

Date: June 27, 2017

Subject: **Request for Proposals – Architect/ Engineering Team**
College of Medicine - Innovation Pavilion for Research & Learning
Penn State Hershey Campus

To: Ballinger
CannonDesign
Ennead Architects LLP
Flad Architects
Foster + Partners
Henningson, Durham & Richardson of Penn., Archs. & Engrs., P.C. (HDR)
Kohn Pederson Fox (KPF)
KPMB Architects
Page Southerland Page, Inc. (Page)
SHoP Architects
SLAM
Skidmore, Owings & Merrill LLP (SOM)

A. INTRODUCTION

Congratulations, your team has been selected as one of the “Candidate” teams on the long list, consisting of twelve (12) teams for the design of the Innovation Pavilion for Research & Learning project at Penn State College of Medicine and Milton S. Hershey Medical Center. The Screening Committee will review responses to this Request for Proposal, which is due in my office at **Noon on July 18, 2017**. The Screening Committee will identify a short list of three teams to be interviewed on **September 6, 2017**. **Shortlisted firms may be** invited to a site visit and/ or workshop prior to interviews. The results will be announced at the Board of Trustees meeting on **September 15, 2017** and posted to this website.

Participation in this selection process by candidate firms shall be at no cost or obligation to The Pennsylvania State University (PSU). The University reserves the right to waive any informality in any or all Proposals, and to reject or accept any Proposal or portion thereof. Additionally, the University may also hold all proposals for up to 45 days and to reject all proposals or to award on the basis of technical merit and the best interests of the University.

B. PROJECT OVERVIEW AND PROGRAM OF REQUIREMENTS

The Penn State College of Medicine and Milton S. Hershey Medical Center are national leaders in medical research and educating future health care providers. The Pennsylvania State University intends to build a new Innovation Pavilion for Research & Learning on the Hershey campus that will provide facilities for state-of-the-art research and that will support changing educational pedagogies and technologies. The University has commissioned Skidmore, Owings & Merrill (SOM) to develop a detailed building program and feasibility study that was completed in August of 2016. Portions of the results of that study are included on the attached document titled *New Research and Education*

Building – Penn State College of Medicine. This document includes a project executive summary, project vision and goals, and a high level program statement with suggested space allocation.

The program envisions both new construction and renovation of existing spaces and will generally include: wet research labs; dry computational lab space; core lab space; vivarium; various size teaching spaces, including large format classrooms; student services; a food service venue; common student spaces; renovated gross anatomy labs; clinical simulation center; and human structure labs, including virtual reality components.

The project vision is included on the attached document. The goals of the project include the following:

- Create a physical presence for the College of Medicine on the Hershey campus showcasing the interplay of learning, discovery and innovation
- Support changing educational pedagogies and technologies, including team based learning and inter-professional education
- Lay the groundwork for growth and expansion of research and education for both near term and long term needs
- Create a new research facility that supports Penn State’s status as a top research institute providing wet lab space for up to 54 research faculty and 11 computationalists
- Integrate the new building into the existing facility to support collaboration and mission as an academic medical center
- In keeping with our commitment to environmental sustainability, we expect that this facility will, at a minimum, attain USGBC’s LEED Certified Level.

The phasing of this project is to be determined and may include shell space for future laboratory spaces, delaying construction of portions of the building and/or renovations, or the entire program may be constructed in a single phase. The total project budget range for the program if built in a single phase, including soft costs and FF&E, is \$250,000,000 to \$350,000,000. The successful A/E firm will be expected to work in conjunction with a Construction Manager selected by the University during both pre-construction and construction phases.

A brief review and verification of the program will be the first step to be completed by the selected A/E firm, followed by the design and construction administration phases of the project.

C. SELECTION AND IMPLEMENTATION MILESTONES

- RFP Issued: June 27, 2017
- **Submission of A/E: Noon, July 18, 2017**
- Shortlist Selections: August 21, 2017
- **Shortlisted teams site visit and workshop: To Be Determined**
- Interviews: September 6, 2017 (in Hershey, PA)
- **Board of Trustees Selection of Team + Post Results: September 15, 2017**
- Contract Award / Letter of Intent: October 2, 2017
- **Construction start date: January 2019**
- Project Occupancy: July 2021

D. PRE-PROPOSAL SUBMISSION CONTACT

The Office of Physical Plant encourages you to visit the site and discuss the project with representatives of the user group in order to understand all goals and the major issues driving this project. Contact Keith R. Sunderman, Project Director at Penn State Milton S. Hershey Medical Center at 814.321.3200 or krs24@psu.edu with any process or contract questions and/or to schedule your site visit. Contact me directly if you have any campus planning and design related questions.

E. PROPOSAL REQUIREMENTS

Deliver **Eighteen (18) hard copies of your proposal and one (1) digital copy on a thumb drive to:**

**Greg Kufner, AIA, NCARB
University Architect
The Pennsylvania State University
206 Physical Plant Building, University Park, PA 16802-1118
Phone: 814-865-4402
Email: gak21@psu.edu**

Hard copies of the Proposals are due July 18, 2017 at Noon, Eastern Standard Time. A PDF version of your proposal should be included on a thumb drive within your submission. Proposals received after this date and time can be automatically rejected. Proposals shall be provided in an 8.5”x 11” format. Limit submission to sixty (60) single-sided pages maximum (30 double-sided).

Enclosed you will find the following supplemental documents:

- An excerpt from the planning study for this project, titled *New Research and Education Building – Penn State College of Medicine*. This document includes a project executive summary, project vision and goals, and a high level program statement with suggested space allocation.
- A copy of our Form of Agreement 1-P. Please review this agreement to ensure that your firm accepts all terms and conditions as written. In submitting a proposal for this project, you acknowledge that you concur, without exception, with all terms, conditions and provisions of Form of Agreement 1-P
- A Non-Binding Architect and Engineer Fee Schedule, to be completed by the submitting team, within a separately sealed package. See further instructions herein.

A cover letter shall be provided from the proposed leader(s) of the Candidate Team submitting. The cover letter should be two pages maximum. The cover letter should include the following:

- A. This letter should also establish your team’s main point of contact and contact information (address, phone, and e-mail) for the duration of the selection process for your team
- B. Primary office location of the submitting candidate team
- C. A concise summary as to why your team is best suited for this project
- D. Statement of certification that all information provided in your submittal is accurate

Collate and bind proposals according to the following four (4) Sections:

(Proposals shall follow the below format, in the order stated to ensure that all pertinent information necessary for evaluation is included and easily comparable by Selection Committee. The cover letter, table of contents, and divider pages will not count towards the RFP page limitation. OPP encourages you to be as brief as possible without sacrificing accuracy and completeness.)

Section 1.0 –TEAM STRUCTURE

- A. Identify prime firm and ALL consultant firms, each firm’s role on this project, and each firm’s qualification and experience on similar projects.

Additionally identify past collaboration between prime firm and consultant firms. At minimum, identify:

- a. Where prime firm and/ or consultant firms have worked together over the last ten (10) years
- b. Number of projects you have completed together
- c. Dollar value for those projects

- B. Provide team organizational chart. Include prime and consultant firms, and provide the name and role of key team members. Clearly identify which team members are designated for leadership positions on the team. Please highlight MBE/WBE representation on your team.

- C. Provide one-page maximum resumes of key team members identified in the organizational chart. Include registrations/ certifications, educational background, years of experience, relevant project experience and their respective role on each project, and two (2) owner references for each individual. Include, at a minimum, the following key team members.

1. Principal in Charge/ Project Team Lead
2. Lead Designer(s)
3. Project Manager
4. Project Architect (Architectural Technical Lead)
5. Construction Administration Lead
6. Lab planner
7. Vivarium planner
8. Medical education planner/ programmer
9. Lead M/E/P, Structural, and Civil Engineers

Note: If any individuals are fulfilling multiple project roles, identify each role on the organizational chart and on the individual’s resume.

Section 2.0 – TEAM QUALIFICATIONS

- A. Provide a summary of qualifications and expertise of the firms with specific emphasis on:

1. Design Excellence
2. Distinguishing factors of team differentiation
3. Projects experience of projects of the scope, scale, and complexity
4. College of Medicine academic, research, and lab experience
5. Leading edge integrated practices/processes and application of Lean principles
6. Use of digital tools through design and construction, inclusive of BIM

- B. Identify a maximum of ten (10) example projects, within the last ten (10) years, which BEST exemplify qualifications and expertise listed above for the proposed team. Include brief description of each project, project gross square feet, project budget, final project cost, and completion date of project. If project is under construction, list the scheduled date of completion.

Show illustrative representation of the example projects. Highlight projects personally done by the identified Lead Designer for this project.

Develop a matrix that illustrates the similarities between the example projects to the Innovation Pavilion project.

In matrix form, show the participation of individuals from the proposed team on the identified projects. List team member's respective role on each of the example projects.

- C. List errors and omissions insurance coverage limits of the lead/ prime entity of the candidate team.
- D. Acknowledgment of your review and acceptance of the attached Form of Agreement 1-P, ensuring that your firm accepts all terms and conditions as written.

Section 3.0 – PROJECT APPROACH AND SCHEDULE

- A. Describe the approach your team will take for planning, managing, and executing the design process.

Describe your proposed approach to collaboration between architects, interior designers, lab planners, academic planners, engineers, and with the construction manager. If multiple architectural firms are included on your team, clarify the roles and responsibilities between the multiple architectural firms and how teams will interact.

- B. Discuss your approach to the decision making process(es), approach to meeting project goals and expectations, and the approach to innovative design.
- C. Briefly describe your proposed approach to comply with our Diverse Business Enterprise Program (DBE) and maximize MBE/WBE firm participation within your proposed team. More information can be found on the Penn State Office of the Physical Plant website at <http://opp.psu.edu/>.
- D. Briefly describe your approach to cost control, quality control, and safety through the design and construction phases.
- E. Briefly describe your approach to Penn State and jurisdictional reviews. Anticipated jurisdictional reviews include, but are not limited to, Derry Township, Dauphin County Conservation District, Labor & Industry, zoning, land development, and building code.
- F. Provide evidence of the team's commitment to sustainable design, initial approach to sustainable design, and how you will drive towards the sustainability goals on the project.
- G. Create a proposed design schedule for each phase of this project in graphic form, allowing two weeks for any necessary Penn State University reviews. Assume the design process will start October 2017 and MUST be complete by December 2018.

Section 4.0 – PROJECT-SPECIFIC KEY DRIVERS AND IDEAS

- A. Provide further thoughts you might have on the essence of this project. Provide additional evidence of your firm's ability to translate design intentions into a meaningful project.

Discuss and example project, relevant to our project, that best indicates the appropriate resolution of an understanding of the uniqueness of a project, design intentions, and how those design intentions translated into a meaningful and synthesized final solution.

- B. Describe key project drivers, critical design elements, and potential constructability issues your team has identified as a priority for this specific project. Discuss how you addressed similar issues on other projects.
- C. Provide any initial design ideas, thoughts or considerations regarding the specific project/ site and/or observations of the provided project information.

(Separate Package) NON-BINDING ARCHITECT AND ENGINEER FEE SCHEDULE

- A. Complete the Fee Schedule document within a separate sealed package, under separate cover, by July 18, 2017 at Noon, Eastern Standard Time.
- B. Include ALL costs for consultants within the amounts listed above. Base hours and fee on a total project budget of \$250M.
- C. Include a listing of your billable rates that will be used for this project.
- D. **Do not include this document within your PDF/ electronic copy of your submission.**

Thank you for your anticipated participation in this RFP process. The Pennsylvania State University, the Penn State College of Medicine and the Milton S. Hershey Medical Center look forward to reviewing your responsive proposal for this important project.

Sincerely,

Greg Kufner, AIA, NCARB



University Architect
The Pennsylvania State University
206 Physical Plant Building, University Park, PA 16802
Phone: 814-865-4402 | Email: gak21@psu.edu

cc. Screening Committee, Bill Sitzabee

END of RFP

Excerpt Only



SOM

**NEW RESEARCH AND EDUCATION BUILDING
PENN STATE COLLEGE OF MEDICINE**

EXECUTIVE SUMMARY

NEW RESEARCH AND EDUCATION BUILDING PLANNING STUDY PENN STATE HERSHEY MEDICAL CENTER

Executive Summary

"The development and evolution of academic medical centers never ends."
- Dr. George T. Harrell

Introduction

In 1970, Penn State Hershey Medical Center (PSHMC) represented the state-of-the-art in academic medical centers. Its bold and innovative campus would bring the integration of Healthcare, Research, and Education to a whole new level. Over the following forty years, the mission and needs of the medical center would grow significantly as would the campus itself. In the Spring of 2012, the institution issued a Strategic Facilities Master Plan (SFMP) – a 15-month study that assessed the physical and operational state of PSHMC. The primary goal of the SFMP was to ensure alignment of the strategic and business goals with the clinical, research, education, and community needs and goals. Among the priorities defined, was the need to improve and expand the institution's Research and Education facilities. The SFMP's assessment of the existing facilities found them to be largely outdated and insufficient for modern research and changing pedagogies. In order to accommodate advances in science and education and attract and retain the best students and scientists, this planning study was commissioned to identify the appropriate program, siting, organization, and estimated cost for a new Research and Education Building. This study will become the foundation for the design of an exceptional and exciting new facility that will return Penn State Hershey Medical Center to its position at the forefront of academic medical centers.

Process

This planning study is the product of a highly collaborative process which engaged the design consultant team with multiple PSHMC committees composed of representatives of the Research, Education, and Facilities departments. The contributing committee groups were organized as follows:

NEW RESEARCH AND MEDICAL EDUCATION BUILDING

Penn State College of Medicine



- Leadership
- Planning
- Curriculum and Inter-Professional Education
- Simulation
- Gross Anatomy
- Research and Vivarium
- Infrastructure

Insights from a diverse and extensive collection of stakeholders- from grad students to the Dean of the College of Medicine- have informed this study, as has extensive conversations regarding benchmarking, case studies, and the tours of peer institution facilities. Over the 5-months of this study, we have together:

- Established Goals
- Analyzed the Campus and Existing Programs
- Evaluated Siting, Planning, and Programmatic Options
- Evaluated Engineering Strategies
- Built Consensus to Arrive at a Recommended Approach
- Estimated Cost

Project Vision

At the onset of this effort, a visioning session with the Leadership Committee from the College of Medicine identified goals and objectives for the new building, as well as a Project Vision which is built upon five basic tenets;

1. Create an Identity and Home for the College of Medicine
2. Engage All Education Programs across the PSCOM
3. Support PSCOM in its Drive to Become a Top 10 Research Institution
4. Integrate the New Building into the Megastructure
5. Lay the Groundwork for Future Growth and Long-term Expansion

This vision is founded on an understanding of those attributes that serve to differentiate PSHMC; including its unique campus plan and exceptional natural setting, as well as its status as a true academic medical center.

Program

The program for the New Research and Education Building amounts to approximately 196,000 Assignable Square Feet of new construction and approximately 22,900 Assignable Square Feet of renovation. In addition, 2,400 SF of existing space in the Central Animal Quarters (CAQ) will be modified in conjunction with the new vivarium construction. The New Construction Area is approximately 292,000 gsf. The three primary program components are:

Research – 73,339 asf
 Vivarium - 20,259 asf
 Education -82,099 asf

Research and Vivarium – As originally identified in the 2012 SFMP and verified through this study, the College of Medicine's aspirations for its research enterprise are currently hampered by existing facilities that no longer properly support contemporary wet-bench research and vivarium needs. Inadequate floor-to-floor heights and other physical constraints will be overcome with space in the new building.

The new Research component of the project consists of; Wet Laboratory and related Support, Dry Laboratory, Office, and Collaboration space. In addition, there will be a significant expansion and renovation of the existing campus Vivarium and area for Core Labs.

Education – The crafting of the education program began with a holistic view across multiple programs (ie. MD, Nursing, PA, and Graduate Education.) The overall education program is organized into the following categories: Classroom, Simulation, Human Structures, Student Space, Office Space, and a new program component- Systems Navigation. Recognizing changing pedagogies and the limitations of the existing facilities, the program achieves the highest and best use of new and existing space. Importantly, the program also provides the types of shared student amenity spaces that are presently lacking. These spaces will contribute to creating a much needed sense of “home” and community at the College of Medicine. A new 1,100 space parking structure for staff, students, and visitors is also included in the project.

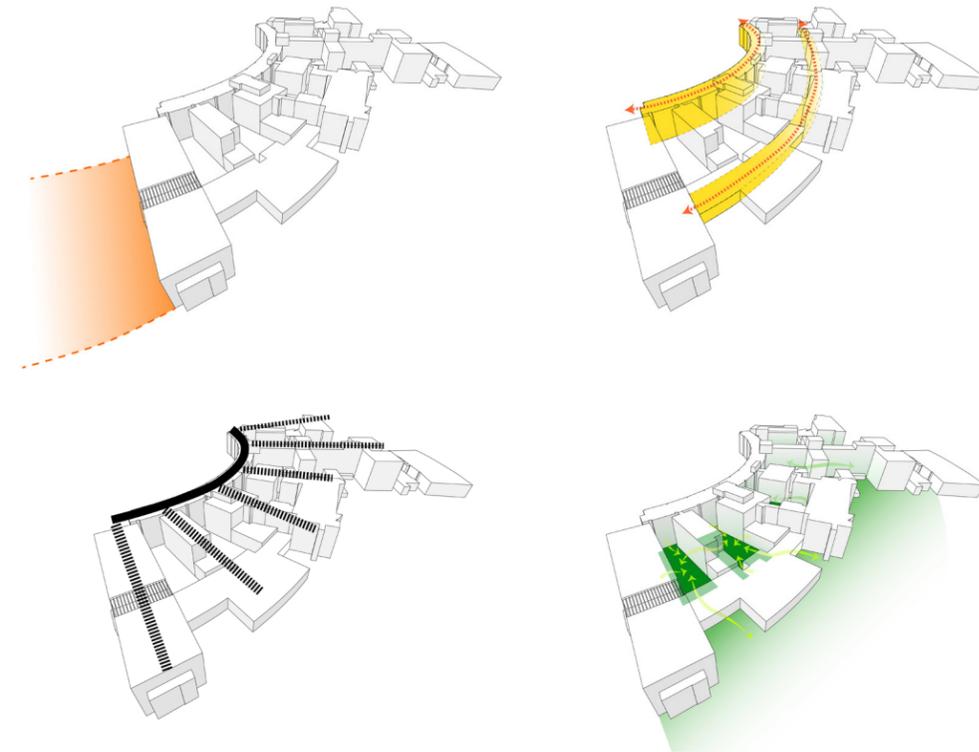
Site and Context

The project site is located on the grounds of Penn State Hershey Medical Center. The only academic medical center in central Pennsylvania, its bucolic 550-acre campus features rolling hills and expansive views. The new building will be located on the western side of the campus megastructure- stretching from the Library to the western-most edge of the Crescent.

The campus context is dominated by the megastructure itself. Highly visible and instantly recognizable, the iconic Crescent is the signature image of the medical center. The curved spine from which a multitude of buildings connect and radiate, is the brainchild of Dr. George T. Harrell, visionary and founding dean. While the campus has expanded over a period of fifty years, there remains a rather unified architectural expression thanks in part to a height datum that has been largely respected and the use of limestone as the primary exterior cladding material.

Concept

Guided by the five tenets of the Project Vision, the concept for the New Research and Education Building is about honoring the original campus design while bringing to it a new dynamism and vitality. The concept expands the original organizational system- both indoors and out. The new Research and Education wing will become the new front door for the College of Medicine and the new "Main Street" will complement the Crescent, provide access to the majority of the Education spaces, and create connectivity across the Research, Education, and Clinical enterprises. The Main Street will house a new café and lounge space as well as serve-as pre-function space for the XL classrooms. The two-level thoroughfare will be a bustling, animated space with views between floors and out to the multiple courtyards. The main street concept, which was first put forth in the 2012 SFMP, is refined and enhanced in this study to include a rooftop component that will become the College of Medicine's own "High Line." By landscaping the roof of this two-story structure, this linear, elevated park will be an excited new amenity for students and staff and compliment the expanded courtyard network below.



Building Organization

The New Research and Education Building is organized into two overlapping components; a five-story Research and Education Wing and a two-story "Main Street". The five-story wing anchors the west side of the megastructure and contains three floors of research stacked above first floor Education space (the fifth floor is dedicated to Mechanical space.) This wing features the new main entrance to the College of Medicine which connects to the Main Street.

The Main Street is a 2-story curving campus connector off of which a myriad of classrooms and other student spaces are organized. The Main Street also

access to other buildings such as the Cancer Wing, Basic Science Building, Biomedical Research Building, and Clinical Science Building.

At the third floor level, the roof of the Main Street is a landscaped linear park. Additions to the Basic Science and Clinical Science Buildings on this level provide additional Mechanical and Education space, respectively.

On the Ground Level, new Vivarium and Core Lab space is provided, as well as Mechanical space and a new service corridor to the existing Loading Dock. Generally, the organization of the new building seeks to consolidate Education space on floors one and two for easy student access and wayfinding-using the existing Library to the east and cluster of new Problem-Based Learning Classrooms to the west serving as “anchors”.

Program Distribution

The programmatic distribution is driven by three key drivers: 1) student experience/wayfinding, 2) critical adjacencies based on function, 3) and structurally distinct zones. In addition, existing key program elements, such as the newly renovated library, simulation center, and the Central animal Quarters serve as fixed points of connection to maximize the existing investments in facilities and minimize disruption during construction. Consolidation of the existing distributed education offices along with new office program requirements is also a significant program driver, impacting both future backfill and its location in the new/renovated facilities.

Ground Floor

The Ground Floor (in historic Mega Structure terminology) is a below grade level that houses the existing loading dock and Central Animal Quarters, along with a wide variety of support functions. The tunnel leading to the loading dock is a significant programmatic and organizational feature of the existing Mega Structure and is a key design driver of the new Research and education Building. All new program on the ground floor is located north of the tunnel to avoid

additional cross over of tunnel traffic. The primary program in new construction on the Ground Floor are Vivarium, including housing, cage-wash, and small animal imaging, Core Labs, for multiple imaging/characterization platforms to be determined, and major MEP functions. In addition, connectivity to the existing loading dock is critical for horizontal and vertical distribution of services, materials and waste.

First Floor

The primary organizing feature of the new facility as described above is the Main Street. Education program elements are arrayed along this path that links the existing building and reinforces the original organizing principal of the campus. Entering the new main College of Medicine entrance on the west end of the Main Street, students and visitors encounter the main lobby, with student support services to the south and clusters of new PBL rooms to the north. Beyond this lobby is the new Café located on the north, connecting the main street to the new courtyard. The new extra-large classrooms are located along the south of the Main Street. This location is driven by both programmatic and physical drivers. As the heart of the pedagogical transformation of the education program, these classrooms will serve as both the core of the education program, replacing the tired classrooms, and as a facility that allows intra-disciplinary activates and conference functions. Additionally, this function requires long span column free high bay spaces. Located above the existing tunnel, the extra-large classrooms bridge the tunnel and define the south edge of the main street. The main street in turn serves as the pre-function area for these large spaces in both classroom and conference mode. The Main Street continues along the north side of the BMR along the existing courtyard and terminates at the newly renovated library, where it links to the clinical campus. The new Student Support core for Societies and student gathering is locate between the Basic Science wing and the BMR at this key junction, connected to both the Main Street, courtyards and the corridors to the historic College of Medicine entrance and Dean’s suite. The first floor of the BMR will be renovated to consolidate the education offices and house the new Systems Navigation program.

Second Floor

The Second Floor is organized in a similar fashion to the First Floor along the Main Street. The west end is anchored by the first level of research laboratories on either side of a collaborative commons/lobby. New dry/computational suites are located along the Main Street, along with classrooms and student carrel areas. The new simulation center is located between the Basic Science wing and the BMR, above the student support and below the new Human Structures suite. A second floor connector along the BMR is proposed to connect the new research and education spaces to the existing Simulation Center and new OSCE suite. Existing offices and conference rooms that are lost to make this connection shall be relocated in nearby new or renovated construction.

Third Floor

The Third Floor is dedicated to research in the new west wing level. The roof of the Main Street is proposed to be treated as a landscaped “High Line” outdoor connector with seating and gathering areas along a pathway linking the research labs to the third floor of the BMR. A pavilion in the center of the roof allows the main stair in the Main Street to provide access to the roof. At the east end of the roof, a third story addition to the Basic Science wing for new human structures program for prosection and virtual anatomy is adjacent to the existing (to be renovated) gross anatomy labs.

Fourth Floor

The fourth floor of new construction is dedicated to research laboratories and is connected vertically to the laboratories on the lower levels.

Backfill and Renovation

In order to accommodate optimal planning adjacencies and ensure the highest and best use of new and existing space, this study has identified approximately 68,000 sqft of space for backfill and renovation. In many instances, where program is proposed for relocation from existing to new construction, alternate programs have been identified to backfill their space. In other instances, these spaces have been more generically labeled as “Backfill” – with the intention that suitable backfill programs will be identified during later phases. There will also be a minor (2,400sf) renovation within the existing Vivarium.

Open Space

Set among rolling hills and farmland, the Hershey campus is blessed with a natural setting to which very few medical centers can compare. In addition, the many courtyards embedded in the megastructure further enhance the campus’ connection to nature. This planning study recognizes this connection and builds upon it.

The strategy to build upon the original campus plan organization of ‘spine and modules” inherently yields the benefit of also building upon the campus’ network of courtyard spaces. Central to the success of these new courtyards and the roof garden is ensuring they are activated by programming their adjacent interiors with public, amenity-type spaces that would benefit from access to nature and the outdoors.

Parking and Traffic

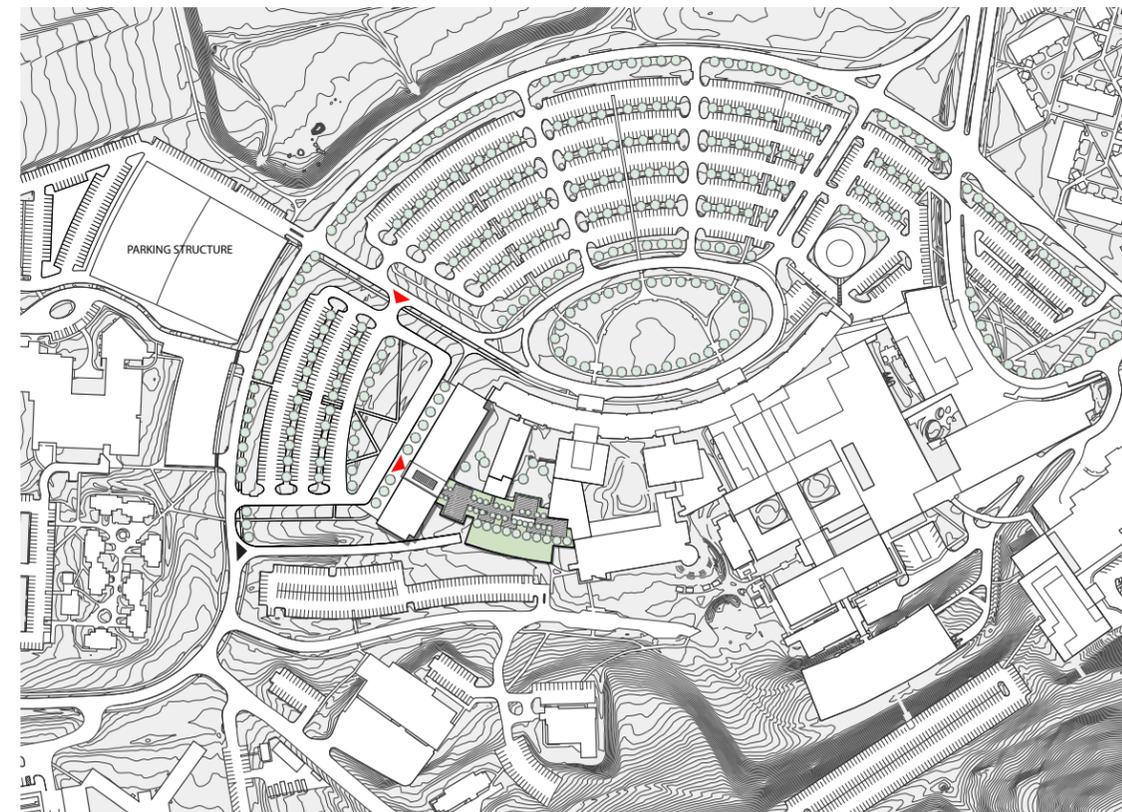
With the New Research and Education Building will come a total of some 500 new staff, students, and faculty. Parking accommodations will be provided in a new structure across Campus Drive on the site of an existing surface parking lot. The structure will be sized to satisfy additional demand and compensate for surface parking lost adjacent to the new building. Preliminary analysis indicates a net add of approximately 758 spaces. The visual impact of the structure may be minimized by setting it into its sloping site and through landscaping.

While the impact of the additional traffic will need to be studied further in the next phase of the project, preliminary analysis indicates that congestion during morning and evening commutes may be mitigated through the addition or lengthening of turn lanes on major campus arteries such as Bullfrog Valley Road and the potential addition of traffic signal at the intersection of University Drive and Campus Drive. Consideration may also be given to creating a pedestrian bridge or tunnel from the new parking structure to the east side of the Campus Drive.

Site / Civil

The proposed College of Medicine expansion site will be graded to convey stormwater away from the buildings and towards proposed and existing stormwater pipes and inlets. This increased stormwater runoff from the site will be designed to convey flow to the SR 0322 large stormwater basin. For the New Education and Research Building this basin will likely require the storm structure outlet box to be modified to a smaller orifice to further restrict the increase in stormwater flows from the New Education and Research Building Project.

The PSU HMC Campus may want to consider reviewing the impact of several upcoming projects and those projects impacts on stormwater flows and the modifications to the basin that would be required for several projects and not just this single project. As for utilities, there is the rerouting several utilities and new utilities required to be ran to the new building. Lastly, this project design will be reviewed by both Derry Township, for Land Development, and by Dauphin County Conservation District, for the NPDES and Erosion and Sedimentation Control Approvals.



Mechanical

Heating and cooling systems for this expansion will utilize both an on-site cooling plant and the campus steam plant. Cooling will be provided by a local chilled water plant with chillers and cooling towers located within the project. Heating will be provided by the campus steam plant. Steam will pass thru a pressure reducing station and then to heat exchangers to generate heating hot water. Air distribution will be via custom air handling units (both supply and exhaust) with energy recovery and terminal boxes (both conventional and venture) will vary airflow at the space level. Additionally, the research labs will utilize chilled beams to provide additional sensible cooling. A central building automation system will control and monitor mechanical equipment throughout the project.

Electrical

Normal power will be provided from the existing campus 13.8KV loops A and B. A double ended unit substation in the building will distribute the power to the utilization point via 277/480 volt and 120/208 volt distribution and branch panelboard. 120/208 volt power will be obtained in the building via step down transformers. Emergency power will be provided from the new generator farm including two (2) initial 2MW paralleled generators via paralleling switchgear. Paralleling switchgear will have provision for addition of the new generators in the future as demand increases. Emergency power in the building will be distributed via life safety emergency branch serving means of egress lighting, Fire alarm and other Code required equipment and devices. Stand-by branch will provide emergency power to the owner requested items, devices in the animal holding areas, etc.

Plumbing

Domestic water will be provided via new dual feed 6" water services. These will be piped through a new water meter and will be protected by reduced pressure backflow preventers. A new domestic water booster pump system will be provided. The system will be zoned to maintain pressure between 30-80 psi. Duplex steam fired, semi-instantaneous water heaters will generate domestic hot water to serve lavatories, sinks, mop service basins and create tempered water to feed emergency safety showers and eyewash stations. The domestic hot water shall be recirculated back to the water heaters.

A separate non-potable water sub-system shall be created through duplex pressure backflow preventers to serve laboratory fixtures and equipment. The non-potable cold water will extend to lab sinks, cup sinks, and equipment. Non-potable hot water will be provided via steam fired, semi-instantaneous water heaters to generate 120F non potable laboratory water.

A new sanitary waste and vent system will collect all waste from toilet rooms, mechanical equipment and floor drains and convey it to the municipal sewer.

Roof drainage will be collected from the roof drains and will convey to the exterior storm system. A complete FM approved secondary roof drainage system will be provided.

Natural gas service will be provided at the exterior of the building and will extend to laboratory outlets.

Laboratory compressed air shall be provided via duplex, oil free air compressors systems. Laboratory vacuum system shall be provided via a packaged duplex, lab system The system will be designed to accommodate future expansion. A separate lab waste and vent system shall be provided throughout the lab areas

in the building. The system shall include PH monitoring and polypropylene waste and vent piping. A central reverse osmosis/deionized pure water system will be provided to serve laboratory sink outlets and equipment. The system shall include multimedia filters, duplex water softeners, carbon filter, carbon recirculation skid, skid mounted RO system, storage tanks, etc.

Fire Protection

The entire facility shall be served with a combination wet standpipe and sprinkler system. The system shall include one fire department connection located on the building's exterior. The fire protection system shall include one 8" water service, electric fire pump, double check valve assembly, Class III standpipes and sprinklers.

Structural

The layout of the new building allows for the option of two structural systems or a combination of both; cast in place concrete or a steel frame with light weight concrete on metal decking. In program areas where long span structure is necessary a steel frame system is assumed.

The proposed layout of the new Research and Education building allows for a 10'-6" module in the north south direction. This accommodates columns at 21'-0" on center. In the east west direction, the column spacing varies from approximately 29'-0" to 33'-6".

Based on recent construction at the site, the existing soil bearing capacity is low. For the foundation system drilled piles or drilled caissons have been used in adjacent areas and are what is assumed will be used in this location. Being located immediately next to the existing complex and ongoing research, the control of vibration during

construction will be critical. Drilled piles are also substantially better than driven piles in regards to vibration.

Phasing

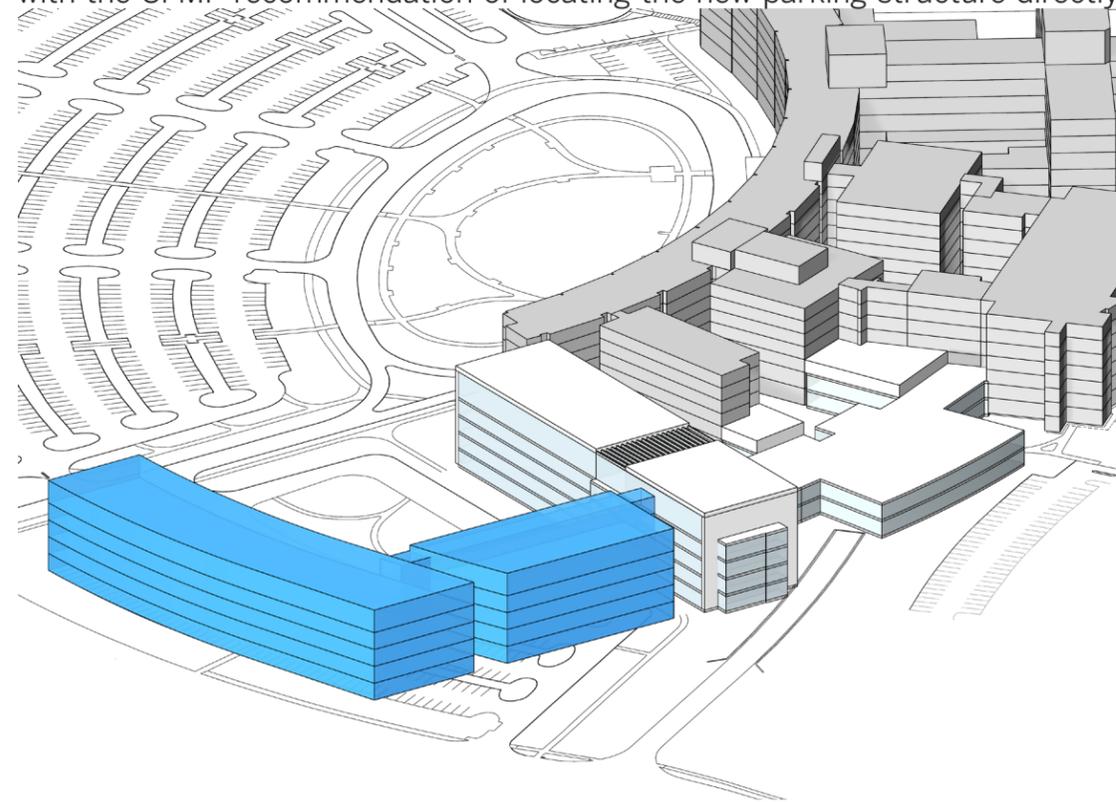
This planning study recognizes the likely need to build the new Research and Education Building in two or more phases. PSHMC must balance multiple campus-wide priorities and the extent to which funding considerations impact the implementation of this project is presently unknown. For this reason, we have explored multiple phasing strategies – from merely shelling floors to postponing the construction of significant portions of the building. Of course, each of these approaches carries with it implications with respect to both construction logistics as well as the ability to expedite positive change to the Research and Education enterprises. As the project moves forward and the funding realities and project priorities are further clarified, the appropriate phasing strategy will be more easily ascertained.

Future Expansion

Dr. Harrell's understanding of growth and change as driving forces at medical centers informed the organization of the original campus design as well as that of this planning study.

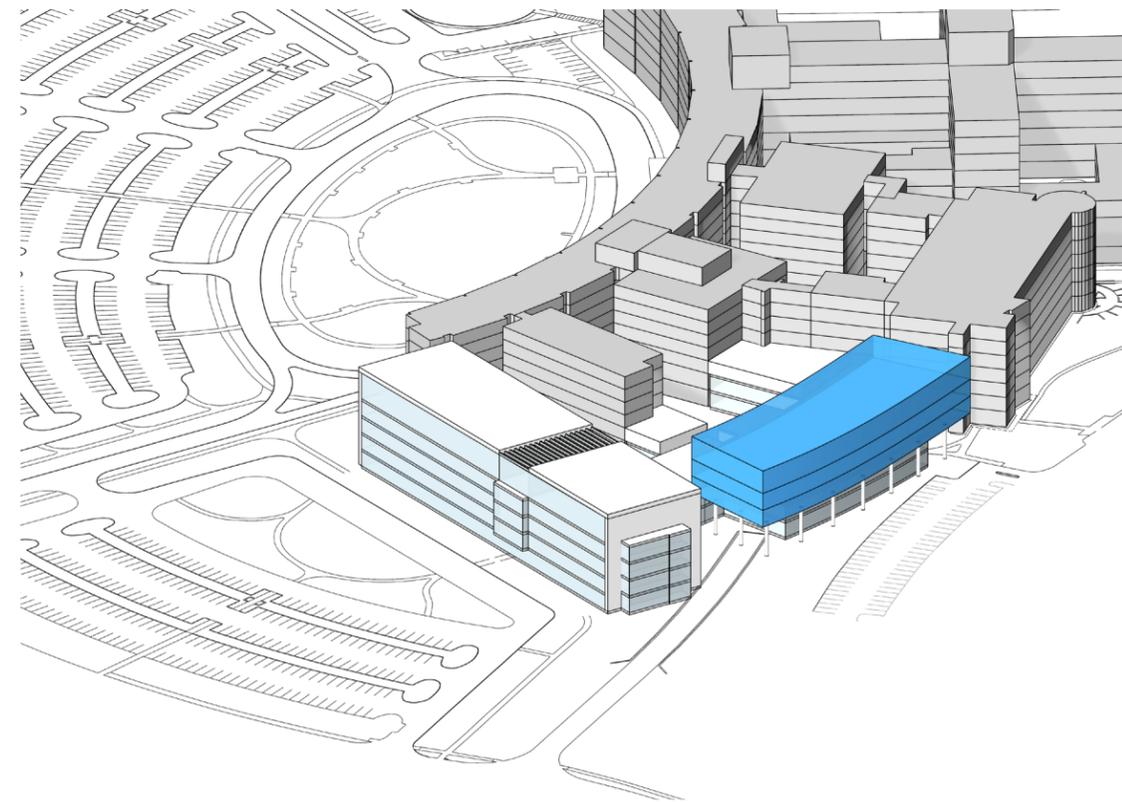
The importance of considering not only this project but the next – even if it is fifteen or twenty years down the road – is a way of responsibly optimizing land-use development and creating a cohesive campus. For this study, a key decision was the location of the new parking structure to the west side of Campus Drive.

Recognizing that the medical center's most valuable real estate lies adjacent to the megastructure and within Campus and University Drives, this study broke with the SFMP recommendation of locating the new parking structure directly



adjacent to the west end of the Crescent. This important decision preserves this valuable area for a campus green space as well as future building sites. In addition, the idea of building over the new XL classrooms has been identified as a potential future expansion strategy. This approach poses certain challenges and would necessitate a significant long-span structure in order to preserve the column-free nature of these rooms. The columns and footings would also need to be sized accordingly in order to accommodate the future loads.

These strategies look beyond the horizon of the New Research and Education Building – taking a holistic campus view and recognizing the importance of future development at PSCOM.



PROJECT VISION AND GOALS

PROJECT VISION

1. CREATE AN IDENTITY FOR THE COLLEGE OF MEDICINE.

- Create a new main entrance as part of the new facility. Consider maintaining a historic entrance on the Crescent.

2. ENGAGE ALL EDUCATION PROGRAMS ACROSS THE PSHMC.

- Gather the student areas into a contiguous zone to Create a Central Student Support 'Commons' so that there is a "home" for the educational mission of all programs.
- Address need to Create an Identity for the COM and integrate the inter-professional programs into a Holistic Student Centered Environment.
- Consolidate Education administrative offices.

3. CREATE A RESEARCH FACILITY THAT SUPPORTS PSHMC IN ITS DRIVE TO BECOME A TOP 10 RESEARCH INSTITUTION.

- Support Convergence and 'Big Data'.
- Create a Common Imaging and Characterization Core Facility to support the Research program.
- Expand and renovate the existing Vivarium Facility.

4. INTEGRATE THE NEW BUILDING INTO THE MEGA-STRUCTURE AND RECONCILE THE EXISTING CIRCULATION PATTERNS TO SUPPORT COLLABORATION AND IDENTITY AS AN ACADEMIC MEDICAL CENTER.

- Integrate Healthcare, Education and Research.
- Celebrate the Unique Identity of an Academic Medical Center.
- Respect the Historic Organization and Character of the Campus.
- Respect and maintain the Courtyards and Exterior Environments.

5. LAY THE GROUNDWORK FOR THE GROWTH AND EXPANSION FOR BOTH NEAR TERM AND LONG TERM NEEDS.

- Plan the backfill of vacated space in a holistic, rational manner based on optimal adjacencies and an acknowledgment of the physical limitations of certain existing facilities to support many types of modern research and education.
- Plan for an expansion of the new building in a way that is least disruptive and most economical.
- Consider the Long-term Expansion of the mega-structure.

PROGRAM SUMMARY

RESEARCH AND VIVARIUM (NEW)

RESEARCH:

Laboratory	20,169 ASF
Laboratory Support	20,508 ASF
Office	26,130 ASF
Dry Research	6,532 ASF
Total Research	73,339 ASF

VIVARIUM:

Animal Research	7,736 ASF
Procedure/Lab	6,010 ASF
Animal Support	4,935 ASF
Office/Locker	1,578 ASF
Total Vivarium	20,259 ASF

Core Labs	9,320 ASF
Collaboration	3,000 ASF
Total Research and Vivarium	105,918 ASF

EDUCATION (NEW AND RENOVATED)

NEW CONSTRUCTION:

Instructional / Classroom	31,120 ASF
Student Space	14,360 ASF
Simulation Center	4,952 ASF
Human Structures	5,090 ASF
Education Office Space	3,692 ASF
Total New Education	59,214 ASF

RENOVATION:

Simulation Center	6,979 ASF
Human Structures	3,944 ASF
Systems Navigation	2,522 ASF
Education Office Space	9,440 ASF
Total Renovated Education	22,885 ASF

Total Education 82,099 ASF

(Existing Education to Remain 18,972 ASF)

PROGRAM SUMMARY

BUILDING COMMON

Main Lobby	3,000 ASF
Food Service	2,750 ASF
Collaboration	1,600 ASF
Security Center	320 ASF
IT Center	320 ASF
Total Building Common	7,990 ASF

PROJECT PROGRAM SUMMARY

Total Education	82,099 ASF
Total Research and Vivarium	105,918 ASF
Total Building Common	8,440 ASF

TOTAL PROJECT ASSIGNABLE	196,007 ASF
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NEW CONSTRUCTION ASSIGNABLE	173,122 ASF
NEW CONSTRUCTION GROSS SF	288,000 GSF
TARGET ASF AT 60% EFFICIENCY	172,800 ASF

(Note: Building gross 288,000 includes 2,000 sf on Ground Floor to connect new building to existing loading dock but excludes BMR connector)

Form of Agreement 1-P

THE PENNSYLVANIA STATE UNIVERSITY
OWNER AND PROFESSIONAL
AGREEMENT

THIS AGREEMENT made this _____ day of _____

in the year Two Thousand _____, by and between THE PENNSYLVANIA STATE UNIVERSITY, a state-related institution and instrumentality of the Commonwealth of Pennsylvania subject to Pennsylvania nonprofit corporation laws, having its principal offices at University Park, Centre County, hereinafter called the "Owner," and

hereinafter called the "Professional," for the following Project:

_____ PSU Project No. _____

In consideration of the promises set forth herein, and with intent to be legally bound, the parties agree to the terms set forth within this Agreement.

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DEFINITIONS:

Contract Documents consist of the General Conditions of the Contract, Drawings, Specifications, Addenda issued prior to receipt of Trade Contract bids, Form of Proposal, other documents listed in the Agreement and those modifications to the Contract as follows: Owner's written authorization to the Contractor for changes to the Scope of Work, a Change Order, and a written order for a minor change in the Work issued by the Professional.

Contractor means the person or entity retained by the Owner to perform Work for the project and includes the Contractor's Representative.

Construction Budget means the project construction cost limit established by the Owner.

Construction Cost Estimate means a detailed breakdown of all costs associated with the scope of work required to meet the project requirements projected to the mid-point of construction.

Final Completion means the point at which the project is fully completed in accordance with the Contract Documents (this includes *all* physical/construction obligations, administrative obligations, and punch list obligations).

The **Owner** is The Pennsylvania State University, a non-profit corporation created and existing under the laws of the Commonwealth of Pennsylvania, and an instrumentality of the Commonwealth of Pennsylvania; this term shall include the Owner and/or the Owner's authorized representative.

The **Pennsylvania State University Design and Construction Standards** means those design and construction standards as set forth at: http://www.opp.psu.edu/planning-construction/design_and_construction_standards/standards-and-forms.

The **Professional** is the person lawfully licensed to practice architecture or engineering, or the firm employed to provide architectural or engineering services, for the referenced project. The term "Professional" shall mean the Professional or the Professional's authorized representative.

The **Project** shall comprise the Work defined by the Contract Documents and may include work by the Owner or other Separate Contractors, Trade Contractors, Sub-Trade Contractors or the Professional.

The **Scope of Work** means the work reasonably contemplated, required, implied, or reasonably inferable by the Contract Documents or normal standards of the building trades, whether or not explicitly contained in the Contract Documents.

Services means the services provided by the Professional and/or by consultants retained by the Professional for the Project.

Substantial Completion shall mean that stage in the progression of the Work when the Work is sufficiently complete in accordance with this Contract that the Owner can enjoy beneficial use or occupancy of the Work and can utilize the Work for its intended purpose.

Work means the construction and services necessary or incidental to fulfill the Contractor's or Professional's obligations for the Project in conformance with the agreement between the Owner and Contractor or the Owner and Professional.

ARTICLE 1: PROFESSIONAL'S RESPONSIBILITIES

1.1 General Responsibilities

1.1.1 The Professional shall furnish or provide the architectural and engineering services as outlined herein, and any other relevant data, specifications or documents, as necessary for a complete project. The Professional shall expeditiously perform said services in a manner consistent with professional skill, care, and the orderly progress of the work. In carrying out all obligations pursuant to this Agreement, including the furnishing of Construction Documents, the Professional shall in all respects conform to the applicable professional standard of care.

1.1.2 By executing this Agreement, the Professional represents to the Owner that the Professional possesses the requisite skill, expertise, and credentials to perform the required services, and that Professional is licensed to practice by all public entities having jurisdiction over the Professional and the Project. The Professional further represents to the Owner that the Professional will maintain all necessary licenses, permits, or other authorizations necessary to act as Professional for the Project until the Professional's remaining duties hereunder have been satisfied. The Professional assumes full responsibility to the Owner for the negligent acts and omissions of the Professional's consultants or others employed or retained by the Professional in connection with the Project.

1.1.3 Execution of this Agreement by the Professional constitutes a representation that the Professional has become familiar with the Project site and the local conditions under which the Project is to be implemented.

1.1.4 The Professional shall provide the services required by this agreement in conformance with the most recent project schedule approved by the Owner.

1.1.5 The Professional shall provide Professional Services, per Exhibit A and per this agreement, in accordance with The Pennsylvania State University Design and Construction Standards referenced in Exhibit C.

1.1.6 The Professional is responsible for additional submission and presentation requirements as outlined for Board of Trustee approval or other administrative approval.

1.1.7 If a Construction Manager is hired by the Owner it will be the responsibility of the Professional to collaborate and work in concert with the Construction Manager throughout the duration of the project. Furthermore, the Professional shall reconcile all cost estimates with the Construction Manager.

1.1.8 (OPTIONAL) Payment of the Professional's fees, as per in Article 9, is contingent upon completion of the documents per the attached schedule. (Attach Schedule as Exhibit D, if Schedule has been developed.)

1.1.9 (OPTIONAL) Adherence to Time Schedule. The Professional shall strictly adhere to submission schedules as set forth in this Agreement. Should the Professional become aware that he will be unable to meet any of the dates set forth in this Agreement, the Professional shall immediately notify the Owner in writing.

- The Professional shall include in the notice the reason(s) for the Professional's inability to meet the date(s) and a request that the Owner amend the time schedule.
- The Owner shall review the Professional's notice and determine whether or not to amend the time schedule.

If the Owner determines that the delay is **due to the fault of the Professional**, the Owner may amend the schedule and direct the Professional to expeditiously proceed with the design of the project, in which case **the Owner may hold the Professional responsible for any costs attributable to the delay**, or terminate the Agreement for default of the Professional, in accordance with the provisions of this Agreement.

If the Owner determines that the delay is not due to the fault of the Professional, the Owner may amend the time schedule. The Professional agrees that such an amendment of the time schedule is his exclusive remedy for a delay and that he may not make any claims against the Owner for increased costs due to the delay.

1.1.10 Building Information Modeling (BIM). The project will be designed, constructed, and operated using Building Information Modeling (BIM). The BIM project scope is defined in The Pennsylvania State University Office of Physical Plant BIM Contract Addendum (BIM Addendum). This addendum applies to all projects exceeding a Total Project Cost of \$5 Million new construction, substantial renovation, or as directed by the Office of Physical Plant Project Manager. On qualifying projects, professionals shall use BIM application(s) and software to develop project designs and assist in the coordination of construction.

The Pennsylvania State University is committed to utilizing BIM technologies and processes to execute the design, construction, and operations of its new High Performance buildings and the updating of all existing structures and infrastructure. The intent is to achieve the following goals: facilitate a collaborative project environment between all project stakeholders beginning at project conception through facility operations; improve facility system coordination to streamline design and construction processes and minimize change orders; deliver a better overall facility design, visualize construction processes, avoid field conflicts, develop building life cycle costs, accurately project cost estimates, and seamlessly transition into facilities operations; develop high performance buildings in accordance to The Pennsylvania State University sustainability goals; incorporate the Record Model and As-Built Models, including infrastructure and building systems, into the existing Enterprise Asset Management system (EAM) to create an As-Maintained Facilities Management Model; and establish a technology platform and provide continuous support to incorporate future technologies into existing processes.

The Professional shall provide all deliverables in compliance with the BIM Addendum at stages described in the BIM Plan. The BIM Model is an instrument of service and is considered to be a component of Design and Construction Documents governed by Article 7 of this Agreement and within the BIM Addendum, without exception.

The Professional shall lead the development of a project specific BIM Execution Plan (BIM Plan), documenting the collaborative process in which BIM will be implemented throughout the life cycle of the project, during the design phase. An initial BIM Plan shall include the Professional's requirements identified in the BIM Addendum and the Office of Physical Plant Plan Template. It shall be submitted for approval by The Pennsylvania State University prior to the contract execution. A collaborative BIM Plan shall be developed with the Contractor/CM prior to completion of the schematic design phase. In the event that a Contractor is not procured for preconstruction services, the Professional Team and Owner shall develop the collaborative BIM Plan. The BIM Plan shall be revisited with the entire project team prior to Construction and submitted to the Office of Physical Plant for final approval. Payment may be held at each development phase until the BIM Plan is approved.

All costs associated with BIM, including model updates during construction, shall be included in the base contract price (contract Article 9.1.1). A breakdown of any cost associated with the implementation of BIM must be disclosed in the BIM Addendum.

Any questions or variations from this language shall be submitted in writing and agreed upon with the Office of Physical Plant BIM Manager or Manager of Design Services.

1.1.11 Contractor Design-Assist. The Owner anticipates utilizing contractor/vendor design-assist on some aspects of the project. If utilized, the Professional will assume the responsibility for incorporation of the design assist information into the overall design.

1.1.12 (OPTIONAL, If there is a cost impact for not meeting the LEED certification level, it should be outlined as a penalty in this section.) LEED Responsibility for Project. The Professional shall ensure that the LEED target certification level for the project is achieved. The Professional shall be primarily responsible for identifying the listing of credits to be achieved during the project in an effort to meet the

certification level. The Professional shall also be responsible for preparing all documentation required for submission. The Professional shall use as a guide The Pennsylvania State University LEED Policy to be provided by the Owner.

1.2 Schematic Phase

The Professional shall review and comply with the Project program and The Pennsylvania State University Design and Construction Standards, both as furnished by the Owner, and shall conduct appropriate visits to the Project site. The Professional shall then provide to Owner a preliminary evaluation of the program and schedule and a preliminary construction cost estimate. The Professional shall review with the Owner alternative approaches to project design and construction, as may be required.

After the Owner has approved the Project scope, cost estimate and schedule as submitted by the Professional, the Professional shall prepare and submit to the Owner, for approval, Schematic Design Documents and any other documents required by the Owner. Refer to the Design Phase Submittal Requirements document available on the Office of Physical Plant web page for a listing of submission requirements for the Schematic Phase.

Following approval of Schematic Design Documents and any other documents required at such phase by the Owner, The Professional shall submit a Construction Cost Estimate. The estimate shall be determined by the Professional using the most accurate means available.

1.3 Design Development Phase

After approval by the Owner of the Schematic Design Documents, and any Owner-authorized changes in Project scope or construction budget, the Professional shall prepare and submit, for approval by Owner and any government authorities, Design Development drawings and any other documents required by the Owner for said approval. These drawings and other documents shall fix building size, delineate and describe the various construction materials to be used, and indicate the structural, mechanical, and electrical systems upon which the design is based. Refer to the Design Phase Submittal Requirements document available on the Office of Physical Plant web page for a listing of submission requirements for the Design Development Phase (noted as Preliminary and Design Phase in the document).

The Professional shall provide an update of the Construction Cost Estimate and schedule and advise the Owner immediately of any adjustments.

1.4 Construction Document Phase

After approval by the Owner of the Design Development Phase documents, and any further Owner-authorized changes in Project scope or construction budget, the Professional shall prepare and submit to the Owner, for approval, Construction Drawings and Specifications/Project Manual (hereinafter referred to as the "Construction Documents") required by the Owner for said approval. These Construction Documents shall delineate, detail, and completely specify all materials and equipment required to fully complete construction of the Project in every respect, consistent with current standards of the profession. The Construction Documents shall completely describe all work necessary to bid and construct the Project. Refer to the Design Phase Submittal Requirements document dated August 2006 (or any subsequent updates), available on the Office of Physical Plant web page, for a listing of submission requirements for the Construction Document Phase.

Any review and approval by the Owner of the Construction Documents shall not be deemed to diminish the Professional's obligations under this Agreement.

The Professional shall provide an update of the Construction Cost Estimate and schedule and shall advise the Owner immediately of any adjustments.

The Professional shall be responsible for completing all of the appropriate planning modules, soil and erosion control plans, and other documents which may be required.

The Professional shall be responsible for obtaining, on behalf of the Owner, whatever approvals are necessary to connect to non-Owner-owned utility lines.

The Professional shall coordinate the Construction Documents for all of the Separate Prime Contracts or trade packages, as required, and shall employ all reasonable and necessary efforts to prevent omissions, conflicts, overlaps, or duplications of any items of work or materials on the Project.

The Professional shall coordinate the services of all design consultants for the Project, including those retained by the Owner.

1.5 Bidding Phase

After approval by the Owner of the Construction Documents, the Professional shall prepare and distribute all necessary bidding correspondence and documents, evaluate bid proposals, attend pre-bid or pre-award meetings, clarify the scope or intent of the Construction Documents, evaluate proposed subcontractors, and assist in the preparation of construction contracts.

1.6 Construction Phase

The Professional shall issue a set of construction documents that incorporate all bidding documents and revisions per addenda prior to the start of construction.

The Professional's responsibility under this Agreement for Construction Phase services commences with the execution of the Contract(s) between the Contractor(s) and the Owner and terminates no earlier than the expiration of the Contractor's one-year guarantee period against defective materials, equipment, and/or workmanship. This paragraph is not intended to, and shall not be construed as, affecting in any way the calculation of any applicable legal statutes of limitation.

Administration, by the Professional, of the construction contract(s) shall be as outlined below and in accordance with the General Conditions of the Contract for Construction. The Professional agrees to perform all of its obligations under this Agreement consistent with said General Conditions. The extent of the Professional's duties and responsibilities and the limitations of its authority as specified thereunder shall not be modified without written agreement between the Owner and the Professional.

The Professional shall not be responsible for the Contractor's construction means, methods, techniques, sequences, or procedures, or for safety precautions and programs in connection with the work. However, if the Professional has actual knowledge of safety violations, the Professional shall immediately alert the relevant Contractor or Subcontractor and shall give prompt written notice to the Owner.

The Professional shall not be responsible for the Contractor's failure to carry out the Work in accordance with the Contract Documents. The Professional shall not be deemed to have control over or charge of acts or omissions of the Contractor, Subcontractors, or their agents or employees, or any other persons performing portions of the Work. However, the Professional shall provide all required assistance to the Contractor, Subcontractors and/or agents and employees in order to facilitate the appropriate and timely performance of the Work. Furthermore, Professional is responsible for notifying the Owner and the Contractor of the Contractor's failure to carry out the Work in accordance with the Contract Documents upon observing such failure by the Contractor.

1.6.1 Schedule of Values. Upon receipt, the Professional shall carefully review and examine the Contractor's Schedule of Values, together with any supporting documentation or data which the Owner or the Professional may require from the Contractor. The purpose of such review and examination will be to protect the Owner from an unbalanced Schedule of Values which allocates greater value to certain elements of the Work than is indicated by such supporting documentation or data or than is reasonable under the circumstances. If the Schedule of Values is found to be inappropriate, or if the supporting documentation or data is deemed to be inadequate, and unless the Owner directs the Professional to the

contrary in writing, the Schedule of Values shall be returned to the Contractor for revision or supporting documentation or data. After making such examination, if the Schedule of Values is found to be appropriate as submitted or, if necessary, as revised, the Professional shall sign the Schedule of Values thereby indicating the Professional's informed belief that the Schedule of Values constitutes a reasonable, balanced basis for payment of the Contract Price to the Contractor. The Professional shall not sign such Schedule of Values in the absence of such belief unless directed to do so, in writing, by the Owner. The Professional shall provide the Owner with a signed copy of the Schedule of Values after approval.

1.6.2 Access to Work. The Professional and its authorized representatives shall have full and safe access to the work at all times.

1.6.3 Visits to the Site/Inspection. The Professional and any consultants retained by the Professional, or an authorized and qualified representative, shall visit the Project periodically as required by the Owner during periods of active construction in order to review the progress of the work, and take such actions as are necessary or appropriate to achieve the requirements of the Construction Documents in the work of the responsible Contractors, including advising the Owner's representatives as to particular matters of concern. It shall also be the duty of the Professional to have its Consultants visit the site periodically as required during their respective Phases of the work, at such intervals as may reasonably be deemed necessary by the Owner and the Professional, to review their respective Phases of the work in order to achieve the requirements of the Construction Documents.

The purpose of such site visits and reviews will be to determine the quality, quantity, and progress of the Work in comparison with the requirements of the Construction Documents. In making such reviews, the Professional shall exercise care to protect the Owner from defects or deficiencies in the Work, from unexcused delays in the schedule, and from overpayment to the Contractor. Following each such review, the Professional shall submit a written report within (5) calendar days of such review, together with any appropriate comments or recommendations, to the Owner.

Whenever, in the Professional's opinion, it is necessary or advisable, the Professional shall require special inspection or testing of the Work in accordance with the provisions of the Construction Documents whether or not such Work is fabricated, installed, or completed. The Professional shall advise the Owner of all such occurrences requiring special inspection or testing of the Work and shall obtain prior approval from Owner before any funds are committed for inspection, beyond what has already been budgeted.

1.6.4 Approval of Payment to Contractors. Based on the Professional's review of the Project, the Professional will recommend, within seven (7) calendar days after receipt, approval or rejection of payment on the Application-Certificate of Payment. Approval of the Certificate of Payment shall constitute a representation by the Professional to the Owner that the work has progressed to the point indicated on the Application, and that to the best of the Professional's knowledge, information, and belief, the quality of the work is in accordance with the Contract Documents.

The Professional shall make recommendations to the Owner for the withholding of any payment, or portion thereof, due to inadequate progress and/or performance of the Contract.

The Professional agrees that time is of the essence with respect to this provision.

1.6.5 Interpreter. The Professional will be, in the first instance, the interpreter of the requirements of the Contract Documents. The Professional will, within a reasonable time as determined by the Owner, render such interpretation as it may deem necessary for the proper execution or Progress of the Work. All interpretations by the Professional shall be defined in writing and/or by drawing and shall be consistent with the intent of the Contract Documents.

In addition to the above, the Professional shall be required to attend, at the determination of the Owner, any and all Project site conferences dealing with interpretation of the Contract Documents.

The Professional's decisions, with Owner's prior approval, shall in matters relating to aesthetic effect be final if consistent with the intent of the Construction Documents.

1.6.6 Review of Contractor's Shop Drawings and Materials. The Professional shall review, approve, and process, subject to the right of review by the Owner, Shop Drawings to ensure compliance with the Contract Documents and all product data, samples, materials, and other submissions of the Contractor required by the Contract Documents for conformity to and in harmony with the design concept of the Project and for compliance with the requirements of the Contract Documents. The Professional shall not approve any substitution of specified materials and/or equipment without first obtaining the Owner's consent. Approval by the Professional of the Contractor's submittal shall constitute the Professional's representation in accordance with Article 5 of the General Conditions of the Contract for Construction to the Owner that such submittal is in conformance with the Contract Documents.

When the Contractor is required by the Contract Documents to provide professional certification of performance characteristics of materials, systems, or equipment, the Professional shall be entitled to rely upon such certification to establish that the materials, systems, or equipment will meet performance criteria required by the Contract Documents.

Based on the priorities of the construction schedule, the Prime Contractor(s) shall submit a shop drawing submittal schedule on or before the Second Regular Job Conference. The Professional shall review and check the shop drawing submittal schedule within fourteen (14) calendar days of receipt from the Contractor.

The Professional shall return the approved shop drawings, or detailed notation for resubmission, if required, within fourteen (14) calendar days after receipt from the Contractor unless mutually agreed otherwise by the Professional, Owner, and Contractor. The Professional shall act on any resubmissions within seven (7) calendar days of receipt thereof unless mutually agreed otherwise by the Professional, Owner, and Contractor. A detailed log shall be maintained by the Professional as to time of receipt of the shop drawings and time of return, with adequate notes as to their disposition.

Refer to 1.6.12 for electronic scanning and submission requirement of approved project shop drawings at the completion of the project.

The Professional is responsible to incorporate into the shop drawings comments by the Owner or Owner's authorized representative prior to the shop drawings being returned to the Contractor.

The Professional agrees that time is of the essence of this provision.

1.6.7 Job Conference Reports. The Professional shall take and retain a verbatim record of the biweekly Job Conference meetings and shall prepare and distribute summary minutes in a format approved by the Owner of each meeting within five (5) calendar days to the Owner, the Contractors, and all other interested parties.

1.6.8 Change Orders. The Professional shall review all Change Order requests within seven (7) calendar days and shall advise Owner, in writing, with respect to the necessity or advisability of same. The Professional shall also determine whether the cost is fair and reasonable for the additional work associated with the Change Order. In so doing, Professional shall provide all pertinent documents and data to the Owner, who shall make all decisions regarding approval or rejection of Change Order requests. The Professional shall maintain an appropriate Change Order log. The Professional may, after consultation with the Owner, authorize minor changes in the Work which do not involve an adjustment in the Contract sum or an extension of the Contract time and which are consistent with the intent of the Contract Documents.

1.6.9 Rejection of Work. The Professional is authorized and obligated to reject work which does not conform to the Contract Documents and shall immediately notify the Owner to stop a Contractor's work whenever, in the Professional's reasonable opinion, such action is necessary for the proper performance of the Construction Contract Work. The Professional shall not be liable to the Owner for the consequences of any recommendation made by the Professional in good faith, and in the exercise of due care in recommending to stop or not to stop the work.

1.6.10 Substantial Completion, Final, and One-Year Guarantee Inspections. The Professional and its consultants shall participate in Substantial Completion and Final Inspections to affix the dates of Substantial and Final Completion and shall concur in the report of Final Completion to the Owner prior to approving the Contractor's application for Final Payment. The Professional shall produce the punch list document and provide follow-up to ensure all items are completed to the satisfaction of the Owner. The Professional shall also acquire for Owner the Certificate of Occupancy.

The Professional and its consultants shall participate in an inspection prior to the expiration of the one (1) year guarantee period against defective materials, equipment, and/or workmanship to determine any defects in materials, equipment, and/or workmanship since the date of Substantial Completion. The Professional shall produce the (1) year guarantee period punch list document for distribution to the Contractor(s) and provide follow-up to ensure all items are completed to the satisfaction of the Owner.

1.6.11 Operations and Maintenance Data. At the time of Substantial Completion of the Project, the Professional shall review and approve all required close-out documentation required per the Specifications including, but not limited to, manufacturers' operating instructions, maintenance instructions, certificates, warranties, guaranties, and other pertinent operating and maintenance data.

The Professional shall electronically scan all reviewed and approved Operation and Maintenance data being returned to the Contractor and provide a complete set of Operation and Maintenance data for the Project in electronic .pdf format (organized by building system) to the Owner within (1) month after receipt from the Contractor.

1.6.12 Record Drawings. At the time of Final Completion of the Project, the Professional shall collect from the Prime Contractor(s) their complete sets of as-built drawings and will, within 30 days after receipt from the Contractors, transpose all the changes recorded by the Contractors, onto a full set of reproducible drawings which shall become the record (as-built) drawings of the Project. The record drawings must also be put on electronic media compatible with the Owner's ACAD system. The Professional shall submit the as-built drawing set to the Owner in both ACAD dwg format and electronic pdf format (if project is utilizing Building Information Modeling an additional record drawing format shall be required and approved by the Owner).

The Professional shall electronically scan all approved shop drawings being returned to the Contractor and provide a complete set of the approved shop drawings for the Project in electronic pdf format (organized by CSI division) to the Owner within (1) month after Substantial Completion of the project.

1.6.13 Corrections. The Professional shall, without additional compensation, promptly correct any errors, omissions, deficiencies, or conflicts in its work product.

1.6.14 Errors and Omissions. If it becomes necessary during the course of construction to issue change orders which increase the cost of the Project because of the Professional's failure to produce proper and coordinated specifications and drawings, the Professional shall be assessed as follows:

1.6.14.1 Omission Change Order: A change order will be considered to be an omission change order when the additional work is necessitated by the Professional's omission of required elements or specifications in the Construction Documents, and where no work must be removed or replaced in order to carry out the change order. In such cases, the Professional shall be assessed in an amount equal to the difference between the amount of the change order and what the Owner would have paid had the omission not occurred, plus administrative costs incurred by the Owner.

1.6.14.2 Error Change Order. A change order will be considered to be an error change order when the additional work is necessitated by a failure of the Professional to conform to the applicable professional standard of care, resulting in an error which may be rectified only by removal and/or replacement of work which has been performed. In such cases, the

Professional shall be assessed in an amount equal to the difference between the amount of the change order and what the Owner would have paid had the error not occurred.

At the completion of the project, the parties shall exercise good faith in seeking to amicably resolve any disputes that may exist regarding change orders. In the event that the parties are unable to reach an amicable resolution, the dispute resolution provision of Article 12.1 shall apply.

ARTICLE 2: ADDITIONAL RESPONSIBILITIES OF PROFESSIONAL

2.1 Compliance

The Professional is responsible for the compliance of the Construction Documents with all applicable permits, laws, regulations, and ordinances of all commissions, agencies and governments, federal, state and local, insofar as they are applicable to, and have jurisdiction over, the Project. The Professional shall make all required submittals with the advance knowledge of the Owner to, and shall obtain all required approvals from, the applicable agency in a timely manner so as not to cause delays to the Project. The Professional shall also attend all hearings/meetings required for securing necessary approvals and permits.

The Professional shall be responsible for producing a submission document set for approval by Labor and Industry as required by the Commonwealth of Pennsylvania to obtain the necessary building permit. The Professional shall also be responsible for additional submissions as required by the Labor and Industry Building permit processes and procedures throughout the project design and construction.

2.2 Cooperation With Local Bodies

During the design of the Project, the Professional shall keep informed and comply with the requirements of all local zoning, planning, and supervisory bodies. Should these requirements substantially increase the cost of the Project, or should any required approvals be withheld by the local bodies, the Professional shall immediately notify the Owner.

2.3 Proprietary Items, Copyrights, Patents

The Professional shall not include in the design of the Project unless directed by the Owner any equipment, material, or mode of construction which is proprietary or which contains a copyright or patent right relating to designs, plans, drawings, or specifications, unless the equipment, material, or mode of construction is different and fairly considered superior in quality and performance. If the Professional includes in the design of the Project any equipment, material, or mode of construction which is proprietary, it shall have prior approval by the Owner and it shall only be because the item is different and fairly considered superior in quality and performance, and not for the purpose of preventing or restricting competitive bidding. Professional may not knowingly list as acceptable any item which cannot comply with the Steel Products Procurement Act.

2.4 COLUMBIA GAS HIGH PRESSURE GAS LINE (HPGL), UNIVERSITY PARK CAMPUS only

2.4.1 The Professional shall be aware of the HPGL at the University Park Campus. The route of the HPGL is depicted on the "[Columbia Gas Line Routing Map](http://legacy.opp.psu.edu/planning-construction/design_and_construction_standards/documents/job-kit-construction-services/columbia-gas-line-routing-map/view)", accessible at URL: http://legacy.opp.psu.edu/planning-construction/design_and_construction_standards/documents/job-kit-construction-services/columbia-gas-line-routing-map/view

The Professional shall advise Penn State immediately if the URL is not working.

2.4.2 The Professional is responsible to appropriately consider the HPGL in all designs and documentation prepared by the Professional or under the direction of the Professional.

2.4.3 Projects involving any temporary or permanent work within 300 feet of the HPGL shall be coordinated per the requirements and notes included on the map drawing referenced in 2.4.1.

ARTICLE 3: OPTIONAL ADDITIONAL SERVICES

Unless required by the Project Scope, the services performed by the Professional, Professional's employees, and Professional's consultants as outlined in this Article are not included in Basic Services and shall be paid for by the Owner as provided in this Agreement in addition to the compensation for Basic Services.

None of these services shall be provided by the Professional, whether they are requested by the Owner or required due to circumstances unknown at the time of the execution of the Agreement, until approval in writing has been given by the Owner.

3.1 Project Representation

If more extensive representation at the site by the Professional is required by the Owner than is provided for under Basic Services, Paragraph 1.6, Construction Phase, the Professional shall provide one or more Project representatives to assist in carrying out such additional on-site representation.

Additional Project representative(s) shall be selected, employed, and directed by the Professional with the approval of the Owner, and the Professional shall be compensated therefore as mutually agreed, in advance, between the Owner and the Professional. Such supplemental agreement letter shall also delineate the duties and responsibilities of the additional Project representative(s).

3.2 Revisions to Approved Drawings and Specifications Prior to Construction Phase

3.2.1 Making revisions to the drawings and specifications requested by the Owner subsequent to the Owner's approval of the Construction Documents as outlined in Paragraph 1.4, Construction Document Phase, unless required to keep the estimated Construction Costs within the amount budgeted for same.

3.2.2 Making revisions to the drawings and specifications required by the enactment or revisions of codes, laws, or regulations subsequent to the completion of the Construction Documents as approved by the Owner.

3.3 Preplanning

Providing special analysis of the Owner's needs such as selection, planning, and development of the site; economic, demographic, and/or financial feasibility; preliminary design criteria and budget estimates; or other special studies except as herein provided as part of Basic Services.

3.4 Specialized Consultants

Providing unusual or specialized Consultant services other than those consistent with the inherent requirements of the Project scope and required to meet the functional needs of the Project.

3.5 Surveys

Providing a complete topographic survey and/or related aerial photography, ground control, photogrammetric plotting, property boundary survey, and the preparation of a metes and bounds legal description and a related plot.

3.6 Special Studies

Providing services related to the preparation of Environmental Assessments and/or Environmental Impact Statements, Energy Impact Statements, Analysis, or Feasibility Studies as may be required by local, state

or federal government agencies, provided such services are in addition to the Project scope requirements.

3.7 Other Services

Providing services mutually agreed to that are not otherwise included in this Agreement.

ARTICLE 4: INDEMNIFICATION

To the fullest extent permitted by law, The Professional shall indemnify and hold harmless the Owner and the Owner's respective officers, directors, agents, servants, and employees from and against any and all liability, claims, losses, costs, expenses or damages, including reasonable attorneys' fees, costs and expenses, for property damage, bodily injury or death, that may arise as a result of the failure of the Professional or Professional's agents, employees or consultants, to comply with the applicable professional standards of care in rendering services in connection with this Agreement. Nothing in this indemnity section shall be construed to limit the insurance obligations agreed to herein.

ARTICLE 5: OWNER'S RESPONSIBILITIES

5.1 Basic Information

The Owner shall provide the Professional all information available at the time regarding requirements for the Project. Such information shall include:

5.1.1 A Project Program setting forth the Owner's objectives, space requirements and relationships, special equipment, and systems and site requirements.

5.1.2 A Project Budget including the amount allocated for the Construction Cost and all other anticipated costs and expenses.

5.1.3 A Project Schedule setting forth the times allotted for the Design and Construction Phases of the Project.

If the information furnished is not sufficient for the process of initiation of design solutions, the Professional shall notify the Owner immediately.

5.2 Surveys

The Owner shall furnish to the Professional, as available, surveys describing (as applicable) grades and lines of streets, alleys and pavements; the location of all rights-of-way restrictions, easements, encroachments, zoning classification, boundaries and contours of the site; location, dimensions and other necessary data pertaining to any existing buildings, other improvements and trees; information concerning existing utilities throughout the site, including inverts and depth; and shall establish a Project benchmark.

5.3 Geotechnical Engineering Services

The Owner shall pay the costs of all geotechnical engineering services required for the Project and requested by the Professional and Owner. Such services shall include, but are not limited to, tests borings, samples, field and laboratory reports, final soil reports and logs, and foundation engineering evaluations and recommendations.

5.4 Miscellaneous Tests, Inspections, and Reports

The Owner shall furnish, at the Owner's expense, air and water pollution, hazardous material, environmental, and any other miscellaneous laboratory tests, inspections, and reports as may be required.

5.5 Approval or Disapproval of Design Work

Any approval or failure of the Owner to disapprove or reject design work submitted by the Professional shall not constitute an acceptance of the work such as to relieve the Professional of his full responsibility to the Owner for the proper and professional performance of all design work on the Project.

5.6 Owner Response

The Owner shall act with reasonable promptness on all submissions from the Professional, which require action by the Owner, in order to avoid unreasonable delay in the progression of the Project through the various Phases outlined in Article 1.

5.7 Notice of Nonconformance

The Owner shall notify the Professional immediately if the Owner becomes or is made aware of any fault or defect in the Project or nonconformance by any party with the Contract Documents.

5.8 Copies of Owner's Documents

The Owner shall supply the Professional with copies of the Owner's Form of Agreement between Owner and Contractor and General Conditions of the Contract for Construction for inclusion, by the Professional, in the Bidding Documents. It shall be the Professional's responsibility to access, review, and implement The Pennsylvania State University Design and Construction Standards information provided by the Owner on the Office of Physical Plant web page. Refer to web page content listing in Exhibit C.

5.9 (OPTIONAL) Preconstruction Services

The Owner intends to independently retain a Construction Management firm to provide preconstruction and construction services. The Professional will assist the Owner in reviewing proposals and allow for two full days of meetings to interview and rank prospective construction management firms.

ARTICLE 6: CONSTRUCTION COST

6.1 Project Cost Determination

The Construction Cost for all work described in the Construction Documents, as approved by the Owner shall be determined as outlined below, with precedence in the order listed:

6.1.1 For completed construction, the total cost to the Owner for such construction work less the amount of any change order work necessary because of errors or omissions on the part of the Professional as defined in Subparagraph 1.6.14 Errors and Omissions.

6.1.2 If the Project is not constructed, the sum of the lowest bona fide bids(s) received for all of the work, providing said bids do not exceed the fixed limitation of Construction as defined in Paragraph 9.1.4 or as amended by written agreement by the Owner and Professional as the basis for design. If such bids exceed the limitation previously agreed upon, said limitation shall become the basis of cost.

6.1.3 If bids are not received, the latest Construction Cost Estimate prepared by the Professional, provided such estimate does not exceed the fixed limitation of construction as defined in Paragraph 9.1.4 or as amended by written agreement by the Owner and Professional as the basis for design.

6.2 Notification

It shall be the Professional's responsibility to promptly notify the Owner if, in the Professional's opinion, the Project cannot be designed and constructed within the fixed limitation on the cost of construction as

authorized by the Owner. It is the Professional's responsibility to so notify the Owner as soon as such a situation becomes, or should have become, apparent to the Professional.

6.3 Owner Options

If, without written acknowledgment by the Owner, the Professional permits the Construction Contracts to be bid, and if the fixed limitation on the cost of Construction is exceeded by the lowest bona fide bid(s) or negotiated proposal, the Owner may: (1) give written approval of an increase in such fixed limit; (2) authorize rebidding or renegotiating of the Project; (3) terminate the Project and this Agreement in accordance herewith; or (4) cooperate in revising the Project scope or quality, or both, as required to reduce the construction cost. In the case of (4), the Professional, without additional charge to the Owner, shall consult with the Owner and shall revise and modify the Construction Documents as necessary to achieve compliance with the fixed limitation on construction cost. Absent negligence on the part of the Professional in making its estimates of probable construction cost, such modifications and revisions shall be the limit of the Professional's responsibility arising from the establishment of such fixed limitation of construction costs, and having done so, the Professional shall be entitled to compensation for all other services performed, in accordance with this Agreement.

If, after notification to the Owner by the Professional that the Project cannot be designed and constructed within the fixed limitation on the cost of construction, the Professional is by written authorization by the Owner instructed to proceed without a change in the Project program, design, or in the fixed limitation on the cost of construction, the Professional shall not be responsible for the cost of any subsequent redesign.

ARTICLE 7: OWNERSHIP AND USE OF DOCUMENTS

All preliminary studies, Construction Documents, as-built documents, record drawings, special requirements, cost estimates, building information models and all other data compiled by the Professional under this Agreement shall become the property of the Owner and may be used for any purpose desired by the Owner except to use for the construction of an identical facility not covered by this Agreement. The Professional shall not be liable for any reuse of these documents by the Owner.

ARTICLE 8: PROFESSIONAL'S EXPENSES

8.1 Billable Hourly Rates

8.1.1 Direct personnel expense is defined as the direct salaries of the principals, associates, and employees of the firm who are assigned to and are productively engaged on the Project, including clerical employees.

8.1.2 Billable hourly rates for this project are included in the personnel listing in Exhibit B. Billable hourly rates shall be the direct personnel expense rate for any principal's time and a multiple of a maximum of (2.5) the direct personnel expense per hour for the Professional's employees which shall include mandatory and customary benefits such as employment taxes, statutory employee benefits, insurance, sick leave, holidays, vacations, pensions, and similar contributions and benefits.

8.1.3 The billable hourly rates set forth in Exhibit B may be adjusted annually, subject to the Owner's approval, in accordance with generally accepted salary review practices of the profession. Payroll certification shall be provided by the Professional to the Owner upon demand.

8.2 Reimbursable Expenses

Reimbursable expenses are in addition to compensation for Basic and Additional Services and include those expenses as follows for which the Professional shall be reimbursed a not-to-exceed amount for his direct "out-of-pocket" costs (no mark-up allowed on reimbursable expenses). Reimbursable expenses shall be submitted with supporting documentation, which shall include detailed, itemized receipts. Where requested or authorized by the Owner, the following shall be reimbursable:

8.2.1 Out-of-town and out-of-state travel expenses and any necessary fee or permit payment required and paid to any governing body or authority having jurisdiction over the Project. Air travel expenses shall be approved in advance by the Owner. Maximum individual per diem expenses for travel to the job site shall be based on the Owner's allowable per diem for lodging and meals for that location.

8.2.2 Expense of reproductions including reproductions of record drawings, postage and handling of Drawings, Specifications, and other documents including the preparation and distribution of all necessary bidding correspondence and documents, receipt of bid proposals, and construction contract preparation. Reproductions made for the Professional's own use or review shall not be included.

8.2.3 Expense of renderings, models, mock-ups requested by the Owner, and/or discs for electronic format submissions of record drawings.

8.2.4 Expenses of specialized consultants identified as optional additional services in Article 3 of this Agreement.

8.2.5 Reimbursable expenses for individual travel, meals, and lodging expenses are limited to individuals under the direct employ of the Professional or their approved consultants.

8.3 Cost for Consultants (consultants not included in the Basic Services proposal/procured after award)

The Professional shall be reimbursed on a multiple of one and one-tenth (1.1) times the amounts billed to the Professional for such services.

ARTICLE 9: COMPENSATION AND PAYMENT

9.1 Compensation and Payment

9.1.1 The Owner agrees to pay the Professional as compensation for those Basic Services described in Article 1, Article 2, and any other agreed upon services described in Article 3: (Insert information in appropriate option below.)

(Option #1) ___% of the authorized and approved Construction Cost as defined in Article 6.

(Option #2) an amount not to exceed _____ Dollars (\$_____) for the Professional's Personnel Expense as defined in Paragraph 8.1 and cost for Consultants.

(Option #3) a fixed sum of _____ Dollars (\$_____).

9.1.2 Payment for Basic Services will be made monthly by the Owner in proportion to the service actually performed, but not to exceed the following percentages at the completion of each Phase.

Schematic Phase	15%
Design Development Phase	20%
Construction Document Phase	35%
Bidding Phase	5%
Construction Phase/Close-Out	25%

The close-out portion of the project refers to the development of the punch list and required follow-up, the submission of the as-built documents and other close-out document requirements, ongoing commissioning support, ongoing support of design-related project issues, and the performance of the (1) year bond inspection and punch-list development.

9.1.3 Reimbursable Expenses

The Owner agrees to pay the Professional as compensation for the Professional's Reimbursable Expenses, as defined in Paragraph 8.2, an amount not to exceed _____ Dollars (\$_____).

9.1.4 The fixed limitation on the cost of construction as defined by this Agreement shall be _____ Dollars (\$_____).

9.2 Optional Additional Services Compensation

If approved, the Owner agrees to compensate the Professional for Optional Additional Services beyond Basic Services, as defined in Article 3 in accordance with the rates defined in Exhibit B and as approved by the Owner.

9.3 Payment Procedures

9.3.1 Payments are due and payable forty-five (45) days from the date that the Professional's invoice is approved by the Owner.

9.3.2 Submission of the Professional's invoice for final payment and reimbursement shall further constitute the Professional's representation to the Owner that, upon receipt from the Owner of the amount invoiced, all obligations of the Professional to others, including its consultants, incurred in connection with the Project will be paid in full.

9.3.3 Documentation accurately reflecting the time expended by the Professional and its personnel and records of Reimbursable Expenses shall be maintained by the Professional and shall be available to the Owner for review and copying upon request.

9.4 Owner's Right to Withhold Payment

In the event that the Owner becomes credibly informed that any representation of the Professional provided pursuant to Articles 8 or 9 is wholly or partially inaccurate, the Owner may withhold payment of sums then or in the future otherwise due to the Professional until the inaccuracy, and the cause thereof, is corrected to the Owner's reasonable satisfaction.

ARTICLE 10: INSURANCE

10.1 Professional Liability Insurance

The Professional shall secure and maintain, at its sole cost and expense, Professional Liability Insurance to protect against loss resulting from design errors and omissions, failure to coordinate the Construction Documents of the Project, and failure to execute the construction administration duties for the Project.

10.1.1 Unless otherwise specifically provided in this Agreement, the Professional shall secure and maintain Professional Liability Insurance with limits not less than \$1,000,000, or the total of the Professional's fee, whichever is greater.

10.1.2 The Professional shall secure and maintain Professional Liability Insurance, as required above, up to and including one year after the date of the (1) year guarantee inspection of the contracts under the Project.

10.2 General Liability Insurance

The Professional shall secure and maintain, at its sole cost and expense, adequate General Liability Insurance to protect the Owner and the Owner's respective officers, agents, servants, and employees

against claims arising out of the Professional's services during the design and construction of the Project for damages in law or equity for property damage and bodily injury, including wrongful death. The Owner shall be named as an additional insured in the policy, and the Professional shall submit a Certificate of Insurance to the Owner prior to execution of the Agreement. The limits of coverage shall be not less than \$1,000,000. The Professional is required to secure and maintain General Liability Insurance, up to and including one year after the date of the (1) year guarantee inspection of the contracts under the Project.

10.3 Certificate of Insurance

The Professional shall furnish to the Owner annually, unless otherwise requested, during the active terms of this Agreement, a Certificate from an Insurance Carrier authorized to do business in Pennsylvania indicating: (1) the existence of the insurance required under this Article; (2) the amount of the deductible; and (3) the amount of coverage of such insurance. The Professional shall submit a Certificate of Insurance covering the Professional Liability Insurance requirement up to and including one year after the date of the (1) year guarantee inspection of the contracts under the Project.

10.4 Failure to Comply with Insurance Requirements

During any period in which the Professional is not in compliance with the terms of this Article, no compensation shall be paid by the Owner to the Professional.

ARTICLE 11: TERMINATION, ABANDONMENT, SUSPENSION, REACTIVATION

11.1 Termination by Owner

The Owner shall have the right at any time, for any reason, to terminate this Agreement upon not less than seven (7) calendar days' written notice to the Professional. The Professional shall comply with all reasonable instructions of the Owner then or subsequently given relating to such termination, including but not limited to: instructions concerning delivery of drawings, sketches, and other architectural/engineering data to the Owner; discontinuance of the work on outstanding contracts; and furnishing to the Owner information concerning all action to be taken respecting outstanding agreements with consultants, contracts, awards, orders, or other matters.

Copies of Construction Documents and any other materials in existence as of the date of termination will be furnished to the Owner as requested.

11.2 Compensation in the Event of Termination

In the event of termination, the Professional shall be compensated for its services to the termination date based upon services performed on any Phase to the termination date in accordance with the Compensation and Payment schedule contained herein at Article 9.1.2.

Such compensation shall be the Professional's sole and exclusive remedy for termination.

11.3 Suspension of Work

The Owner may, at any time, direct the Professional to suspend all work on the Project, or on any part thereof, pending receipt of further notice from the Owner. In all such cases the Owner and the Professional shall agree upon an appropriate phasing-out of the work in such a manner that the work may be resumed with a minimum of added cost to the Owner, but in no event shall the work be continued beyond the completion of the Phase in which it then is. The Professional shall be compensated as if the Agreement had been terminated at the completion of the agreed Phase. If work is suspended during the Construction Phase, compensation shall be paid for all Professional services provided to the date of suspension, but no additional compensation shall be paid during the period of suspension.

11.4 Reactivation Compensation

When a Project has been suspended or terminated for a longer time than six (6) months and is subsequently reactivated using the same Professional, the Owner and the Professional shall agree, prior to the beginning of the reactivation work, upon a lump sum, or other basis, of reimbursement to the Professional for its extra start-up costs occasioned as a result of the work having been suspended or terminated.

ARTICLE 12: MISCELLANEOUS PROVISIONS

12.1 Dispute Resolution / Applicable Law

After Final Completion of the Project, any and all claims, disputes or controversies arising under, out of, or in connection with this Agreement, which the parties shall be unable to resolve within sixty (60) days of the time when the issue is first raised with the other party, shall be mediated in good faith. The party raising such dispute shall promptly advise the other party of such claim, dispute or controversy, in writing, describing in reasonable detail the nature of such dispute. By not later than five (5) business days after the recipient has received such notice of dispute, each party shall have selected for itself a representative who shall have the authority to bind such party, and shall additionally have advised the other party in writing of the name and title of such representative. By not later than ten (10) business days after the date of such notice of dispute, the parties shall mutually select a Pennsylvania-based mediator, and such representatives shall schedule a date for mediation, not to exceed one (1) day in length, and less where applicable. The mediation session shall take place on the University Park Campus of The Pennsylvania State University, or upon the campus where the Work was performed, at the option of the Owner. The parties shall enter into good faith mediation and shall share the costs equally.

If the representatives of the parties have not been able to resolve the dispute within fifteen (15) business days after such mediation hearing, the parties shall have the right to pursue any other remedies legally available to resolve such dispute in the Court of Common Pleas of Centre County, Pennsylvania, jurisdiction to which the parties to this Agreement hereby irrevocably consent and submit. Notwithstanding the foregoing, nothing in this clause shall be construed to waive any rights or timely performance of any obligations existing under this Agreement.

In all respects, this Agreement shall be interpreted and construed in accordance with the internal laws (and not the law of conflicts) of the Commonwealth of Pennsylvania.

12.2 Successors and Assigns

This Agreement shall be binding on the successors and assigns of the parties hereto.

12.3 Assignment

Neither the Owner nor the Professional shall assign, sublet, or in any manner transfer any right, duty, or obligation under this Agreement without prior written consent of the other party.

12.4 Extent of Agreement

This Agreement, including any and all schedules, proposals and/or terms and conditions attached hereto, represent the entire and integrated agreement between the Owner and the Professional and supersedes all prior negotiations, representations, or agreements, either written or oral. This Agreement may be amended only by written instrument signed by both the Owner and the Professional. In the event of a conflict between the provisions of this Agreement and those of any other document, including any that are attached hereto, the provisions of this Agreement shall prevail.

12.5 Third Party

Nothing contained in this Agreement shall create a contractual relationship with or a cause of action in favor of a third party against either the Owner or the Professional.

12.6 Hazardous Material

Unless otherwise provided in this Agreement, the Professional and its consultants shall have no responsibility for the discovery, presence, handling, removal, or disposal of, or exposure of persons to hazardous materials in any form at the Project site, including but not limited to asbestos, asbestos products, polychlorinated biphenyl (PCB), or other toxic material.

If the Professional encounters or suspects hazardous or toxic material, the Professional shall advise the Owner immediately.

12.7 Promotional Material

The Professional shall not issue or disclose to third parties any information relating to the Project without prior consent of the Owner, except to the extent necessary to coordinate the Work with the Owner's agent, Contractors, Subcontractors, etc. The Professional may, with written consent of the Owner, include design representation of the Project, including interior and exterior photographs, among the Professional's promotional and professional materials.

12.8 Terms/General Conditions

Terms contained in this Agreement and which are not defined herein shall have the same meaning as those in the Owner's Form of Agreement between Owner and Contractor and the Owner's General Conditions of the Contract for Construction, current as of the date of this Agreement.

12.9 Background Check Policy

The Professional confirms that all employees (including the employees of any subconsultants/subcontractors) assigned to this project, and who conducted their work on Penn State premises, have had background checks that meet or exceed the University's standards for the type of work being performed. All background checks should be in accordance with the background check process for third-party employees outlined in Penn State Policy HR99 Background Check Process (<http://guru.psu.edu/policies/OHR/hr99.html>).

12.10 Amendments

If any amendment to this Agreement includes additional Design Services, such additional Design Services shall be in accordance with The Pennsylvania State University Design and Construction Standards that are current as of the date of execution of the Amendment, unless otherwise agreed to by the Owner in writing. The Pennsylvania State University Design and Construction Standards can be found within the Office of Physical Plant web page (www.opp.psu.edu).

ARTICLE 13: SCHEDULE OF EXHIBITS

The attached Exhibits are part of this agreement:

Exhibit A: Professional's proposal dated _____ (Professional's proposal, or some portion thereof, is attached hereto for the sole purpose of describing the scope of work that is to be completed pursuant to this Agreement. The parties agree that any additional terms or conditions that may appear within the attached proposal, or portion thereof, shall not bind the parties, shall not become a part of this Agreement, and shall not be incorporated within this Agreement).

Exhibit B: Professional's Billable Hourly Rates.

Exhibit C: The Pennsylvania State University Design and Construction Standards listing (screen print from the Office of Physical Plant web page).

(OPTIONAL) Exhibit D: Project Schedule (including design submission dates)

This Agreement entered into as of the day and year written above.

THE PENNSYLVANIA STATE UNIVERSITY
OWNER

Title

ATTEST, Secretary

Date

(PROFESSIONAL COMPANY NAME)
PROFESSIONAL

Signature

ATTEST, Secretary

Name: _____
(print name of person signing above)

Title: _____
(print title of person signing above)

Federal ID Number: _____

Attachments



NON-BINDING ARCHITECT AND ENGINEER FEE SCHEDULE

Project: College of Medicine - Innovation Pavilion for Research & Learning
Penn State Hershey Campus

Firm Name: _____

	<u>Hours</u>	<u>Fee</u>
Program Validation/Site Analysis	_____	_____
Schematic Design	_____	_____
Design Development	_____	_____
Construction Documents	_____	_____
Bidding Phase	_____	_____
Construction Administration	_____	_____
Subtotal	_____	_____
Reimbursables (allowance)	_____	_____
Total	=====	=====

Notes: Include ALL costs for consultants within the amounts listed above. Base hours and fee on a total project budget of \$250M.

In addition to the above, please include a listing of your billable rates that will be used for this project.

Return completed form and listing of billable rates, in a separate sealed package, under separate cover, by July 18, 2017 @ Noon to:

Greg Kufner, AIA NCARB
University Architect
The Pennsylvania State University
200 Physical Plant Building
University Park, PA 16802-1118
Phone (814) 865-8177, E-mail: gak21@psu.edu