



# PUBLIC NOTICE OF DESIGNER SELECTION

## Designer Selection Board

One Ashburton Place, Room 1018A, 10th Floor | Boston, MA | 02108

Telephone: 617-727-4046 | [www.mass.gov/dsb](http://www.mass.gov/dsb)

**DSB List#:** 19-28

**Notice Date:** August 21, 2019

**Submission Date:** September 11, 2019 At 2:00 PM

**Project Number:** UMW2019M

**Project Title:** Study and Design for MEP, Fire Protection Renovations and Upgrades

**Project Location:** UMass Medical School (UMMS)

**Awarding Agency:** UMass Medical School (UMMS)

**Available Aggregate Amount:** \$3,000,000

**Estimated Construction Cost:** Varies per Project, Not to Exceed authority delegated pursuant to M.G.L. c. 7C §5, for an individual project.

**Contract Term:** Up to Six (6) Years

**Maximum Fee Per Contract**, based on the scope of work and services authorized, shall not exceed:

\$750,000

### Prime Firm Requested:

- ☒ Engineer (**Mechanical**)
- ☐ Architect
- ☐ Landscape Architect
- ☐ Interior Designer
- ☐ Programmer
- ☐ Construction Manager
- ☐ Other:

### Contract Type:

This contract will be a "House Doctor" contract. Multiple projects of the type described in the Project Overview and Scope of Work may be assigned, and fee increments approved, up to the maximum fee per contract. Selection by the DSB under this advertisement does not guarantee that a contract will be executed with any given firm. The Awarding Agency will enter into House Doctor contract(s) with selected firm(s) at its sole discretion, based on the Awarding Agency's needs. The Awarding Agency may award up to **four (4)** contracts, each with a total value of **\$750,000** to qualified designers under this contract.

### Immediate Services Authorized:

- ☒ Certifiable Building Study
- ☒ Schematic Plans and Outline Specifications
- ☒ Design Development Plans and Specifications
- ☒ Construction Plans and Specifications
- ☒ Administration of Construction Contract
- ☐ Other:

## AGENCY INFORMATION

UMass Medical School (UMMS) and its partner UMass Memorial Health Care (UMMHC) is the region's academic medical center, committed to excellence in clinical care, teaching and research. It is consistently ranked as one of the best medical centers in the US. The main campus is located in Worcester, MA on 61 acres bordered by Rte 9 and Lake Quinsigamond.

The Worcester campus is one of the fastest growing academic medical centers in the country and home to the Commonwealth's only public medical school. Together, the School of Medicine, the Graduate School of Biomedical Sciences, and the Graduate School of Nursing offer four masters and thirteen doctoral degree programs. With its clinical partner, UMass Memorial Health Care, UMass Worcester delivers general and specialized medical care to the citizens of Massachusetts.

UMMS is a national leader in primary care education. The campus is also recognized for its thriving biomedical research enterprise, where internationally known scientists are making advances in a broad range of areas, from HIV and infectious diseases to cancer and diabetes. The school's operation/programs occupy approximately 1 million square feet on the campus. In late 2012, the 500,000 square foot Albert Sherman Centre will be opened to expand the medical school's research capacity and support the school's new learning-center curriculum. UMMHC is a 1,500 bed Level-1 Trauma Center that provides critical care and surgical services. Their operation/programs occupy more than 1.3 million square feet of the available space on campus.

## PROJECT OVERVIEW

UMMS is seeking to procure House Doctor services for to perform principally mechanical, plumbing, electrical, lighting, fire protection, and building management system and controls design and construction projects throughout campus. The Consultant will be expected to provide (as applicable) studies and planning studies, cost estimates, final design services, construction contract administration, construction site visits on a periodic basis, and final acceptance and punch list oversight of the contractor's work in conformance with University design standards and guidelines. Typical projects include renovation, replacement, and modernization of mechanical and electrical systems with a focus on energy efficiency. The "House Doctors" will be required to provide technical advice, creative problem solving, building code reviews, construction administration and project oversight.

### Campus Facilities

School/Hospital 1972 – 11 floors, type 2 construction/reinforced concrete, I2 occupancy, 1.2msf  
West Parking Garage 1978 – 6 levels, 1500 cars, hybrid construction, precast tees on steel frame  
Benedict Bldg. 1992 – 3 floors, modular construction B occupancy, 66ksf  
Lazare Research Bldg. 2001 – 10 floors, steel structure w/ precast concrete panels, B occupancy, 355ksf  
Lakeside Emergency 2006 – 4 floors, steel structure w/ glazed curtain wall, I2 occupancy, 330ksf  
South Parking Garage 2007 – 6 levels, 1500 cars precast concrete  
ACC Bldg. 2009 – 10 floors, steel structure, B occupancy, 300ksf  
Albert Sherman Ctr. 2012 – 10 floors, steel structure with glazed curtain wall, B occupancy, 500ksf  
Plantation Street Parking Garage 2012 – 6 Levels, 1600 cars, precast concrete

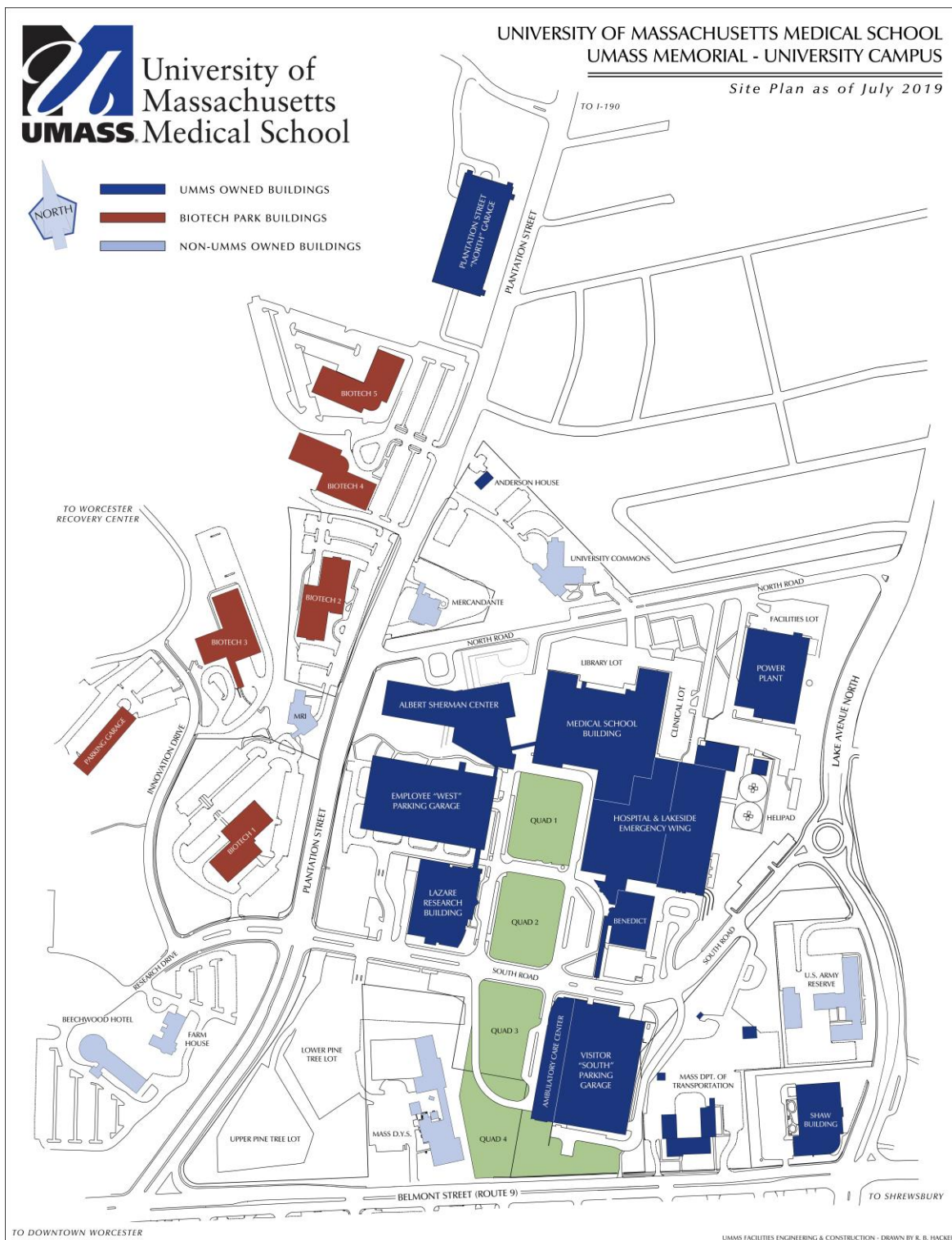
### Central Power Plant (Original Construction 1972 with 1<sup>st</sup> Expansion in 2001)

The UMMS Power Plant is a complex cogeneration plant that produces high pressure steam year round to provide chilled water cooling, building heat, process steam, and emergency power generation. The plant is mission critical and must maintain a minimum level of power for critical hospital operations and life safety. The installed capacities at the plant are (4) steam driven chillers totaling 12,500 tons; (2) 1100 psi boilers totaling 230,000 pph; (2) 250 psi boilers totaling 160,000 pph; and (3) steam turbines that generate 10 MW of power. The plant currently supports approximately 2 MSF of space split between the critical care trauma hospital and medical school/research facilities.

### Central Power Plant 2<sup>nd</sup> Expansion (2012)

The Albert Sherman Center, most recently constructed building on campus, increased the electricity demand by 3,500 kW; steam demand by 36,000 lb/hr and cooling by 3,300 ton, respectively. As a result, the existing cogeneration facility was expanded to include a new 7.5 MW dual fuel Combustion Turbine Generator (CTG) with Heat Recovery Steam Generator (HRSG) at 60,000 pph, a 4000 ton electric driven chiller with (2) additional cooling towers. The capacities of these systems augments the existing plant to supply electricity, steam and chilled water to the campus with sufficient redundancy to maintain critical operations.

### Campus Map – Worcester



### **UMMS Facilities Engineer & Construction**

Construction/renovations on the campus are overseen by the UMMS Facilities Engineering and Construction department. DCAMM has delegated the majority of the design/oversight to this on-site department comprised of registered architects and engineers as well as licensed construction managers. House doctor firms will be utilized to augment this work force based on project load and complexity. UMMS Facilities Engineering & Construction project managers will manage and oversee House doctor firms on all projects awarded by the medical school.

## **SCOPE OF WORK**

Investigate and identify areas within buildings where renovation or upgrades are required. Projects shall include, but not be limited to renovations/repairs in educational, research laboratory and support areas; various renovation/repair projects which are primarily mechanical/electrical in scope, but which may include architectural, structural and civil components. For each project, the selected team will be asked to prepare a scope of work, a fee estimate, and proposed schedule for the project. After review and approval by UMass Medical School, a notice to proceed will be issued to the House Doctor. Firms shall prepare a certifiable study and/or design in detail of the preferred solution to the problem. The scope of work may include but is not limited to:

1. Investigating the nature and severity of the problem.
2. Documenting existing conditions.
3. Recommending detailed repairs and magnitude of cost for such repairs.
4. Proposing alternate methods of repairs for resolution of the problem, including energy efficient alternatives.
5. Developing the preferred solution to schematic design and/ or design development.
6. Preparing construction specifications and documents, cost estimates, and providing construction administration for the solution.

Consideration in the analysis should include energy costs, sustainability principles, expected remaining useful life of building systems and related life cycle costs. Particular attention should be paid to the constructability, reliability, durability and maintainability of building systems and materials.

If the selected designer is appointed for final design, the General Scope of Work will be defined by the certifiable building study and the current version of the DCAMM Designer Procedures Manual.

**Asbestos inspection, design and monitoring, and indoor air quality testing and monitoring will be extra services under this contract.**

## **SUPPORTING DOCUMENTS**

The scope of work for this project is supported by the materials listed below.

N/A

## **PROJECT REQUIREMENTS**

Project requirements, general conditions and/or requirements of this public notice include, but are not limited to:

### **Affirmative Marketing**

### **MBE/WBE Participation**

In accordance with M.G.L. C.7C, §6 and Executive Orders 526, 559 and 565, **UMass Medical School (UMMS)** 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 "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 Program:**

##### **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.

#### **Energy & Sustainability**

##### **Executive Order 484: Leading by Example – Clean Energy and Efficient Buildings**

Projects undertaken under this contract shall comply with all applicable requirements of Executive Order 484 (EO 484): see <http://www.mass.gov/anf/docs/dcam/dlforms/energy/energy-eo484-final.pdf>.

All building studies shall include preliminary estimates of the project's energy use, water use, and greenhouse gas emissions using protocols established by EOEA or as determined by DCAMM. No building study shall be certified for final design unless all means, methods, and commitments required to mitigate the project's impact on the operating agency's plan for meeting EO 484's goals are documented in the consensus solution, implementation plan and estimated construction cost.

##### **LEED Certification**

If applicable, projects designated under this contract shall be certified at a level of Silver or higher, including Mass LEED Plus requirements. All measures proposed to achieve a LEED rating shall be incorporated into Final Design as part of the Designer's base fee; administration of the certification process by the Designer during the Final Design and Construction phases of the project will be considered an extra service.

#### **Universal Design/Accessibility**

##### **Universal Design**

Design solutions provided under this contract are expected to meet the diverse and changing needs of users across age, ability, language, ethnicity and economic circumstance. **UMMS** 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/ocabr/government/oca-agencies/dpl-lp/opsi/consumer-prot-and-bus->



[lic/license-type/aab/aab-rules-and-regulations.html](http://www.mass.gov/regs2010/2010ADAStandards/2010ADASTandards.htm) ), 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](http://www.ada.gov/regs2010/titleII_2010/titleII_2010_regulations.htm)) to provide equal access to programs, services, activities and comply with ADA scope requirements for alteration of primary function areas, as applicable. UMMS 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.

## Policies & Procedures

### Financial Statement

Chapter 7C, Section 51 requires that on public design contracts where the total design fee is expected to exceed \$30,000 and for the design of a project for which the estimated construction cost is expected to exceed \$300,000 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 to the **UMMS**.

### DCAMM Procedures

The designer will follow the procedures established in DCAMM's Designer Procedures Manual dated August 2008 (<https://www.mass.gov/files/documents/2017/12/19/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>).

### Environmental and other supplemental services

**UMMS** reserves the right to obtain supplemental services through independent consultants who will collaborate with the Prime Firm and the Design Team. Asbestos inspection, design and monitoring, and indoor air quality testing and monitoring will be extra services under this contract.

### Construction Specifications

The designer shall utilize the DCAMM Standard Specification.

### 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 <https://www.mass.gov/files/documents/2017/12/19/cost-estimating-manual.pdf> and Uniformat II can be found at <http://fire.nist.gov/bfrlpubs/build99/PDF/b99080.pdf>.

## CONTRACT REQUIREMENTS

### Contract for House Doctor Services

Appointed applicants will sign a standard *Contract for House Doctor Services* (October, 2017) ("House Doctor Contract"). Once a House Doctor Contract is executed with a selected applicant, DCAMM will solicit proposals from the House Doctor related to specific projects and issue Notices to Proceed for agreed upon scopes of work as set forth in the House Doctor Contract.

[https://www.mass.gov/files/documents/2018/12/03/contract-for-house-doctor-services-rev-18-11-29\\_0.pdf](https://www.mass.gov/files/documents/2018/12/03/contract-for-house-doctor-services-rev-18-11-29_0.pdf)

Exhibit A-B of the House Doctor Contract sets forth specific terms and conditions for the scope of services.

No costs shall be incurred or work performed before all contract documents are properly executed and a project Notice to Proceed is issued in accordance with the terms of the contract.

## CONDITIONS FOR APPLICATION

The applicant's current or updated Master File Brochure must be on file with the Board prior to the date of application. 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 Design Contract (i.e., minimum coverage of \$250,000 up to \$5,000,000 depending on the construction cost).

## APPLICATION EVALUATION

Applications will be evaluated based on the DSB criteria for selection of semi-finalist and finalist appearing on the DSB website <https://www.mass.gov/files/documents/2018/12/19/criteria-for-selection-of-semi-finalists-and-finalists-160707.pdf>. The specific Personnel and Project Experience required is listed below.

### PERSONNEL

1. Mechanical Engineer (M/P/FP) (Prime Firm)
  2. Electrical Engineer
  3. Architect
  4. Structural Engineer
  5. Civil Engineer
  6. Landscape Architect
  7. Specifications Consultant
  8. Cost Estimator
  9. MA Building Code Consultant
  10. Sustainability/Energy Consultant
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1. The title "architect" refers to design professionals that maintain a current registration with the Massachusetts Board of Registration of Architects; and
  2. The title "landscape architect" refers to design professionals, licensed or unlicensed, that exhibit through their application that they possess acceptable experience to provide design services in the field of landscape architecture as needed for the project; and
  3. The title "engineer" refers to design professionals that maintain a current registration in any one of the engineering categories governed by the Massachusetts Board of Registration of Professional Engineers and of Land Surveyors.

## 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. Demonstrated experience with the design and renovation/installation mechanical/HVAC systems; sprinkler and fire alarm systems; in educational/institutional and research laboratory facilities, including animal vivarium and BSL3 labs.
2. Demonstrated experience with the design and renovation/installation of lighting, power, control systems (BMS), high and medium voltage electrical distribution systems; central power plant utilities, including low/high pressure steam production, 13.8kv high voltage distribution and cogeneration capabilities; in educational/institutional and research laboratory facilities, including animal vivariums and BSL3 labs.
4. Demonstrated experience with the design and construction of energy conservation projects, including utility rebate programs.
5. Demonstrated experience with the modernization and upgrade of building infrastructure systems and underground utilities supplying occupied and fully operational programs for higher education, hospital and laboratory research.
6. Structural consultant to have experience with design/maintenance of building utility systems in high-rise structures, including supports for building infrastructure/utility supports.
7. Code consultant to have demonstrated experience with renovations and retrofit in existing higher education and research facilities.
8. Demonstrated experience in utilizing BIM for design and project close-out documentation, Mass Architectural Access Board, ADA and building accessibility, energy modeling, sustainable design, and LEED certification process.

## APPLICANTS PLEASE NOTE

Please use the latest [DSB Application Form \(Updated July 2016\)](#) and follow the [General Instructions for Filing Applications](#).

**Application Update:** Please mail or hand deliver One Original, with the Sub-Consultant Acknowledgement forms and SDO Certification letters. In addition, please email an electronic copy of the application form (do not include the Sub-Consultant Acknowledgment forms and SDO Certification letters) to [applications.dsb@massmail.state.ma.us](mailto:applications.dsb@massmail.state.ma.us).

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.