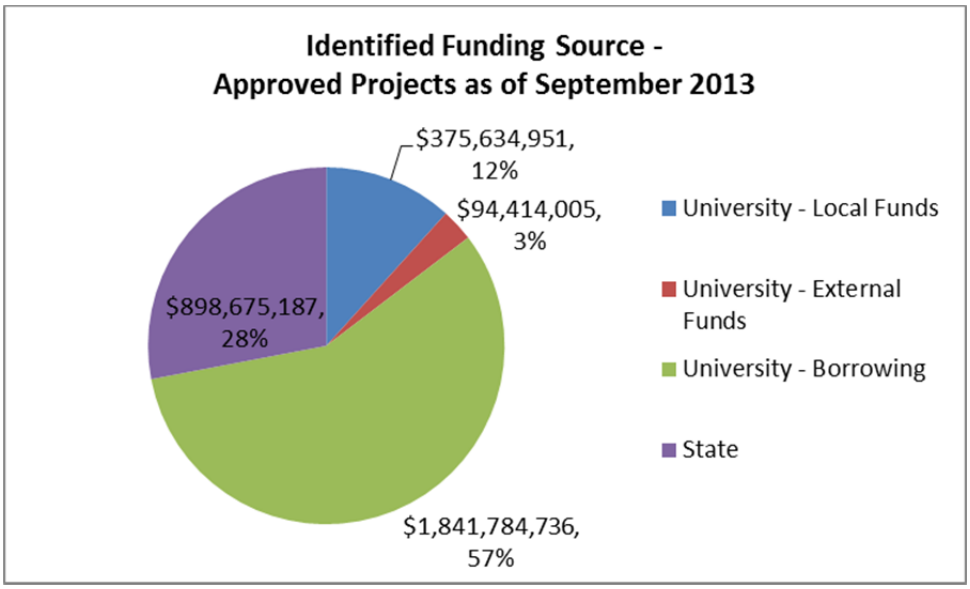
Campus	Earmark Amount	Issued to Date	Project
Amherst	$95,000,000	$95,000,000	Life Sciences Center
Amherst	$5,500,000	$0	Pioneer Valley Life Sciences Incubator
Boston	$10,000,000	$0	Center for Personalized Cancer Therapy
Dartmouth	$10,000,000	$10,000,000	Marine Biological Lab, Woods Hole
Dartmouth	$5,000,000	$0	Regional Life Sciences Incubation Center
Dartmouth	$11,400,000	$11,400,000	ATMC Acquisition
Dartmouth	$5,000,000	$0	Taunton Life Sciences Incubator
Dartmouth	$0	$20,600,000	Bio-processing Center (MAB)
Lowell	$10,000,000	$10,000,000	Nano and Biomanufacturing Facility
Worcester	$90,000,000	$90,000,000	Albert "Albie" Sherman Center
TOTAL	**$241,900,000**	**$237,000,000**	

- Higher Education – In August of 2008, authorization for bonds in support of higher education including State and Community Colleges and UMass was passed. The legislation authorizes $2.2 billion for new buildings, renovation projects and other capital projects with $1 billion dedicated for such projects at UMass. Of the $1 billion earmarked for UMass, $997.7 million has been identified for specific projects for the UMass campuses to date. The following table summarizes the total committed or to be committed by DCAMM from the higher education authorization legislation.

Campus	Amount
Amherst	$378,378,477
Boston	$234,711,984
Dartmouth	$160,398,785
Lowell	$169,876,805
Worcester	$26,540,757
DCAMM	$27,778,634
TOTAL	**$997,685,442**

Although the State has made a significant commitment and investment into the facilities on our campuses, the current authorizations through the Life Sciences and Higher Education bond bills have been almost completely committed. Without a successor bond bill, many campus projects will be stalled until future funding is approved.

In an effort to summarize the information included in the Capital Plan, each project has been assigned certain categorizations including funding source, project type and program type. As previously described, there are four sources of funding for capital projects. The chart below summarizes the funding sources for projects:



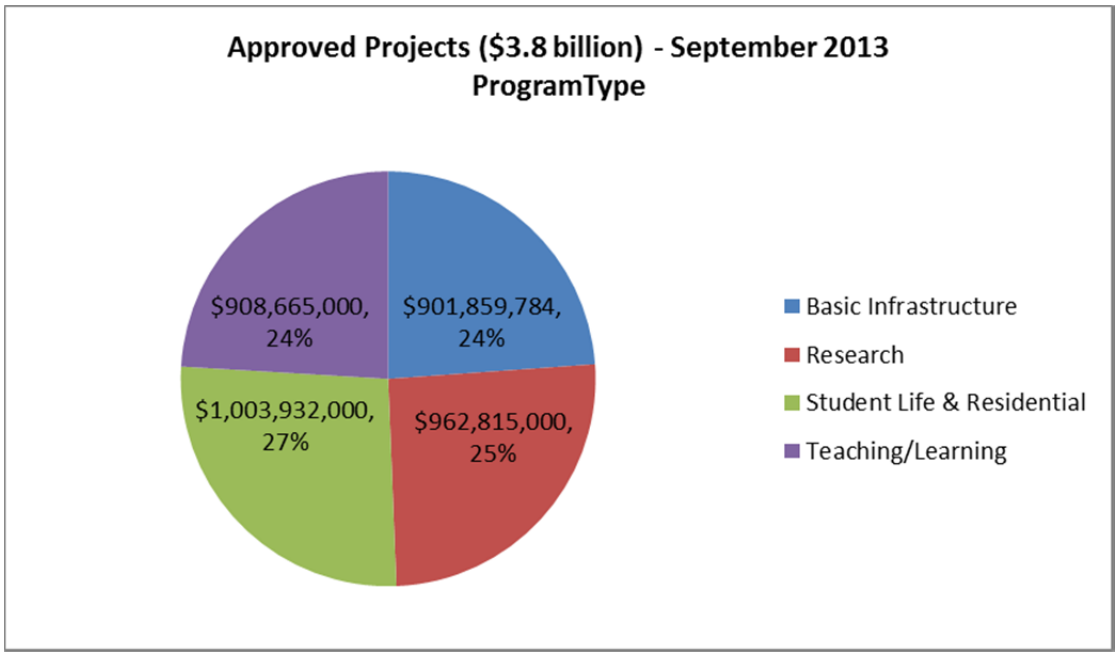
Each project includes a category for project type which include:

1. New Construction
2. Equipment and Information Technology
3. Other Capital Projects
4. Renovation and Renewal

Project Type	5-Year Plan	Approved Projects	% DM	$ DM
New Construction	$3,068,440,000	$2,067,950,000	8%	$168,960,000
Equipment and IT	$81,900,000	$81,900,000	58%	$47,700,000
Other Capital Projects	$331,136,879	$319,436,879	32%	$100,761,555
Renovation and Renewal	$1,989,020,405	$1,307,984,985	69%	$907,723,655
TOTAL	**$5,470,497,284**	**$3,777,271,864**	**32%**	**$1,225,145,210**

Lastly, each project includes a category for program type in an effort to identify the campus program supported by the investment. The four programs include:

1. Basic Infrastructure - projects that benefit the entire campus and are critical to all operations. Steam lines, power plants, roadways, general public safety improvements such as fire alarm systems and hazardous waste removal systems, and administrative computing are projects that would fall into this category.
2. Research projects - new research building construction or renovations and improvements to existing research facilities as well as large acquisitions of lab equipment.
3. Student Life projects - improvements, renovations or the new construction of student centers, dining halls, recreation facilities, dormitories or other facilities that improve the student experience.
4. Teaching & Learning projects - improvements to or new construction of classroom facilities, auditoria, studios, library facilities and instructional equipment.



Within the last 3 years, each campus has completed an evaluation of Deferred Maintenance (DM) needs. The findings of these evaluations concluded that in total, the University has a DM

backlog of over $3 billion. In order to address the backlog, each campus was charged with reducing their DM annually in an effort to achieve at least a 10% reduction by FY16. The chart below illustrates the DM needs by campus and the goals targeted for FY16.

	10% Net Reduction in Deferred Maintenance by FY16					
	Existing Deferred Maintenance FY11*	Targeted DM Reductions FY12-16	DM Inventory Reduction	DM Estimated Escalation	Projected Deferred Maintenance FY16	Net Change
Amherst	$1,665,000,000	$175,000,000	$93,000,000	$82,000,000	$1,479,000,000	-11.2%
Boston	$429,000,000	$85,000,000	$60,000,000	$18,000,000	$302,000,000	-29.6%
Dartmouth	$229,000,000	$60,000,000	$0	$19,600,000	$188,600,000	-17.6%
Lowell	$452,572,592	$188,000,000	$19,500,000	$16,900,000	$261,972,592	-42.1%
Worcester (incl. WCCC)	$315,600,000	$68,000,000	$6,000,000	$42,000,000	$283,600,000	-10.1%
Total	$3,091,172,592	$576,000,000	$178,500,000	$178,500,000	$2,515,172,592	-18.6%

**UML DM Figure is combination of adaptation, deferred maintenance, and renewal needs as detailed in Facilities Condition Assessment*

As part of each campus Capital Plan, deferred maintenance was considered as a priority project which includes ongoing projects to maintain buildings and infrastructure as well as large scale projects such as the demolition or building of new structures to address what would otherwise be a DM need.

	5-Year Plan	Approved Projects September 2013	% Addessing DM	$ Addressing DM
Amherst	$1,417,236,000	$1,414,736,000	27%	$380,771,000
Boston	$1,291,935,410	$943,785,410	15%	$145,218,750
Dartmouth	$721,328,374	$438,510,374	50%	$218,420,460
Lowell	$1,516,400,000	$828,400,000	48%	$395,830,000
Worcester	$523,597,500	$151,840,000	56%	$84,905,000
TOTAL	**$5,470,497,284**	**$3,777,271,784**	**32%**	**$1,225,145,210**

In addition to making annual investments toward addressing the DM backlog, the Board has established policies to require campuses to invest in DM as investments are made through the capital plan. The policy requires that 1.5% of the total construction cost of all new construction projects shall annually be set aside in a reserve fund to provide funding for the general renewal, replacement and renovation of campus facilities. In addition, 3.5% of the total construction cost of all new construction projects shall be expended annually for the operational and maintenance expenses of the campus facilities.

University Projects Over the Next 24 Month Period

Because project priorities and funding availability can change over a five year period, the University has changed to the practice of having the Board of Trustees approve projects that will begin over the next 2 year period or 24 months. This practice is meant to provide a more realistic view of projects that have identified funding and will reasonably begin in the short term.

On a quarterly basis, the Board is provided a status report of each of the approved projects and must approve any significant changes in cost.

In support of the campus plans for the next 24 month period, 27 projects are being added to the current list of approved projects. The new projects consist of the following projects with proposed funding from all sources of funds.

Campus	Priority Order	Campus Project Names	Est. September 2013	Project Phase
Amherst	59	Campus Core Accessibility, Waterproofing and Landscape Improvements study	$1,000,000	Study / Feasibility
Amherst	69	Machmer Repairs	$12,600,000	Study / Feasibility
Amherst	73	University Health Services design	$4,000,000	Study / Feasibility
Amherst	c-u	Liquified Natural Gas infrastructure	$1,200,000	Completed
Boston	BI.02.05	McCormack Hall: Roof Replacement and Building Envelope Repairs (Design Development)	$3,500,000	Design Development
Boston	BI.15	Calf Pasture Pumping Station: Secure and Button Up Envelope and Improve Exterior Appearance (Security: Substantial Completion; Button-up and Exterior Appearance: Conceptual)	$1,000,000	Conceptual
Boston	BI.24	Study Bayside Parcel for Future Permanent Use, Including Sea Level Rise Requirements (Conceptual) $0.35M from BI.22 and $0.65M additional	$1,000,000	Conceptual
Boston	MP.16	Master Plan Phase I: New Baseball Facility To Be Constructed at Boston College High School (Conceptual)	$1,000,000	Conceptual
Boston	TR.05.01	Healey Building: Renovations to Improve and Increase Student Learning Space, Including Necessary Fire Protection Improvements (Conceptual)	$12,500,000	Conceptual
Boston	TR.06	Instructional Equipment Upgrades and Replacements (Conceptual)	$5,000,000	Conceptual
Boston	TR.07	WUMB: Relocation WUMB Radio to New Facility (Conceptual)	$4,000,000	Conceptual
Dartmouth	9	Update Campus Master Plan	$1,500,000	Conceptual
Dartmouth	18	** ATMC Acquisition	$11,400,000	Study / Feasibility
Dartmouth	21	Wind Turbine Project	$1,317,457	Substantial Completion
Dartmouth	22	Residence Halls - Wireless Network Installation	$1,200,000	Designer Selection
Dartmouth	26	Centennial Way Retail Corridor	$10,000,000	Conceptual
Lowell	16	McGauvran Dining Conversion	$30,000,000	RFP for OPM Issued
Lowell	18	Residence Hall Acquisition & Construction	$100,000,000	Conceptual
Lowell	24	Athletic & Recreational Facility Improvements - incl. Division 1	$10,000,000	Study / Feasibility
Worcester	1	Basic Research and Student Lab Wing Improvements (Floors 5&6)	$15,500,000	Study / Feasibility
Worcester	3	LRB Teaching and Learning Space - Backfill Project (Floor 1)	$2,000,000	Study / Feasibility
Worcester	10	Campus Electrical Distribution Efficiency Improvements	$2,500,000	Study / Feasibility
Worcester	13	Library repurposing and renovations	$5,500,000	Study / Feasibility
Worcester	14	Student Services and Delivery Services Improvements	$3,600,000	Study / Feasibility
Worcester	17	A Level Animal Quarters Improvements (cage wash, mechanical, finishes)	$14,500,000	Study / Feasibility
Worcester	31	Steam Chiller 2 & 3 Retrofits	$1,000,000	Study / Feasibility
Worcester - WCCC	9	MBL - AAV Production Facility (not including filling suite)	$5,000,000	Study / Feasibility

AMHERST CAMPUS

AMHERST		
Total Square Footage	9,988,752 GSF	
Campus Age	65% built in 1960's & '70's; 25% prior to the 1950's	
5-Year Capital Plan #, $ Projects	78	$1,417,236,000
Current (June) Approved Projects #, $ *Note: 9 Projects completed*	77	$1,475,611,000
Project Updates for September Review / Approval #, $	3	22,200,000
New Projects for September Approval #, $	4	$18,800,000

Introduction and Overview of Amherst Campus Capital Plan

The Amherst campus capital plan is focused on a five-year planning timeframe from FY14 through FY18 and is organized to identify funded projects by designated funding sources. The funded project list includes projects that are currently underway or that are planned to begin in the next year.

The Amherst campus maintains an updated comprehensive database of facilities condition and space utilization information for the campus built environment. The campus relies on comprehensive academic program and space utilization studies of science, engineering, classroom and academic space to inform the implementation of the Master Plan and capital priorities. This capital plan will provide new and modernized facilities to meet the demands of an increasingly competitive market in higher education. It also recognizes that our deferred maintenance backlog and growing inventory of obsolete space must be addressed to remain competitive as a leading public research university.

As the University's flagship institution, the Amherst campus has established a goal to become one of the best public universities in the country. Primary among the challenges is the need to maintain a strong, nationally competitive faculty in order to maintain top quality instructional and research programs that will in turn attract and retain top quality students. This requires the ability to attract new and retain existing faculty that are nationally and internationally recognized in their fields. The Amherst capital plan is structured with priorities that support the strategic challenges and campus goals of improving teaching, increasing research, enhancing student life and recruiting/retaining quality students and faculty. The underlying strategy of the plan is to balance capital investments between all of our facility needs required to support the goals and strategic priorities of the campus and the University. Thus, the priorities within the capital plan are balanced between new construction, facilities modernization and sustaining existing facilities through the reduction of deferred maintenance.

In order to make continual progress on our facilities improvement and development goals, the campus will need to continue to pursue an aggressive funding strategy to complete high priority capital projects. The Amherst campus continues to rely heavily on allocations from the campus operating budget, including borrowing through the UMBA, to fund capital projects. The campus has committed approximately $117 million of campus operating funds to service debt and support the implementation of the capital plan. The capital plan anticipates additional borrowing through the UMBA within the next five years.

The current capital plan includes significant State funding from the Higher Education Bond Bill and the Life Science Initiative to address several important capital projects including new construction and much needed renovations. The State has committed $100M to the construction of one of our highest priorities, the Life Sciences Laboratories, which is a key component in supporting the campus goal of increasing research and recruiting top faculty, and $65M to the construction of the New Academic Classroom Building. In addition, the state appropriated a $95M grant through the Life Sciences Act for the design, construction, development and related infrastructure improvements of a life science laboratory research center complex on the UMass Amherst campus. Among other things, this initiative will fit out and equip the south portion of the Life Sciences Laboratory building for several new interdisciplinary translational research centers.

In order to sustain and build upon our current progress, the campus recognizes the need to seek additional funding from other sources including private donations and Federal grants. In the recent past, private donations partially supported construction of the Integrated Sciences Building and the George N. Parks Minuteman Marching Band Building. Additionally, the College of Natural Sciences raised nearly $2M for laboratory renovations for the Health and Wellness Center in the Food Science Department. Currently, the Isenberg School of Management is undertaking a targeted fund-raising campaign to support an addition to their building, and the Champions Center project for Men's and Women's Basketball includes fundraising of over $14M. The campus continues to pursue private donations for new construction including the Commonwealth Honors College Residential Complex, a 1500 bed facility that is scheduled for occupancy in the fall of 2013.

The campus was also successful in obtaining over $7M in Federal grants to partially support the construction of the new Integrated Sciences Building, and another $7M grant was obtained from the National Institutes of Health for renovations to the Lederle Graduate Research Center to support research. The campus is also seeking external funds through grants and private donations for fit-out of the remaining shell space in the Life Sciences Laboratories. Successful fundraising to support our capital needs remains a high priority.

Project Status Update from FY13 Plan

The campus has completed or is nearing completion of several major new projects that will provide modern facilities to support our teaching and research mission. Many more projects are underway and many of the previously funded major projects are in the construction phase. At the completion of FY12, capital expenditures in the past three years at the Amherst campus was approximately $450M with over $200M expended in FY12. The priorities in the current plan are highlighted below.

1. **Reduction of deferred maintenance/code compliance**: The reduction of deferred maintenance and upgrades to address code compliance and safety continues to be a high priority in the Amherst campus capital plan. Our capital plan addresses deferred maintenance in several ways; reduction of DM through building repairs, reduction of DM through modernization of outdated facilities and reduction of DM through demolitions enabled by new construction. In the past year the campus completed over $50M of projects that reduced our deferred maintenance and code compliance backlog with several other projects on-going in the planning, design or construction phase. With the assistance of Sightlines Facility Asset Advisors, the campus maintains a comprehensive database of critical facility repair needs that guides the prioritization of capital projects. This data also allows the campus to track progress in reducing our DM liability, and indicates that significant progress has been made in reducing our deferred maintenance liability through capital expenditures over the last three years. However, the campus must continue to address deferred maintenance and this year's capital plan continues to place a high priority on DM.

2. **New Construction:** Construction of the new Life Sciences Laboratories (Figure 1) is substantially complete. The campus will begin to move faculty and their research into the facility in August 2013. The new complex is targeted for LEED Gold certification.

Figure 1 - Life Sciences Laboratories (I and II)

Construction of the new Commonwealth Honors College Residential Complex (Figure 2) is substantially complete, furniture is currently being moved into the residence hall rooms and the facility will be ready for occupancy for the fall 2013 semester. This facility includes approximately 1,500 student beds, faculty apartments, classroom space and administration/student services space for the Honors College. The new complex is targeted for LEED Gold certification.

Figure 2 - Commonwealth Honors College Residential Complex

Construction of the New Academic Classroom Building (Figure 3) is well underway and is scheduled for completion in the spring of 2014. This facility will provide new classrooms and academic department space for Communications/ Journalism and Linguistics. It will be fit-out with state-of-the-art technology and is targeted for LEED Gold.

Figure 3 - New Academic Classroom Building

Construction has started on improvements to McGuirk Alumni Stadium (Figure 4). The University's football program recently began a new era as a full member of the Division I Football Bowl Subdivision (FBS) of the National Collegiate Athletic Association (NCAA) and a member of the Mid-American Conference. This project will supplement the existing stadium by adding a football performance center, press & skybox complex, along with a terrace overlooking the field.

Figure 4 – McGuirk Alumni Stadium Football Performance Center and Press & Skybox Complex

In addition to the projects above, design is underway for a Champions Center for men's and women's basketball (supported by a bequest of $10M) with construction to start in the summer of 2013 and the scheduled completion to be in the fall 2014. The study for a new Physical Sciences Building, which will support a portion of Physics and Chemistry, is being conducted in conjunction with DCAMM. This project will include a state of the art 4,000 square foot clean room. The campus is also working with the UMBA to complete designer selections for the construction of a new Integrated Design Building for Architecture + Design, Landscape Architecture, and Building and Construction Technology.

3. **Renovations/Modernization:** In the past year, the campus completed renovation/modernization projects to support new faculty hires in several laboratory buildings. These include completed projects in the Lederle Graduate Research Tower (funded with the assistance of an NIH grant), Goessmann Lab, Chenoweth Lab, and the Morrill Science Complex. A building-wide renovation project at Paige Laboratory is now under construction. We are proceeding with designs for several other important renovations to support new faculty hires and research activities in various academic programs. These and other renovations are part of the campus strategy to upgrade existing facilities and provide modern laboratory and teaching space.

   The campus is also working with the UMBA to complete designer selections for the renovations to Furcolo Hall/Marks Meadow, which will consolidate the School of Education and the renovation and addition to South College to create a new academic and classroom facility.

4. **Energy Performance/ Sustainability:** The campus has completed several projects that have improved energy performance in facilities on the Amherst campus in the past several years with a remarkable return on investment. These efforts have reduced steam, water and electric consumption at the same time we have added new facilities. The campus is committed to an on-going strategy of achieving significant energy performance improvements in existing and new facilities. The campus recently started construction on a major infrastructure project in the central campus core that will replace deteriorated infrastructure and provide reliable and efficient utility connections for the New Academic Classroom Building, the new Commonwealth Honors College Residential Complex, along with multiple other existing buildings on campus including the Dubois Library, Hasbrouck Laboratory, Machmer Hall and South College. Design has also starting on a similar University Drive infrastructure project that will service the southern portion of campus. The campus has established a Green Building Design Committee to provide leadership in sustainability efforts for the built environment. This committee has published Green Building Design Guidelines for new construction (with the UMass Police Station and the George N. Parks Minuteman Marching Band Building being the first two certified LEED Gold buildings on campus) and sponsored a pilot project to establish a program for retro-commissioning existing buildings to reduce energy usage. With the installation of a 1.6MW steam turbine in the new Central Heating Plant, the campus now generates over 70% of our electric usage. The campus is also beginning the design of a new electric substation that will result in annual utility savings of approximately $1,000,000. A temporary Liquefied Natural Gas installation was completed and provided

$2,000,000 of fuel cost savings in its first year of operation. The campus is also in the process of working with a developer to install a 2 MW solar farm at the Hadley Farm. In addition to generating electricity, this facility will also be used for research to investigate what types of farming activities can occur underneath the panels with the ultimate goal of promoting these types of installations while still allowing the land to be used for agricultural purposes. The campus is also working with the State DEP to study the installation of an anaerobic digester on campus. This facility would reduce the organic waste stream on the campus and surrounding communities while also generating electricity that can be put back into the grid. In addition, the campus is continuing to implement smaller energy reduction projects that are financed through the energy savings achieved by the project.

5. **Campus Master Plan Update:** A new Campus Master Plan was completed in April of 2012. It was developed through a participatory process with input gathered from a diverse constituency of campus and community groups in over 100 meetings held throughout the previous year. The goals highlighted in the updated master plan include:

    • Addressing the programmatic needs of the Amherst campus
    • Providing up-to-date facilities
    • Integrating a large campus with overlapping neighborhoods
    • Strengthening campus open spaces
    • Improving campus connections
    • Creating a compact, vibrant and sustainable campus

FY14 – FY18 Planning Needs & Priorities

The projects included in the FY14-18 capital plan reflect the strategic goals and priorities of the campus master plan. They also include increasing the number of faculty and students as well as research grants. Projects in the capital plan support these goals in several ways.

Teaching and Learning: The campus is utilizing two pilot team based learning classrooms in the Dubois Library and Goodell Hall. These new classrooms are designed to support group interactive learning and are being assessed so that improvements to these models can be incorporated into similar classrooms that will be in the New Academic Classroom Building and the future South College Academic Complex. The New Academic Classroom Building will provide a mix of state-of-the-art classrooms and academic space to improve our inventory of campus teaching and learning space. The planned new academic buildings to replace Hills and Bartlett and renovations to Furcolo are part of our strategy to improve the teaching and learning experience on campus. These new facilities will help in retaining and recruiting quality faculty and will support student recruitment to achieve our enrollment goals.

Research: The plan includes the development of new research support facilities and quality research space in the Life Sciences Laboratories currently under construction. These premier projects as well as several renovations included in the plan will support current and enable development of new research initiatives. These projects will provide modern research space that is essential to achieve our goals for recruiting new faculty and increasing research grant funds. The plan includes the planned development of additional research space in the future

with the Life Sciences Building, renovations of backfill space upon completion of the Life Sciences Laboratories and a planned new Physical Sciences Building.

Campus Life: The new Commonwealth Honors College Residential Complex is an exciting new development that will provide a quality living/learning environment for existing students and support the expansion of the Honors College program and enrollment growth in general. In addition, planned renovations in the existing residence halls will improve the student housing experience. The first phase of a two-phased, $12M renovation of the Lincoln Campus Center Concourse has been completed with the second phase scheduled to be completed to coincide with the opening of the adjacent New Academic Classroom Building in 2014. A $15M renovation of the Hampshire Dining Common is underway and will be completed to coincide with the opening of the Commonwealth Honors College Residential Complex this fall.

The Amherst campus is committed to protect its investment in new facilities as they are constructed. The campus sets aside 1.5% of the construction cost/year for all newly constructed facilities to fund long-term maintenance needs. This represents our on-going strategy to provide funding for facility renewal over the life cycle of the facility and prevents the deferral of required maintenance. In addition, we budget 3.5% of the construction cost/year for operational and routine maintenance required to keep the new buildings in good shape. These budget amounts are consistent with industry standards in facility management aimed at providing the appropriate stewardship of our new facility assets.

The FY14-18 capital plan represents a continued major investment in the future of the Amherst campus. It reflects the established goals of the campus and strategic priorities of the University through a balanced investment program that addresses critical repairs, maintains health and safety standards, provides new and modern teaching and research facilities and improves student life.

Deferred Maintenance
The reduction of deferred maintenance (DM) on the Amherst campus has been a high priority for over ten years. A comprehensive facilities condition assessment completed in 1998 documented the deferred maintenance deficiencies for all campus buildings. This assessment showed that 25% of the campus space was in deficient condition. Subsequently, the campus leadership established a capital pool from the campus operating budget to provide annual funding to address this deferred maintenance. In addition to this pool, there have been several one-time allocations to fund the reduction of DM and the percentage of our borrowing dedicated to DM reduction has grown steadily over the past five years. Working with Sightlines Facilities Asset Advisors, the campus has established a program to track the results of our investments in DM reduction. Physical Plant personnel identify and enter new deficiencies in the database as they are found in the field. As deficiencies are corrected through repairs, renovations, demolitions or new construction, the database is updated by removing the deficiencies.

Facilities Portfolio
The Amherst campus has over 10 million gross square feet of building space on the 1,400 acre main campus. A large infrastructure network including roadways, walkways, steam, water, electric, sewer and drainage systems support the campus buildings. The facilities portfolio is comprised of diverse building types and space ranging from simple office space to complex

research laboratories. The campus has 500 buildings ranging in age from 1-year to 160 years old. Approximately 80% of our campus buildings are over 25 years old and approximately 53% are over 40 years old. Typically, at the age of 25 years many building systems and components are worn out and should be replaced. At the age of 40 years most major building systems have reached the end of their useful life and should be replaced. The failure to replace systems at these intervals results in a deferred maintenance backlog. The deferred maintenance backlog on the Amherst campus is estimated at approximately $1.6 billion.

Deferred Maintenance Projects
The campus has a significant volume of projects focused on DM that are at various stages of completion. The total value of the investment in these projects is over $100M. These projects span a large cross-section of campus buildings and infrastructure including multiple projects in Lederle Graduate Research Center, Morrill Science Complex, Dubois Library, Goessmann, numerous residence halls and others. Major infrastructure projects include the Central Campus and University Drive Infrastructure projects. In addition, we have many renovation/modernization projects that will also correct DM deficiencies. These include renovations in Marks Meadow, Paige, Hampshire Dining Commons, Lincoln Campus Center Concourse, Goodell and various residence halls.

Campus Long-term Strategy for DM Reduction

Construction Strategy:
The reduction of DM on the Amherst campus is a large scale and complex problem. It took a long time to accumulate this DM backlog and it requires a multi-faceted approach over a long period of time to reduce it. Our strategy places a high priority on targeting critical repair projects that not only correct deficiencies but also eliminate or prevent collateral damage in buildings. For example, building roof and envelope repairs/replacements are targeted as a high priority to prevent water/weather damage to building interiors which can be more costly to repair than the building envelope. Building mechanical/electrical/plumbing system and infrastructure repair/replacement is a high priority to improve operational efficiency and reduce energy consumption. All of our large renovation and modernization projects reduce DM by replacement of obsolete building systems as well as code compliance improvements. Renovations also increase the value of our facilities by making functional improvements. In smaller renovation projects we proactively look for opportunities to correct building deficiencies and provide adequate project budgets to address DM while contractors are working in a building. DM reduction is also targeted through new construction. With the completion of the Bowditch Greenhouse project, the French Greenhouses that are deteriorated beyond repair will be demolished. Our plan includes the replacement and demolition of Hills and Bartlett buildings. As we build and occupy new buildings, the reuse of the vacated space is targeted for its highest and best use. The campus has developed general building design guidelines and green building design guidelines that set standards for new construction and renovations. The purpose of these standards is to increase longevity and reduce life-cycle costs of our buildings.

Financial Strategy:
At the completion of all new buildings, the campus allocates 3.5% of the construction cost to the Physical Plant operating budget. This funding is dedicated to the routine operations and maintenance of the new building. In addition, the campus sets aside 1.5% of the construction

cost for long-term maintenance and repairs. We have significantly increased our reliance on borrowing dedicating a considerable investment in reducing DM through building repairs, renovations and new construction. We have an on-going E+ program whereby the campus provides funding for projects that can generate operational/energy savings to pay for themselves in seven years or less. Revenue operations on the campus maintain R&R funds for routine and long-term maintenance needs. Although we face challenges in obtaining the funding required to address all of our needs, the capital plans target a 26% reduction of DM by FY16. The following chart illustrates how we plan to achieve the reduction.

Deferred Maintenance Roll Forward (FY12-FY16) - (in millions of $)

	FY2012	FY2013	FY2014	FY2015	FY2016	Totals
Total Starting Deferred Maintenance	**1,686**	**1,588**	**1,534**	**1,463**	**1,389**	
Spending on Deferred Maintenance projects (1)			(39)	(45)	(54)	(138)
Spending on Deferred Maintenance in renovation projects (2)			(37)	(43)	(41)	(121)
Deferred Maintenance escalator (1%)			15	14	14	43
Decrease in Deferred Maintenance from demolition (3)			(10)	0	(67)	(77)
Total Ending Deferred Maintenance	**1,588**	**1,534**	**1,463**	**1,389**	**1,241**	
Percent Reduction from 7/1/11	(5.8%)	(9.0%)	(13.2%)	(17.6%)	(26.4%)	

Notes:

(1) 100% of spending on DM projects for FY14-16
(2) Percentage of DM spending on projects coded as RV for FY14-16
(3) Reduction to existing Deferred Maintenance balances due to demolition of Bartlett, French Greenhouse, Hills and Munson Annex.

Amherst Campus FY14-FY18 Capital Plan Summary

Funding Source	5 Year Plan	Current Approved	September Approval (new / changes)	TOTAL - September 2013
University - Local Funds	$170,160,000	$160,650,000	$9,010,000	$169,660,000
University - External Funds	$28,750,000	$13,250,000	$15,000,000	$28,250,000
University - Borrowing	$756,526,000	$750,636,000	$4,390,000	$755,026,000
State	$453,800,000	$441,200,000	$12,600,000	$453,800,000
Contingent on Funding	$8,000,000	$8,000,000	$0	$8,000,000
TOTAL	**$1,417,236,000**	**$1,373,736,000**	**$41,000,000**	**$1,414,736,000**

BOSTON CAMPUS

Boston		
Total Square Footage	3,181,831 GSF	
Campus Age	opened in 1974	
5-Year Capital Plan #, $ Projects	61	$1,291,935,410
Current (June) Approved Projects #, $ *Note: 7 Projects completed*	46	$946,500,000
Project Updates for September Review / Approval #, $	-	-
New Projects for September Approval #, $	7	$28,000,000

Transitions – Looking Backward and Looking Forward

The farther backward you can look, the farther forward you can see.

Winston Churchill

Introduction and Overview of Boston Campus Capital Plan

The symbol for Janus, god of transitions – beginnings and endings – aptly reflects UMass Boston's situation. The symbol is two faces – one looking backward and one looking forward. And so it is now for UMass Boston. On the cover of this document we see the symbol for Janus looking backward at the utility line collapse in 2006 that closed the Substructure for good to campus general use and parking; we also see Janus looking forward at the new Switchgear Vault Building, the first completed construction project of the Campus Master Plan, which houses the newly relocated high voltage lines from which all campus electricity is distributed. In earlier years' Capital Plan narratives, we highlighted the previous switchgear vault located under tarps which attempted to divert water from leaking on the high voltage lines!

As we look forward to the evolution anticipated as a result of the Strategic and Master Plans for this campus, as we transform the physical campus through the various new construction projects, yet we are reminded and so must we continue to face the challenges presented by the past, most notably those challenges of the campus' physical infrastructure.

Although we have been paying for yesterday with tomorrow, with this Capital Plan, that begins to change significantly.

FY14 – FY18 Planning Needs & Priorities

UMass Boston's FY14-FY18 Capital Plan proposes to address a range of needs that are inextricably linked to the campus' overall strategic priorities. Strategic priorities are shaped and defined and redefined and reshaped over time to meet changes in pedagogy, to meet needs that did not previously exist, to embrace or exert influence on the changes occurring in society. Underlying all of these priorities is a mission that was set forth when the University of Massachusetts Boston was founded in 1965:

"**Our mission is to develop in Boston a great public urban university, which will preserve and extend in the best tradition of the Western world the domain of knowledge and nurture intellectual freedom and integrity, and with the kind of program, service and leadership given rural communities over the past century by the land-grant universities…The urban university must stand with the city, must serve and lead where the battle is. This is what the University of Massachusetts at Boston must do."**

From *The University of Massachusetts Boston Founding Statement of Purpose,* 1965

The University of Massachusetts Boston FY14-FY18 Capital Plan reflects capital initiatives to be undertaken within four categories, which are being undertaken to ensure support of the university's mission and its strategic priorities. These categories are:

1. *Basic Infrastructure Projects*, including Planned Maintenance, Deferred Maintenance and Life Safety Projects;
2. *Master Plan Projects*, including construction of new facilities and major building renovations which are highlights of the Campus Master Plan;
3. *Substructure Initiative*, to continue to monitor conditions in the two-level podium from which the campus' utility distribution still hangs (formerly the garage); and

4. *Teaching, Learning, and Research Projects*, including instructional equipment upgrades and replacements and critical improvements to classrooms and other instructional and student life spaces.

FY14 - FY18 PROJECTED SPENDING				
Program Type	**Amount (in millions)**	**% of Total Funds Allocated**	**Deferred Maintenance Portion (in millions)**	**Deferred Maintenance % by Program Type**
Basic Infrastructure Projects	$54.723	6.4%	$25.301	46.2%
Master Plan-related Projects	$780.702	90.9%	$116.405	14.9%
Substructure Projects	$0.600	0.1%	$0.600	100.0%
Teaching/Learning/Research Projects	$23.059	2.7%	$3.990	17.3%
Total Cost of Capital Plan	**$859.083**	**100.0%**	**$146.296**	**17.0%**

Capital Plan Highlights: A Sampling

Utility Corridor and Roadway Relocation (UCRR): The Mother of All Enabling Projects

"**The surest way to avoid being fooled is to be wise in design, and the route to wisdom and success is through understanding failure. To drive home the lesson, we might paraphrase the dictum about being fooled, imagining the designer to be addressing his design" "Fail me once, shame on you; fail me twice, shame on me."**

From To Forgive Design: Understanding Failure by Henry Petroski

The Utility and Roadway Relocation Project, underway on campus since 2010, is the by-product of decisions made jointly in 2005 by administrators from the Division of Capital Asset Management (DCAM), the University of Massachusetts system, and UMass Boston about conditions involving the structural integrity of the two-level Substructure that had been observed and addressed, in piecemeal fashion, since 1988.

First, these administrators decided they would address the decades-long concerns about the structural integrity of the deteriorating Substructure by commissioning a structural engineering study by the nationally recognized firm of Simpson Gumpertz and Heger Inc. (SGH Study). After reviewing the options presented in that study, the administrators concluded that it would be most cost effective and beneficial to provide a 7 to 10 year interim stabilization of the Substructure in the short term and, in the long term, to demolish the portions of the Substructure not under academic buildings.

To accomplish these goals, the administrators also decided it would be most prudent to undertake a Campus Master Plan that would provide a physical blueprint for UMass Boston's development over the subsequent 25-year period which would address other issues that impact campus facilities, including: deferred maintenance in many of its buildings; increased enrollment; growth of academic programs; and research endeavors which were beginning to draw more external financial support. DCAM commissioned that study in 2006 and it was presented to the UMass Board of Trustees at its December 2009 meeting.

The Campus Master Plan was supplemented by another study commissioned by DCAM, the Energy and Utility Master Plan, which addressed the infrastructure needs of the next 25 years including, as a first task, the relocation of the university's primary utility distribution lines out and away from the underside of the deteriorating Substructure.

The decades long deterioration of the Substructure finally resulted in its closing for use as a garage and general use in 2006, a year after the SGH study was completed, when ninety feet (2.5 tons) of utility piping collapsed from the ceiling as a result of the pipe supports being wrenched from the deteriorated concrete, one of the very hazards outlined in the SGH study.

In considering the scope and breadth and cost of the Utility Corridor and Roadway Relocation Project, we are all well advised to look backward and remember this confluence of conditions and decisions that set in motion this "mother of all enabling projects" which will provide the path forward to the future transformed campus.

UCRR alone accounts for approximately 20% of our entire debt service in FY17 and FY18, with all other UMBA-funded projects combined accounting for the other approximately 80%.

UMass Boston has to divert over $150M in capital spending *from development of its academic resources* to the accomplishment of this massive public works project that arguably should be a State responsibility, not least because the need for UCRR originates in the failure of the original Substructure.

The current Capital Plan maintains the $155.5M project estimate ($143M for UCRR itself plus $11M for related Utility Plant upgrades and $1.5M for mechanical upgrades in the Salt Water Pump House). This may need to change when the 50% Construction Document Value Management (VM) review, that is currently underway, is concluded. The potential exists for a project cost increase, largely due to elements added to the project, including code-required changes, utility supports determined to be needed as a result of information gathered concerning soil conditions as design developed, work to advance the full implementation of the Master Plan by establishing base campus elevations that will support future conditions and development, and relocating all fire-fighting support connections off of the Plaza level of buildings to the at grade perimeter.

The utility corridor is being designed to provide capacity for both existing buildings and to serve buildings under construction and, along with a new Tri-Generation Plant, will also serve buildings to be designed in the future, as identified in the Campus Master Plan. This project in all its varied facets (e.g., utility corridor, roadway relocations, landscaping, utility plant modifications, new utility building connections, and stormwater management) will ensure that

the physically transformative elements that will be the underpinning of all that takes place on this peninsula for the next century are built upon sound, robust, flexible, creatively designed, and carefully engineered infrastructure.

Residence Hall No. 1 with Dining Hall

"We can get a sense of what a more diverse learning encounter with the physical campus is like by observing the lives of students who reside on campus. Generally, these students have a much closer attachment to campus – they inhabit the campus in ways that other students do not. In addition, college residents are often exposed to a variety of cultural, sporting and social opportunities and activities that provide experiences well beyond the formal academic course."

From *The Serious Matter of Informal Learning* (SCUP, Volume 37, Number 2)

The need for student housing has been affirmed by the Strategic Planning Task Force and will likely emerge as a primary strategic objective in the University's final Strategic Plan as a key vehicle for retaining and growing student enrollment. What has come out of the study of this issue by the Student Life Subcommittee is that of the top thirty competitors to UMass Boston, all have residence halls on campus. These are the colleges and universities where prospective UMass Boston students also apply. The leadership of UMass Boston has come to understand that student housing is necessary if the University is to stay competitive with these institutions and retain and increase its student population.

Moreover, it has become widely recognized by the University's leadership that if UMass Boston is going to continue to attract and retain students, student life on campus needs to be enhanced. Student housing can help enliven the campus and enrich the student culture that prospective students seek in a school. It can also provide greater connections between students and serve to enhance the learning experience.

Since receiving authorization to proceed with the study on this project by the System Office, UMBA has issued an RFP for Owner's Project Manager (OPM) services for this project. Responses to this RFP were received from ten firms. Copies of the proposals were received by UMass Boston on Friday, August 2nd. UMBA and UMass Boston will now begin a selection process for the OPM firm and hopes to have a firm under contract by October 2013.

With the OPM firm in place, one of the first tasks they will be responsible for is developing an RFP for study and design services for the project. With a design firm in place, study on issues such as the program for the building (room types, auxiliary services to be included, site selection and geotechnical testing, etc.) can begin. A desired feature of this Residence Hall will be the inclusion of a Dining Hall that will serve *all* students, not just those who live in the Residence Hall. It is hoped that the opening of the Dining Hall to all students will make it a central place for student collaboration and social gatherings.

It must also be noted that at present, the System Office has approved $2 million for the beginning of the study and design phase for this project. Programming, design and construction funding is being explored through a public private partnership for this project.

Healey Roof

The continued study and corresponding design work related to water intrusion issues at the Healey Library building has indicated the need to increase the scope of work related to building envelope repairs, specifically the removal of courses of brickwork and capstones in order to provide waterproofing to the CMU walls of the building that had not been waterproofed during original construction. Also, rotted metal frames around rooftop penthouse spaces doors and other penetrations were found to be a significant contributor to the water intrusion issues and were not accounted for in the "roof replacement" thinking.

These areas were added as they have reached the end of their useful life and the investigation of the 1999 roof installation indicated that the roofs installed on that date were rated to only 54 MPH. The roof blow-off during Superstorm Sandy on October 29, 2012 had winds recorded at 63 MPH. In early spring 2013, wind gusts of 74 were recorded at UMass Boston's weather station on the Healey Library roof! Given the frequency of high wind gusts on campus and the disruption caused by catastrophic, storm-related, roof failure to University operations, UMass Boston would prefer to replace all roof areas at Healey Library under one project and include all sources of water intrusion around the roof in this project.

Nantucket Field Station

Under the agreement between the University and the Nantucket Conservation Foundation, UMass Boston agreed to provide $1 million in improvements to the two locations on Nantucket which serve the university's Field Station operations. The first phase of this work was the replacement of the obsolete septic system at the Field Station. During the initial archeological surveying of the site in preparation for the installation of the new septic system, sensitive archeological features were discovered which required both further surveying and the redesign of several aspects of the new system. While the new septic system is in place, the additional testing and design required put the cost for this portion of the work to be performed at the Nantucket Field Station site more than $200,000 over budget so this Capital Plan seeks additional funding to continue repairs to various buildings on Nantucket.

The remaining improvements at the Nantucket Field Station and the Gouin Village Apartments have been independently estimated. Work on these building improvements had been placed on hold pending approval of the project for bond funding by the System Office and UMBA. Recently, UMBA assigned an OPM to the project given Nantucket's distance from the Boston, the unique nature of construction on an island such as Nantucket, and given the volume of capital projects taking place on the main campus.

Recently, the Director of the Nantucket Field Station raised the issue of accelerating coastal erosion and the increasingly close proximity of the "Main House" which houses the dormitory and classroom to the edge of the bluff. The Director observed that the erosion from first, Superstorm Sandy, and then this past winter's strong coastal storms created concern that the Main House would be in jeopardy much earlier than she had previously thought. In light of this, the University and UMBA asked PMA, UMBA's OPM, to commission a study to evaluate the rate of coastal erosion and the time frame until the building would be in jeopardy. That study indicated that the Main House will be put in jeopardy by ongoing coastal erosion in approximately fifteen years. This limited time frame for the structure has caused us some

pause in planning the repairs to the Main House. While that is being further studied, this Capital Plan seeks the funding to proceed with the repairs needed to the other facilities utilized by the Field Station on the island.

Deferred Maintenance

"Numerous colleges report deferred maintenance backlogs of hundreds of millions of dollars. The problem is not simply financial. At risk is higher education's ability to meet the growing and evolving scientific, technological, and educational needs of students, faculty, and researchers, as well as the needs of American society in a competitive world economy."

From Managing the Facilities Portfolio: A Practical Approach to Institutional Facility Renewal and Deferred Maintenance (NACUBO)

Buildings deteriorate through age, use and obsolescence. Colleges and universities typically address these inevitable conditions through facilities' maintenance, renewal and replacement programs. Deferred maintenance is the accumulation of maintenance renewal and replacement projects on building systems and components postponed or unperformed when funding is unavailable. Projects to correct deferred maintenance do not change building function or architectural character.

Years of underfunding the cost of properly maintaining the UMass Boston's facilities resulted in a list of *Priority Projects* estimated, in October 2005, at $60.7 million dollars to undertake, most of which result from deferred maintenance. These projects are part of a longer list of deferred maintenance projects and, if not addressed, present the greatest near term risk to the continuity of campus operations.

The Gilbane Report has been buttressed by other focused studies of specific building and infrastructure systems, such as the ones completed below:

- *Survey and Report of Campus Elevators;*
- *Roof Repair and Replacement Study;*
- *Study to Evaluate Existing Conditions and Use of Water Distribution Systems at UMass Boston;*
- *Medium Voltage Distribution Study;*
- *Repair Study of Healey Library Landing and Quinn Plaza Stair;*
- *Code Strategy Report: UMass Boston McCormack Hall and Wheatley Hall*
- *Bayside Expo Facility Condition and Physical Conditions Report;*

UMass Boston's strategy for correction of its Basic Infrastructure, Deferred Maintenance and Life-Safety issues is continuously modified to reflect whatever knowledge we have gained through study or experience so that the financing and correction of these issues is always directed towards safety first, and secondly, on preserving the highest and best use of each of its facilities. In some cases, this "triage" protocol has resulted in our providing only critical repairs to unoccupied properties, such as UMass Boston Bayside building.

Knowledge gained from attempting to maintain certain unoccupied or compromised buildings often confirms or heightens prior concerns. Sometimes, as in the case of the Dormitory/Classroom Building in Nantucket, the forces of nature over time cause us to question the form our investment takes. For example, should we continue to invest in a building whose location on a steadily eroding coastal bluff ensures a time limited future? UMass Boston will use evidence-based analyses, including the studies previously mentioned as well as new studies, to determine how to invest most cost effectively in its physical space – whether to rehabilitate the old or build new. Over recent years, on average, the annual capital plan has documented a 6% expenditure on Basic Infrastructure, Deferred Maintenance, and Life Safety. In this Capital Plan, UMass Boston signals a continued commitment to working in a sustained manner and will, through a combination of funded repair and replacement projects and significant demolition projects, achieve a **17.0%** reduction in deferred maintenance.

By assuming Janus as the symbol of this year year's Capital Plan narrative, UMass Boston seeks to communicate its commitment to addressing the failures and challenges and problems of the past. We hope others are inspired to assist us with this endeavor. At the same time, we also seek to communicate our excitement and interest in charting a course that allows us to move forward, utilizing more resources for engaging and educating our students, the future's citizenry.

"What we think, we become".

Buddha

Boston Campus FY14-FY18 Capital Plan Summary

Funding Source	5 Year Plan	Current Approved	September Approval	TOTAL - September 2013
University - Local Funds	$30,450,000	$28,450,000	$2,000,000	$30,450,000
University - External Funds	$21,150,000	$12,150,000	$4,000,000	$16,150,000
University - Borrowing	$830,085,410	$473,035,410	$22,000,000	$495,035,410
State	$214,300,000	$214,300,000	$0	$214,300,000
Contingent on Funding	$195,950,000	$187,850,000	$0	$187,850,000
TOTAL	**$1,291,935,410**	**$915,785,410**	**$28,000,000**	**$943,785,410**

Note: Public Private Partnerships are being explored for the Residence Hall (MP.04) and Parking Garage (MP.08) projects and are categorized as "contingent on funding" as the details of such PPP is further researched.

DARTMOUTH CAMPUS

Dartmouth		
Total Square Footage	2,710,865 GSF	
Campus Age	core of campus opened in 1970's	
5-Year Capital Plan #, $ Projects	36	$721,328,374
Current (June) Approved Projects #, $ *Note: 2 Projects completed*	15	$386,515,012
Project Updates for September Review / Approval #, $	-	-
New Projects for September Approval #, $	5	$25,417,547

"In a world of diminishing resources, it makes less and less sense to demolish and replace even a difficult and controversial piece of architecture like Rudolph's old Carney. But the fact that a building was designed by a famed architect doesn't mean you have to treat it as a sacred object, either. The Carney offers an important lesson: that often the best way to get a good new building is to grab a great old one, give it a good hard shake, and reinvent it for another era." – Robert Campbell[1]

Figure 5 : Claire T. Carney Library - Renovation and Expansion

Introduction and Overview of Campus Capital Plan

In May 2013 UMass-Dartmouth launched into a strategic planning process – UMassDTransform2020 with the goal to position the campus to meet the needs and aspirations of the community and the Commonwealth at a time of accelerating change in the higher education environment. The strategic planning process will yield a blueprint for academic program development, student services, revenue enhancement, enrollment, research, community engagement and other facets of the University's mission.

In parallel and conjunction with UMassDTransform2020 robust and vigorous discussions are occurring concerning the current state of our facilities. The formation of the FY2014 – 2018 Capital Plan Priorities included the following steps:

- Formation of a capital plan steering committee to review the FY13 priorities and engage the University Community;
- Presentations to university constituencies (Including Faculty Senate, A&F, SGA, Student Affairs, and Dean's Council for review, comment and incorporation of feedback);
- Development and distribution of a survey to the University Community that received approximately 400 responses and the incorporation where appropriate;

[1] Campbell, Robert "Paul Rudolph's Brutalism, reworked, at UMass Dartmouth" The Boston Globe, 24-November-2012

- Presentation to Senior Leadership on 11-June where this plan was considered, motioned, voted on and approved as the priority list for the FY14 submission.

The FY2014 – 2018 Capital Plan update for UMass-Dartmouth demonstrates a continued commitment to transform and provide capital renewal to the main campus and strategically invest in satellites by recognizing the need to prioritize critical deferred maintenance, infrastructure, sustainability and energy reduction projects. As the Dartmouth campus nears the 50th anniversary of the construction of the majority of its' facilities the Basic Infrastructure must be addressed in order to lay a new foundation and backbone to allow us to achieve the current and future goals and aspirations.

The UMass Dartmouth Capital Plan Update for FY2014-2018 presents a capital spending plan for thirty six prioritized projects of $234M in the next five fiscal years.

Project Status Update from FY13 Plan

The campus has made tremendous progress on the projects prioritized in the FY13 Capital Plan Update.

Completed Projects:

Figure 6 : Claire T. Carney Library - Grand Reading Room

Claire T. Carney Library – Expansion & Renovation (FY13 #1): The highest priority project in the FY13 update has been completed. The $46M state financed expansion and renovation has exceeded expectations and has received critical acclaim from both the University and architectural communities. The library is at the very center of campus and has been completely transformed while preserving an existing structure. The transformation is not relegated to the facility itself but in how the library now functions. It has become the center of student life as a gathering place that offers the opportunity to eat, socialize, independent study, group study and access to information technology resources. Newly reclaimed spaces have allowed for increased programing for speakers and events. This single project demonstrates what can be accomplished in what many believe to be an inflexible architectural style adding a modern vernacular to campus.

Tripp Athletic Center – Locker & Training Room Renovation (FY13 #13): The $2M project reconfigured the locker and training rooms to accommodate an increasing number of students and providing Athletic team locker rooms.

Ongoing Projects:

- **FY14 #2 - Energy / Water Savings Project (FY13 #2):** The $40M Energy Performance Project being implemented by NORESCO and managed through the DCAMM is a two phased infrastructure upgrade program and is aimed at improving the performance and efficiency of mechanical, electrical and plumbing systems while reducing the University's operating expenses and carbon footprint.
    - Phase I – Included the retrofit of existing lighting fixtures with new energy efficient lamps and ballasts, HVAC system upgrades and replacements, installation of new building management controls and major improvements to the plumbing infrastructure. The phase of the project is substantially complete.
    - Phase II – The construction of the 1.67 MW Kawasaki gas turbine based cogeneration system. The gas turbine generator will generate electricity to UMass-Dartmouth's electrical grid and hot gas exhaust to a Heat Recovery Steam Generator to produce steam for the campus. The gas turbine generator and heat recovery steam generator have been installed and the initial startup date was 6-June-2013. The cogeneration system will now go through a series of testing and commissioning.

- **FY14 #3 - Research Laboratory Improvements (FY13#14):** A $13M program focused on upgrading existing or underutilized research and teaching laboratories throughout main campus. The University needs to provide appropriate and flexible research space to support the strategic initiative of growing the research base and fulfill its' obligations to the Commonwealth and region as the only research university south of Boston. Highlights of this program include:

Computational Design Lab – Textile 201 - $389K Capital renewal to provide students with sufficient information technology and software to be able to utilize modern engineering computational tools and methods for design projects. Completed in FY13;

Figure 8 : Textile 105 - Computational Science Lab

Multidisciplinary Research Lab – Textile 108 - $1.8M renovation to underutilized space that is providing modern laboratory facilities and equipment to researchers from multiple schools and departments. Currently faculty from BioEngineering, Biology and Chemistry are housed here. The research lab offers the opportunity for faculty and researchers to create synergies and allows for temporary research space as the improvement program continues. Completed in FY13;

Figure 7 : Textile 108 - Multidisciplinary Lab

Computational Science Lab – Textile 105 - $380K Capital renewal for the Center for Scientific Computing & Visualization Research which aims to promote and conduct high-level interdisciplinary and multidisciplinary research in scientific computing. Scheduled to be complete in early FY14;

BioEngineering Teaching Labs – Textile 202 and 204 - $1.5M project currently in the final design process to construct a 'Wet Lab' to provide instruction in areas using chemicals and biological elements and a 'Dry Lab' to provide instruction in advanced instrumentation and computational areas. Scheduled for completion in FY14;

Chemistry Research Lab – Violette 203 - $900K project currently in the final design process to construct a modern research lab. Scheduled for completion in FY14;

Biology Research Lab – SENG 327 - $1.2M project currently in the final design process to construct a modern research lab. Scheduled for completion in FY14;

Chemistry / Biology Research Lab – Textile 203 and 205 - $1.5M project currently in the final design process to construct a modern multidisciplinary research lab. Scheduled to be complete in FY14;

Textile / SENG – Emergency Generator – $600K project for the installation and implementation of emergency power to support critical research infrastructure such as refrigerators, freezers, fume hoods, biological safety cabinets, emergency lighting, exhaust fans, animal facilities and environmental rooms. This will provide reliable back up power to support research activities. Expected to be completed in FY14.

- **FY14 #5 – Fitness Center Expansion (FY13 #11):** Construction is ongoing for the $5M expansion and renovation of the Fitness Center. The project will double the size of the very heavily used facility. It is scheduled to be completed in the Fall of 14.

Figure 9 : Fitness Center Expansion

- **FY14 #6 - Massachusetts Accelerator for Biomanufacturing (MAB) (FY13 #3):** A new 35,000 SF BSL-2 Bioprocessing Facility, located on a four acre site within the newly developed South Coast Life Sciences & Technology Park in Fall River. The facility looks to enhance the University's program offerings to assist small companies developing therapeutic biologic products with the transition from scientific protocol to large scale production processes that meet both industry and regulatory quality standards.

Figure 10 : MAB - Exterior Construction

The project is on track for a construction completion of October 31, 2013 and after an extensive commissioning and verification phase to be 100% complete in January 2014. The funding for this project consists of a $15M MORE Grant, $10M in capital bonding by UMBA and an additional $6M from the Massachusetts Life Sciences Center (MLSC). The total project cost for this facility was increased from FY13 $25.6M to FY14 $31.5M due to the complexity and uniqueness of this 'first in the nation of its kind' building type, process and mechanical systems and rising construction costs.

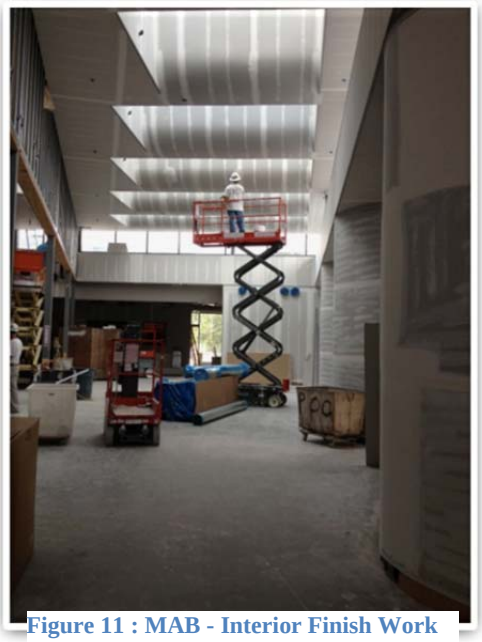


Figure 11 : MAB - Interior Finish Work

- **FY14 #21 – Wind Turbine Project:** The turbine project is one component of a plan developed in conjunction with the state's Division of Capital Asset Management (DCAM) and the Department of Energy Resources' (DOER) Leading by Example program to modernize the UMass Dartmouth power systems, and to reduce energy consumption. Other components include installation of a high-efficiency co-generation plant and installation of solar panels on residence halls and athletic center roofs. Installation of the Elecon 600 kW wind turbine has a Project Estimated Savings of730,500 kWh per year. The turbine has been erected and site installation is complete. The projection is for operational testing in the Fall of 2013.

- **FY14 #22 – Repair Four Oldest Residence Halls (FY13 #10):** The initial $5M first phase of revitalizing the four first year

residence halls was completed in FY13 by a $2M renovation of the bathrooms in MapleRidge Hall. Planning discussions will begin in FY14 to determine what direction to proceed with future work on these structures built in the mid-70s. The first year residence halls are extremely important for the student experience and by providing improved and appropriate residential facilities will only help to increase recruitment and retention while decreasing deferred maintenance.

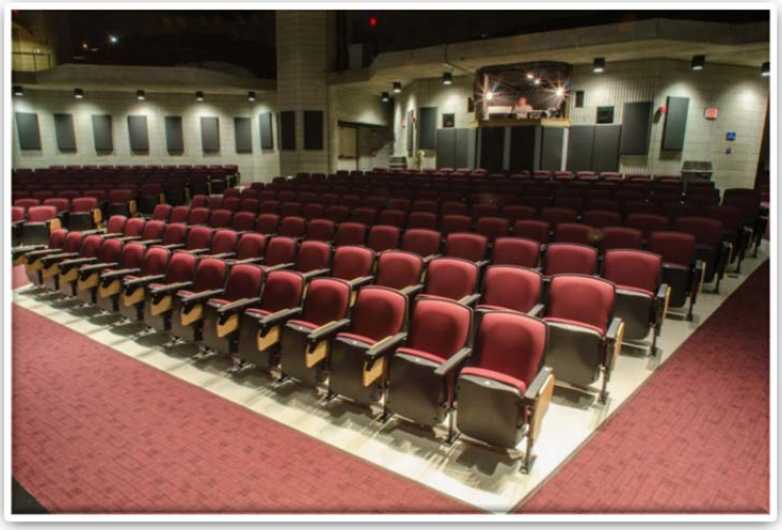


Figure 12 : Main Auditorium - New Seating

Planning and Design Projects:

- **FY14 #4 – Classroom, Teaching Laboratory and Learning Space Improvements (FY13 #5):** UMass-Dartmouth recently borrowed $5M through UMBA to kick start this program. A task force is in the process of reviewing all learning spaces and will provide recommendations on priority projects with the focus being on renewing spaces through new furnishings, carpet and technology. Two projects that were ready to proceed in Summer of 2013 were the replacement of seating in the upper level of the auditorium and the replacement of fixed seating and tables in the large library lecture halls. These types of projects will make an immediate gain in the student learning experience and classroom renovations will result in better, more efficient classroom utilization.

Figure 13 : Rendering of Proposed SMAST II

- **FY14 #8 – SMAST / DMF Expansion (FY13 #4):** The planning study administered by the DCAMM progressed through FY13 looking at various options on how to proceed in the most economical direction within a $45M budget that maximized the growth potentials for the

School for Marine Science and Technology (SMAST) and included space for the Division of Marine Fisheries. The vision of creating a campus on Clark's Cove in New Bedford to provide a nexus for marine science education, research, economic development and engagement will be realized with the construction of a new "SMAST II" facility and a limited building systems replacement to the existing SMAST I. The project looks to complete the study phase in early FY2014 and move into design and construction.

- **FY14 #16 – Charlton College of Business, Phase II (FY13 #16):** Working with UMBA a feasibility study will be undertaken in FY14 to verify the projected cost and the spatial program. The Charlton College of Business expansion will address deficiencies with the recently completed facility which houses only offices and some meeting space. To complete the project, we will need to integrate academic space -- in particular case study classrooms, a trading floor classroom, and auditoria. This will be accomplished by building a 22,000 square foot addition to the current Charlton College of Business.

Figure 14 : Rendering Proposed Charlton College of Business Expansion

- **FY14 #22 – Residence Halls – Wireless Network Installation:** The residential wireless project would provide full coverage and allow access for any equipped device. This is an important infrastructure amenity that today's residential student expects as common as electrical power and access to cable television.

FY14 – FY18 Planning Needs & Priorities

"When the first building of the UMass Dartmouth campus was completed in 1966, some thought it heralded the construction of the most beautiful campus in the U.S. Others were appalled by its austere gray style. Whatever the reaction, architect Paul Rudolph's vision for the campus evoked a strong response then and still does today." [2]

"SMU is a new commuter campus on a very large piece of land well removed from other structures. Its design started with Jefferson's University of Virginia and his defined "lawn" surrounded by pavilions connected with covered walks on two sides with the rotunda addressing the view on the opposite side. SMU's "lawn" is a spiraling space, defined by a series of connected buildings on opposites sides, with a narrowed entry at one end and an open ended space at the other where the spiral becomes much larger, is marked by a campanile, and turns towards the lake. This central pedestrian complex was set in a mile diameter access drive connecting to an inner ring of parking. I got fired before the "spiral" was finished but fortunately I had some friends in other architectural offices who saw it through." - Paul Rudolph[3]

UMass Dartmouth is at a cross roads in terms of the overall vision for the main campus. UMassDTransform2020, the strategic planning process, will challenge the current state of affairs. In response to this process it has become a priority to develop a new facilities masterplan that will transform and reinvent our physical plant while providing a flexible blueprint for not just now but for the future. The **Updated Campus Master Plan is priority #9 on the FY14 Capital Plan Update**.

Figure 15 : UMass-Dartmouth Aerial View

[2] Statement from "Breaking New Ground: Paul Rudolph and the Architecture of the UMass Dartmouth Campus" – April 2005
[3] Davern, Jeanne M. "A Conversation with Paul Rudolph." Architectural Record 170 (March 1982) : 90-97

Many unrealized priority projects from previous masterplans and capital plan submissions remain as unfunded mandates. These projects will be reviewed in any new planning process but deserve discussion here.

Figure 16 : Rendering New Classroom

- **FY14 #7 & #12 – Feasibility Study / New Academic Building (FY13 #8 & #9):** The next mentioned opportunity for a major project for state support is a new academic building. The increasing demand on classroom space as well as the growth of academic programs continues to strain the existing campus space inventory. The University is experiencing a continuous rise in its need for space and has been leasing square footage to compensate for the lack of space on campus. This project will add necessary square footage to the main campus. The 2005 Masterplan states "Option that might be considered is new construction, whereby contemporary classrooms are created and existing classrooms are subsequently "retired" to other uses, including offices and support space. This approach would help resolve other space issues on campus." A feasibility study would investigate the best approach.

- **FY14 #11 - Security Installation Project (FY13 #7):** The lessons learned from the aftermath of the 19-April-2013 event related to the Boston Marathon tragedy have demonstrated a definite need for increasing the security infrastructure on campus. The Report of The Special Task Force states “Much of UMass Dartmouth’s surveillance camera system is outdated and should be upgraded. Current technologies will leverage the DPS’s existing resources and provide for more effective campus safety. Systems can be designed with sufficient transparency to satisfy privacy concerns. In addition, other technological upgrades or efforts should be undertaken to increase the communications capacity (distributed antenna system) or campus safety (upgraded building access system).”[4] The focus of this proposed project is the installation of security card access and CCTV cameras to the exterior of all main campus facilities and the interior of strategically identified areas. Although there are some legacy systems in place this is an area that has been identified for improvement in the investigations in response to the security event on campus. This will work toward providing a safer environment for students, faculty, staff and university visitors. Funding for this project is currently being researched to determine an appropriate source.

- **FY14 #14 – Campus Entrance Building (FY13 #18):** Looking to improve the focus on recruitment and retention of potential students and to improve the safety of the university community a Campus Entrance Building has been identified as a priority project. The current location of Admissions is somewhat difficult to find and does not have significant reserved parking for visitors. The Public Safety Department is currently located in two different

[4] Report of the Special Task Force “University of Massachusetts Dartmouth’s Response to Select Issues Related to Boston Marathon Bombing” (August 15, 2013)

buildings and its Dispatch Office does not meet electrical and fire protection standards for a function that must be operational during emergencies. As demonstrated by events that occurred in FY13 Hurricane Sandy, Winter Storm Nemo and the 19-April-2013 event related to the Boston Marathon tragedy a functioning Emergency Operations Center is required for continuality of university operations and provide the adequate command and control to ensure safety to the university community residential or non-residential. In addition communication systems between the university and first responders need adequate redundancy. This situation was also noted in The Report of The Special Task Force "Finally, while it falls outside the scope of its charge, the Task Force could not ignore the situation regarding the building where DPS is currently located. The building is co-located with the university's cogeneration facility and literally sits on top of several very large generators and next to several very large tanks of potentially flammable contents. Since the DPS is the heart of the university's emergency response, an industrial accident at the power plant/police building could have serious adverse consequences regarding the university's emergency response capacity. Police facilities are expensive and it is understandable in times of shrinking fiscal resources that universities make do with existing facilities. However, the location of the UMass Dartmouth DPS in the same building as the campus power plant is extremely problematic from a strategic emergency management perspective and should be addressed as soon as possible."[5] Correcting these problems in situ would cost nearly as much as co-locating these two groups in a highly visible new building at the campus entrance which would include ample parking for visitors.

- **FY14 #20 – Campus Center Addition (Student Union) (FY13 #33):** The campus master plan recommends the construction of additions to the Campus Center Building to accommodate the growing needs of our larger student population. Student unions continue to play a central role on college campuses as a gathering place. The most frequently reported reasons for visiting the union include eating, socializing with friends, studying independently, and obtaining information about campus events, using a computer or visiting a retail shop. Sixty-seven percent of students nationwide reported they attended programs, speakers, events or performances at a student union at least once a semester and 61 percent report spending one or more hours at the student union during the week. Many work units serving students are scattered in classroom buildings or the Foster Administration Building. Some additional space recommended in the master plan would add to the building on the east side to accommodate student organizations that cannot currently be assigned dedicated space and to centralize class registration, student counseling, and other student-oriented functions in one building. Other additional space recommended in the master plan would add to the building on the west side to accommodate additional dining room space.

- **FY14 #24 – Centennial Way Retail Corridor (FY13 #37):** The Centennial Way Retail Corridor would begin to address the lack of opportunities that students, faculty and administrative personnel have for retail shopping. Currently with limited exceptions this exists off campus causing everyone to leave in order to make routine purchases. This is especially apparent off hours and weekends. This concept would incorporate smart growth, transportation and parking. This development would start to go a long way to put the "town"

[5] Report of the Special Task Force "University of Massachusetts Dartmouth's Response to Select Issues Related to Boston Marathon Bombing" (August 15, 2013)

into the phrase "college town". UMass-Dartmouth working with UMBA is investigating if this would be a potential pilot project for a Public Private Partnership.

- **FY14 #30 – Central Administrative Services Building (FY13 #31):** Initially the plan calls for building two modular buildings (one for garage functions and vehicular and equipment storage, the second for the Print Shop, Mail Distribution Center, Facilities Shops, and administrative units) at the east end of the campus in an area not visible from the main academic buildings and Ring Road but close to the existing steam plant building. The work will include the construction of parking for assigned personnel and a new emergency egress road to Chase Road. The creation of the Chase Road Exit addresses the serious second egress issues raised in the campus Facilities Master Plan, as well as the campus Emergency Response Plan. The Chase Road Exit construction would entail a new two-lane roadway from the Ring Road to Chase Road on the eastern edge of the campus meeting all Massachusetts Highway Department standards including curbing and lighting. This road would provide access to the proposed Facilities Building site and would also provide a secondary vehicular egress from the campus in case of emergency evacuation of the site. After Auxiliary Services and Facilities functions are moved into the new building, the spaces they have vacated will be retrofit for use by academic units for research space, storage, offices and one classroom.

- **FY14 #36 – Amphitheater:** The focus of the proposed project would be to investigate the possibility of putting a tensile structure over the existing amphitheater to increase the viability of use. Currently commencement ceremonies have to be relocated from this area to indoor locations in inclement weather. This project would also expand the use of this area for University sponsored and external events. There is the potential this could be developed as a Public Private Partnership.

Deferred Maintenance
"Significant amount of need exists, specifically in reliability and safety/code projects. In order to properly address need, the type of need, the time frame of need, and the building value must all be considered.

UMass Dartmouth will never have enough investment to fix all facilities in the foreseeable future.

However, no two buildings are created equal. Identify all buildings on campus with high program value. Prioritize need within those spaces to tackle first.

Identify buildings in poor condition with limited program value. Develop a transitional plan to remove facilities from the building inventory or large renovation plans to meet future programmatic needs.

Once buildings are "reset", operating costs should play into specific facilities management decisions to maintain facilities." – Sightlines – February-2013[6]

[6] Sightlines LLC "Integrated Facilities Plan – Final Report – University of Massachusetts-Dartmouth", February 2013

Deferred Maintenance (DM) was a major focus in FY2013. UMass-Dartmouth partnered with Sightlines, a facilities asset advisory firm, on the development of an Integrated Facilities Plan (IFP). The goal of this was to create a common integrated database of campus needs for the next ten years. The database is comprehensive and includes necessary repair / maintenance and modernization projects. Conclusions from the Sightlines IFP are quoted above and through the IFP database we are reevaluating and reprioritizing the Basic Infrastructure items included on the Capital Plan. Major findings of the plan include:

- **$426.6 Million in Identified Total Deferred Maintenance Needs;**

    - 6% or $23.6 Million Identified as Reliability Projects: The projects are defined as "issues of imminent failure or compromise to the system that may result in interruption to program or use of space."
    - 9% Identified as Safety / Code: "Code compliance issues and institutional safety priorities or items that are not in conformance with current codes, even though the system is "grandfathered" and exempt from current code."
    - 31% Identified as Asset Preservation: "Projects that preserve or enhance the integrity of building systems or building structure, or campus infrastructure."
    - $180 / GSF Deferred Maintenance Backlog - $186M is required to get UMass-Dartmouth's backlog to $100 / GSF. This amount per GSF was the highest of the peer institutions Sightlines compared us against.
    - Utilizing Sightlines Net Asset Value Index the majority of UMass-Dartmouth's facilities were considered to be in the lowest category "Transitional / Gut Reno Stage".
    - To just halt the growth of backlog UMass-Dartmouth needs to make an annual investment of $25M.

With this data from Sightlines and the mandate to meet or exceed the net DM backlog reduction of 10% by FY2016 a total investment of $117.M would be required.

Summary of Facilities Portfolio:
UMass Dartmouth is situated on a 710 acre parcel located equidistant between New Bedford and Fall River. The creation of the campus was driven by a master plan developed by Paul Rudolph, then Dean of the School of Architecture at Yale University starting in 1962. There are 15 main buildings in the academic core and 13 residence hall areas. The Dartmouth campus has over 2 million square feet at its' main campus and the majority of the facilities were constructed before 1975. Satellite locations include the School of Marine Science in New Bedford, the College of Visual & Performing Arts (STAR Store) in New Bedford and the Advanced Technology and Manufacturing Center in Fall River. The University of Massachusetts Law School located in Dartmouth falls into this portfolio as well.

Recent Projects Focusing on Deferred Maintenance:
The $46M renovation and expansion of the Claire T. Carney Library has shown what can be accomplished but also demonstrated the cost of taking on a full scale renewal project. Due to a state funded budget that could not be expanded the most critical items were addressed but an estimated $14M Exterior Envelope Repair (**FY14 Priority #23)** was not.

- **FY14 #2 - Energy / Water Savings Project (FY13 #2):** Utilizing feedback from this project has reduced the current DM backlog by between $7-8M.
- **FY14 #3 - Research Laboratory Improvements (FY13#14):** Has spent more than $5M through FY13 concentrating on repurposing underutilized space into new research labs.
- The campus also strategically addressed DM needs in FY13 while working to prioritize a full Capital Renewal Plan. These DM projects included:
    - Completion of the Dion Roof Replacement - $760K;
    - Completion of a Building Envelope Study for SENG - $100K. This study recommended a $16M Exterior Envelope Repair **(FY14 Priority #19)**;
    - Completion of a Steam and Condensate Line Replacement to the Campus Center - $450K;
    - Completion of an Absorption Chiller Replacement for CVPA - $575K;
    - Planning for a Steam and Condensate Line Replacement for the East Residence Halls. This project has received $750K in funding for FY14 from DCAMM.
- Long-term construction strategy to reduce the DM backlog
- Strategic Roadmap: How does UMass Dartmouth approach and meet this goal?
- Identification of high priority critical repair projects that correct deficiencies, eliminate and prevent ongoing infrastructure damage to our facilities and align with the stated strategic goals of the University. These strategic investments would target:
    - Building exterior envelope and roof repairs - these projects would protect the interior systems of each facility mitigating the affects of water infiltration and weather damage;
    - Campus Utility Infrastructure Improvements - Continuation of the replacement of the 40 year old steam infrastructure that provides for both heating in the winter and cooling in the summer. This investment would continue to improve operational efficiency and reduce energy consumption. In FY13 UMass Dartmouth has undertaken a master study of this infrastructure and is near completion. This study will allow us to prioritize and monetize our infrastructure requirements;
    - Building mechanical / electrical / plumbing system modernization and repair - build upon the work started by the Energy Performance Project that is currently being managed by the Division of Capital Asset Management & Maintenance (DCAMM) and the construction / implementation by NORESCO. Utilizing the feedback from the current implementation that projects to address the most significant DM needs and reduce the current backlog by between $7-8M. The building condition assessment performed by NORESCO concluded that:

"*building systems at UMD are in a severe state of disrepair, with many systems having minimal, if any, preventive maintenance since the original campus construction, most of which dates to the 1960s and 1970s. The central campus's unique architecture that makes it very difficult to access building mechanical systems has been a major contributor to the lack of equipment maintenance. As a result, most HVAC mechanical systems now require significant repair or outright replacement*."[7]

[7] NORESCO, Investment Grade Audit Report: University of Massachusetts, Dartmouth (October 12, 2010) p4

- Concentrate critical investment on the building portfolio of "Freshman Experience". This puts a priority on facilities that are critical to the recruitment and retention of students. Sightlines has placed a cost for the building needs at $109.5M:
    - Freshman Resident Halls;
    - Fitness Center;
    - Tripp Athletic Center;
    - MacLean Campus Center;
    - Auditorium Annex (Admissions);
    - Residents' Dining Hall;
    - Claire T. Carney Library;
    - Liberal Arts.

- Construction of a $12-16M Central Administrative Services Building to consolidate all of Facilities operations and other support functions like the mail room, print shop and central storage to free up much needed space in the academic facilities for learning and research environments.

How will the University move towards these goals and aspirations when the majority of its' facilities are approaching their fiftieth anniversary and the progressive impacts of the lack of Deferred Maintenance are very apparent? Almost to the breaking point where there is no proactive planning but all reactive functioning. The state of our facilities is nearly to the critical state where they can no longer just be maintained but need to have a full force capital renewal effort that transforms while preserves our core assets; Modernization of the buildings to accommodate the differing needs of today's academic environment while reflecting on the institution's past. These include items of all facets that affect building performance, energy efficiency and how our buildings are utilized. Any discussion of deficiencies on campus must start with addressing the Basic Infrastructure needs. For this reason the **Number 1 Priority of the FY14 Capital Plan Update is the $69M in Identified Basic Infrastructure Repairs.**

Dartmouth Campus FY14-FY18 Capital Plan Summary

Funding Source	5 Year Plan	Current Approved	September Approval	TOTAL - September 2013
University - Local Funds	$18,984,951	$17,742,681	$1,242,270	$18,984,951
University - External Funds	$19,514,005	$9,514,005	$10,000,000	$19,514,005
University - Borrowing	$113,157,826	$112,023,326	$1,000,000	$113,023,326
State	$100,075,187	$86,400,000	$13,175,187	$99,575,187
Contingent on Funding	$469,596,405	$187,412,905	$0	$187,412,905
TOTAL	**$721,328,374**	**$413,092,917**	**$25,417,457**	**$438,510,374**

LOWELL CAMPUS

Lowell		
Total Square Footage	3,925,455 GSF	
Campus Age	most buildings date to pre-1975 merger	
5-Year Capital Plan #, $ Projects	34	$1,516,400,000
Current (June) Approved Projects #, $ *Note: 4 Projects completed*	24	$661,400,000
Project Updates for September Review / Approval #, $	1	8,000,000
New Projects for September Approval #, $	3	$140,000,000

Introduction and Overview of Lowell Campus Capital Plan

This document provides an update to the most recent Capital Plan for UMass Lowell for approval by the Board of Trustees for FY2014-2018. It reflects the priorities outlined in the UMass Lowell 2020 Strategic Plan. UMass Lowell's success in executing its Capital Plan will determine how successful it will be in meeting the ambitious goal of achieving national and international recognition as a world-class institution over the next decade.

Many of our anticipated capital expenditures impact on a number and variety of our academic, research, student life, athletic, recreational and outreach programs and partnerships. If we are to achieve our goals and aspirations, we must concurrently reduce our backlog of critical maintenance and our energy consumption while we create additional modern academic and research spaces, increase residential capacity, renew our existing buildings, develop new recreational opportunities, and add to our capacity to host a broad range of meetings and events – academic, entertainment and civic.

The Lowell campus consists of 3 major locations: North, South and East. The North and South campuses are primarily academic buildings with some residence halls and tightly constrained playing fields; the East campus is the location of the majority of our residence hall, the primary dining facility and a very popular Recreation Center. East also houses the Wannalancit facility, Lelacheur Baseball Park and is a short walk to the Tsongas Center. Each of the campuses is densely developed and bounded by fully developed residential and business properties. University Crossing, which will include the majority of student focused services is centrally located among all three campuses and is currently under construction.

The campus continues to partner with the University of Massachusetts Building Authority and DCAM to plan, finance and implement our ambitious capital program. The partnership with DCAM has resulted in a series of "rolling" capital plans for North and South campuses. These plans recognize our significant enrollment and research growth trends as well as projected future growth in academic programs, sponsored activity and enrollments.

Enrollments grew nearly 43% between 2007 and 2012 and are projected to grow more than 5% this Fall and 4% per year through Fall 2017. UMass Lowell is expanding out-of-state and international enrollments, Master's and on-line enrollments and most significantly, it is expanding its overall "market share" of Massachusetts undergraduate students. This growth *has not* come at the expense of selectivity, quality or diversity. Sponsored research funding has increased 66% and is targeted to grow another 15% by 2017. The master plans need to address the pressures of current and future growth including demand for new academic programs and residential and recreational facilities and the continued need to renew facilities with systems that show signs of obsolescence and address the backlog of deferred maintenance.

In February 2013, UMass Lowell joined NCAA Division I Athletics, which aligned the University with academic peer institutions. While UMass Lowell already has a state-of-the-art sports arena (Tsongas Center), the move to Division I will require the University to add basketball capability to the sports arena, to make improvements to the North Campus Costello facility, and to institute the use of artificial turf for field hockey and Lacrosse.

Master Planning:

Science & Engineering Master Plan

In cooperation with DCAM, the master plan for North Campus Science & Engineering facilities was completed in 2010-2011. The recommendations focus on four initiatives, which are included in our capital plan. The projects include major renewal of Engineering, Olsen, Olney buildings, and similar renewals in the North Campus Quad. Last year's fire in the Perry Engineering building has heightened the need for prompt rehabilitation of that key facility. The positive space and programmatic impact of the pending new Pulichino Tong School of Business building is being coordinated as part of the North campus planning process. Additional renewals for Pinanski and Ball, and replacement of the Ames building are needed and are anticipated for funding toward the end of the planning period.

University Crossing

The long planned purchase of the St. Joseph's property is behind us and the site has been redesigned as University Crossing. The Campus bookstore and some dining will be located here, along with additional program elements including student activities & services, residential life as well as 'front door' activities like admissions, registrar, and financial aid. The transformation of the facility includes a complete interior renovation of the newer buildings at the rear of the site, demolition of the older buildings at the front of the site and construction of a new four-story campus center overlooking the river. The renovation phase of the existing buildings is complete as is the demolition phase. Construction has begun on the Campus Center portion of the project and will be completed in 2014. The total cost of the renovations and new construction is $95M. This project will benefit both North and South campuses by consolidating student services, student organizations and back-office operations and removing them from the main academic campuses, thus allowing for the creation of additional classroom and departmental space.

South Campus Master Plan & Space Revisions

The approaching completion of much needed projects underway provides both the opportunity and the necessity of re-planning space on our South Campus in a thoughtful way. The cornerstone of these is the South Academic Building (now named the Health and Social Sciences building) which opened in the Spring of 2013.

These projects will result in some substantially vacant buildings ready for rehabilitation and reassignment each fall from 2013-2015. These newly available spaces provide the means to address pressing programmatic space needs for the College of Health Sciences and the College of Fine Arts, Humanities & Social Sciences.

The South Master plan includes a space renewal and reassignment plan, with accompanying individual capital projects for implementation as the buildings empty out. These include McGauvran, Mahoney, South Dining, Dugan, and parts of O'Leary and Weed. The plan academically organizes the campus and addresses both additional programmatic space needs and critical maintenance priorities. Expanding and renovating Coburn Hall and a new academic building are part of this plan as well. This planning effort is a follow-on to the previous DCAM-funded overall plan, and the Science & Engineering plan for North Campus. Implementation of this plan will allow the campus to maximize and extend the value of investments in previous projects, and address the needs of these growing schools. Both schools actively support the

university's growing research and economic development agenda, through both direct research and their vital role in the overall curriculum.

Two significant projects – the North and South Campus Parking Garages – are complete and address the pressures for parking created by our enrollment growth.

Project Status Update from FY13 Plan
The following projects on the FY2013-2017 Capital Plan were completed and have been removed from the FY2014-2018 plan or have had changes in current cost estimates:

- ETIC – the building opened in Fall 2012 and is in use. Priority #5, ETIC Post Occupancy includes the costs of the future fit-out of the 3rd and 4th floor laboratories when funding and program are in place. The project also includes funding for installation of the clean room tools and equipment funded through a $5M grant from the Massachusetts Life Sciences Center. The total project cost has been reduced $81.5M to $18.5M to reflect the remaining program.
- Health & Social Sciences Building – the building opened in Spring 2013 and is in use by the Colleges of Health Sciences and Fine Arts, Humanities & Social Sciences.
- Fox Hall Dining renovation project and the North Campus Parking Garage were completed on time and on budget. Both opened in Fall 2012.
- Priority #7, Energy & Power Plant Improvements project now includes the recently launched $25M AEP program in addition to the remaining bond-funded energy improvement projects. TPC has increased from $30M to $40M. $21M of the AEP projects will be funded through utility savings over the next 15 years.
- Priorities #8 & #9, Science & Engineering Master Plan-Perry Hall (Engineering) and Olsen Renewal projects have collectively increased in cost from $70M to $76M. Cost escalation is driving the increase in TPC as the S&E Master Plan data are two years old. These projects are currently ready to have RFP's issued for architectural services.
- Priority #11, South Campus Master Plan - Initial Space & Mall Improvements (Phase 1), projected TPC increase from $20M to $25M.
- Priority #15, Alumni Hall/Lydon Library Renovations/Innovation District, estimated TPC increase from $5M to $15M. Project in conceptual phase and increase is due to escalation.
- Priority #17, North Campus Quad Renewal (Phase 1), estimated TPC increase from $31.5M to $37M. Project is ready to issue an RFP for OPM services. Increased costs due to escalation.
- Priority #20, Coburn Hall Renewal & Addition. Prior plans had Coburn Hall broken into two projects. They have been combined in the current concept and estimated TPC has gone from $39M to $57M due to cost escalation since the initial review and a better understanding of the deferred maintenance condition of the building.
- Priority #27, New South Campus Academic Building (South Campus Master Plan), current TPC estimate on this concept has increased from $80M to $114M due to cost escalation since the initial review.

FY14 – FY18 Planning Needs & Priorities
The following new projects are being proposed for addition to the University's FY2014-2018 plan. All are currently in the conceptual phase and priorities #26 through #34 are not projected to begin until the very end of the planning period and into the FY19-23 timeframe:

- Priority #16, McGauvran Dining Conversion. This project has been broken out of the South Campus Master Plan and RFP responses for OPM services are being reviewed. Current TPC estimated at $25M.
- Priority #18, Residence Hall Acquisition & Construction. Current enrollment growth estimates of 5% percent for the Fall of 2013 and 4% per year through Fall 2017 will require additional residential beds. Through a combination of acquisitions, additional leasing and new construction, the campus will add 1,000 new beds at a cost of $100M.
- Priority #24, Athletic & Recreational Facility Improvements - incl. Division 1, initial review of facility improvements required to get our athletic facilities up to Division 1 standards and our recreational facilities up to levels for our expanding student population will require approximately $15M.

Financial Planning:
This capital plan depends on funding from the state, private donors, granting agencies and debt supported by user fees, student charges and campus operating funds. The overall five-year plan is aggressive due to the investment needs and program emerging from the DCAM Science & Engineering and South Campus master plans and the deferred maintenance needs identified by the ISES and Sightline reports.

State Funds
The state is a critical partner in the success of our capital plan and by extension the realization of our strategic goal to achieve national and international recognition as a world-class institution over the next decade.

The commitment of state funds to support the ETIC facility, the Health & Social Sciences Building (HSSB), master plans and emergency deferred maintenance repairs are all outcomes of our partnership with DCAM and the Administration in implementing the Higher Education Bond Bill of 2008 and the Economic Stimulus and Life Science programs of 2006.

The University is targeting state support for the following projects over the next ten years: new Pulichino/Tong School of Business building ($25M); the Science & Engineering renewal and renovation program for Engineering (Perry Hall) ($36M), Olsen ($40M), North Campus Quad ($37M) and Olney Hall ($55M); Coburn Hall renewal and an Addition ($57M); South Campus master plan improvements ($5M) and a consistent level of support for deferred maintenance and compliance projects.

New projects that are emerging from the North and South Campus master plans include the need for new Academic Buildings on both campuses to support the growth in enrollments and to provide additional classroom space. The South campus building was added to last year's plan and is estimated at $114M. We have added a $100M building for North campus for the FY19 to FY23 time period. Consistent with our master plans, we are proposing a number of new renewal projects that would begin later in this planning period or during the beginning of the next five-year plan (FY19-23). These projects include renovations and renewal of Ball, Pinanski and a second phase for Olney Hall renovations on North; Weed Hall, O'Leary Library and Durgin Hall on South as well as improvements to the Power Plant and an addition for central campus

services on South. We add these projects at this time for consideration since a new Higher Education Bond Bill is required.

Recent state capital plans included approximately $170M of projects for Lowell (Coburn, Pulicino Tong, S&E and deferred maintenance). We are waiting for the FY14 plan to be released. The new state funded projects proposed for the end of this planning period and into the next five-year period total approximately $600M.

Campus Debt
The campus has identified over $420M of projects that can be funded with debt. Currently the campus has approximately $240M in funds already borrowed through UMBA and targeted toward projects on the capital plan. This leaves approximately $170M of future borrowing over the next five years required to keep the capital plan moving forward.

The campus currently has a relatively low debt to operations ratio of 5.3% projected for FY13. If we were to borrow funds sufficient to support priority projects and additional funding for modernization and renewal our debt ratio projections would increase to over 6% (needs to be reviewed with 5-Year Plan); below the 8% policy threshold.

Deferred Maintenance
During 2010 and 2011, the campus completed a comprehensive facility condition assessment. The assessment reviewed each of our buildings and provided overall project costs for systems and prioritized needs for all facilities. The report indicated at that time that the campus deferred maintenance (DM) requirement is for approximately $450 million. Recent reviews and updates by Sightlines, LLC. has estimated the total backlog at closer to $600 million when taking into consideration both the hard and soft costs of renovation and construction projects.

The Lowell campus is in worse physical condition than peer campuses, perhaps due to a history of lower than usual long-term reinvestment and the relative age of our facilities.

The campus has incorporated these needs into the capital plan, and is addressing them through a variety of means and funding sources. Progress on the capital plan as currently proposed and planned can result in DM reductions in excess of the 10% target set by the President's Office. This is due in part to capital projects already planned, demolition, energy conservation projects and planned comprehensive renewals which incorporate the DM items.

Priority #6, On-going Academic Modernization including Relocations (Phase 1: FY13-18) targets $30M over 10 years to address immediate needs of academic areas including renewal associated with space reallocation due to new facilities coming on-line and those planned for North and South campuses.

Priority #12, Capital renewal/Deferred maintenance/Compliance (Phase 1: FY13-22). This program targets $80M over the 10 year plan to various projects designed to cut into the backlog identified in the facility conditions assessment.

Priority #21 targets $30M toward a Residential Hall Comprehensive Renewal Program (Phase 1: FY13-22). These funds will complement the renewal of Leitch & Bourgeois (#10) project and

the planned demolition of Eames and Concordia halls. Taken together, these projects will reduce the deferred maintenance backlog in the residential housing area.

Energy Efficiency Program:
As part of the university's multi-faceted energy conservation program and in support of our Climate Action Plan (CAP), capital investments are needed to increase and ensure the realization of planned utility cost avoidance. The campus borrowed $15 million to begin this effort. These funds have been and are being used to implement energy infrastructure improvements that cannot be funded through the various grants, rebates and energy conservation incentive programs now being implemented and sought. In the vast preponderance of cases, the energy conservation measures concurrently reduce our Deferred Maintenance backlog.

Improvements included a $7 million full renovation of the North campus power plant which replaced the fuel oil boilers with efficient natural gas boilers. The conversion and renovation project has made a notable reduction of our fuel consumption on the North Campus. Projects for energy conservation measures also include HVAC system upgrades at stand-alone buildings, controls and energy management systems, improvements to utility distribution systems (e.g. steam and chilled water lines), and lighting and equipment modernization. These projects are at various stages of completion and have been prioritized considering: paybacks, impact on deferred maintenance, speed of implementation and campus master plans. Investment this year and into the near future are approximately $800K annually from a combination of funds including incentives and rebates.

The campus is participating in DCAMM's Accelerated Energy Program (AEP) which provides an innovative funding model to further our energy efficiency efforts. Currently at 30% design, this comprehensive, campus wide energy conservation initiative is estimated at almost $25M with a fifteen year payback. It addresses $10-12M of deferred maintenance while saving nearly 20% of our energy. Payment for the program is from a combination of: DCAMM expenditures for site assessment, preliminary design and project management, a pledged infusion of $5M from DCAMM for Deferred Maintenance work and 15 years of campus payments realized from the annual utility costs avoided.

In addition to the HVAC, electrical and other system upgrades that are part of our capital program (larger building renovations, renewals and master plan), our annual deferred maintenance program will contribute to our energy conservation efforts.

Lowell Campus FY14-FY18 Capital Plan Summary

Funding Source	5 Year Plan	Current Approved	September Approval	TOTAL - September 2013
University - Local Funds	$95,000,000	$85,000,000	$10,000,000	$95,000,000
University - External Funds	$20,300,000	$20,300,000	$0	$20,300,000
University - Borrowing	$448,100,000	$310,100,000	$138,000,000	$448,100,000
State	$150,000,000	$131,000,000	$0	$131,000,000
Contingent on Funding	$803,000,000	$134,000,000	$0	$134,000,000
TOTAL	**$1,516,400,000**	**$680,400,000**	**$148,000,000**	**$828,400,000**

WORCESTER CAMPUS

University of Massachusetts UMASS Medical School

Medical School		
Total Square Footage	6,735,776 GSF	
Campus Age	core campus opened 1970	
5-Year Capital Plan #, $ Projects	46	$523,597,500
Current (June) Approved Projects #, $ *Note: 4 Projects completed*	13	$540,140,000
Project Updates for September Review / Approval #, $	-	-
New Projects for September Approval #, $	8	$49,600,000

Introduction and Overview of Worcester Campus Capital Plan

The University of Massachusetts Medical School (UMMS) 2014 Capital Plan is informed by two key institutional documents: 1) the UMass Academic Health Sciences Center Strategic Plan; and 2) the UMMS Master Plan.

The strategic plan, developed in conjunction with the Medical School's clinical partner, UMass Memorial Health Care, (UMMHC) outlines a path for the campus to advance the health and well-being of the people of the Commonwealth and the world through pioneering advances in education, research and health care delivery. Six overarching goals, which follow, have been established in support of the aforementioned mission:

- Design Future Model of Health Care Delivery;
- Build Workforce of the Future;
- Design an Ideal Learning Environment;
- Translate Discovery into Practice;
- Be a High Performance Organization; and
- Have a Significant Impact in the World.

The strategic plan has been a highly successful guidepost for campus operational goals and objectives, advancing exciting educational, research and infrastructure priorities. In FY'14, UMMS and UMMHC will, again, come together to develop a successor strategic plan. The UMMS Master Plan, which was developed in collaboration with the Division of Capital Asset Management and Maintenance (DCAMM) and Tsoi, Kobus, provides the campus with a functional and detailed blueprint for space planning and construction that is based on growth assumptions and institutional goals.

With these as benchmarks, the UMMS 2014 Capital Plan is aligned with both its strategic goals and functional resources. The common thread between all three documents is an unyielding commitment to the tripartite mission of UMMS—education, research and healthcare delivery.

In total, the capital projects included in the plan, both new and previously approved but not completed, total $584 million. Projects completed in FY'13, including the Albert Sherman Center (ASC), total $443 million. The $584 million in current and future projects include $483 million in infrastructure additions or improvements, $54.9 million in research related and support items, $61.8 million in projects associated with teaching and learning activities, and $13.1 million projects to support student life functions. These projects are highlighted by a focus on repurposing space in the Medical School Building and Lazare Research Building (LRB) made vacant by moves to the ASC (backfill projects), deferred maintenance and improvement priorities in the Medical School Building and campus energy grid, and infrastructure investments related to medical services and equipment in partnership with UMMHC.

Project Status Update from FY13 Plan

In FY'13, UMMS completed construction of the 512,000 square foot, nine-story Albert Sherman Center (ASC), a state-of-the-art education and research complex that also includes important campus amenities such as a new 7,000 square foot fitness center, a large 350 seat café and a 350 seat lecture hall.

The building is the new home of many cutting-edge research programs, including the Advanced Therapeutics Cluster, the major components of which are the RNA Therapeutics Institute and the Gene Therapy Center. The research floors within the ASC also house a number of other complementary research programs in Pathology, Microbiology and Physiological Systems, Cardiovascular Medicine, Diabetes, and Neurology. Co-located throughout the lab floors are researchers from the Departments of Quantitative Health Sciences and Bioinformatics and Integrative Biology, thereby promoting interactions between "wet" and "dry" lab researchers.

In addition to the research labs, the ASC provides specialized educational space to support the programmatic requirements of new curricula offerings. The ASC is home to student "learning communities," which bring together small groups of students across the class years and faculty from the School of Medicine and Graduate School of Nursing, for formal and informal teaching and mentoring. Moreover, the ASC serves as the new home for the interprofessional Center for Experiential Learning and Simulation (iCELS) that provides learners at all levels with ongoing practice, improvement and mastery of essential clinical skills.

While the centerpiece of the ASC Project is the facility itself, there were a number of other associated infrastructure projects, which supported the construction of the nine-story facility. Chief among those were the power plant expansion and the new, seven level parking garage. The power plant expansion project included the installation of a 7800kw combustion turbine, a 60,000 pound per hour heat recovery steam generator and a 4,000ton chiller. This additional capacity and redundancy was required to support the ASC, as well as future projects both at UMMS and UMMHC. The power plant expansion project and the energy efficiencies that resulted from it garnered UMMS a $5.6 million incentive payment from NGRID, which is the largest state energy equipment incentive payment that NGRID has ever awarded. In addition to this payment, the power plant will also receive over $2 million annually in alternative portfolio standard energy credits, a component of the Green Communities Act developed to enhance renewable and energy efficient technology throughout the state.

The new $40 million 1,440 car parking garage just north of the campus was also completed in conjunction with the ASC project. The construction of the parking garage allowed the campus to close two off campus rental shuttle lots and reduce the cost of shuttle buses for more than 1,500 employees assigned to park off campus. The project costs, over time, will be supported by additional parking fees paid by employees using the new garage.

Taken together, the Sherman Center Project, comprised of the 512,000 square foot facility, the power plant expansion and the new parking garage, has helped to advance all of the institution's strategic goals, from building the workforce of the future to having a significant impact in the world.

MassBiologics of UMMS (MBL) remains committed to its century-old mission of protecting and promoting public health both here in Massachusetts and, increasingly, around the world. Recent infrastructure projects at its main Mattapan site have supported and, indeed, advanced MBL's mission. MBL's second Mattapan facility opened in 2010 and enabled MBL to re-locate and concentrate its research and development team into a state-of-the-art laboratory setting designed to foster collaboration, speed the pace of discovery, and support the production mission housed in the original building. The plan includes the shutdown of MBL activities

previously located at the State Lab Institute in Jamaica Plain. The ultimate goal of expanding the campus into a single footprint is contingent upon the funding of the fit-out of the lower level of the second facility as the animal quarters and remaining production programs are relocated from the Jamaica Plain site.

FY14 – FY18 Planning Needs & Priorities

The priorities included in the FY'14 capital plan are based on the Medical School's evolving needs and commitment to maintaining its operational efficiency now and into the foreseeable future. The projects included in the highest priority bracket (top ten) total $196 million and include $129 million in infrastructure additions or improvements, $15.5 million in research related and support items, $50 million in projects which support teaching and learning functions, and $1.5 million projects to support student life functions. These important projects directly support current campus needs and specifically address repurposing space in the Medical School and LRB Buildings vacated by moves to the ASC (backfill projects), deferred maintenance and improvement priorities in the Medical School Building and campus energy grid, and infrastructure investments related to medical services and equipment in partnership with UMMHC.

With the opening of the ASC, there are now several vacant floors in the Medical School Basic Science and Student Lab wings. These floors will be renovated to bring aging lab space up to current scientific standards and to make room for dry lab research and office space. The backfill projects are critical to support various research and academic programs that were not re-located to the Sherman Center.

In addition, the backfill space will be used to support the movement / consolidation of key programs currently operating in off-campus facilities managed by Worcester City Campus Corporation (WCCC). In turn, WCCC is now able to reduce its inventory of property in and around the Worcester area. WCCC leadership worked through Colliers International to broker the sale of several properties including the 30,000 square foot Grafton Centennial property and the 21,000 square foot Auburn Facility. In addition, UMMS is in the execution phase of vacating two state properties and returning their management to DCAMM: Fernald School site (Shriver Center) and the State Lab Institute in Jamaica Plain (MBL).

As the campus looks to downsize some of its properties outside of Worcester, UMMS will continue to work with DCAMM and other state agencies to formulate a long-term plan for the properties along the Belmont Street corridor of the campus. DCAMM has hired a firm to work with all stakeholders in and around the Medical School campus and up to the new Worcester Recovery Center and Hospital to determine the best use of land and buildings for the Commonwealth in this area. The ultimate goal of this process is to implement the strategy contained in the UMMS Master Plan, which is to eventually acquire each of the abutting properties.

UMMS has also worked closely with Colliers to develop several concepts around a new biotechnology partnership. The catalyst for such an engagement was the Medical School's recent acquisition of Biotech III, IV and V, totaling over 300,000 square feet of space. The early concepts would allow UMMS or a third party pharmaceutical or biotechnology firm to inhabit over 300,000 square feet of space within a short distance of the school.

Deferred Maintenance

In addition to capital investment, UMMS remains committed to protecting its current inventory of buildings and actively manages the identification, prioritization, planning, funding, and execution of deferred maintenance projects.

UMMS, similar to many universities and colleges, has a large backlog of deferred maintenance projects. A majority of the facilities on this campus were constructed in the 1970s and, due to the life cycle of the building systems, the stress of heavy utilization, changes in space program, and reduced maintenance, there are many components that require replacement. These replacements have been deferred due to reduced funding levels. The extrapolated extent of the maintenance backlog for the 900,000 square foot main school building is over $100 million. The largest item and highest priority is the $35 million project to replace over 30 air handling units that have exceeded their useful life expectancy. Most of the high priority and life safety deficiencies are funded immediately upon recognition or accelerated to stay current with all state building codes and other regulatory requirements such as AAALAC, LCME, and CDC.

UMMS continuously monitors the list of deferred maintenance items and provides interim repairs as required to maintain operational requirements. The list is reviewed and prioritized as funding becomes available or a new project is initiated. The list is further reduced through the completion of new capital projects, utilization of operational funds, internally funded projects, parking trust fund revenues, review and disposal of unneeded systems and through continued coordination of energy conservation funds from electrical supplier, NGrid.

The Medical School's complex building infrastructure requires expert attention, as well as significant resources. The hospital and biomedical research programs necessitate a substantial investment in numerous redundant building systems and, therefore, have a higher amount of deferred maintenance. These sophisticated systems include elevated systems to support the laboratories and specialty areas such as imaging, higher level bio containment and the vivarium. These also include enhanced lab plumbing systems such as purified water, CO2, air vacuum, natural gas, and acid waste. In addition, the requirement for air distribution is driven to assure a 100% outside air system is provided and controlled along with specialty space pressurization, humidity control and high ventilation rates.

Over the past five years, UMMS has consistently invested in buying down deferred maintenance. Examples include the following:

- Between 2007 and 2009, UMMS replaced all the elevators in the main school building. The old 1970 control systems, cabling, cabs and motors were all replaced. This lead to increased operational reliability and also increased the occupancy and speed of the elevators.
- In 2009, the fire alarm system was replaced throughout the main school building. This was a critical life safety system that required system improvements and coverage to meet current code.
- The Granite Replacement Project was jointly funded by the school and hospital and included repair and replacement of the entire exterior wall systems and roofs. This $65 million project repaired a failing granite façade due to the original design and construction of the building and the poor quality materials and construction techniques.

- Through periodic DCAMM deferred maintenance funding, UMMS is typically able to purchase between $500,000 to $1 million per year in backlog reduction. Past projects include the replacement of domestic hot water heaters, roof replacements, 480V breaker renovations, new fire pump controls, and new AHUs for the animal quarters.

The UMMS backlog is based on a VFA Facility Condition Assessment completed in 2012 that identified more than $112 million (school and hospital) in required facility improvements. The condition assessment team inspected installed equipment, surveyed the facility and identified deferred maintenance requirements. Each requirement was documented with detailed cost estimates, photos and narratives and subsequently ranked.

The Medical School will continue to reduce the deferred maintenance backlog with the following strategies:

1. Funding through the Higher Education Bond Bill – UMMS currently has an earmarked $30 million project on this cash flow list that will replace over 30 air handling units.
2. DCAMM Deferred Maintenance Program – UMMS has in the past several years been successful in receiving limited funding from the DCAMM Facility Maintenance and Management Department. UMMS will continue to coordinate closely with DCAMM, respond to all calls for funding and keep the CAMIS system updated.
3. Eliminating redundant or obsolete systems – the facilities staff continues to analyze the requirements for various building and research specific systems to determine their viability and utilization. Should the utilization decrease due to technology changes or the elimination of a program, the system will be surveyed and, if not required, removed. For example, the 125 psi steam system throughout the campus is down to only several users, and within a year the system will be decommissioned and the piping will be eventually removed.
4. Trust Funded Operations – UMMS charges all employees, patients and visitors who park on the campus. The rates were established to cover the cost of operating two elevated parking garages and surface parking lots. The revenues cover the cost of the construction bonds, operations staff and future repair and renewal operations.
5. Energy project rebates – UMMS has worked closely with NSTAR and National Grid, to initiate, develop, and construct several key energy saving projects that have led to rebates of up to 50% of the capital outlay. UMMS has replaced boilers, electrical drive chillers, lighting systems, etc. with this program.
6. NIH Funded projects – UMMS has been successful in the past with several NIH grant awards. The completion last year of the new ABL-3, an animal biosafety level laboratory, provided new research space, as well as reduced the deferred maintenance backlog with the replacement and installation of new building systems. This year, UMMS made great strides in completing the 7th Floor BL-3 Renovation project that will increase the size of the laboratory, as well as replace old troublesome air handling units.

Worcester Campus FY14-FY18 Capital Plan Summary

Funding Source	5 Year Plan	Current Approved	September Approval	TOTAL - September 2013
University - Local Funds	$76,515,000	$42,540,000	$19,000,000	$61,540,000
University - External Funds	$211,700,000	$5,200,000	$5,000,000	$10,200,000
University - Borrowing	$91,600,000	$5,000,000	$25,600,000	$30,600,000
State	$0	$0	$0	$0
Contingent on Funding	$143,782,500	$49,500,000	$0	$49,500,000
TOTAL	**$523,597,500**	**$102,240,000**	**$49,600,000**	**$151,840,000**

Appendices

- Appendix A – Current List of Approved Projects (as of June 2013) – This is the listing of projects that are currently approved and were reviewed for the Quarterly update provided to the Board of Trustees in June of 2013.

- Appendix B – Changes and New Projects for September Board Approval – This is the list of projects that will be updated or added to the approved projects list if approved by the Board of Trustees at the September meeting.

- Appendix C – Completed Projects – These are projects that were on the June list of approved projects and have been completed. They are removed from the plan and updated approved list of projects.

- Appendix D – FY14-18 Capital Plan – This is the full capital plan including approved projects and future / aspirational projects. The Board's approval of the plan is an acknowledgement of the plan and is not an approval of all projects contained within it.

- Appendix E – Approved Project List September 2013 – This will be the updated approved project list including new and updated projects pending Board approval at the September meeting. If all new and updated projects are approved, they will be added to the existing list, completed projects are removed and this becomes the new approved list that will be reported on a quarterly basis.

- Appendix F – Board of Trustees Capital Policies

Campus	Priority Order	Campus Project Names	Est. June 2013	Est. September 2013	University - Local Funds	University - External Funds	University - Borrowing	State	Contigent on Funding
Amherst	1	Housing Expansion	$191,900,000	$191,900,000	$3,400,000		$187,100,000	$1,400,000	
Amherst	2	Life Science Laboratories	$160,000,000	$160,000,000	$12,500,000		$47,500,000	$100,000,000	
Amherst	3	Academic Classroom Building	$93,250,000	$93,250,000	$20,000,000		$8,250,000	$65,000,000	
Amherst	4	McGuirk Training Facility and Pressbox	$36,250,000	$36,800,000	$250,000		$36,550,000		
Amherst	5	Lederle Graduate Research basic systems upgrades	$10,305,000	$10,305,000			$10,305,000		
Amherst	6	Morrill complex repairs and renovations	$9,081,000	$9,081,000			$9,081,000		
Amherst	7	Dickinson House, Field & Webster elevator	$1,200,000	$1,200,000			$1,200,000		
Amherst	8	DuBois Library Electrical, Plumbing, Fire Suppression, Deferred Maintenance	$25,000,000	$25,000,000			$25,000,000		
Amherst	9	Totman Physical Education Building MEP	$1,100,000	$1,100,000	$300,000			$800,000	
Amherst	10	Fine Arts Center fire protection and emergency generator	$6,000,000	$6,000,000	$2,810,000		$3,190,000		
Amherst	11	New Substation and Electrical Upgrades	$40,000,000	$40,000,000			$40,000,000		
Amherst	12	ISOM architectural and MEP	$2,000,000	$2,000,000			$2,000,000		
Amherst	13	Webster, Grayson, Field window/masonry	$12,500,000	$12,500,000			$12,500,000		
Amherst	14	Research Admin, MEP & fire alarm	$1,500,000	$1,500,000	$50,000			$1,450,000	
Amherst	15	Physical Plant deferred maintenance & renovations	$7,500,000	$7,500,000	$3,000,000		$4,500,000		
Amherst	16	Water tank repairs	$1,000,000	$1,000,000			$1,000,000		
Amherst	17	Lederle Graduate Research Center Window encapsulation/replacement	$4,500,000	$4,500,000			$4,500,000		
Amherst	18	Facility Demolitions	$12,800,000	$12,800,000	$1,900,000		$10,900,000		
Amherst	19	Central Campus Infrastructure	$25,000,000	$25,000,000			$25,000,000		
Amherst	20	Paige Lab Renovations	$9,900,000	$9,900,000			$9,900,000		
Amherst	21	Hampshire DC renovations	$15,500,000	$15,500,000	$4,500,000		$11,000,000		
Amherst	22	Champions Center	$28,500,000	$29,900,000		$900,000	$29,000,000		
Amherst	23	MLSC Life Sciences Facility	$95,000,000	$95,000,000				$95,000,000	
Amherst	24	Lincoln Campus Center Concourse Improvements	$12,000,000	$13,200,000	$3,200,000		$10,000,000		
Amherst	25	Housing Repair & Renovation	$25,000,000	$25,000,000	$25,000,000				
Amherst	26	Classroom Renovations	$2,000,000	$2,000,000	$2,000,000				
Amherst	27	New Faculty Hire Renovations	$14,000,000	$14,000,000			$14,000,000		
Amherst	28	Electrical/other infrastructure	$5,000,000	$5,000,000	$4,500,000		$500,000		
Amherst	29	Life Science Laboratories, OIT data center fitout	$7,000,000	$8,000,000	$2,000,000		$6,000,000		
Amherst	30	Physical Sciences Building	$85,000,000	$101,800,000			$16,800,000	$85,000,000	
Amherst	31	Integrated Design Building (formerly Hills replacement Building)	$55,000,000	$55,000,000			$55,000,000		
Amherst	32	South College Academic Facility (formerly Bartlett Replacement Building)	$50,000,000	$50,000,000			$50,000,000		
Amherst	33	Deferred Maintenance & Modernization Projects	$15,000,000	$12,750,000	$12,750,000				
Amherst	34	ADA Accessibility	$6,000,000	$6,000,000	$600,000		$1,400,000		$4,000,000
Amherst	35	Life Safety/Code Compliance	$5,000,000	$5,000,000	$5,000,000				
Amherst	36	Isenberg School of Management renovations and addition	$40,000,000	$40,000,000			$40,000,000		
Amherst	37	Old Chapel Renovation/study	$1,000,000	$1,000,000		$1,000,000			
Amherst	38	Lederle Research Center Repairs and Renovations	$41,250,000	$41,250,000				$41,250,000	
Amherst	39	Morrill Science Center Renovations	$51,300,000	$51,300,000				$51,300,000	
Amherst	42	Whitmore deferred maintenance	$14,000,000	$14,000,000			$14,000,000		
Amherst	44	Marston Repairs and Renovations	$6,000,000	$6,000,000			$6,000,000		
Amherst	46	Bartlett Deferred Maintenance & Façade	$2,000,000	$2,000,000	$2,000,000				
Amherst	47	Replace Oil Filled Transformers	$2,000,000	$2,000,000			$2,000,000		
Amherst	48	University Drive Infrastructure	$8,000,000	$8,000,000	$400,000		$7,600,000		
Amherst	49	Lot 12 environmental	$1,500,000	$1,500,000			$1,500,000		
Amherst	50	Coal Yard Decommission	$1,000,000	$1,000,000			$1,000,000		
Amherst	51	Marks Meadow/Furcolo Renovations	$21,400,000	$21,400,000	$900,000		$20,500,000		
Amherst	52	Hills relocations	$4,000,000	$4,000,000	$4,000,000				
Amherst	53	Goodell deferred maintenance & renovations	$3,500,000	$3,500,000	$3,500,000				
Amherst	54	Machmer renovations	$1,200,000	$1,200,000	$1,200,000				
Amherst	55	Tobin Renovations	$1,000,000	$1,000,000	$1,000,000				
Amherst	56	Fine Arts Center renovations	$9,000,000	$9,000,000			$9,000,000		
Amherst	57	New Africa House renovations	$1,700,000	$1,700,000	$1,700,000				
Amherst	58	Life Science Laboratories backfill renovations	$18,000,000	$18,000,000			$18,000,000		
Amherst	60	Solar Panels	$2,350,000	$2,350,000		$2,350,000			
Amherst	61	Campus Security Improvements	$5,000,000	$5,000,000	$5,000,000				
Amherst	62	Campus Infrastructure	$13,000,000	$13,000,000	$13,000,000				
Amherst	63	Wayfinding and Signage	$1,000,000	$1,000,000	$1,000,000				
Amherst	64	Academic Renovations Pool	$2,500,000	$2,500,000	$2,500,000				
Amherst	65	Campus Space Reallocation	$5,000,000	$5,000,000	$5,000,000				
Amherst	66	Office Renovations	$10,000,000	$10,000,000	$10,000,000				
Amherst	67	Dining Commons Renovations/Study	$1,000,000	$1,000,000			$1,000,000		
Amherst	68	Life Science Laboratories Fit out	$50,000,000	$15,000,000		$15,000,000			
Amherst	70	Farm and outlying stations renovations	$4,500,000	$4,500,000	$4,500,000				
Amherst	71	Roadway/Sidewalks/Parking lot Repairs and Improvements	$5,000,000	$5,000,000	$1,000,000				$4,000,000
Amherst	72	Landscape Improvements	$1,500,000	$1,500,000	$1,500,000				
Amherst	76	North Pleasant Street Road Improvements	$9,000,000	$9,000,000		$9,000,000			
Amherst	77	Property Acquisitions	$1,500,000	$1,500,000	$1,500,000				
Amherst	c	Integrated Sciences Building fitout	$2,200,000	$2,200,000	$256,000	$1,944,000			
Amherst	c	McNamara & Brown roof, parapet and masonry	$3,300,000	$3,260,000			$3,260,000		
Amherst	c	Kennedy & Washington laundry venting	$1,550,000	$1,440,000			$1,440,000		

Campus	Priority Order	Campus Project Names	Est. June 2013	Est. September 2013	University - Local Funds	University - External Funds	University - Borrowing	State	Contigent on Funding
Amherst	c	DuBois Library Elevator Replacement	$4,375,000	$4,100,000			$2,150,000	$1,950,000	
Amherst	c	Lincoln Apartments Utilities	$1,500,000	$1,500,000				$1,500,000	
Amherst	c	Housing Sprinkler Systems	$23,000,000	$23,000,000			$23,000,000		
Amherst	c	Chilled Water Loop	$3,000,000	$2,975,000			$2,975,000		
Amherst	c	Lederle Research Center Faculty Renovations (NIH)	$12,700,000	$12,700,000	$3,980,000	$7,100,000	$600,000	$1,020,000	
Amherst	c	Goessmann Renovations	$14,000,000	$13,730,000			$13,730,000		
Boston	BI.01	Replace and Construct New Structure for Primary Campus Electrical Switchgear (Substantial Completion) [Awaiting spending information from DCAMM]	$5,500,000	$5,500,000			$5,500,000		
Boston	BI.02.01	Wheatley Hall Roof Replacements and Buidling Envelope Repairs (Substantial Completion) [Awaiting spending information from UMBA]	$3,600,000	$3,600,000			$3,600,000		
Boston	BI.02.02	Clark Athletic Center: Replace/Repair East Curtain Wall (Study / Feasibility)	$2,000,000	$2,000,000			$2,000,000		
Boston	BI.02.03	Healey Building: Roof Replacement and Building Envelope Repairs (Early Construction / Late Design)	$5,000,000	$5,000,000			$5,000,000		
Boston	BI.02.04	Service and Supply Building: Roof Replacement and Building Envelope Repairs (Study / Feasibility)	$1,750,000	$1,750,000			$1,750,000		
Boston	BI.03	Healey Building: Replace Plaza Level Waterproofing (Conceptual)	$4,000,000	$4,000,000			$4,000,000		
Boston	BI.05	Grounds: Sea Wall and Harborwalk Construction on North-Facing Shore (Study / Feasibility)	$3,800,000	$3,800,000			$3,800,000		
Boston	BI.06	Nantucket Field Station: Repairs to Field Station Buildings and Septic System and Gouin Village Apartment Repairs (Septic System: Substantial Completion; Other Repairs/Renovations: Early Construction / Late Design)	$2,000,000	$3,000,000	$600,000		$1,400,000		$1,000,000
Boston	BI.07	Clark Athletic Center Ice Rink: Replace Chiller Unit (Design Development)	$1,000,000	$1,000,000	$500,000		$500,000		
Boston	BI.08	Clark Athletic Center: Repair South-facing Façade on Ice Rink Facility (Conceptual)	$1,000,000	$1,000,000			$1,000,000		
Boston	BI.09	Healey Building: Fire Protection Improvements (Install Fire Sprinklers, Replace Fire Alarm System and Fire Pumps) (Study / Feasibility; escalated to FY15 mid-point)	$8,200,000	$8,200,000			$8,200,000		
Boston	BI.10	Clark Athletic Center/McCormack Hall/Quinn Administration/Wheatley Hall: Elevator Renovations -- Code/Restoration (Study / Feasibility; escalated to FY14 mid-point)	$3,300,000	$3,300,000			$3,300,000		
Boston	BI.11.01	Saltwater Pump House: Mechanical System Upgrades (Conceptual)	$1,500,000	$1,500,000			$1,500,000		
Boston	BI.12	Campus-wide: Central IT Upgrades/Replacements (Study / Feasibility)	$5,000,000	$5,000,000			$5,000,000		
Boston	BI.13	Campus-wide: Telephone System Upgrades (Study / Feasibility)	$1,300,000	$0					
Boston	BI.14.02	Service and Supply Building: Install Fire Suppression System and Upgrade Fire Alarm System (Study / Feasibility; escalated to FY14 mid-point)	$2,300,000	$2,300,000			$2,300,000		
Boston	BI.16	Campus-wide: One Card System (Conceptual)	$2,000,000	$0			$0		
Boston	BI.17	Campus-wide: ADA Compliance - Ad Hoc Projects (Conceptual)	$1,000,000	$1,000,000			$1,000,000		
Boston	BI.18	Fox Point Docks: Upgrades and ADA Accessabiity (Conceptual)	$1,500,000	$1,500,000			$1,500,000		
Boston	BI.19	Campus-wide: Replace Exterior Doors to Ensure Climate Control (Including Vestibules) and Code Compliance - Ad Hoc Projects (Study / Feasibility)	$3,200,000	$3,200,000			$3,200,000		
Boston	BI.23.02	Relocate University Data Center Due to Utility Reconfiguration and Planned Science Center Demolition (Conceptual)	$1,300,000	$1,300,000			$1,300,000		
Boston	MP.01.01	Master Plan Phase I: Construct New Integrated Sciences Complex (In Mid-Construction)	$182,000,000	$179,000,000	$9,000,000		$52,000,000	$116,800,000	$1,200,000
Boston	MP.01.02	Master Plan Phase I: Utility Plant System Expansion and Upgrades to Accommodate ISC and GAB Including New Chiller and Boiler (Early Construction / Late Design)	$3,000,000	$3,000,000			$3,000,000		
Boston	MP.01.03	Life Sciences: Center for Personalized Cancer Therapy (To Be Located within Integrated Sciences Complex) (LSBB Earmark) (Conceptual)	$10,000,000	$10,000,000				$10,000,000	
Boston	MP.02.01	Master Plan Phase I: Utility Corridor and Roadway Relocation Project (Early Construction / Late Design)	$143,000,000	$143,000,000			$143,000,000		
Boston	MP.02.02	Master Plan Phase I: Utility Plant Upgrades Related to Pumps, Controls, Heat Exchangers and Utility Corridor Reconfiguration (Early Construction / Late Design)	$11,000,000	$11,000,000			$11,000,000		
Boston	MP.02.03	Master Plan Phase I: Construct New Trigeneration Facility to Accommodate Increased Campus Chilled Water, Hot Water and Electrical Service Needs (Study / Feasibility; escalated to FY15 mid-point)	$27,500,000	$27,500,000			$27,500,000		
Boston	MP.03	Master Plan Phase I: Construct New Academic Building 1 (Early Construction / Late Design)	$113,000,000	$113,000,000	$13,000,000		$100,000,000		
Boston	MP.04	Master Plan Phase I: Construct 1,000 Bed Residence Hall 1, Including Dining Facility (Conceptual; escalated from FY09 to FY15)	$100,000,000	$112,000,000			$1,000,000		$111,000,000
Boston	MP.05.01	Master Plan Phase I: Renovations to Existing Campus Buildings (Study / Feasibility)	$75,000,000	$75,000,000		$9,650,000	$65,350,000		
Boston	MP.06.01	Master Plan Phase I: Study Substructure and Science Center Demolition (Conceptual)	$1,150,000	$1,150,000				$1,150,000	
Boston	MP.06.02	Master Plan Phase I: Construct New Campus Greenhouse for Research, Reaching and Community Service (Study / Feasibility)	$5,000,000	$5,000,000		$2,500,000	$2,500,000		
Boston	MP.06.03	Master Plan Phase 1: Relocate College of Science and Mathematics Machine Shop Due to the Demolition of the Science Center (Study / Feasibility)	$1,000,000	$1,000,000			$1,000,000		
Boston	MP.06.04	Master Plan Phase I: Study Replacement of Catwalk/Enclosed Campus Walkway System and Connections to New Academic Building 1 (Conceptual)	$1,000,000	$1,000,000			$1,000,000		
Boston	MP.06.05	Master Plan Phase I: Study New LL/UL Facades at Campus Center, Healey Building, McCormack Hall, Quinn Administration Building and Wheatley Hall, and Access to Buildings from Grade (Conceptual)	$1,000,000	$1,000,000			$0		$1,000,000
Boston	MP.06.06	Master Plan Phase I: Demolish Substructure and Science Center (Conceptual)	$15,000,000	$15,000,000			$0		$15,000,000
Boston	MP.06.08	Master Plan Phase I: Relocate Track/Athletic Field (Conceptual; escalated from FY09 to FY15)	$2,800,000	$2,800,000			$2,800,000		
Boston	MP.07	Master Plan Phase I: Construct New Academic Building 2 (Conceptual, from EOAF Spending Plan)	$100,000,000	$100,000,000				$86,350,000	$13,650,000

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Boston	MP.08	Master Plan Phase I: Construct +/- 1,200 Vehicle Parking Garage 1 Including Public Safety Space (Conceptual; escalated from FY09 to FY16. Plus Study / Feasibility for Public Safety Space)	$45,000,000	$45,000,000					$45,000,000
Boston	MP.09	Master Plan Phase I: Build Out Campus Center UL Parking Garage Space as Assignable Space (Conceptual)	$5,000,000	$5,000,000			$5,000,000		
Boston	MP.10	Master Plan Phase I: Secure or Demolish Bayside Expo Center Building and Initial Property Improvements (Conceptual)	$6,000,000	$5,360,410			$5,360,410		
Boston	SU.01	Substructure: Interim Structural Stabilization, Access/Egress and Acid Neutralization Tanks (Substantial Completion) [Awaiting spending information from DCAMM]	$28,505,000	$28,505,000			$28,505,000		
Boston	SU.02	Substructure: Utility Plant Roof Replacement (Substantial Completion) [Awaiting spending information from DCAMM]	$4,570,000	$4,570,000			$4,570,000		
Boston	TR.01	McCormack Hall: Conversion of Vacant Cafeteria, Servery, and Kitchen Space for College of Nursing and Health Sciences (Conceptual)	$2,275,000	$2,275,000			$2,275,000		
Boston	TR.03	Healey Building/Quinn Administration Building: Construct New Classrooms on the 4th Floor of Healey Library and the UL of Quinn Administration Building (Conceptual)	$1,000,000	$1,000,000			$1,000,000		
Boston	TR.04	Clark Athletic Center: Replacement of Gymnasium Floor and Bleacher Repairs (Substantial Completion)	$2,450,000	$2,426,814			$2,426,814		
Dartmouth	c	Claire T. Carney Library - Expansion & Renovation	$46,000,000	$46,000,000				$46,000,000	
Dartmouth	c	Tripp Athletic Center - Locker & Traning Room Renovations	$2,100,000	$2,100,000			$2,100,000		
Dartmouth	2	Energy / Water Savings Project	$49,859,012	$49,859,012	$15,910,681	$1,349,005	$29,799,326	$2,800,000	
Dartmouth	3	Research Laboratory Improvements	$13,000,000	$13,165,000		$165,000	$13,000,000		
Dartmouth	4	Classroom, Teaching Laboratory, and Learning Space Improvements	$11,440,000	$11,440,000			$11,440,000		
Dartmouth	5	Fitness Center Expansion	$5,100,000	$5,100,000			$5,100,000		
Dartmouth	6	* Massachusetts Accelerator for Biomanufacturing (MAB) (Fall River)	$31,500,000	$31,500,000			$10,500,000	$21,000,000	
Dartmouth	8	SMAST / DMF Expansion	$48,000,000	$48,000,000		$3,000,000	$25,000,000	$20,000,000	
Dartmouth	10	Replace Failed HVAC Systems	$3,500,000	$3,500,000					$3,500,000
Dartmouth	11	Security Installation Project	$7,000,000	$7,000,000					$7,000,000
Dartmouth	12	New Academic Building	$75,000,000	$75,000,000				$42,600,000	$32,400,000
Dartmouth	13	Landscape/Lighting Improvements	$1,832,000	$1,832,000	$1,832,000				
Dartmouth	16	Charlton College of Business, Phase II	$15,000,000	$15,000,000		$5,000,000	$10,000,000		
Dartmouth	17	ADA Renovations Immediate Needs	$2,184,000	$2,184,000			$2,184,000		
Dartmouth	24	Repair Four Oldest Residence Halls	$75,000,000	$75,000,000			$5,000,000		$70,000,000
Lowell	1	University Suites (Aiken St.)Residence Hall	$56,000,000	$56,500,000	$2,500,000		$54,000,000		
Lowell	2	University Crossing - Student Life, Student Services & Admin Serv. Includes Salem St	$95,000,000	$95,000,000	$5,000,000	$2,000,000	$88,000,000		
Lowell	3	South Campus Garage	$21,000,000	$21,000,000	$0		$21,000,000		
Lowell	4	Pulichino/Tong School of Business Building	$35,000,000	$35,000,000	$5,000,000	$5,000,000		$25,000,000	
Lowell	5	ETIC	$81,500,000	$84,000,000		$12,000,000	$27,000,000	$45,000,000	
Lowell	6	On-Going Academic Modernization incl. Relocations (Phase 1: FY13-18)	$30,000,000	$30,000,000	$5,000,000		$10,000,000		$15,000,000
Lowell	7	Energy & Power Plant Improvements (incl. DCAMM AEP)	$30,000,000	$40,000,000	$21,000,000		$14,000,000	$5,000,000	
Lowell	8	Science & Engineering Master Plan-Perry Hall (Engineering) Renewal	$25,000,000	$36,000,000				$20,000,000	$16,000,000
Lowell	9	Science & Engineering Master Plan-Olsen Renovations	$45,000,000	$40,000,000				$25,000,000	$15,000,000
Lowell	10	Leitch & Bourgeois Residence Hall Renovations	$37,000,000	$37,000,000	$7,000,000		$30,000,000		
Lowell	11	South Campus Master Plan - Initial Space & Mall Improvements (Phase 1)	$20,000,000	$20,000,000	$6,000,000		$9,000,000	$5,000,000	
Lowell	12	Capital Renewal/Deferred Maintenance/Compliance (Phase 1: FY13-22)	$80,000,000	$80,000,000	$6,000,000		$29,000,000	$5,000,000	$40,000,000
Lowell	13	Property Acquisitions	$10,000,000	$15,000,000	$10,000,000		$5,000,000		
Lowell	14	Technology Infrastructure	$15,000,000	$15,000,000	$5,500,000		$2,000,000		$7,500,000
Lowell	15	Alumni Hall/Lydon Library Renovations/Innovation District	$5,000,000	$8,000,000			$8,000,000		
Lowell	17	North Campus Quad Renewal	$31,500,000	$31,500,000			$13,000,000		$18,500,000
Lowell	19	Transportation & Parking Improvements	$4,000,000	$4,000,000			$2,000,000		$2,000,000
Lowell	21	Residential Hall Comprehensive Renewal Program (Phase 1: FY13-22)	$30,000,000	$30,000,000	$10,000,000				$20,000,000
Lowell	22	Wannalancit	$7,100,000	$7,100,000			$6,100,000	$1,000,000	
Lowell	23	Civic & Athletic Facilities	$3,300,000	$3,300,000	$2,000,000	$1,300,000			
Worcester	2	Labs to Offices - Backfill Project (Floors 2&3)	$8,000,000	$8,000,000	$8,000,000				
Worcester	5	Enhance chilled water loop pump/controls	$3,000,000	$3,000,000	$3,000,000				
Worcester	6	School HVAC Upgrades/Replacements	$38,500,000	$38,500,000					$38,500,000

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Worcester	9	Network Infrastructure	$10,000,000	$10,000,000	$10,000,000				
Worcester	19	Renovate and Expand BL3 Suite - 7th Fl	$6,400,000	$6,400,000	$1,200,000	$5,200,000			
Worcester	20	Install Chiller 6	$4,000,000	$4,000,000					$4,000,000
Worcester	26	Parking Lot Maintenance - Main Campus	$10,840,000	$10,840,000	$10,840,000				
Worcester	32	Departmental equipment purchases	$10,000,000	$10,000,000	$3,000,000				$7,000,000
Worcester	c	Power Plant Expansion	$51,000,000	$51,000,000			$51,000,000	$0	
Worcester	c	Albert Sherman Center	$350,000,000	$350,000,000			$260,000,000	$90,000,000	
Worcester	c	New NW Parking Garage	$40,000,000	$40,000,000			$40,000,000		
Worcester	c	School 4th fl Lab to Office Renovations - Backfill Phase 1 Basic Science wing	$2,000,000	$2,000,000	$2,000,000				
Worcester - WCCC	6	MBL - Tetanus/Diphtheria Manufacturing Facility: Vaccine Cultivation & Purification	$6,400,000	$6,500,000	$6,500,000				
Note: Public Private Partnerships are being explored for the UMB Residence Hall (MP.04) and Parking Garage (MP.08) projects and are categorized as "contingent on funding" as the details of such PPP is further researched.									
		Campus Totals	**$4,010,166,012**	**$4,026,448,236**	**$338,078,681**	**$84,458,005**	**$2,098,291,550**	**$1,013,370,000**	**$492,250,000**

Campus	Priority Order	Campus Project Names	Est. September 2012	Est. June 2013	Est. September 2013	% Change Since September 2012	University - Local Funds	University - External Funds	University - Borrowing	State	Contigent on Funding	Project Phase
Amherst	7	Dickinson House, Field & Webster elevator	$1,500,000	$1,200,000	$1,200,000	-20%			$1,200,000			In Mid Construction
Amherst	68	Life Science Laboratories Fit out	$50,000,000	$50,000,000	$15,000,000	-70%		$15,000,000				Designer Selection
Amherst	10	Fine Arts Center fire protection and emergency generator	$3,250,000	$6,000,000	$6,000,000	85%	$2,810,000		$3,190,000			In Mid Construction
Lowell	15	Alumni Hall/Lydon Library Renovations/Innovation District	$5,000,000	$5,000,000	$8,000,000	60%			$8,000,000			Conceptual
SUBTOTAL - APPROVED PROJECT CHANGES			**$59,750,000**	**$62,200,000**	**$30,200,000**	**$1**	**$2,810,000**	**$15,000,000**	**$12,390,000**	**$0**	**$0**	
Amherst	59	Campus Core Accessibility, Waterproofing and Landscape Improvements study			$1,000,000		$1,000,000					Study / Feasibility
Amherst	69	Machmer Repairs			$12,600,000					$12,600,000		Study / Feasibility
Amherst	73	University Health Services design			$4,000,000		$4,000,000					Study / Feasibility
Amherst	c-u	Liquified Natural Gas infrastructure			$1,200,000		$1,200,000					Completed
Boston	BI.02.05	McCormack Hall: Roof Replacement and Building Envelope Repairs (Design Development)			$3,500,000				$3,500,000			Design Development
Boston	BI.15	Calf Pasture Pumping Station: Secure and Button Up Envelope and Improve Exterior Appearance (Security: Substantial Completion; Button-up and Exterior Appearance: Conceptual)			$1,000,000		$1,000,000					Conceptual
Boston	BI.24	Study Bayside Parcel for Future Permanent Use, Including Sea Level Rise Requirements (Conceptual) $0.35M from BI.22 and $0.65M additional			$1,000,000				$1,000,000			Conceptual
Boston	MP.16	Master Plan Phase I: New Baseball Facility To Be Constructed at Boston College High School (Conceptual)			$1,000,000		$1,000,000					Conceptual
Boston	TR.05.01	Healey Building: Renovations to Improve and Increase Student Learning Space, Including Necessary Fire Protection Improvements (Conceptual)			$12,500,000				$12,500,000			Conceptual
Boston	TR.06	Instructional Equipment Upgrades and Replacements (Conceptual)			$5,000,000				$5,000,000			Conceptual
Boston	TR.07	WUMB: Relocation WUMB Radio to New Facility (Conceptual)			$4,000,000			$4,000,000				Conceptual
Dartmouth	9	Update Campus Master Plan			$1,500,000					$1,500,000		Conceptual
Dartmouth	18	** ATMC Acquisition			$11,400,000					$11,400,000		Study / Feasibility
Dartmouth	21	Wind Turbine Project			$1,317,457		$42,270		$1,000,000	$275,187		Substantial Completion
Dartmouth	22	Residence Halls - Wireless Network Installation			$1,200,000		$1,200,000					Designer Selection
Dartmouth	26	Centennial Way Retail Corridor			$10,000,000			$10,000,000				Conceptual
Lowell	16	McGauvran Dining Conversion			$30,000,000		$10,000,000		$20,000,000			RFP for OPM Issued
Lowell	18	Residence Hall Acquisition & Construction			$100,000,000				$100,000,000			Conceptual
Lowell	24	Athletic & Recreational Facility Improvements - incl. Division 1			$10,000,000				$10,000,000			Study / Feasibility
Worcester	1	Basic Research and Student Lab Wing Improvements (Floors 5&6)			$15,500,000		$15,500,000					Study / Feasibility
Worcester	3	LRB Teaching and Learning Space - Backfill Project (Floor 1)			$2,000,000				$2,000,000			Study / Feasibility
Worcester	10	Campus Electrical Distribution Efficiency Improvements			$2,500,000		$2,500,000					Study / Feasibility
Worcester	13	Library repurposing and renovations			$5,500,000				$5,500,000			Study / Feasibility
Worcester	14	Student Services and Delivery Services Improvements			$3,600,000				$3,600,000			Study / Feasibility
Worcester	17	A Level Animal Quarters Improvements (cage wash, mechanical, finishes)			$14,500,000				$14,500,000			Study / Feasibility
Worcester	31	Steam Chiller 2 & 3 Retrofits			$1,000,000		$1,000,000					Study / Feasibility
Worcester - WCCC	9	MBL - AAV Production Facility (not including filling suite)			$5,000,000			$5,000,000				Study / Feasibility
SUBTOTAL - NEW PROJECTS			**$0**	**$0**	**$261,817,457**		**$38,442,270**	**$19,000,000**	**$178,600,000**	**$25,775,187**	**$0**	
TOTAL - CHANGED and NEW		**Campus Totals**	**$59,750,000**	**$62,200,000**	**$292,017,457**		**$41,252,270**	**$34,000,000**	**$190,990,000**	**$25,775,187**	**$0**	

Campus	Priority Order	Campus Project Names	Est. September 2013	University - Local Funds	University - External Funds	University - Borrowing	State	Contigent on Funding
Amherst	c	Integrated Sciences Building fitout	$2,200,000	$256,000	$1,944,000			
Amherst	c	McNamara & Brown roof, parapet and masonry	$3,260,000			$3,260,000		
Amherst	c	Kennedy & Washington laundry venting	$1,440,000			$1,440,000		
Amherst	c	DuBois Library Elevator Replacement	$4,100,000			$2,150,000	$1,950,000	
Amherst	c	Lincoln Apartments Utilities	$1,500,000				$1,500,000	
Amherst	c	Housing Sprinkler Systems	$23,000,000			$23,000,000		
Amherst	c	Chilled Water Loop	$2,975,000			$2,975,000		
Amherst	c	Lederle Research Center Faculty Renovations (NIH)	$12,700,000	$3,980,000	$7,100,000	$600,000	$1,020,000	
Amherst	c	Goessmann Renovations	$13,730,000			$13,730,000		
Boston	BI.01	Replace and Construct New Structure for Primary Campus Electrical Switchgear (Substantial Completion) [Awaiting spending information from DCAMM]	$5,500,000			$5,500,000		
Boston	BI.02.01	Wheatley Hall Roof Replacements and Buidling Envelope Repairs (Substantial Completion) [Awaiting spending information from UMBA]	$3,600,000			$3,600,000		
Boston	Removed	Campus-wide: Telephone System Upgrades (Study / Feasibility)	$0					
Boston	Removed	Campus-wide: One Card System (Conceptual)	$0			$0		
Boston	SU.01	Substructure: Interim Structural Stabilization, Access/Egress and Acid Neutralization Tanks (Substantial Completion) [Awaiting spending information from DCAMM]	$28,505,000			$28,505,000		
Boston	SU.02	Substructure: Utility Plant Roof Replacement (Substantial Completion) [Awaiting spending information from DCAMM]	$4,570,000			$4,570,000		
Boston	TR.04	Clark Athletic Center: Replacement of Gymnasium Floor and Bleacher Repairs (Substantial Completion)	$2,426,814			$2,426,814		
Dartmouth	c	Claire T. Carney Library - Expansion & Renovation	$46,000,000				$46,000,000	
Dartmouth	c	Tripp Athletic Center - Locker & Traning Room Renovations	$2,100,000			$2,100,000		
Worcester	c	Power Plant Expansion	$51,000,000			$51,000,000	$0	
Worcester	c	Albert Sherman Center	$350,000,000			$260,000,000	$90,000,000	
Worcester	c	New NW Parking Garage	$40,000,000			$40,000,000		
Worcester	c	School 4th fl Lab to Office Renovations - Backfill Phase 1 Basic Science wing	$2,000,000	$2,000,000				
		Campus Totals	**$600,606,814**	**$6,236,000**	**$9,044,000**	**$444,856,814**	**$140,470,000**	**$0**

Campus	Priority Order	Campus Project Names	Est. September 2013	University - Local Funds	University - External Funds	University - Borrowing	State	Contigent on Funding
Amherst	1	Housing Expansion	$191,900,000	$3,400,000		$187,100,000	$1,400,000	
Amherst	2	Life Science Laboratories	$160,000,000	$12,500,000		$47,500,000	$100,000,000	
Amherst	3	Academic Classroom Building	$93,250,000	$20,000,000		$8,250,000	$65,000,000	
Amherst	4	McGuirk Training Facility and Pressbox	$36,800,000	$250,000		$36,550,000		
Amherst	5	Lederle Graduate Research basic systems upgrades	$10,305,000			$10,305,000		
Amherst	6	Morrill complex repairs and renovations	$9,081,000			$9,081,000		
Amherst	7	Dickinson House, Field & Webster elevator	$1,200,000			$1,200,000		
Amherst	8	DuBois Library Electrical, Plumbing, Fire Suppression, Deferred Maintenance	$25,000,000			$25,000,000		
Amherst	9	Totman Physical Education Building MEP	$1,100,000	$300,000			$800,000	
Amherst	10	Fine Arts Center fire protection and emergency generator	$6,000,000	$2,810,000		$3,190,000		
Amherst	11	New Substation and Electrical Upgrades	$40,000,000			$40,000,000		
Amherst	12	ISOM architectural and MEP	$2,000,000			$2,000,000		
Amherst	13	Webster, Grayson, Field window/masonry	$12,500,000			$12,500,000		
Amherst	14	Research Admin, MEP & fire alarm	$1,500,000	$50,000			$1,450,000	
Amherst	15	Physical Plant deferred maintenance & renovations	$7,500,000	$3,000,000		$4,500,000		
Amherst	16	Water tank repairs	$1,000,000			$1,000,000		
Amherst	17	Lederle Graduate Research Center Window encapsulation/replacement	$4,500,000			$4,500,000		
Amherst	18	Facility Demolitions	$12,800,000	$1,900,000		$10,900,000		
Amherst	19	Central Campus Infrastructure	$25,000,000			$25,000,000		
Amherst	20	Paige Lab Renovations	$9,900,000			$9,900,000		
Amherst	21	Hampshire DC renovations	$15,500,000	$4,500,000		$11,000,000		
Amherst	22	Champions Center	$29,900,000		$900,000	$29,000,000		
Amherst	23	MLSC Life Sciences Facility	$95,000,000				$95,000,000	
Amherst	24	Lincoln Campus Center Concourse Improvements	$13,200,000	$3,200,000		$10,000,000		
Amherst	25	Housing Repair & Renovation	$25,000,000	$25,000,000				
Amherst	26	Classroom Renovations	$2,000,000	$2,000,000				
Amherst	27	New Faculty Hire Renovations	$14,000,000			$14,000,000		
Amherst	28	Electrical/other infrastructure	$5,000,000	$4,500,000		$500,000		
Amherst	29	Life Science Laboratories, OIT data center fitout	$8,000,000	$2,000,000		$6,000,000		
Amherst	30	Physical Sciences Building	$101,800,000			$16,800,000	$85,000,000	
Amherst	31	Integrated Design Building (formerly Hills replacement Building)	$55,000,000			$55,000,000		
Amherst	32	South College Academic Facility (formerly Bartlett Replacement Building)	$50,000,000			$50,000,000		
Amherst	33	Deferred Maintenance & Modernization Projects	$12,750,000	$12,750,000				
Amherst	34	ADA Accessibility	$6,000,000	$600,000		$1,400,000		$4,000,000
Amherst	35	Life Safety/Code Compliance	$5,000,000	$5,000,000				
Amherst	36	Isenberg School of Management renovations and addition	$40,000,000			$40,000,000		
Amherst	37	Old Chapel Renovation/study	$1,000,000		$1,000,000			
Amherst	38	Lederle Research Center Repairs and Renovations	$41,250,000				$41,250,000	
Amherst	39	Morrill Science Center Renovations	$51,300,000				$51,300,000	
Amherst	40	School of Public Health and Health Sciences facilities master plan	$500,000	$500,000				
Amherst	41	Relocate Chemical Storage Facility Study	$500,000			$500,000		
Amherst	42	Whitmore deferred maintenance	$14,000,000			$14,000,000		
Amherst	43	Hadley Farm Manor House repairs / replacement	$600,000			$600,000		
Amherst	44	Marston Repairs and Renovations	$6,000,000			$6,000,000		
Amherst	45	Thompson Deferred Maintenance (formerly part of DM project 46 in prior year)	$2,250,000			$2,250,000		
Amherst	46	Bartlett Deferred Maintenance & Façade	$2,000,000	$2,000,000				
Amherst	47	Replace Oil Filled Transformers	$2,000,000			$2,000,000		
Amherst	48	University Drive Infrastructure	$8,000,000	$400,000		$7,600,000		
Amherst	49	Lot 12 environmental	$1,500,000			$1,500,000		
Amherst	50	Coal Yard Decommission	$1,000,000			$1,000,000		
Amherst	51	Marks Meadow/Furcolo Renovations	$21,400,000	$900,000		$20,500,000		
Amherst	52	Hills relocations	$4,000,000	$4,000,000				
Amherst	53	Goodell deferred maintenance & renovations	$3,500,000	$3,500,000				
Amherst	54	Machmer renovations	$1,200,000	$1,200,000				
Amherst	55	Tobin Renovations	$1,000,000	$1,000,000				
Amherst	56	Fine Arts Center renovations	$9,000,000			$9,000,000		
Amherst	57	New Africa House renovations	$1,700,000	$1,700,000				
Amherst	58	Life Science Laboratories backfill renovations	$18,000,000			$18,000,000		
Amherst	59	Campus Core Accessibility, Waterproofing and Landscape Improvements study	$1,000,000	$1,000,000				

Campus	Priority Order	Campus Project Names	Est. September 2013	University - Local Funds	University - External Funds	University - Borrowing	State	Contigent on Funding
Amherst	60	Solar Panels	$2,350,000		$2,350,000			
Amherst	61	Campus Security Improvements	$5,000,000	$5,000,000				
Amherst	62	Campus Infrastructure	$13,000,000	$13,000,000				
Amherst	63	Wayfinding and Signage	$1,000,000	$1,000,000				
Amherst	64	Academic Renovations Pool	$2,500,000	$2,500,000				
Amherst	65	Campus Space Reallocation	$5,000,000	$5,000,000				
Amherst	66	Office Renovations	$10,000,000	$10,000,000				
Amherst	67	Dining Commons Renovations/Study	$1,000,000			$1,000,000		
Amherst	68	Life Science Laboratories Fit out	$15,000,000		$15,000,000			
Amherst	69	Machmer Repairs	$12,600,000				$12,600,000	
Amherst	70	Farm and outlying stations renovations	$4,500,000	$4,500,000				
Amherst	71	Roadway/Sidewalks/Parking lot Repairs and Improvements	$5,000,000	$1,000,000				$4,000,000
Amherst	72	Landscape Improvements	$1,500,000	$1,500,000				
Amherst	73	University Health Services design	$4,000,000	$4,000,000				
Amherst	74	Parking garage/multi-modal center study	$500,000		$500,000			
Amherst	75	Hampden Dining/Student Union Study	$400,000			$400,000		
Amherst	76	North Pleasant Street Road Improvements	$9,000,000		$9,000,000			
Amherst	77	Property Acquisitions	$1,500,000	$1,500,000				
Amherst	c-u	Liquified Natural Gas infrastructure	$1,200,000	$1,200,000				
Boston	BI.02.02	Clark Athletic Center: Replace/Repair East Curtain Wall (Study / Feasibility)	$2,000,000			$2,000,000		
Boston	BI.02.03	Healey Building: Roof Replacement and Building Envelope Repairs (Early Construction / Late Design)	$5,000,000			$5,000,000		
Boston	BI.02.04	Service and Supply Building: Roof Replacement and Building Envelope Repairs (Study / Feasibility)	$1,750,000			$1,750,000		
Boston	BI.02.05	McCormack Hall: Roof Replacement and Building Envelope Repairs (Design Development)	$3,500,000			$3,500,000		
Boston	BI.03	Healey Building: Replace Plaza Level Waterproofing (Conceptual)	$4,000,000			$4,000,000		
Boston	BI.05	Grounds: Sea Wall and Harborwalk Construction on North-Facing Shore (Study / Feasibility)	$3,800,000			$3,800,000		
Boston	BI.06	Nantucket Field Station: Repairs to Field Station Buildings and Septic System and Gouin Village Apartment Repairs (Septic System: Substantial Completion; Other Repairs/Renovations: Early Construction / Late Design)	$3,000,000	$600,000		$1,400,000		$1,000,000
Boston	BI.07	Clark Athletic Center Ice Rink: Replace Chiller Unit (Design Development)	$1,000,000	$500,000		$500,000		
Boston	BI.08	Clark Athletic Center: Repair South-facing Façade on Ice Rink Facility (Conceptual)	$1,000,000			$1,000,000		
Boston	BI.09	Healey Building: Fire Protection Improvements (Install Fire Sprinklers, Replace Fire Alarm System and Fire Pumps) (Study / Feasibility; escalated to FY15 mid-point)	$8,200,000			$8,200,000		
Boston	BI.10	Clark Athletic Center/McCormack Hall/Quinn Administration/Wheatley Hall: Elevator Renovations -- Code/Restoration (Study / Feasibility; escalated to FY14 mid-point)	$3,300,000			$3,300,000		
Boston	BI.11.01	Saltwater Pump House: Mechanical System Upgrades (Conceptual)	$1,500,000			$1,500,000		
Boston	BI.11.02	Saltwater Pump House: Savin Hill Cove Dredging (Conceptual)	$1,000,000	$1,000,000				
Boston	BI.12	Campus-wide: Central IT Upgrades/Replacements (Study / Feasibility)	$5,000,000			$5,000,000		
Boston	BI.14.01	Quinn Administration Building: Install Fire Suppression System and Upgrade Fire Alarm System (Study / Feasibility; escalated to FY14 mid-poiont)	$1,200,000			$1,200,000		
Boston	BI.14.02	Service and Supply Building: Install Fire Suppression System and Upgrade Fire Alarm System (Study / Feasibility; escalated to FY14 mid-point)	$2,300,000			$2,300,000		
Boston	BI.15	Calf Pasture Pumping Station: Secure and Button Up Envelope and Improve Exterior Appearance (Security: Substantial Completion; Button-up and Exterior Appearance: Conceptual)	$1,000,000	$1,000,000				
Boston	BI.17	Campus-wide: ADA Compliance - Ad Hoc Projects (Conceptual)	$1,000,000			$1,000,000		
Boston	BI.18	Fox Point Docks: Upgrades and ADA Accessability (Conceptual)	$1,500,000			$1,500,000		
Boston	BI.19	Campus-wide: Replace Exterior Doors to Ensure Climate Control (Including Vestibules) and Code Compliance - Ad Hoc Projects (Study / Feasibility)	$3,200,000			$3,200,000		
Boston	BI.20	Campus-wide: Off-site Data Center Backup (Study / Feasibility)	$0					
Boston	BI.21	Quinn Administration Building: Renovations to Improve Building Space Efficiency (Conceptual)	$12,500,000			$12,500,000		
Boston	BI.22	Projects Less Than $500,000 (Aggregate) **$0.35M now in BI.24**	$4,350,000	$4,350,000				
Boston	BI.23.02	Relocate University Data Center Due to Utility Reconfiguration and Planned Science Center Demolition (Conceptual)	$1,300,000			$1,300,000		

Campus	Priority Order	Campus Project Names	Est. September 2013	University - Local Funds	University - External Funds	University - Borrowing	State	Contigent on Funding
Boston	BI.24	Study Bayside Parcel for Future Permanent Use, Including Sea Level Rise Requirements (Conceptual) **$0.35M from BI.22 and $0.65M additional**	$1,000,000			$1,000,000		
Boston	MP.01.01	Master Plan Phase I: Construct New Integrated Sciences Complex (In Mid-Construction)	$179,000,000	$9,000,000		$52,000,000	$116,800,000	$1,200,000
Boston	MP.01.02	Master Plan Phase I: Utility Plant System Expansion and Upgrades to Accommodate ISC and GAB Including New Chiller and Boiler (Early Construction / Late Design)	$3,000,000			$3,000,000		
Boston	MP.01.03	Life Sciences: Center for Personalized Cancer Therapy (To Be Located within Integrated Sciences Complex) (LSBB Earmark) (Conceptual)	$10,000,000				$10,000,000	
Boston	MP.02.01	Master Plan Phase I: Utility Corridor and Roadway Relocation Project (Early Construction / Late Design)	$143,000,000			$143,000,000		
Boston	MP.02.02	Master Plan Phase I: Utility Plant Upgrades Related to Pumps, Controls, Heat Exchangers and Utility Corridor Reconfiguration (Early Construction / Late Design)	$11,000,000			$11,000,000		
Boston	MP.02.03	Master Plan Phase I: Construct New Trigeneration Facility to Accommodate Increased Campus Chilled Water, Hot Water and Electrical Service Needs (Study / Feasibility; escalated to FY15 mid-point)	$27,500,000			$27,500,000		
Boston	MP.03	Master Plan Phase I: Construct New Academic Building 1 (Early Construction / Late Design)	$113,000,000	$13,000,000		$100,000,000		
Boston	MP.04	Master Plan Phase I: Construct 1,000 Bed Residence Hall 1, Including Dining Facility (Conceptual; escalated from FY09 to FY15)	$112,000,000			$1,000,000		$111,000,000
Boston	MP.05.01	Master Plan Phase I: Renovations to Existing Campus Buildings (Study / Feasibility)	$75,000,000		$9,650,000	$65,350,000		
Boston	MP.05.02	Master Plan Phase I: Purchase or Lease Additional Swing Space to Accommodate Growth and McCormack and Wheatley Halls Renovations (Conceptual)	$2,500,000			$2,500,000		
Boston	MP.06.01	Master Plan Phase I: Study Substructure and Science Center Demolition (Conceptual)	$1,150,000				$1,150,000	
Boston	MP.06.02	Master Plan Phase I: Construct New Campus Greenhouse for Research, Reaching and Community Service (Study / Feasibility)	$5,000,000		$2,500,000	$2,500,000		
Boston	MP.06.03	Master Plan Phase 1: Relocate College of Science and Mathematics Machine Shop Due to the Demolition of the Science Center (Study / Feasibility)	$1,000,000			$1,000,000		
Boston	MP.06.04	Master Plan Phase I: Study Replacement of Catwalk/Enclosed Campus Walkway System and Connections to New Academic Building 1 (Conceptual)	$1,000,000			$1,000,000		
Boston	MP.06.05	Master Plan Phase I: Study New LL/UL Facades at Campus Center, Healey Building, McCormack Hall, Quinn Administration Building and Wheatley Hall, and Access to Buildings from Grade (Conceptual)	$1,000,000			$0		$1,000,000
Boston	MP.06.06	Master Plan Phase I: Demolish Substructure and Science Center (Conceptual)	$15,000,000			$0		$15,000,000
Boston	MP.06.07	Master Plan Phase I: Central Quadrangle Development (Conceptual) (DCAMM?)	$7,500,000			$0		$7,500,000
Boston	MP.06.08	Master Plan Phase I: Relocate Track/Athletic Field (Conceptual; escalated from FY09 to FY15)	$2,800,000			$2,800,000		
Boston	MP.07	Master Plan Phase I: Construct New Academic Building 2 (Conceptual, from EOAF Spending Plan)	$100,000,000				$86,350,000	$13,650,000
Boston	MP.08	Master Plan Phase I: Construct +/- 1,200 Vehicle Parking Garage 1 Including Public Safety Space (Conceptual; escalated from FY09 to FY16. Plus Study / Feasibility for Public Safety Space)	$45,000,000					$45,000,000
Boston	MP.09	Master Plan Phase I: Build Out Campus Center UL Parking Garage Space as Assignable Space (Conceptual)	$5,000,000			$5,000,000		
Boston	MP.10	Master Plan Phase I: Secure or Demolish Bayside Expo Center Building and Initial Property Improvements (Conceptual)	$5,360,410			$5,360,410		
Boston	MP.11	Master Plan Phase II: New Academic Building 3 / Development of Bayside (Conceptual)	$150,000,000			$150,000,000		
Boston	MP.12	Master Plan Phase I: Construct 1,000 Bed Residence Hall 2 / Development of Bayside (Conceptual; escalated from FY09 to FY18)	$110,000,000			$110,000,000		
Boston	MP.13	Master Plan Phase I: Construct +/- 1,200 Vehicle Parking Garage 2 (Conceptual; escalated from FY09 to FY18)	$42,000,000			$42,000,000		
Boston	MP.14	Master Plan Phase I: Construct New Pool Facility (Conceptual)	$10,000,000		$5,000,000	$5,000,000		
Boston	MP.15	Master Plan Phase I: New Public Art for Campus Green (Conceptual)	$1,000,000			$1,000,000		
Boston	MP.16	Master Plan Phase I: New Baseball Facility To Be Constructed at Boston College High School (Conceptual)	$1,000,000	$1,000,000				
Boston	SU.03	Substructure: Stabilization Integrity: Ongoing Testing, Maintenance, and Enhancement of Interim Structural Stabilization Measures (Conceptual)	$600,000					$600,000
Boston	TR.01	McCormack Hall: Conversion of Vacant Cafeteria, Servery, and Kitchen Space for College of Nursing and Health Sciences (Conceptual)	$2,275,000			$2,275,000		
Boston	TR.02	Campus-wide: Renovations to Support Teaching and Research - Ad Hoc Projects in Response to Growth and New Programs (Conceptual)	$850,000			$850,000		
Boston	TR.03	Healey Building/Quinn Administration Building: Construct New Classrooms on the 4th Floor of Healey Library and the UL of Quinn Administration Building (Conceptual)	$1,000,000			$1,000,000		

Campus	Priority Order	Campus Project Names	Est. September 2013	University - Local Funds	University - External Funds	University - Borrowing	State	Contigent on Funding
Boston	TR.05.01	Healey Building: Renovations to Improve and Increase Student Learning Space, Including Necessary Fire Protection Improvements (Conceptual)	$12,500,000			$12,500,000		
Boston	TR.05.02	Healey Building: Renovations to Improve and Increase Student Learning Space Phase II (Conceptual)	$12,500,000			$12,500,000		
Boston	TR.06	Instructional Equipment Upgrades and Replacements (Conceptual)	$5,000,000			$5,000,000		
Boston	TR.07	WUMB: Relocation WUMB Radio to New Facility (Conceptual)	$4,000,000		$4,000,000			
Dartmouth	1	Basic Infrastructure Repairs	$69,512,905					$69,512,905
Dartmouth	2	Energy / Water Savings Project	$49,859,012	$15,910,681	$1,349,005	$29,799,326	$2,800,000	
Dartmouth	3	Research Laboratory Improvements	$13,165,000		$165,000	$13,000,000		
Dartmouth	4	Classroom, Teaching Laboratory, and Learning Space Improvements	$11,440,000			$11,440,000		
Dartmouth	5	Fitness Center Expansion	$5,100,000			$5,100,000		
Dartmouth	6	* Massachusetts Accelerator for Biomanufacturing (MAB) (Fall River)	$31,500,000			$10,500,000	$21,000,000	
Dartmouth	7	Feasibility/Planning New Academic Bldg	$500,000				$500,000	
Dartmouth	8	SMAST / DMF Expansion	$48,000,000		$3,000,000	$25,000,000	$20,000,000	
Dartmouth	9	Update Campus Master Plan	$1,500,000				$1,500,000	
Dartmouth	10	Replace Failed HVAC Systems	$3,500,000					$3,500,000
Dartmouth	11	Security Installation Project	$7,000,000					$7,000,000
Dartmouth	12	New Academic Building	$75,000,000				$42,600,000	$32,400,000
Dartmouth	13	Landscape/Lighting Improvements	$1,832,000	$1,832,000				
Dartmouth	14	Campus Entrance Building	$45,000,000					$45,000,000
Dartmouth	15	Athletic Field Replacement	$1,200,000			$134,500		$1,065,500
Dartmouth	16	Charlton College of Business, Phase II	$15,000,000		$5,000,000	$10,000,000		
Dartmouth	17	ADA Renovations Immediate Needs	$2,184,000			$2,184,000		
Dartmouth	18	** ATMC Acquisition	$11,400,000				$11,400,000	
Dartmouth	19	SENG Exterior Envelope Repair	$16,000,000					$16,000,000
Dartmouth	20	Campus Center Addition (Student Union)	$16,400,000					$16,400,000
Dartmouth	21	Wind Turbine Project	$1,317,457	$42,270		$1,000,000	$275,187	
Dartmouth	22	Residence Halls - Wireless Network Installation	$1,200,000	$1,200,000				
Dartmouth	23	Claire T. Carney Library - Exterior Envelope Repair	$14,000,000					$14,000,000
Dartmouth	24	Repair Four Oldest Residence Halls	$75,000,000			$5,000,000		$70,000,000
Dartmouth	25	Health Sciences Building	$60,000,000					$60,000,000
Dartmouth	26	Centennial Way Retail Corridor	$10,000,000		$10,000,000			
Dartmouth	27	Multi Purpose Field House	$20,800,000					$20,800,000
Dartmouth	28	LARTS Air Conditioning Installation	$3,016,000					$3,016,000
Dartmouth	29	Ring Road Replacement Study	$500,000					$500,000
Dartmouth	30	Roadway Repairs	$5,720,000					$5,720,000
Dartmouth	31	Conference / Alumni Center	$75,000,000					$75,000,000
Dartmouth	32	Central Administrative Services Building	$12,690,000					$12,690,000
Dartmouth	33	Law School - Deferred Maintenance	$5,000,000					$5,000,000
Dartmouth	34	HVAC, Infrastructure and Envelope Repairs	$3,640,000					$3,640,000
Dartmouth	35	Elevator Upgrades	$1,352,000					$1,352,000
Dartmouth	36	Amphitheater	$7,000,000					$7,000,000
Lowell	1	University Suites (Aiken St.)Residence Hall	$56,500,000	$2,500,000		$54,000,000		
Lowell	2	University Crossing - Student Life, Student Services & Admin Serv. Includes Salem St	$95,000,000	$5,000,000	$2,000,000	$88,000,000		
Lowell	3	South Campus Garage	$21,000,000	$0		$21,000,000		
Lowell	4	Pulichino/Tong School of Business Building	$35,000,000	$5,000,000	$5,000,000		$25,000,000	
Lowell	5	ETIC	$84,000,000		$12,000,000	$27,000,000	$45,000,000	

Campus	Priority Order	Campus Project Names	Est. September 2013	University - Local Funds	University - External Funds	University - Borrowing	State	Contigent on Funding
Lowell	6	On-Going Academic Modernization incl. Relocations (Phase 1: FY13-18)	$30,000,000	$5,000,000		$10,000,000		$15,000,000
Lowell	7	Energy & Power Plant Improvements (incl. DCAMM AEP)	$40,000,000	$21,000,000		$14,000,000	$5,000,000	
Lowell	8	Science & Engineering Master Plan-Perry Hall (Engineering) Renewal	$36,000,000				$20,000,000	$16,000,000
Lowell	9	Science & Engineering Master Plan-Olsen Renovations	$40,000,000				$25,000,000	$15,000,000
Lowell	10	Leitch & Bourgeois Residence Hall Renovations	$37,000,000	$7,000,000		$30,000,000		
Lowell	11	South Campus Master Plan - Initial Space & Mall Improvements (Phase 1)	$20,000,000	$6,000,000		$9,000,000	$5,000,000	
Lowell	12	Capital Renewal/Deferred Maintenance/Compliance (Phase 1: FY13-22)	$80,000,000	$6,000,000		$29,000,000	$5,000,000	$40,000,000
Lowell	13	Property Acquisitions	$15,000,000	$10,000,000		$5,000,000		
Lowell	14	Technology Infrastructure	$15,000,000	$5,500,000		$2,000,000		$7,500,000
Lowell	15	Alumni Hall/Lydon Library Renovations/Innovation District	$8,000,000			$8,000,000		
Lowell	16	McGauvran Dining Conversion	$30,000,000	$10,000,000		$20,000,000		
Lowell	17	North Campus Quad Renewal	$31,500,000			$13,000,000		$18,500,000
Lowell	18	Residence Hall Acquisition & Construction	$100,000,000			$100,000,000		
Lowell	19	Transportation & Parking Improvements	$4,000,000			$2,000,000		$2,000,000
Lowell	20	Coburn Hall Renewal & Addition	$57,000,000				$19,000,000	$38,000,000
Lowell	21	Residential Hall Comprehensive Renewal Program (Phase 1: FY13-22)	$30,000,000	$10,000,000				$20,000,000
Lowell	22	Wannalancit	$7,100,000			$6,100,000	$1,000,000	
Lowell	23	Civic & Athletic Facilities	$3,300,000	$2,000,000	$1,300,000			
Lowell	24	Athletic & Recreational Facility Improvements - incl. Division 1	$10,000,000			$10,000,000		
Lowell	25	Science & Engineering Master Plan-Olney Renovations (Phase 1)	$55,000,000					$55,000,000
Lowell	26	Ball Hall Renewal Renewal	$50,000,000					$50,000,000
Lowell	27	New South Campus Academic Building (South Campus Master Plan)	$114,000,000					$114,000,000
Lowell	28	Pinanski Hall Renewal	$50,000,000					$50,000,000
Lowell	29	Weed Hall Renewal	$45,000,000					$45,000,000
Lowell	30	Science & Engineering Master Plan-Olney Renovations (Phase 2)	$100,000,000					$100,000,000
Lowell	31	O'Leary Renewal	$22,000,000					$22,000,000
Lowell	32	Durgin Hall Renewal & Addition	$65,000,000					$65,000,000
Lowell	33	South Campus Central Services Addition, Power Plant & Infrastructure	$30,000,000					$30,000,000
Lowell	34	New North Campus Academic Building	$100,000,000					$100,000,000
Worcester	1	Basic Research and Student Lab Wing Improvements (Floors 5&6)	$15,500,000	$15,500,000				
Worcester	2	Labs to Offices - Backfill Project (Floors 2&3)	$8,000,000	$8,000,000				
Worcester	3	LRB Teaching and Learning Space - Backfill Project (Floor 1)	$2,000,000			$2,000,000		
Worcester	4	Medical Support Building / Equipment (per Master Plan)	$50,000,000			$50,000,000		
Worcester	5	Enhance chilled water loop pump/controls	$3,000,000	$3,000,000				
Worcester	6	School HVAC Upgrades/Replacements	$38,500,000					$38,500,000
Worcester	7	Land Acquisition (per Master Plan)	$5,000,000			$5,000,000		
Worcester	8	Campus Landscape Improvements	$1,500,000	$1,500,000				
Worcester	9	Network Infrastructure	$10,000,000	$10,000,000				
Worcester	10	Campus Electrical Distribution Efficiency Improvements	$2,500,000	$2,500,000				
Worcester	11	Animal Quarters A Level HVAC Improvements	$4,000,000			$4,000,000		
Worcester	12	Deferred Maintenance List - Priority 2, 3	$35,000,000					$35,000,000
Worcester	13	Library repurposing and renovations	$5,500,000			$5,500,000		
Worcester	14	Student Services and Delivery Services Improvements	$3,600,000			$3,600,000		
Worcester	15	School First Floor Renovations (data center, old lobby) upgrades	$8,000,000					$8,000,000
Worcester	16	Repurpose 2nd Floor Goff Learning Centers	$750,000	$750,000				
Worcester	17	A Level Animal Quarters Improvements (cage wash, mechanical, finishes)	$14,500,000			$14,500,000		
Worcester	18	Integrated Learning and Teaching Center, Phase 2	$1,500,000		$1,500,000			
Worcester	19	Renovate and Expand BL3 Suite - 7th Fl	$6,400,000	$1,200,000	$5,200,000			
Worcester	20	Install Chiller 6	$4,000,000					$4,000,000
Worcester	21	Balance of Plant Controls (BOP) Upgrade	$2,257,500					$2,257,500
Worcester	22	Hospital Bed Tower (per Master Plan)	$200,000,000		$200,000,000			

Campus	Priority Order	Campus Project Names	Est. September 2013	University - Local Funds	University - External Funds	University - Borrowing	State	Contigent on Funding
Worcester	23	Replace the Acid Neutralization Tanks	$525,000	$525,000				
Worcester	24	Replace School Electric Substations	$9,900,000					$9,900,000
Worcester	25	North Road Pavement, Sidewalks and Lighting	$1,500,000	$1,500,000				
Worcester	26	Parking Lot Maintenance - Main Campus	$10,840,000	$10,840,000				
Worcester	27	LP Boiler Re-tubing	$4,000,000					$4,000,000
Worcester	28	Power Plant Governor PLC	$1,200,000	$1,200,000				
Worcester	29	School Interior Renovations	$4,000,000	$4,000,000				
Worcester	30	School Building Retro Commissioning, LEED EB	$3,000,000	$3,000,000				
Worcester	31	Steam Chiller 2 & 3 Retrofits	$1,000,000	$1,000,000				
Worcester	32	Departmental equipment purchases	$10,000,000	$3,000,000				$7,000,000
Worcester	33	Miscellaneous Roadway Projects	$1,000,000	$1,000,000				
Worcester	34	BNRI Upgrades	$1,500,000	$1,500,000				
Worcester	35	Level A Imaging Center / Core consolidation	$5,000,000			$5,000,000		
Worcester	36	Animal Holding Room Expansion	$2,000,000			$2,000,000		
Worcester	37	School Stairwell Fire Safety Improvements	$2,500,000					$2,500,000
Worcester - WCCC	1	Mattapan Newborn screening and animal quarters fit up	$7,000,000					$7,000,000
Worcester - WCCC	2	South Street Renovations	$7,000,000					$7,000,000
Worcester - WCCC	3	South St Deferred Maintenance	$7,875,000					$7,875,000
Worcester - WCCC	4	South St. Bldg 2 Demo/ Renovation	$5,000,000					$5,000,000
Worcester - WCCC	5	Misc Renovations WCCC	$3,000,000					$3,000,000
Worcester - WCCC	6	MBL - Tetanus/Diphtheria Manufacturing Facility: Vaccine Cultivation & Purification	$6,500,000	$6,500,000				
Worcester - WCCC	9	MBL - AAV Production Facility (not including filling suite)	$5,000,000		$5,000,000			
Worcester - WCCC	7	Biotech Park Energy Improvements	$750,000					$750,000
Worcester - WCCC	8	WCCC Construct Maple Ave Road	$2,000,000					$2,000,000
Note: Public Private Partnerships are being explored for the UMB Residence Hall (MP.04) and Parking Garage (MP.08) projects and are categorized as "contingent on funding" as the details of such PPP is further researched.								
		Campus Totals	**$5,470,497,284**	**$391,109,951**	**$301,414,005**	**$2,239,469,236**	**$918,175,187**	**$1,620,328,905**

Campus	Priority Order	Campus Project Names	Est. September 2013	University - Local Funds	University - External Funds	University - Borrowing	State	Contigent on Funding
Amherst	1	Housing Expansion	$191,900,000	$3,400,000		$187,100,000	$1,400,000	
Amherst	2	Life Science Laboratories	$160,000,000	$12,500,000		$47,500,000	$100,000,000	
Amherst	3	Academic Classroom Building	$93,250,000	$20,000,000		$8,250,000	$65,000,000	
Amherst	4	McGuirk Training Facility and Pressbox	$36,800,000	$250,000		$36,550,000		
Amherst	5	Lederle Graduate Research basic systems upgrades	$10,305,000			$10,305,000		
Amherst	6	Morrill complex repairs and renovations	$9,081,000			$9,081,000		
Amherst	7	Dickinson House, Field & Webster elevator	$1,200,000			$1,200,000		
Amherst	8	DuBois Library Electrical, Plumbing, Fire Suppression, Deferred Maintenance	$25,000,000			$25,000,000		
Amherst	9	Totman Physical Education Building MEP	$1,100,000	$300,000			$800,000	
Amherst	10	Fine Arts Center fire protection and emergency generator	$6,000,000	$2,810,000		$3,190,000		
Amherst	11	New Substation and Electrical Upgrades	$40,000,000			$40,000,000		
Amherst	12	ISOM architectural and MEP	$2,000,000			$2,000,000		
Amherst	13	Webster, Grayson, Field window/masonry	$12,500,000			$12,500,000		
Amherst	14	Research Admin, MEP & fire alarm	$1,500,000	$50,000			$1,450,000	
Amherst	15	Physical Plant deferred maintenance & renovations	$7,500,000	$3,000,000		$4,500,000		
Amherst	16	Water tank repairs	$1,000,000			$1,000,000		
Amherst	17	Lederle Graduate Research Center Window encapsulation/replacement	$4,500,000			$4,500,000		
Amherst	18	Facility Demolitions	$12,800,000	$1,900,000		$10,900,000		
Amherst	19	Central Campus Infrastructure	$25,000,000			$25,000,000		
Amherst	20	Paige Lab Renovations	$9,900,000			$9,900,000		
Amherst	21	Hampshire DC renovations	$15,500,000	$4,500,000		$11,000,000		
Amherst	22	Champions Center	$29,900,000		$900,000	$29,000,000		
Amherst	23	MLSC Life Sciences Facility	$95,000,000				$95,000,000	
Amherst	24	Lincoln Campus Center Concourse Improvements	$13,200,000	$3,200,000		$10,000,000		
Amherst	25	Housing Repair & Renovation	$25,000,000	$25,000,000				
Amherst	26	Classroom Renovations	$2,000,000	$2,000,000				
Amherst	27	New Faculty Hire Renovations	$14,000,000			$14,000,000		
Amherst	28	Electrical/other infrastructure	$5,000,000	$4,500,000		$500,000		
Amherst	29	Life Science Laboratories, OIT data center fitout	$8,000,000	$2,000,000		$6,000,000		
Amherst	30	Physical Sciences Building	$101,800,000			$16,800,000	$85,000,000	
Amherst	31	Integrated Design Building (formerly Hills replacement Building)	$55,000,000			$55,000,000		
Amherst	32	South College Academic Facility (formerly Bartlett Replacement Building)	$50,000,000			$50,000,000		
Amherst	33	Deferred Maintenance & Modernization Projects	$12,750,000	$12,750,000				
Amherst	34	ADA Accessibility	$6,000,000	$600,000		$1,400,000		$4,000,000
Amherst	35	Life Safety/Code Compliance	$5,000,000	$5,000,000				
Amherst	36	Isenberg School of Management renovations and addition	$40,000,000			$40,000,000		
Amherst	37	Old Chapel Renovation/study	$1,000,000		$1,000,000			
Amherst	38	Lederle Research Center Repairs and Renovations	$41,250,000				$41,250,000	
Amherst	39	Morrill Science Center Renovations	$51,300,000				$51,300,000	
Amherst	42	Whitmore deferred maintenance	$14,000,000			$14,000,000		
Amherst	44	Marston Repairs and Renovations	$6,000,000			$6,000,000		
Amherst	45	Thompson Deferred Maintenance (formerly part of DM project 46 in prior year)	$2,250,000			$2,250,000		
Amherst	46	Bartlett Deferred Maintenance & Façade	$2,000,000	$2,000,000				
Amherst	47	Replace Oil Filled Transformers	$2,000,000			$2,000,000		
Amherst	48	University Drive Infrastructure	$8,000,000	$400,000		$7,600,000		
Amherst	49	Lot 12 environmental	$1,500,000			$1,500,000		
Amherst	50	Coal Yard Decommission	$1,000,000			$1,000,000		
Amherst	51	Marks Meadow/Furcolo Renovations	$21,400,000	$900,000		$20,500,000		
Amherst	52	Hills relocations	$4,000,000	$4,000,000				
Amherst	53	Goodell deferred maintenance & renovations	$3,500,000	$3,500,000				
Amherst	54	Machmer renovations	$1,200,000	$1,200,000				
Amherst	55	Tobin Renovations	$1,000,000	$1,000,000				
Amherst	56	Fine Arts Center renovations	$9,000,000			$9,000,000		
Amherst	57	New Africa House renovations	$1,700,000	$1,700,000				
Amherst	58	Life Science Laboratories backfill renovations	$18,000,000			$18,000,000		
Amherst	59	Campus Core Accessibility, Waterproofing and Landscape Improvements study	$1,000,000	$1,000,000				
Amherst	60	Solar Panels	$2,350,000		$2,350,000			
Amherst	61	Campus Security Improvements	$5,000,000	$5,000,000				
Amherst	62	Campus Infrastructure	$13,000,000	$13,000,000				

Campus	Priority Order	Campus Project Names	Est. September 2013	University - Local Funds	University - External Funds	University - Borrowing	State	Contigent on Funding
Amherst	63	Wayfinding and Signage	$1,000,000	$1,000,000				
Amherst	64	Academic Renovations Pool	$2,500,000	$2,500,000				
Amherst	65	Campus Space Reallocation	$5,000,000	$5,000,000				
Amherst	66	Office Renovations	$10,000,000	$10,000,000				
Amherst	67	Dining Commons Renovations/Study	$1,000,000			$1,000,000		
Amherst	68	Life Science Laboratories Fit out	$15,000,000		$15,000,000			
Amherst	69	Machmer Repairs	$12,600,000				$12,600,000	
Amherst	70	Farm and outlying stations renovations	$4,500,000	$4,500,000				
Amherst	71	Roadway/Sidewalks/Parking lot Repairs and Improvements	$5,000,000	$1,000,000				$4,000,000
Amherst	72	Landscape Improvements	$1,500,000	$1,500,000				
Amherst	73	University Health Services design	$4,000,000	$4,000,000				
Amherst	76	North Pleasant Street Road Improvements	$9,000,000		$9,000,000			
Amherst	77	Property Acquisitions	$1,500,000	$1,500,000				
Amherst	c-u	Liquified Natural Gas infrastructure	$1,200,000	$1,200,000				
Boston	BI.02.02	Clark Athletic Center: Replace/Repair East Curtain Wall (Study / Feasibility)	$2,000,000			$2,000,000		
Boston	BI.02.03	Healey Building: Roof Replacement and Building Envelope Repairs (Early Construction / Late Design)	$5,000,000			$5,000,000		
Boston	BI.02.04	Service and Supply Building: Roof Replacement and Building Envelope Repairs (Study / Feasibility)	$1,750,000			$1,750,000		
Boston	BI.02.05	McCormack Hall: Roof Replacement and Building Envelope Repairs (Design Development)	$3,500,000			$3,500,000		
Boston	BI.03	Healey Building: Replace Plaza Level Waterproofing (Conceptual)	$4,000,000			$4,000,000		
Boston	BI.05	Grounds: Sea Wall and Harborwalk Construction on North-Facing Shore (Study / Feasibility)	$3,800,000			$3,800,000		
Boston	BI.07	Clark Athletic Center Ice Rink: Replace Chiller Unit (Design Development)	$1,000,000	$500,000		$500,000		
Boston	BI.06	Nantucket Field Station: Repairs to Field Station Buildings and Septic System and Gouin Village Apartment Repairs (Septic System: Substantial Completion; Other Repairs/Renovations: Early Construction / Late Design)	$3,000,000	$600,000		$1,400,000		$1,000,000
Boston	BI.08	Clark Athletic Center: Repair South-facing Façade on Ice Rink Facility (Conceptual)	$1,000,000			$1,000,000		
Boston	BI.09	Healey Building: Fire Protection Improvements (Install Fire Sprinklers, Replace Fire Alarm System and Fire Pumps) (Study / Feasibility; escalated to FY15 mid-point)	$8,200,000			$8,200,000		
Boston	BI.10	Clark Athletic Center/McCormack Hall/Quinn Administration/Wheatley Hall: Elevator Renovations -- Code/Restoration (Study / Feasibility; escalated to FY14 mid-point)	$3,300,000			$3,300,000		
Boston	BI.11.01	Saltwater Pump House: Mechanical System Upgrades (Conceptual)	$1,500,000			$1,500,000		
Boston	BI.11.02	Saltwater Pump House: Savin Hill Cove Dredging (Conceptual)	$1,000,000	$1,000,000				
Boston	BI.12	Campus-wide: Central IT Upgrades/Replacements (Study / Feasibility)	$5,000,000			$5,000,000		
Boston	BI.14.02	Service and Supply Building: Install Fire Suppression System and Upgrade Fire Alarm System (Study / Feasibility; escalated to FY14 mid-point)	$2,300,000			$2,300,000		
Boston	BI.15	Calf Pasture Pumping Station: Secure and Button Up Envelope and Improve Exterior Appearance (Security: Substantial Completion; Button-up and Exterior Appearance: Conceptual)	$1,000,000	$1,000,000				
Boston	BI.17	Campus-wide: ADA Compliance - Ad Hoc Projects (Conceptual)	$1,000,000			$1,000,000		
Boston	BI.18	Fox Point Docks: Upgrades and ADA Accessabiity (Conceptual)	$1,500,000			$1,500,000		
Boston	BI.19	Campus-wide: Replace Exterior Doors to Ensure Climate Control (Including Vestibules) and Code Compliance - Ad Hoc Projects (Study / Feasibility)	$3,200,000			$3,200,000		
Boston	BI.22	Projects Less Than $500,000 (Aggregate**)** **$0.35M now in BI.24**	$4,350,000	$4,350,000				
Boston	BI.23.02	Relocate University Data Center Due to Utility Reconfiguration and Planned Science Center Demolition (Conceptual)	$1,300,000			$1,300,000		
Boston	BI.24	Study Bayside Parcel for Future Permanent Use, Including Sea Level Rise Requirements (Conceptual) **$0.35M from BI.22 and $0.65M additional**	$1,000,000			$1,000,000		
Boston	MP.01.01	Master Plan Phase I: Construct New Integrated Sciences Complex (In Mid-Construction)	$179,000,000	$9,000,000		$52,000,000	$116,800,000	$1,200,000
Boston	MP.01.02	Master Plan Phase I: Utility Plant System Expansion and Upgrades to Accommodate ISC and GAB Including New Chiller and Boiler (Early Construction / Late Design)	$3,000,000			$3,000,000		
Boston	MP.01.03	Life Sciences: Center for Personalized Cancer Therapy (To Be Located within Integrated Sciences Complex) (LSBB Earmark) (Conceptual)	$10,000,000				$10,000,000	
Boston	MP.02.01	Master Plan Phase I: Utility Corridor and Roadway Relocation Project (Early Construction / Late Design)	$143,000,000			$143,000,000		

Campus	Priority Order	Campus Project Names	Est. September 2013	University - Local Funds	University - External Funds	University - Borrowing	State	Contigent on Funding
Boston	MP.02.02	Master Plan Phase I: Utility Plant Upgrades Related to Pumps, Controls, Heat Exchangers and Utility Corridor Reconfiguration (Early Construction / Late Design)	$11,000,000			$11,000,000		
Boston	MP.02.03	Master Plan Phase I: Construct New Trigeneration Facility to Accommodate Increased Campus Chilled Water, Hot Water and Electrical Service Needs (Study / Feasibility; escalated to FY15 mid-point)	$27,500,000			$27,500,000		
Boston	MP.03	Master Plan Phase I: Construct New Academic Building 1 (Early Construction / Late Design)	$113,000,000	$13,000,000		$100,000,000		
Boston	MP.04	Master Plan Phase I: Construct 1,000 Bed Residence Hall 1, Including Dining Facility (Conceptual; escalated from FY09 to FY15)	$112,000,000			$1,000,000		$111,000,000
Boston	MP.05.01	Master Plan Phase I: Renovations to Existing Campus Buildings (Study / Feasibility)	$75,000,000		$9,650,000	$65,350,000		
Boston	MP.05.02	Master Plan Phase I: Purchase or Lease Additional Swing Space to Accommodate Growth and McCormack and Wheatley Halls Renovations (Conceptual)	$2,500,000			$2,500,000		
Boston	MP.06.01	Master Plan Phase I: Study Substructure and Science Center Demolition (Conceptual)	$1,150,000				$1,150,000	
Boston	MP.06.02	Master Plan Phase I: Construct New Campus Greenhouse for Research, Reaching and Community Service (Study / Feasibility)	$5,000,000		$2,500,000	$2,500,000		
Boston	MP.06.03	Master Plan Phase 1: Relocate College of Science and Mathematics Machine Shop Due to the Demolition of the Science Center (Study / Feasibility)	$1,000,000			$1,000,000		
Boston	MP.06.04	Master Plan Phase I: Study Replacement of Catwalk/Enclosed Campus Walkway System and Connections to New Academic Building 1 (Conceptual)	$1,000,000			$1,000,000		
Boston	MP.06.05	Master Plan Phase I: Study New LL/UL Facades at Campus Center, Healey Building, McCormack Hall, Quinn Administration Building and Wheatley Hall, and Access to Buildings from Grade (Conceptual)	$1,000,000			$0		$1,000,000
Boston	MP.06.06	Master Plan Phase I: Demolish Substructure and Science Center (Conceptual)	$15,000,000			$0		$15,000,000
Boston	MP.06.08	Master Plan Phase I: Relocate Track/Athletic Field (Conceptual; escalated from FY09 to FY15)	$2,800,000			$2,800,000		
Boston	MP.07	Master Plan Phase I: Construct New Academic Building 2 (Conceptual, from EOAF Spending Plan)	$100,000,000				$86,350,000	$13,650,000
Boston	MP.08	Master Plan Phase I: Construct +/- 1,200 Vehicle Parking Garage 1 Including Public Safety Space (Conceptual; escalated from FY09 to FY16. Plus Study / Feasibility for Public Safety Space)	$45,000,000					$45,000,000
Boston	MP.09	Master Plan Phase I: Build Out Campus Center UL Parking Garage Space as Assignable Space (Conceptual)	$5,000,000			$5,000,000		
Boston	MP.10	Master Plan Phase I: Secure or Demolish Bayside Expo Center Building and Initial Property Improvements (Conceptual)	$5,360,410			$5,360,410		
Boston	MP.16	Master Plan Phase I: New Baseball Facility To Be Constructed at Boston College High School (Conceptual)	$1,000,000	$1,000,000				
Boston	TR.01	McCormack Hall: Conversion of Vacant Cafeteria, Servery, and Kitchen Space for College of Nursing and Health Sciences (Conceptual)	$2,275,000			$2,275,000		
Boston	TR.03	Healey Building/Quinn Administration Building: Construct New Classrooms on the 4th Floor of Healey Library and the UL of Quinn Administration Building (Conceptual)	$1,000,000			$1,000,000		
Boston	TR.05.01	Healey Building: Renovations to Improve and Increase Student Learning Space, Including Necessary Fire Protection Improvements (Conceptual)	$12,500,000			$12,500,000		
Boston	TR.06	Instructional Equipment Upgrades and Replacements (Conceptual)	$5,000,000			$5,000,000		
Boston	TR.07	WUMB: Relocation WUMB Radio to New Facility (Conceptual)	$4,000,000		$4,000,000			
Dartmouth	1	Basic Infrastructure Repairs	$69,512,905					$69,512,905
Dartmouth	2	Energy / Water Savings Project	$49,859,012	$15,910,681	$1,349,005	$29,799,326	$2,800,000	
Dartmouth	3	Research Laboratory Improvements	$13,165,000		$165,000	$13,000,000		
Dartmouth	4	Classroom, Teaching Laboratory, and Learning Space Improvements	$11,440,000			$11,440,000		
Dartmouth	5	Fitness Center Expansion	$5,100,000			$5,100,000		
Dartmouth	6	* Massachusetts Accelerator for Biomanufacturing (MAB) (Fall River)	$31,500,000			$10,500,000	$21,000,000	
Dartmouth	8	SMAST / DMF Expansion	$48,000,000		$3,000,000	$25,000,000	$20,000,000	
Dartmouth	9	Update Campus Master Plan	$1,500,000				$1,500,000	
Dartmouth	10	Replace Failed HVAC Systems	$3,500,000					$3,500,000
Dartmouth	11	Security Installation Project	$7,000,000					$7,000,000
Dartmouth	12	New Academic Building	$75,000,000				$42,600,000	$32,400,000
Dartmouth	13	Landscape/Lighting Improvements	$1,832,000	$1,832,000				

Campus	Priority Order	Campus Project Names	Est. September 2013	University - Local Funds	University - External Funds	University - Borrowing	State	Contigent on Funding
Dartmouth	16	Charlton College of Business, Phase II	$15,000,000		$5,000,000	$10,000,000		
Dartmouth	17	ADA Renovations Immediate Needs	$2,184,000			$2,184,000		
Dartmouth	18	** ATMC Acquisition	$11,400,000				$11,400,000	
Dartmouth	21	Wind Turbine Project	$1,317,457	$42,270		$1,000,000	$275,187	
Dartmouth	22	Residence Halls - Wireless Network Installation	$1,200,000	$1,200,000				
Dartmouth	24	Repair Four Oldest Residence Halls	$75,000,000			$5,000,000		$70,000,000
Dartmouth	26	Centennial Way Retail Corridor	$10,000,000		$10,000,000			
Dartmouth	33	Law School - Deferred Maintenance	$5,000,000					$5,000,000
Lowell	1	University Suites (Aiken St.)Residence Hall	$56,500,000	$2,500,000		$54,000,000		
Lowell	2	University Crossing - Student Life, Student Services & Admin Serv. Includes Salem St	$95,000,000	$5,000,000	$2,000,000	$88,000,000		
Lowell	3	South Campus Garage	$21,000,000	$0		$21,000,000		
Lowell	4	Pulichino/Tong School of Business Building	$35,000,000	$5,000,000	$5,000,000		$25,000,000	
Lowell	5	ETIC	$84,000,000		$12,000,000	$27,000,000	$45,000,000	
Lowell	6	On-Going Academic Modernization incl. Relocations (Phase 1: FY13-18)	$30,000,000	$5,000,000		$10,000,000		$15,000,000
Lowell	7	Energy & Power Plant Improvements (incl. DCAMM AEP)	$40,000,000	$21,000,000		$14,000,000	$5,000,000	
Lowell	8	Science & Engineering Master Plan-Perry Hall (Engineering) Renewal	$36,000,000				$20,000,000	$16,000,000
Lowell	9	Science & Engineering Master Plan-Olsen Renovations	$40,000,000				$25,000,000	$15,000,000
Lowell	10	Leitch & Bourgeois Residence Hall Renovations	$37,000,000	$7,000,000		$30,000,000		
Lowell	11	South Campus Master Plan - Initial Space & Mall Improvements (Phase 1)	$20,000,000	$6,000,000		$9,000,000	$5,000,000	
Lowell	12	Capital Renewal/Deferred Maintenance/Compliance (Phase 1: FY13-22)	$80,000,000	$6,000,000		$29,000,000	$5,000,000	$40,000,000
Lowell	13	Property Acquisitions	$15,000,000	$10,000,000		$5,000,000		
Lowell	14	Technology Infrastructure	$15,000,000	$5,500,000		$2,000,000		$7,500,000
Lowell	15	Alumni Hall/Lydon Library Renovations/Innovation District	$8,000,000			$8,000,000		
Lowell	16	McGauvran Dining Conversion	$30,000,000	$10,000,000		$20,000,000		
Lowell	17	North Campus Quad Renewal	$31,500,000			$13,000,000		$18,500,000
Lowell	18	Residence Hall Acquisition & Construction	$100,000,000			$100,000,000		
Lowell	19	Transportation & Parking Improvements	$4,000,000			$2,000,000		$2,000,000
Lowell	21	Residential Hall Comprehensive Renewal Program (Phase 1: FY13-22)	$30,000,000	$10,000,000				$20,000,000
Lowell	22	Wannalancit	$7,100,000			$6,100,000	$1,000,000	
Lowell	23	Civic & Athletic Facilities	$3,300,000	$2,000,000	$1,300,000			
Lowell	24	Athletic & Recreational Facility Improvements - incl. Division 1	$10,000,000			$10,000,000		
Worcester	1	Basic Research and Student Lab Wing Improvements (Floors 5&6)	$15,500,000	$15,500,000				
Worcester	2	Labs to Offices - Backfill Project (Floors 2&3)	$8,000,000	$8,000,000				
Worcester	3	LRB Teaching and Learning Space - Backfill Project (Floor 1)	$2,000,000			$2,000,000		
Worcester	5	Enhance chilled water loop pump/controls	$3,000,000	$3,000,000				
Worcester	6	School HVAC Upgrades/Replacements	$38,500,000					$38,500,000
Worcester	7	Land Acquisition (per Master Plan)	$5,000,000			$5,000,000		
Worcester	9	Network Infrastructure	$10,000,000	$10,000,000				
Worcester	10	Campus Electrical Distribution Efficiency Improvements	$2,500,000	$2,500,000				
Worcester	13	Library repurposing and renovations	$5,500,000			$5,500,000		
Worcester	14	Student Services and Delivery Services Improvements	$3,600,000			$3,600,000		
Worcester	17	A Level Animal Quarters Improvements (cage wash, mechanical, finishes)	$14,500,000			$14,500,000		
Worcester	19	Renovate and Expand BL3 Suite - 7th Fl	$6,400,000	$1,200,000	$5,200,000			
Worcester	20	Install Chiller 6	$4,000,000					$4,000,000
Worcester	26	Parking Lot Maintenance - Main Campus	$10,840,000	$10,840,000				
Worcester	31	Steam Chiller 2 & 3 Retrofits	$1,000,000	$1,000,000				
Worcester	32	Departmental equipment purchases	$10,000,000	$3,000,000				$7,000,000
Worcester - WCCC	6	MBL - Tetanus/Diphtheria Manufacturing Facility: Vaccine Cultivation & Purification	$6,500,000	$6,500,000				
Worcester - WCCC	9	MBL - AAV Production Facility (not including filling suite)	$5,000,000		$5,000,000			

Campus	Priority Order	Campus Project Names	Est. September 2013	University - Local Funds	University - External Funds	University - Borrowing	State	Contigent on Funding
Note: Public Private Partnerships are being explored for the UMB Residence Hall (MP.04) and Parking Garage (MP.08) projects and are categorized as "contingent on funding" as the details of such PPP is further researched.								
		Campus Totals	**$3,777,271,784**	**$375,634,951**	**$94,414,005**	**$1,841,784,736**	**$898,675,187**	**$566,762,905**

Doc. T93-122, as amended
Passed by the BoT
12/1/93
Revised: 8/7/02
Revised: 11/16/05
Revised 6/10/09

UNIVERSITY OF MASSACHUSETTS
LAND AND FACILITIES USE PLANNING POLICY

INTRODUCTION

This policy is intended to provide guidance in facilities and land use planning at the campuses, in particular with respect to decisions on changes in existing facilities, the construction of new facilities, and the transfer of University property to outside parties.

Facilities planning should be an integral part of the long-range and strategic planning processes, as it affects all aspects of the campuses' programs and operations. Participants in this process should include strategic planning committees, facilities managers, and physical plant directors. While specific assumptions and criteria may vary for short-term and long-range projects, the long-range objectives of the campus must underlie both. The goals and priorities in the campus master plans should form the basis for all facilities planning and land use decisions, regardless of whether the campus is contemplating changes in existing uses of facilities, the development of unused land, the construction or renovation of new facilities, or the transfer of property to an outside party.

CAMPUS LAND AND FACILITIES USE MASTER PLANS

A land and facilities use master plan is for the purpose of establishing a framework for orderly growth and development of capital improvements that is responsive to a campus' current and projected needs and sufficiently flexible to accommodate changes that can be expected to occur in a dynamic environment. The plan is to describe the optimal development of the available space consistent with the approved mission statement of the campus. The plan is a working document that will require evaluation and updating periodically to ensure its consistency with revised mission statements and with other circumstances. The plan does not constitute a commitment to a specific timetable for the completion of projects. A land and facilities use master plan is a component of the overall planning responsibility of the President, Chancellors and Board of Trustees.

Each campus shall prepare a land and facilities use master plan which should include, but not be limited to:

- information about the campus' role and mission and how these relate to facilities and land use requirements;
- a description of existing land and facilities, including a description of the possible new or revised use of existing land and facilities;
- projections of future land and facilities needs; and
- assumptions and criteria to meet identified needs.

The plan shall be consistent with the mission of the campus as the mission statement has been approved by the Board of Trustees.

The plan shall be consistent with State requirements for facilities and land use master plans.

The plan shall be evaluated and updated on a periodic basis, including when substantial changes to the campus' mission statement have taken place, or at least every seven years after initial approval of a campus land and facilities use master plan.

The institution's land and facilities use master plan shall be reviewed by the President for consistency with these requirements for land and facilities use master plans, and with the System wide Strategic Priorities established by the Board of Trustees.

The President shall approve the land and facilities use master plan for each campus after said review.

CHANGE IN EXISTING USE

In assessing proposals for a substantive change in the use of existing facilities and/or land, campuses should consider:

- The use should be consistent with and should further the goals and objectives of the campus as detailed in the campus land and facilities use master plan and other long-range plans and mission statements.
- The short-term and long-range cost implications must be beneficial to the University.
- There should be no adverse legal implications for the University.
- The use should interface appropriately with neighboring facilities, agencies and communities.
- The use should complement existing architectural and functional characteristics of the campus.
- There should be minimal adverse impact on pedestrian and vehicular traffic routes.

NEW CONSTRUCTION OR MAJOR RENOVATION PROJECTS

All new construction or renovation projects with a total project cost exceeding $1,000,000 dollars shall be approved by the Board of Trustees. All new construction or renovation projects with a total project cost between $500,000 and $1,000,000 shall be approved by the President, and all projects less than $500,000 shall be approved by Chancellors.

The President shall establish and maintain guidelines to be followed by campuses in preparing said proposals for new construction or renovation projects. These guidelines shall include but not be limited to statements of how the new project fits with the campus master plan, plans for construction funding, debt service if necessary, and operating funds for the project when completed.

RESERVES FOR RENEWAL AND FUNDING FOR ON-GOING MAINTENANCE OF NEW FACILITIES

One and one half percent (1.5%) of the total construction cost of all new construction projects shall annually be set aside in a reserve fund to provide funding for the general renewal, replacement and renovation of campus facilities. In addition, an amount equal to three and one half percent (3.5%) of the total construction cost of all new construction projects shall be expended annually for the operational and maintenance expenses, excluding utilities, of the campus facilities; and campuses shall prioritize such spending so as to provide the maximum useful life of all new construction projects.

DISPOSITION OF REAL PROPERTY

The land on which the University is situated is owned by the Commonwealth of Massachusetts and the University is entrusted with its stewardship. The University’s role as steward of this property is crucial, since the prudent use of our limited resources is key to our ability to provide for our future needs and to meet our long-range commitments to the citizens of the Commonwealth.

When a proposed use involves a long-term lease or transfer of land to a non-University affiliated person or organization, final review and approval by the President and Board of Trustees is required in addition to the necessary campus approvals. The President may approve short-term leases of five years or less.

In order to allow for adequate review and analysis, campus proposals for the long-term lease or transfer of University land to a non-University affiliated person or organization must be presented to the Board of Trustees for informational purposes at one meeting and presented at a later meeting for approval. Such proposals should be complete and contain particular findings as to why the property in question is surplus to both the current and foreseeable needs of the University.

Current laws generally require approval by the Division of Capital Asset Management and Maintenance (DCAM) and/or the Legislature and Governor of proposals for the transfer of University real property. Proposals requiring such approval must be also approved by the Board in accordance with this policy prior to any submission to DCAM, the Governor, or the Legislature.

PRIVATE USE

Any facilities of the campuses that are purchased, constructed, renovated, rehabilitated, improved or otherwise funded by use of funds from a tax-exempt bond issue are subject to limitations as to use by a private party under federal tax law. Private use means the use of such facilities or portions thereof by any individual or entity that is not a state, a political subdivision thereof or integral part of a state or political subdivision thereof, including the federal government and charitable organizations. "Use" can include, but is not limited to, ownership, leasing, management or sponsorship of research occurring in a bond-financed facility. Private use may jeopardize the tax-exempt status of the bonds. The Vice Chancellors for Administration and Finance will ensure that the campuses establish procedures to prevent exceeding limitations of such private use of the facilities that are set forth in the tax certificate delivered by the University to the issuer in connection with the issuance of the bonds, including annually informing the issuer of any private use activities in subject facilities. If a campus has any doubt as to the existence of a private use, it will consult with the issuer of the tax exempt bonds and with bond counsel to the issuer regarding the impact of any proposed or existing use of the facilities on the tax-exempt status of the bonds.

The President shall establish and maintain guidelines to be followed by campuses in preparing proposals for disposition of real property. These guidelines shall include, but not be limited to, identification of the clear benefit to the University of the disposition and how the disposition would support the campus mission and master plan.

UNIVERSITY OF MASSACHUSETTS
NEW CONSTRUCTION

(Doc. T93-122, Land and Facilities Use Planning)

GUIDELINES

The University of Massachusetts Trustees, the President and Chancellors will be reviewing over time requests and proposals for capital financing to build new buildings or to make major program-driven building renovations in the University. Approvals of such projects will be contingent on the general requirement that any new building must be consistent with the strategic plans and priorities of the University and the campus and that such new construction must contribute to the mission of a particular campus. Additionally, the following guidelines outline the intensive review and planning process that must be carried out prior to approval of any project:

1. **Demand and Use** – What level of demand and use studies have been conducted to assure that there is sufficient need for the project to move forward?

2a. **Preliminary Funding** – Have specific private fundraising activities been carried out or are there specific plans to generate one-time capital dollars (e.g., donations or corporate sponsorships) that will reduce the operating debt cost of the construction?

2b. Is the Commonwealth of Massachusetts or the Federal government willing to share in the cost of construction and/or operation in order to support State or Federal policy objectives?

3. **Full Costing** – What specific plans have been made to budget for a total project cost related to the new building? These project costs include study, design, construction and financing costs?

4. **Operational Costs** – Please provide a carefully thought out 5-year financial projection presenting anticipated revenues, by source and projected expenditures attributable to the operation of the new building. Expenses should include, at minimum, cost of professional staff, faculty (where appropriate), utilities, annual and preventative maintenance and repairs, and any other cost attributable to the continuing utilization of the facility. Identify what revenue sources you believe will be available in future years.

5. **Strategic Plans** – How does this building fit in with the master plan of the campus in terms of land and space utilization? Why are existing facilities inadequate for renovation? If any existing programs will move to the new facility, what uses will be made of the vacated space?

6. **Collaborative Planning** – Will the construction project have an adverse or positive affect on existing campus programs or other campuses' programs, such as admissions and research dollars?

7. **Background Support** – What preliminary discussions have been held with senior executives at the campus level, and the President's Office level, and with Trustees? A chronology of such meetings and discussions should be provided.

8. **Debt Service** – If debt service is to be incurred, how can this be justified in light of health and safety needs that may be unmet on the campus?

9. **Current Health and Safety and Maintenance Issues** – How is the campus planning to meet current health and safety issues and provide for maintenance of existing facilities in light of plans for renovations and /or new projects?

The above guidelines are a set of benchmarks and/or specific activities that must be completed before the University will advocate for any form of capital dollar expenditure, whether State or borrowed by the University. Comprehensive reports related to the activities outlined above must be provided before any building project will be approved.