COMMONWEALTH OF MASSACHUSETTS
DESIGNER SELECTION BOARD PROJECT CRITERIA

DSB LIST # **18-02** **ITEM #** **2** **DSB PUBLIC NOTICE DATE:** **February 14, 2018**

LAST DATE FOR FILING APPLICATION IS: **March 7, 2018** **at 2:00 PM**

The Board requests applications to be submitted by any of the following firms:

(**X**)	Architect	( )	Engineer
(**X**)	Architect/Engineer (A/E)	( )	Other:

PROJECT NUMBER: **UMW1801 ST1**

PROJECT TITLE: **UMass Medical Center Master Plan**

PROJECT LOCATION: **UMass Medical School Campuses, Mass Biologics - Fall River and Mattapan & Worcester City Campus Corporation (WCCC) - Worcester and Shrewsbury.**

AWARDING AGENCY: **Division of Capital Asset Management and Maintenance (DCAMM)**

AVAILABLE AMOUNT: **$1,000,000**

ESTIMATED CONSTRUCTION COST: **N/A**

TOTAL FEE, excluding reimbursables or any authorized per diem payments, based on scope of work and services authorized if project is completed.

(**X**) Lump Sum Established Set Fee for **Study Phase** Per M.G.L. C.7C, §50 **$800,000** dollars

IMMEDIATE SERVICES AUTHORIZED:
( ) CERTIFIABLE BUILDING STUDY
( ) SCHEMATIC PLANS AND OUTLINE SPECIFICATIONS
(**X**) OTHER: MASTER PLAN

MBE/WBE PARTICIPATION:
In accordance with M.G.L. C.7C, §6 and Executive Orders 526, 559 and 565, **DCAMM** has established a minimum combined MBE/WBE participation goal of 17.9% of the overall value of the study and final design contracts for this project. Applicants must utilize a mix of both MBE and WBE firms whose participation, when added together, meets the overall combined goal set for the Contract. The combined goal requires a reasonable representation of both MBE **and** WBE firm participation. The Combined MBE/WBE goal must be met within the list of requested prime and sub-consultants. All applicants must indicate in the prime firm's application how they or their consultants will meet these goals and will be evaluated on that basis. Further information about the MBE/WBE Program appears in the DSB Public Notice at pages 4-8 titled "Participation by Minority Owned Businesses and Woman Owned Businesses," in the Commonwealth of Massachusetts Contract for Study, Final Design, and Construction Administration Services (October 2017) at Attachment C, and on the Supplier Diversity Office website: http://www.mass.gov/sdo. Applications from MBE and WBE firms as prime consultant are encouraged. Applicants that are themselves MBE or WBE certified will be required to bring a reasonable amount of participation by a firm(s) that holds the certification which is not held by the applicant to the project. Proposed MBE/WBE participation plans that include solely MBE or solely WBE participation, or have only nominal participation by one or the other to meet the combined goal, will not be considered responsive. Applicants are strongly encouraged to utilize multiple disciplines and firms to meet the MBE/WBE goal. Consultants to the prime can team within their disciplines in order to meet the MBE/WBE goal, but must state this relationship on the organizational chart (Section 6 of the application form).

ADDITIONAL DIVERSITY PROGRAMS:

Veteran Owned Business Participation Benchmark - Chapter 108 of the Acts of 2012; Executive Order 565

The Commonwealth encourages the participation of Service-Disabled Veteran-Owned Business Enterprises ("SDVOBE") and Veteran-Owned Business Enterprises ("VBE") on its design projects. The benchmark for combined SDVOBE and VBE participation on DCAMM and other Executive Branch agencies design projects is 3% of the contract price as set forth in the standard DCAMM Study and Design Contracts referenced above.

GENERAL SCOPE OF WORK:

The Division of Capital Asset Management and Maintenance (DCAMM), in conjunction with the University of Massachusetts Medical School (UMMS), seeks expert professional services for a master planning effort focused on the development of a vision and implementation plan that accommodates future needs of the Medical School, UMMS's clinical partner UMass Memorial Health Care, MassBiologics, the Worcester Foundation for Biomedical Research, Commonwealth Medicine [1] and the Worcester City Campus Corporation (WCCC)[2].

Sites included in this effort are the UMass Medical Center Worcester, UMMS' two Shrewsbury campuses, MassBiologics' Mattapan and Fall River campuses, and the Massachusetts Biotechnology Research Technology Park (owned by WCCC).

Key components of this effort include facilitation of visioning with the key stakeholders, high-level programming, land use analysis, infrastructure capacity analysis, sustainability assessment, pedestrian and vehicular circulation, and parking analysis at each of the sites. The final deliverable will be a phased master plan that clearly outlines proposed projects with order-of-magnitude costs.

Overview:

The University of Massachusetts Medical School (UMMS) is the Commonwealth's first and only public academic health sciences center, founded in 1962 to provide affordable, high-quality medical education to state residents and to increase the number of primary care physicians practicing in underserved areas of the state. Consistently ranked in the top ten percent of the nation's 129 medical schools for excellence in primary care education by weekly news magazine U.S. News & World Report, the Worcester campus is one of five campuses in the UMass system.

The UMass Medical Center includes over 6 million square feet (SF) of space which houses the Academic Health Sciences Center, 3 graduate schools and over 45 accredited residency and 28 fellowship programs, a Level One Trauma Hospital with 417 licensed acute care beds, and research facilities for more than 350 "wet lab" researchers.

Although the location in Worcester for the campus wasn't selected until 1965, preliminary accreditation and the early recruitment of core faculty allowed for the first class of 16 students to enter in the fall of 1970, beginning their studies in a former warehouse at the corner of Lake Avenue and Belmont Street (located on the corner of the current campus, now called the Shaw Building and still in use by UMMS). By the time the first class graduated in 1974, the new medical science building was in use, followed by the teaching hospital, which opened in 1976. The growth of the school and its clinical system coincided with support for basic science research, and while the school remained true to its mission of training primary care physicians, by 1979 it had established a PhD program in the biomedical sciences (which became a school in its own right) followed by the Graduate School of Nursing, which opened in 1986. A period of expansion began in 1990 that included the acquisition of the former Worcester Foundation for Biomedical Research, the Massachusetts Biologic Laboratories, and the spinoff of hospital operations into a new clinical system. In 1998, the UMass Clinical System and Memorial Health Care merged to form UMass Memorial Health Care.

1 Commonwealth Medicine is the public consulting and operations division of UMMS. Commonwealth Medicine's primary focus is to help Medicaid and other human service agencies accomplish their missions.

2 WCCC, a Massachusetts non-profit corporation organized under Massachusetts General Law, with UMass as the sole corporate member is organized and operated to promote and foster activities of the entire UMass system. Full service property management of WCCC holdings are provided by UMMS through a service agreement.

Worcester Campus

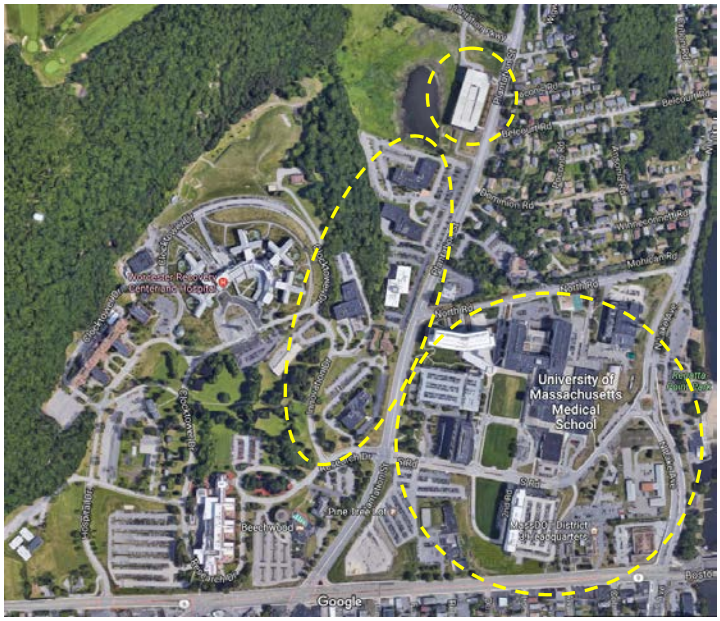
The three UMMS graduate schools are the School of Medicine, the Graduate School of Biomedical Sciences and the Graduate School of Nursing:

- The School of Medicine is committed to training in the full range of medical disciplines, with an emphasis on practice in the primary care specialties, in the public sector and in underserved areas of Massachusetts.
- Graduate School of Biomedical Sciences students receive a broad background in the basic medical sciences and are trained in their selected specialty area in preparation for research with direct relevance to human disease.
- The Graduate School of Nursing offers master's, post-master's and doctoral degrees, providing high quality education to prepare registered professional and advanced practice nurses within nurse practitioner and nurse educator specialties and for faculty, research and other nursing leadership positions.

UMass Memorial Health Care, Inc. continues to be the clinical partner of UMMS and the largest health care system in Central and Western Massachusetts, providing care through the UMass Memorial Medical Center's three campuses in addition to its member hospitals. The University Campus (UMMS Worcester campus) clinical services focus on radiation therapy and cancer care, neurology, trauma and critical care, psychiatry, surgery and advanced cardiovascular care. The University Campus also houses the Weight Center, the Children's Medical Center, the Duddie Massad Emergency and Trauma Center (the region's only Level I trauma center) and the Ambulatory Care Center (AAC).

The Lazare Research Building opened in 2001 and a campus modernization began in 2002 which included an extensive renovation of the original medical school and hospital buildings and expansion to include new meeting, educational, emergency and surgical spaces.

Along with Terence R. Flotte, MD, who became UMMS' eighth dean in 2007, Chancellor Collins has overseen the latest phase in campus development and investment, including the expansion of the medical school class size to its current cohort of 125; investment in educational technology and infrastructure, and expansion in clinical and translational science; the creation of the Department of Quantitative Health Sciences in 2009; and the receipt of an NIH Clinical and Translational Award in 2010.



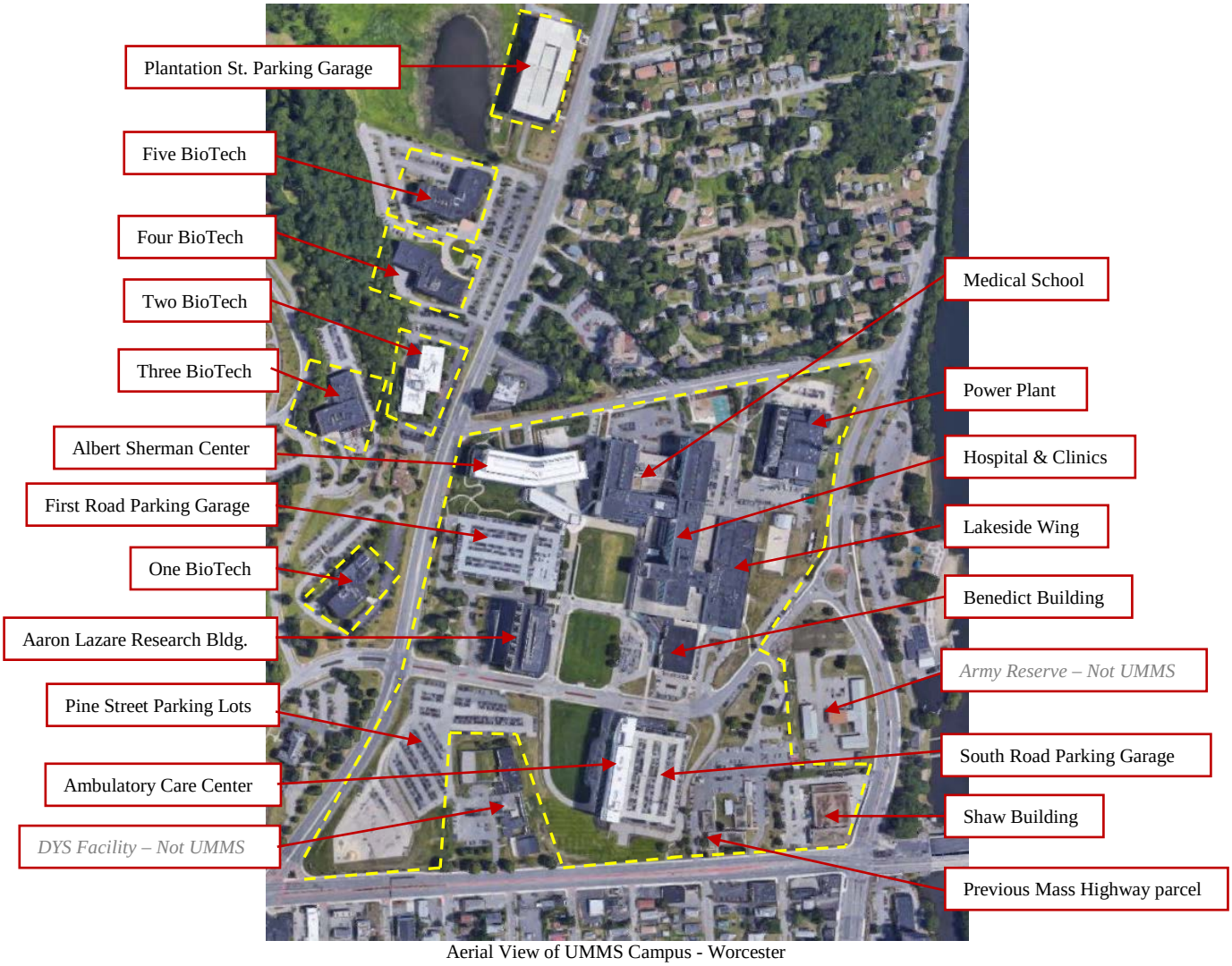
UMass Medical Center and Massachusetts Biotechnology Research Technology Park

Two major facilities investments on the UMMS Worcester campus have laid the groundwork for the next generation of life sciences education and research:

- 278,000 square-foot Ambulatory Care Center, home to Centers of Excellence in Diabetes, Cardiovascular Medicine, Orthopedics and Cancer, which opened in 2010.

- 500,000 square foot Albert Sherman Center, which opened in 2013 and houses state of the art facilities for medical education, including homes for the learning communities, the standardized patient program, dedicated seminar and conference space, in addition to six floors of wet and dry laboratory space for new research initiatives in population health, RNA biology, gene therapy and neurodegenerative disease.

The Massachusetts Biotechnology Research Technology Park, which includes Biotech Buildings One through Five, are UMMS/ WCCC property. Bio-Tech Buildings One and Two are currently used by UMMS /UMass Memorial. Bio-Tech Buildings Three, Four, and Five are leased to tenants including the VA (Bio-Tech Four), Red Cross (Bio-Tech Five) and incubator startups. Each building includes dedicated parking as follows: Bio-Tech One - 192 spaces; Bio-Tech Two -160 spaces; Bio-Tech Three – 266 spaces: Bio-Tech Four – 163 spaces; Bio-Tech Five – 536 spaces. All 5 of these buildings are owned by WCCC and will be part of this master planning effort.



Aerial View of UMMS Campus - Worcester
Dashed line denotes properties and general campus area – does not represent property lines

Today, UMMS employs approximately 490 full and part time Science and Nursing faculty and over 2,600 clinical faculty. The student body includes approximately 1,062 students: 543 students in the School of Medicine; 341students in the Graduate School of Biomedical Sciences, and 178 students in the Graduate School of Nursing.

South Street Campus - Shrewsbury

UMMS South Street Campus, a non-academic campus, is home to two large buildings totaling approximately 700,000 SF in addition to several smaller support buildings. The South Street Campus consists primarily of office space with a lesser amount of research laboratory space. The UMass President's Office is housed at South Street and includes the University's Central Administration along with the University Collaborative Services Conference Center, the UMass Donahue Institute, UMass Online and the UMass Foundation. The Collaborative Services Facility (CSF) provides the UMass President's

Office and the University's five campuses with onsite workspace and conference rooms for the University's central administration initiatives. Commonwealth Medicine also has offices at this campus. Other UMMS offices housed at South Street include Information Technology with a Data Center, Financial Services, Payroll, Human Resources, and Advancement. Commonwealth Medicine as well as public sector partners inhabit space on the campus. There is a sizable amount of square footage that is currently vacant and available for use.

South Street I is a 3 story building that houses approximately 466,000 SF. South Street II is a two-story building that houses approximately 247,000 SF and is connected to South Street I via a pedestrian bridge. The Test House building includes approximately 2,300 SF of office space. The site also includes approximately 1,709 parking spaces, a Chemical Bunker, and Fire Pump House.

Aerial View of UMMS Campus – South Street Campus - Shrewsbury

Maple Avenue Campus - Shrewsbury

The Worcester Foundation for Biomedical Research is housed at the 222 Maple Street campus in Shrewsbury. The foundation was established as an independent research center under the name Worcester Foundation for Experimental Biology (WFEB) in 1944 by Hudson Hoagland and Gregory Pincus. It was best known for the development of the combined oral contraceptive pill by Pincus and Min Chueh Chang, an important development in modern birth control, and for pioneering research on in vitro fertilization by Chang.

In 1995, the foundation's name was changed to the Worcester Foundation for Biomedical Research to better reflect its increased focus on medical research. The institution was taken over by the University of Massachusetts Medical School (UMMS) in 1997. The Hoagland-Pincus Conference Center at this site now hosts small scientific seminars, meetings, and retreats. The site is now home to the Center for Mindfulness in Medicine, Health Care, and Society.

The 222 Maple Street campus includes 8 buildings (not including 2 buildings that are slated for demolition) totaling approximately 120,000 SF and 189 parking spaces.

- Chang, the largest building on this campus, is a two-story structure that houses approximately 51,500 SF which is includes approximately half office space and half warehouse space.
- Rose-Gordon is a two-story building of approximately 30,200 SF which functions primarily as a research facility, with research labs, equipment and animal quarters occupying almost half of its space. Office space and building infrastructure occupies the remaining area.
- Hoagland-Pincus, home to the Center for Mindfulness, is a two-story structure of approximately 28,100 SF that houses office space and assembly space / classrooms.
- Stoddard is a three-story office building with storage in the attic, housing approximately 15,200SF.

- The Behavioral Barn is a three-story building of approximately 8,900 SF, housing primarily facility maintenance spaces and office space.
- Fuller is a single story research building, housing approximately 6,400 SF.
- The Clinic Building is a two-story building that houses mostly office space with some research lab space.
- Higgins is a single-story office building with approximately 4,000 SF, largely unassigned.

Aerial View of UMMS Campus – Maple Avenue Campus - Shrewsbury

MassBiologics

MassBiologics was established as the Antitoxin and Vaccine Laboratory in 1894 to make diphtheria antitoxin at Harvard's Bussey Institute in Jamaica Plain. The Lab introduced vaccine into general use in Massachusetts and was granted its first FDA License in 1917 (U.S. License No. 64), making it the 4th oldest biologic manufacturer still in operation in the U.S.today. In August of 1996, the state of Massachusetts transferred oversight of the Laboratories to the University of Massachusetts Medical School (UMMS). The University and the Biologic Laboratories had, and still have, common research, academic, and health care missions. Under the management of UMMS, the Laboratories maintain and cultivate their original public health mission to the residents of Massachusetts, while simultaneously expanding their ability to develop and manufacture products that could be used in a global manner.

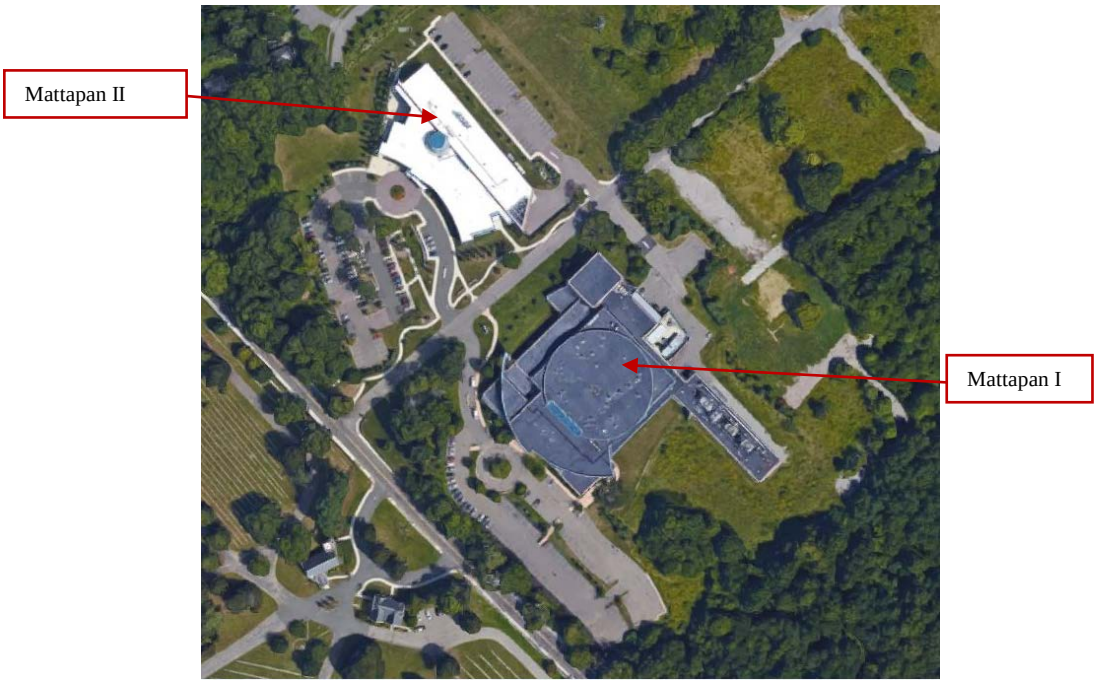
MassBiologics has developed and manufactured many notable vaccinations (Smallpox, typhoid, scarlet fever) over the years as well as pioneered a number of special immune globulins for the prevention of specific diseases. MassBiologics has a Main Campus in Mattapan and a South Coast facility in Fall River.

The MassBiologics Main Campus in Mattapan houses two buildings:

- Mattapan I, an approximately 150,000 square foot fill finish and manufacturing building, houses approximately 25,000 square feet of cGMP manufacturing space with dedicated areas for aseptic fill finish and bulk drug substance production. The packaging area is equipped with a laser printing IMA labeler, cartoner and case packer. The bulk drug substance preparation area includes dedicated rooms for seed preparation, bioreactor culture and purification. Bulk cell culture is accomplished using a 55L, 500L and 2500L ABEC reactor train. The

manufacturing building also houses ambient and cold warehouse storage, clean utilities, QC testing laboratories and office space. Two-tiered parking totaling 141 spaces is located in the front of the building with central receiving in the rear of the building.

- Mattapan II is an approximately 97,000 SF research and administrative building that houses cGMP laboratory space for product discovery and process development scientists and equipment. MassBiologics' administration, clinical and regulatory offices are also located here. There is 83 parking spaces at the front of this building with an additional 60 spaces in the rear of the building.



Aerial of MassBiologics Main Campus – Mattapan

MassBiologics' 35,000 square foot South Coast facility in Fall River is dedicated to the development and cGMP production of viral vector based therapeutics. This bioprocessing facility is designed, maintained and operated to manufacture cutting-edge therapeutics under the highest quality standards. The facility which houses office space, process development labs, and cGMP cleanrooms can support production of a wide variety of viral vectors. The site includes 36 parking spaces and central receiving in the rear of the building.

Aerial of MassBiologics South Coast Facility – Fall River

Scope of Work:
This master planning efforts seeks to develop a cohesive vision and implementation plan that accommodates future needs of the UMMS three graduate programs, UMMS's clinical partner UMass Memorial Health Care, MassBiologics, the Worcester Foundation for Biomedical Research, and the Worcester City Campus Corporation (WCCC). A critical first step of this effort will be the facilitation of discussions with each of the stakeholders to clarify programmatic aspirations.

Programmatic Assessment
With limited land area on the Worcester campus and considerable holdings in Shrewsbury, this effort seeks to develop a master plan that outlines the best use of the available land to accommodate the future needs of all the current campus stakeholders including academic, research, medical, consulting, and clinical uses.

- As the Medical School has recently increased enrollment, right-sizing the facilities to maintain UMMS' competiveness in attracting students, faculty, and researchers in all three of the graduate programs is needed. Programmatic assessment at a high level will be required, based on discussions with each of the graduate schools regarding aspirations for growth and/or program expansions.
- Commonwealth Medicine has recently seen reductions in service lines. Opportunities for space consolidation may be considered as well as the potential impact to staffing and associated space requirements at the identified sites due to possible new service lines.
- MassBiologics has relatively new facilities. The programming assessment will be focused on how they may expand production within their current facilities.
- WCCC holdings at the Massachusetts Biotechnology Research Technology Park, the Maple Avenue campus, and the South Street campus will be assessed to determine their best use, ideal tenant mix, and capacity.
- UMass Memorial Health Care, Inc. as UMMS' clinical partner may want to consider reallocation of space and program on the Worcester campus (University Campus) with respect to their other locations as well as potential upgrades on the Worcester campus.

Compilation of programmatic space needs based on these aspirations will serve as foundation for the master planning effort. Preferred adjacencies of the programmatic elements as well as identification of the ideal mix of uses at each location will also be critical.

Building Use / Capacity
Other than the Central Plant at the Worcester campus, all other buildings have independent building systems. With a more complete understanding of the aspirations and programmatic needs of stakeholders and by utilizing data provided by UMMS including space inventories, building systems information and identified deferred maintenance issues, the design team will assess existing buildings for best fit and potential reuse to accommodate the programmatic needs identified. Suitability of existing buildings' systems to accommodate programmatic needs will be particularly important for independent buildings.

Infrastructure Capacity/ Sustainability/ Site Analysis
A critical component of this effort will include the evaluation of the infrastructure capacity at the Worcester campus to accommodate programmatic needs. Sustainability has been and continues to be a priority for UMMS. In 2012, UMMS received a $5.6M rebate for their energy efficient 14,000 SF power plant expansion at the Worcester campus. Core to the cogeneration system was the high-efficiency 7.5 mega watt, gas-fired combustion turbine and associated heat recovery system that increased UMMS's capacity to generate electricity from 10 to 17.5 megawatts, allowing it to meet most of the electrical demand on campus and provide all the steam and chilled water needed for heating and cooling. Further offsetting their electricity use, UMMS has entered a net metering agreement to support more than 10 megawatts of solar generated power from arrays located off-site. The newest buildings, the AAC and the Albert Sherman Center are LEED certified silver and gold respectively. Future expansion and/or reuse of independent existing buildings must also consider energy efficiency and resiliency. Risk assessment for critical functions will also be addressed to assure resiliency.

Site Analysis at each of the identified sites will include assessments of pedestrian and vehicular circulation including the evaluation of parking supply and demand. (Traffic studies, if required, will be an additional service.) Evaluation of potential new building and/or addition sites and available utilities will also be included. Site Analysis will also consider accessibility at a campus including parking, campus pathways and building entrances.

Alternative Options
Utilizing the foundational data generated, the design team will generate and propose alternative options to address programmatic needs in the most cost effective manner including required infrastructure improvements and parking needs and incorporating deferred maintenance issues. Proposed options will also outline programmatic mix, possible new buildings (areas, volumes and locations), and existing building renovations (areas and general scope) sufficiently to generate order-of-magnitude costs for UMMS' review. Options may include potential consolidation of facilities to fewer locations and may require real estate assessments to determine if such consolidation would be beneficial. Real Estate Assessments would be an additional service if required.

Consensus Solution
Based on input from all stakeholders, a Consensus Solution will be developed into a final vision and phased implementation plan that includes probable costs and sequence of development.
Major tasks and deliverables will be broken down as follows:

- Work Plan – The Work Plan will outline the scope and tasks including time required and proposed breakdown of fee by effort. Consultant team members that will participate in each task will also be identified.

- Data Collection and Analysis – The focus of this effort will be to gather and review all relevant data that will serve as the foundation for the master planning effort. Identification of additional data needed as well as an analysis of the data will be core to the effort. Data will include but not be limited to:
    - Aspirational Goals of each stakeholder group
    - Programmatic Needs Assessments
    - Space Inventory
    - Campus Infrastructure
    - Sightlines Report on facility conditions
    - Energy Audit and recent studies
    - 2005 Campus Master Plan
    - Existing Building Plans and Site Plans

  Efforts will include but not limited to:
    - Visioning Workshops to identify aspirational goals (estimated at between 4-6)
    - Interviews with stakeholders to clarify programmatic needs, (estimated at approximately 15 –20)
    - Workshops to gain additional feedback and review findings as required and to be determined
    - Translation of the programmatic data provided into building volumes and areas
    - Programmatic analysis of existing space types including benchmarking
    - Identification of critical infrastructure capacity with respect to expansion as well as sustainability
    - High level evaluation of deferred maintenance and energy relative to potential projects (new and renovations)
    - High level evaluation of Building Code Issues
    - Site Analysis including potential building sites and their capacity, open space, etc.
    - Documentation of existing pedestrian and vehicular patterns
    - Traffic studies *(to be provided as an additional service once the scope is defined)*
    - Facility condition assessments for facilities with no data *(to be provided as an additional service once the scope is defined)*
    - Suitability of buildings and sites for potential reuse or expansions
    - Presentation of Findings

  Data Collection and Analysis Deliverables will include a report documenting critical findings, meeting / workshop notes and products of tasks performed. A Draft Report will be submitted for review. The Final Report will incorporate any revisions required.

- Alternative Solutions – Utilizing the foundation data and analysis, the team will propose at least 3 alternatives to address the needs identified. Each alternative will include:
    - Space breakdowns by building, space type, net-to gross square feet, UMMS cost center if required
    - Alterations and expansion of campus infrastructure including potential energy savings
    - Campus pedestrian and vehicular traffic patterns; open space
    - High level narrative of assumed building systems, height /area limitations, construction type – to inform order-of-magnitude costs

- Potential phasing
- Potential consolidations of campuses
- Order-of-magnitude costs
- Pros and cons

Alternatives will be presented as required to enable the selection of a preferred alternative.

Alternative Solutions Deliverables will include documentation of the alternatives and presentations.

- Consensus Solution – Based on input received, generation of a preferred solution will be the focus of this effort. This may require combining components of alternative solutions previously proposed. The Consensus Solution will include but not be limited to:
  - Space breakdown by building, space type, net-to gross square feet, UMMS cost center if required
  - Alterations and expansion of campus infrastructure including incorporation of energy efficiency measures recommended
  - Campus pedestrian and vehicular traffic patterns; open space
  - Refined High level narrative of assumed building systems, height /area limitations , construction type – to inform order-of-magnitude costs
  - Phasing Plan
  - Order-of-magnitude costs by phase
  - Final Master Plan Presentation

  Consensus Solution Deliverables will include documentation of the Consensus Solution including alternative solutions documentation, meeting notes, and presentations.

- Final Campus Master Plan Report – As the final deliverable, this document will include the Consensus Solution, Alternative Solutions, meeting notes and presentations. The Report will be submitted in draft for review. The Final Report will incorporate revisions as required.

Process:
Executive Sponsors for this effort are Chancellor Collins and Dr. Dickson. DCAMM, working closely with UMMS, UMass Memorial, Commonwealth Medicine, MassBiologics and WCCC, will be the prime point of contact for the project and will manage the consultant team.

In support of this effort, two groups have been organized, each including stakeholders from UMMS, WCCC and UMass Memorial.

- The Working Group will consist of approximately 7-9 members including DCAMM and will meet with the consultant team on a regular basis to guide the work, provide input and gather additional information as requested by the team. It is anticipated that this group will meet bi-monthly.
- The Executive Committee will consist of 6-8 members. At critical junctures, the Consultant team will be required by the Working Group to present findings for review and approval. This will be the key decision-making body. Presentations to this Committee will occur at minimum once for each major task, but no more than 8 presentations.

Workshops and meetings will be held as required to gather data, present findings, and gain consensus and approvals. All presentations are to be submitted to DCAMM for review and comment prior to distribution to the Working Group or the Executive Committee.

ADDITIONAL SUPPORTING DOCUMENTS:
The scope of work for this project is supported by the materials listed below, which are available for review and download on the Designer Selection Board website.

- UMW0301 ST1 UMass Medical Center Master Plan Vol. I, Discovery and Analysis, Tsoi Kobus and Associates, 2005 https://www.mass.gov/files/documents/2018/02/07/dsb180202-volume-1-discover-analysis-nov-2005.pdf
- UMW0301 ST1 UMass Medical Center Master Plan Vol. II, Programming, Tsoi Kobus and Associates, 2005 https://www.mass.gov/files/documents/2018/02/07/dsb180202-volume-2-programming-nov-2005.pdf
- UMW0301 ST1 UMass Medical Center Master Plan Vol. III, Campus Plan, Tsoi Kobus and Associates, 2005

https://www.mass.gov/files/documents/2018/02/07/dsb180202-volume-3-campus-plan-nov-2005.pdf

- UMW1401E ES1 Medical Renewables Final Report, B2Q Associates, Inc. and Zapotec Energy Inc., December 2014 https://www.mass.gov/files/documents/2018/02/07/dsb180202-umw140e-es1-medical-renerwables-final-report-dec12-2014.pdf
- UMW1401 E ES1 UMass Medical School HVAC Replacement BOD, B2Q Associates, Inc., December 16, 2016 https://www.mass.gov/files/documents/2018/02/07/dsb180202-umw140e-es1-hvac-replacement-bod-final-dec12-2016.pdf

- UMW1401E ES1 UMass Worcester Final Energy Study,B2Q Associates, Inc., May 26, 2015 https://www.mass.gov/files/documents/2018/02/07/dsb180202-umw140e-es1-umass-worcester-final-energy-study-may26-2015.pdf

- UMW1401E ES1 UMass Worcester Winter Economizer Report, B2Q Associates, Inc., December 21, 2015 https://www.mass.gov/files/documents/2018/02/07/dsb180202-umw140e-es1-winter-free-cooling-final-report-2015-12-21.pdf

- Albert Sherman Center Vivarium Building Solutions Overview, WSP – Flack + Kurtz, August 22, 2012 https://www.mass.gov/files/documents/2018/02/07/dsb180202-20120822-umm-vivarium-overview-presentation.pdf

- ROPA +Sightlines Building Portfolio Solutions Presentation, December 2016 https://www.mass.gov/files/documents/2018/02/07/dsb180202-umass-medical-fy16-ropa-bps-prelim-udpated.pdf

Additional documents that will be provided to the selected team will include AutoCAD files of the sites and floor plans of existing buildings, more detailed data on Sightlines Building Solutions as well as the Space Inventories.

GENERAL CONDITIONS OF THIS CONTRACT:

Contract for Study, Final Design, and Construction Administration Services

DCAMM uses one standard *Contract for Study, Final Design and Construction Administration Services* (October 2017) ("Study/Design Contract"). The contract will be signed when the study/master plan services are procured.

Study Phase: DCAMM has established a goal of **ten (10) months** to complete a study. If selected for study services, the applicant agrees to execute the Study/Design Contract or its successor, without revisions or modifications. DCAMM compensates the Designer during the Study Phase for approved products in accordance with the approved work plan.

The contract is available on the DCAMM website at:
https://www.mass.gov/files/documents/2017/11/06/contract-for-study-final-design-and-construction-admin-services.pdf

Also available is a template Design Phase Amendment, which includes Attachment G – Design Phase Scope of Services.
https://www.mass.gov/files/documents/2017/11/06/design-phase-amendment-to-contract-for-study-final-design-and-construction-admin-services.pdf

Financial Statement

Chapter 7C, Section 51 requires that on public design contracts where the total design fee is expected to exceed $10,000 or for the design of a project for which the estimated construction cost is expected to exceed $100,000 the designer shall:

a) File its latest CPA or PA audited financial statement with the Division of Capital Asset Management and Maintenance (DCAMM), and continue to do so annually throughout the term of the contract;
b) Submit a statement from a CPA or PA that states that they have examined management's internal auditing controls, and expresses their opinion regarding those controls.

DCAMM Procedures

The designer will follow the procedures established in DCAMM's Designer Procedures Manual dated August 2008 (http://www.mass.gov/anf/docs/dcam/dlforms/designers-procedures-manual-aug08.pdf). Applicants are urged to review and become familiar with the following supplemental material, which is available on the web at:
http://www.mass.gov/dcam.

Workshops
DCAMM / UMMS and the Designer will hold periodic workshops to ensure that critical issues are not overlooked and that all team members have an opportunity to contribute their expertise, to anticipate potential obstacles, to identify potential solutions, and to expedite the decision-making process. Attendance by key design team members will be required at all workshops.

Universal Design
Design solutions provided under this contract are expected to provide environments elements that meet the diverse and changing needs of users across age, ability, language, ethnicity and economic circumstance. DCAMM welcomes innovative design strategies that are usable by the widest range of people operating in the widest range of situations without special or separate design.

Accessibility
The consultant's design must comply, *at a minimum*, with 521 CMR, The Rules and Regulations of the Architectural Access Board (http://www.mass.gov/eopss/consumer-prot-and-bus-lic/license-type/aab/aab-rules-and-regulations.html), as well as the 2010 ADA Standards for Accessible Design (http://www.ada.gov/regs2010/2010ADAStandards/2010ADAstandards.htm). When the requirements of these two laws differ the consultant shall comply with the one that provides the greater degree of accessibility. The consultant is also expected to understand and reflect in its design the civil rights obligations of the Commonwealth under Title II of the Americans with Disabilities Act (http://www.ada.gov/regs2010/titleII_2010/titleII_2010_regulations.htm) to provide equal access to programs, services and activities. DCAMM will use its Accessibility Consultants to provide technical assistance and oversight for accessibility compliance during the study, design and construction process, including accessibility audits of existing buildings.

Environmental and other supplemental services
DCAMM reserves the right to obtain supplemental services through independent consultants who will collaborate with the Principal-in-Charge (P.I.C.) and the project team. Asbestos inspection, design and monitoring, and indoor air quality testing and monitoring will be extra services under this contract.

Cost Estimating
Cost estimates, cost models, and estimator participation in both the study and the design phases shall meet the requirements of the current DCAMM *Cost Estimating Manual* and will be submitted in Uniformat II in the study phase and in both Uniformat II to Level 3 and CSI Masterformat in the design phase. The *Cost Estimating Manual* can be found at http://www.mass.gov/anf/docs/dcam/dlforms/cem-feb06.pdf, and Uniformat II can be found at http://fire.nist.gov/bfrlpubs/build99/PDF/b99080.pdf.

CONDITIONS FOR APPLICATION:
Current or updated Master File Brochures must be on file with the Board. As a condition of application, each applicant, if selected for the new project, agrees to carry professional liability insurance in an amount equal to the lesser of $5,000,000 or 10% of the Project's Fixed Limit Construction Cost, but in no event less than $250,000 per claim in accordance with the Study Contract and Design Contract (i.e., minimum coverage of $250,000 up to $5,000,000 depending on the construction cost). DCAMM may seek additional coverage for the selected designer, and if so will bear the cost of the additional coverage. Note that the requirement for professional liability insurance shall apply to both the Contract for Study Services and Contract for Final Design and Construction Administrative Services when a project is advertised for both study and design services.

APPLICATION EVALUATION – PERSONNEL
Applications will be evaluated based on the applicant and consultant's personnel and extent of compliance with MBE/WBE participation goals. Please see Section 6 on DSB Application Form: On the organizational chart, identify the team by listing them in the same order as below. Include resumes for all personnel.

1. **Architect (P.I.C.)***
2. Mechanical Engineer (M/P/FP)
3. Electrical Engineer
4. Civil Engineer
5. Structural Engineer
6. Cost Estimator (independent consultant required)
7. Building Code Consultant (independent consultant required)
8. Sustainability Consultant
9. Traffic / Parking Consultant
10. Landscape Architect

*****Should the advertisement require the applicant to be either an Architect or an A&E firm, the P.I.C. or P.M. must be a Registered Architect in the Commonwealth of Massachusetts.

Where an "independent consultant" is required the Applicant may not provide the services "in house." If the Applicant plans to fulfill any of the other sub-consultant roles, so indicate on the organizational chart. Project Managers for Study and Final Design should be listed separately on the organizational chart.

APPLICATION EVALUATION – PROJECT EXPERIENCE

Applications will be evaluated based upon the requirements of M.G.L. Ch. 7C §49 and the work listed on DSB Application Form Sections 8, 9 AND 10 which illustrate current qualifications in the following areas:

1. Project Manager shall demonstrate experience in programming and facilitating the development of large scale master plans of medical, academic and research facilities.
2. Key team members shall demonstrate experience in strategic master planning on complex sites with multiple stakeholders that include medical and research facilities.
3. MEP/FP, Civil and Structural engineers shall demonstrate expertise in evaluating complex infrastructure, especially central utilities, parking, transportation and security, at large scale medial facilities and campuses.
4. Key team members shall demonstrate expertise in sustainability and resiliency planning.

APPLICANTS PLEASE NOTE

DSB Application Form (Updated July 2016) at www.mass.gov/dsb/forms and General Instructions at www.mass.gov/dsb are available for download.

Applications that are incomplete will be rejected. Applications that are submitted on a form other than **DSB Application Form (Updated July 2016)** may be rejected as non-compliant and not be considered by the Board. Applications received at the DSB Office after the advertised deadline will not be considered.