PLANNING AND INSTITUTIONAL RESEARCH

October 3, 2011

Patrice Brewington
Project Officer
U. S. Department of Energy
9800 South Cass Avenue
Argonne, IL 60439

Re: DE-FG02-06CH11439
Development of a Facilities Master Plan and Laboratory Renovation Project

Dear Ms. Brewington:

Please find attached the final report from Morehouse School of Medicine on the activities and projects completed with funds provided to the School by the US Department of Energy under grant number DE-FG02-06CH11439.

The funds provided under this grant have allowed Morehouse School of Medicine to develop a comprehensive campus master plan aligned with the School's strategic plan and to conduct program and design activities for a number of important research facility renovations on our campus.

Please feel free to contact me if you have any questions.

Sincerely,

A handwritten signature in black ink that reads "Andrea D. Fox".

Andrea D. Fox, MBA
Chief Planning Officer

Cc: Sandra Harris-Hooker, Ph.D.
Vice President and Senior Associate Dean for Research Administration

**MOREHOUSE SCHOOL OF MEDICINE
CAMPUS MASTER PLANNING PROJECT**

**Funded by a grant from
The U. S. Department of Energy
DE-FG02-06CH11439**

Development of a Facilities Master Plan and Laboratory Renovation Project

Introduction

The campus facilities master planning process, funded by a grant from the Department of Energy, is the first Morehouse School of Medicine master planning process to be conducted by an external organization with expertise in master planning for academic health centers. Nine firms were invited to respond to the RFP outlining our requirements for the master planning process. A facilities master planning steering committee, with representation from academic, student and administrative leadership, was appointed to conduct the selection process. Five firms were chosen to make presentations to the steering committee, after which the committee recommended three firms to the president for his consideration. The successful firm was Lord, Aeck and Sargent (LAS), a highly qualified firm with a local office and considerable experience in planning for medical schools and research-intensive organizations. Work on the master plan began in January 2009.

As originally envisioned, this project would include development of the program statement for a proposed research building contemporaneous with work on the facilities master plan. Needs assessment to determine the project course of action indicated that development of a campus master plan was an important prerequisite to outlining plans for any future building projects.

Funding from this grant has allowed Morehouse School of Medicine to complete its first professionally developed, comprehensive campus master plan that is in alignment with the recently completed strategic plan. In addition to master planning activities, funds were used for programming and designing research renovations, and also to supplement other research facility upgrades by providing lighting and equipment. The activities funded by this grant will provide the catalyst for substantial improvement in the School's overall facilities for biomedical education and research, and will also provide much of the information needed to conduct a successful campaign to raise funds for proposed buildings and renovations.

Master Planning – East Campus

LAS conducted interviews with key academic and administrative leaders, performed an assessment of our current facilities, and prepared a preliminary report of findings and recommendations. Our strategic plan which emphasized expansion of class size in the medical and biomedical education programs was the driver for many of the issues raised by survey respondents. User surveys indicated the need for additional instruction, research and administrative space, and identified the need for modifications in current space design and assignment that would improve the efficiency of program and support activities. Other areas of concern are improved and expanded physical and electronic security systems, state-of-the-art information technology and communication networks, improvements to Lee Street that would provide a safer and more aesthetic entrance to the campus, removal of the cell phone tower from the far side of the campus, and a plan for use of recently acquired property on the other side of Lee Street. These issues and proposed solutions are documented in the resulting campus master plan. An

executive summary of the campus master plan and a copy of a recent article in the Atlanta Business Chronicle about our master plan are enclosed with this report.

Throughout the design of the campus master plan and related renovation projects, principles of sustainable, responsive design are being incorporated. This commitment to sustainable design is evident in numerous areas of the project, including design and specification of sustainable and efficient engineering systems and equipment which include a chilled beam HVAC system for the MEB2 Renovation project, which will greatly impact our energy savings when compared to a conventional VAV system, and the replacement of the old, inefficient water fixtures for low flow fixtures which will result in a large total water savings for the project. Sustainability and indoor environmental quality impacted our selection of materials which will be low-emitting and include both recycled content and regional materials. The commitment will go beyond the design as sustainable construction techniques will be specified, and incorporation of a recycling program and sub-metering equipment will help the owners continue to achieve a reduction in energy use throughout the lifetime of future buildings.

Master Planning – West Campus

The original scope of the facilities master planning project was the property on the east side of Lee Street where all currently owned Morehouse School of Medicine (MSM) buildings are located. MSM owns land on the west side of Lee Street that will be used for major expansion of our community-based and clinical research activities. We have designated the Morehouse School of Medicine property as the East Campus (east of Lee Street) and the West Campus (west of Lee Street). Work on the East Campus master plan was completed in 2010. We expanded the project to include our property just across the street, on the West Campus, where we plan to develop a signature biomedical center that will bridge our research and patient care activities in a collaborative way. This West Campus center will include a research facility to house the Healthcare Institute for Neuro Regenerative Innovation (HINRI), a model stroke center to complement the Marcus Stroke Center at Grady Hospital in partnership with HealthSouth, a women's health center, and a facility for Accountable Care Organization education and training. Specialized program planning was required to develop this component of the master plan. We have incurred costs to conduct feasibility and market studies to help us better plan the components of this expansion project. Programming of buildings for the center is underway.

Research Facilities Design

We asked that LAS focus the early part of the master planning process on renovations to improve our research laboratories and related infrastructure. In the assessment of the condition of existing buildings we identified a critical need for upgrades to infrastructure in our current research facilities which range in age and use from 7 to 25 years. There have been no improvements to the infrastructure in these buildings to support state-of-the-art research equipment now in use by our faculty. As an extension of the master planning project, we engaged LAS to develop a research laboratory renovation and expansion plan. LAS met with our research faculty and developed preliminary design work for several research improvement projects including:

1. Renovation of the second floor of the Medical Education Building (completed in 1987) that will convert existing enclosed laboratories to open laboratories that will provide additional bench space and facilitate greater collaboration among researchers.
2. A three floor, 30,000 square foot addition to the Medical Education Building that will provide space to centralize MSM's biomedical informatics activities to facilitate greater scientific interchange among several basic, translational clinical and population science research areas.

3. A three-floor 21,000 square foot addition to the Multidisciplinary Research Center that will support the strategic development of new clinical and translational research space. This space will include several wet laboratory research spaces that will provide training opportunities for the next generation of minority clinical and translational scientists.

This early work allowed us to submit proposals to the NIH National Center for Research Resources, for funding under the ARRA program for the proposals listed above. We were successful in obtaining an award of \$10,000,000 for the Medical Education Building project, on which work has started. The conceptual drawing for this project was funded by the US Department of Energy and is included in this report.

Other Research-related projects

- **IT infrastructure improvement plan**

Bob Landstrom, Enterprise Architect, was hired to assess the MSM IT infrastructure, identify technology gaps based on the needs of MSM research and supporting community, and help develop and implement plans to address these gaps. At the time, the IT division did not have anyone with the technology skills needed to assess our server, systems, and storage environments. He assessed the IT infrastructure environment. He produced a total cost of ownership analysis of building our own data center and using a collocation and managed service provider. His work helped us make the decision to migrate our production systems to SunGard.

- **Animal Center upgrade**

During our review of research facility needs, of a number of improvements in the laboratory animal facility were identified as necessary to address our growing research program, and to update aging infrastructure and equipment. Department of Energy funds were used to upgrade lighting, HVAC and other infrastructure components in the animal facility.

- **Neuroscience Center upgrade**

Renovations were designed and completed for in to meet the needs of recently recruited scientists in the MSM Neuroscience Institute (MSMNI). This recruitment was an effort to develop an interdisciplinary team of scientists and stroke neurologists to address translational research barriers in stroke, and conduct multi-institutional preclinical studies that will lead to human clinical trials. The renovation affected approximately 4,300 square feet of biomedical research space on the first and second floors of the Multidisciplinary Research Center (MRC). Funds from the US Department of Energy grant were used for programming and designing of the renovation, and to assist in the purchase of a Zeiss confocal microscope for the Neuroscience Institute.

Other Related Projects

- **Development of traffic circulation design @ campus perimeter**

Because of its location as the first institution of the Atlanta University Center Consortium (AUCC) when approached from Interstate 20 and Lee Street, Morehouse School of Medicine is considered

the gateway institution. All traffic from these major thoroughfares to the schools in the AUC for the Atlanta University Consortium must pass Morehouse School of Medicine. As the schools have increased their enrollment and their programs, the traffic has become more and more congested. MSM proposed a new traffic circulation design that incorporates a traffic circle at the first major intersection. The conceptual design for this project was funded by the US Department of Energy.