

**REQUEST FOR PROPOSALS FOR
MECHANICAL, ELECTRICAL, PLUMBING AND FIRE PROTECTION ENGINEERING SERVICES**

**Master Campus Plan
Cooper University Health Care – Camden, New Jersey
30 June 2023**

Your firm is hereby given notice of an opportunity to submit Request for Proposal response for mechanical, electrical, plumbing and fire protection engineering (MEP/FP) services for the Master Campus Plan (“Project”) for Cooper University Health Care (“Cooper”). This request for proposals is a competitive selection process to engage a firm to provide MEP/FP services for this project. The specific requirements for this Request for Proposals are set forth below.

A. PROJECT DESCRIPTION

1. Brief Overview

Hammes Company has been engaged by Cooper as program manager for the Master Campus Plan (“Project”). The Project is planned for a multi-year, multi-phased program on the site of the existing academic medical center campus located in Camden, NJ.

Cooper University Health Care (Cooper) is the leading academic health system in South Jersey. Cooper is comprised of a 663-bed tertiary care hospital, South Jersey’s only Level I trauma center, MD Anderson at Cooper, Children’s Regional Hospital at Cooper, the only Level II pediatric trauma center in the Delaware Valley, one of the largest physician groups in the region, three urgent care centers, and more than 100 outpatient offices in South Jersey and Pennsylvania. Large multispecialty centers in Camden, Cherry Hill, Voorhees, and Willingboro make it easy to schedule appointments for multiple services in a convenient location.

Cooper University Hospital is an academic, tertiary care medical center affiliated with Cooper Medical School at Rowan University and is located on the Health Sciences Campus in Camden. Cooper has a long history in the city of Camden and is playing a prominent role in its revitalization. Cooper Medical School at Rowan University has approximately 430 students, 1800 faculty members, and since its inception in 2012, graduated over 350 new physicians.

Annually, Cooper has approximately 30,000 hospital admissions, more than 1.7 million patient visits, and 400,000 outpatient hospital encounters. Cooper's primary service area is in Camden, Burlington, and Gloucester Counties and secondary service area is in Atlantic, Cape May, Cumberland, and Salem Counties.

Cooper University Health Care's mission is **To Serve. To Heal. To Educate.**

Our Team Approach: Talented, diverse professionals are central to accomplishing project goals. Their ability to collaborate at a high-level will be key to any project's success. It is Cooper's intent to build a culture of trust among the team, framing constructive attitudes and requiring leadership finesse by all parties. All principal team members will be expected to maintain a balanced focus on forward progress and value creation for the project, while maintaining accountability for every team member to control cost, quality, and schedule.

It is Cooper's intent to establish a project team including the Owner, Program Manager, Architect, Geotechnical Engineer, Civil Engineer, Structural Engineer, MEP/FP Engineer and Construction Manager as well as other necessary Consultants. In the team approach, each team member will have accountability to each other and will have individual leadership within its sphere of responsibilities. Representatives from these principal parties will collaborate at the Project and campus master program level as well Project Steering Committee member participation.

In the spirit of openness' and collaboration, the general and salient responsibilities for each of the principal team members follow. Specific responsibilities will be defined by individually executed owner agreements based on the standard negotiated AIA suite of contracts.

Cooper and the Program Manager will have overall responsibility for directing the design and construction efforts, coordinating all team members so they will provide their necessary services in a complete and timely manner. They will drive the rapid and dependable internal decision-making and bi-directional reporting between the design and construction teams and Cooper leadership. They will also assure that sufficient funds are available to complete the project within the current budget estimates.

The Architect of Record is to lead the research, program validation, ideation, best practice application, budget adherence, design, design schedule adherence, standard of care execution, documentation, and construction administration for the project to meet the project goals and objectives, regulatory guidelines, and the scope approved by Cooper. Currently, HKS & Array Architects are engaged in programming and pre-design activities and will deliver a Conceptual Design Package as a

deliverable to the current and future state discovery along with KPU data development efforts.

The Construction Manager, during the design phase, will be an advisor on construction methods and costs, through continuous cost modeling. The Construction Manager (CM) will attend and provide target value design cluster meeting input and lead value engineering efforts through a capable in-house source or by having subcontractors' resources. During the construction phase, the CM will lead the construction planning, logistics, procurement of labor and materials, installation, and coordinate commissioning.

The Geotechnical Engineer ("Geotech") is Langan and will contract directly with Cooper and will work in collaboration with the architect, civil engineer, structural engineer and CM by providing field explorations, soil sampling, field testing, analysis, and geotechnical investigation reports required for the planning, design and construction administration of the Project.

The Civil Engineer ("Civil") is Langan and will contract directly with Cooper and will work in collaboration with the architect, Geotech, structural engineer, and CM by providing site planning, surveying, environmental planning, utility plans, grading and drainage plans, and sedimentation/erosion control plans required for the planning, design and construction of the Project.

2. Scope of the Project

Cooper University Healthcare Care's Master Plan guiding principles include:

- *Address the clinical, ancillary, support, education, and research space needs for Cooper University Health Care, and provide for future growth and flexibility*
- *Provide an environment that supports the highest clinical care and safety, operational efficiency, and an outstanding patient and employee experience*
- *Address the aging plant and infrastructure with no long-term investment in Kelemen and Dorrance*
- *Highly collaborative, interdisciplinary, approach that includes significant stakeholders input and engagement at all levels and through all stages of planning and design*

To further its mission, Cooper will soon begin the significant, multi-year, multi-phased project on the site of their existing academic medical center campus located in Camden, New Jersey. The Project will be accomplished in two (2) phases as described within the below bullets.

For this RFP and in summary, the Project will only include Phase A as the project scope. Phase B will be accomplished as a future change, if appropriate. Phase A and Phase B are described below.

- Phase A – Tower A (264,000 BGSF per Exhibit A) pre-design and comprehensive pre-design and design (SD Phase, DD Phase, CD Phase, and Construction Phase) infrastructure design to support required improvements for Tower A occupancy, and Towers B (265,800 BGSF per Exhibit A) and C (523,000 BGSF per Exhibit A) schematic design phase.
- Phase B – Not included in this RFP and will include the design completion of Towers B and C (DD Phase, CD Phase, and Construction Phase), demolition design for existing Cooper buildings and infrastructure design to support required improvements for Towers B and C occupancy. Demolition of existing buildings (including design) required for Towers B and C construction within this phase.

Initial planning has been accomplished for Cooper's Master Campus Plan initiative and documents being shared are described below. These planning documents will serve as the starting point for the selected architectural team to complete pre-design (programming, conceptual blocking/staking, exterior building schemes and campus infrastructure plan) prior to starting schematic design. A master program schedule has been included as an exhibit to illustrate the multiple parallel design and construction activities that will need to be accomplished. The selected project team will be required to provide the resources and staffing to support the approach described within the master program schedule.

- Central Plant Facility Condition Assessment dated June 2020 (Exhibit F)
- Master Campus Pan Space Program Basis (Exhibit A)
- Master Campus Plan dated December 14, 2021 (Exhibit B)

3. Summary of MEP/FP Engineering Services

The successful MEP/FP engineering team will provide the services as described below and within the contract document exhibits. Please note that this is not intended to be a fully descriptive list of every task that needs to be performed. Given the depth of experience represented by the firms being considered, Cooper and the Program Manager expect each firm is aware of what goes into designing and coordinating a project of this scope and scale and we are seeking the full complement of MEP/FP engineering services from start to finish. Once selected by Cooper, the selected MEP/FP engineering team will be made aware of the independently selected architectural and structural firms they will be required to contract and collaborate

with for the coordination and delivery of these specific services. Cooper may consult with the selected architectural team on specific parameters and specific interface considerations related to this arrangement as described. Still the agreement will be held by the architectural firm with all consultants contracted through the architect.

- AIA Document B101 Agreement (Exhibit C)
- Design Scope of Services & Responsibility Assignments (Exhibit D)
- Design Phase Deliverables (Exhibit E)

Section C (Scope of Services) of this RFP further describes professional services and responsibilities to be provided.

B. PROJECT SCHEDULE

Program Manager has established the following summary schedule. This project schedule is provided solely for the purpose of preparing a proposal for coordinating architectural and engineering services.

1. Summary Schedule

8/11/23	Tower A; Pre-Design Phase Package Issued
8/11/23	Towers B & C; Conceptual Layout
9/11/23 – 2/15/24	Tower A; SD Phase (includes budget/schedule updates)
9/11/23 – 12/31/23	Towers B & C; Pre-Design Phase
3/1/24 – 6/30/24	Tower A; DD Phase & Early Bid Packages / Core & Shell CDs
5/1/24 – 10/31/24	Towers B & C; SD Phase (includes budget/schedule updates)
5/1/24 – 10/31/24	Tower A; CDs (incl GMP/AHJ approvals)
10/1/24 – 12/31/26	Tower A; Construction

2. MEP/FP Engineering Services RFP Timeline

6/30/23	Issue request for proposals
7/6/23	Deadline for RFP clarification / questions
7/11/23	Responses to questions received (shared with all)
7/18/23	Deadline for receipt of proposals (3:00pm EST)
8/1/23	Notification to selected firm(s) of short-list and interview(s)
Week of 8/14/23	Short Listed Firms Interviews <i><u>(short listed firms will be required to submit fee proposal in a sealed envelope on the date of their designated interview session)</u></i>
8/21/23	Selected firm announcement
Week of 8/28/23	Kick-off meeting

C. SCOPE OF SERVICES

The successful MEP/FP engineering team will provide the services as described below. Please note that this is not intended to be a fully descriptive list of every possible task that needs to be performed. Given the depth of experience represented by the firms being considered, Cooper and the Program Manager expect that each firm is well aware of what goes into designing and coordinating a project of this scope and scale and we are seeking the full complement of structural engineering services from start to finish. The following items are intended to identify the major expectations of the successful firm. If there are questions regarding scope that will have a material impact on this proposal, please request further clarification.

Diversity: Cooper values diversity in the work force, patient population, and with our partner companies. Cooper promotes within the State of New Jersey and local communities MWBE and Veteran participation with our institution to maximize community participation with potential consultants and vendors.

Cooper expects the successful firm to take affirmative steps to strongly consider contracting opportunities for minority-owned, women-owned, and veteran-owned businesses. As used in this RFP, the term “minority owned business”, “women owned business,” and “veteran owned business” means a business is at least fifty-one percent (51%) owned, certified, and controlled by minority group members, women, or veterans. For purposes of this definition, “minority group members are African Americans, Spanish speaking, Spanish surnamed, or Spanish heritage Americans, Asian-Americans, and Native Americans.

Affirmative steps would include dividing total requirements, when feasible, in smaller tasks or quantities to permit meaningful participation by minority-owned, women-owned, and veteran-owned businesses.

Local Participation: Cooper values the participation of small firms, local to New Jersey firms, and Camden-based firms in the project.

Support for Local Hiring & Apprentice Programs: While not within the immediate scope, the successful firm is expected to be aware that one goal of the project is to facilitate employment among Camden residents and support that goal through its interaction with members of the project team. These efforts may include the development of apprentice programs in conjunction with local labor organizations and job postings through the Camden Works initiative.

Lead Team Formation: The successful firm will provide the management and oversight of the process (including engagement of design consultants) required to complete the MEP/FP design of this Project. Cooper and Program Manager will play a meaningful role in this process and Cooper reserves the right to make the final decisions on team membership. The architect will hold the contracts for all design and engineering (Cooper selected and otherwise) consultants brought onto the team per Exhibit C and copies of executed agreements will be provided to the Cooper and Program Manager. As noted above, Cooper is also considering the implementation of participation goals related to minority and disadvantaged businesses diversity inclusion. To the extent targets for participation are set, these will also pertain to the design team and the successful firm will be expected to participate in this aspect of the project and demonstrate via your response to this RFP, your firm's successful implementation of a Diversity Inclusion (SBE, WBE, MBE and Veteran) effort on similar projects within the last 5 years.

Pre-Design Validation: Selected firm will review previously completed pre-design services to include demand analysis, program development, and conceptual design prior to starting schematic design and identify pre-design services required before the start of schematic design. Pre-design services will address all requirements of the master campus plan (Tower A, Tower B, Tower C, and infrastructure improvements to support each tower addition). In addition, review and development of required grant funding requirements will be part of this effort. Fundamental assumptions will be provided to the selected firm per Exhibits A and B. The awarded will be required to validate the conceptual design package prepared by HKS and its consultants and will be available approximately August 11, 2023.

Design: The MEP/FP engineering firm will support the project team and Cooper through the design process from schematic design through design completion. The process will be collaborative and highly inclusive and will afford the owner with a well thought out process that allows for informed decision making in a planned, deliberate, and timely manner. The MEP/FP engineering team will be expected to coordinate with Cooper, the architect, the Program Manager, and other owner contracted consultants and owner independently selected engineering/consultant firms appointed under the architect's contract as they are engaged per Exhibit D. We expect this project will be designed using Building Information Modeling (BIM) and that the design and construction team will collaborate early in the project to develop a BIM plan specific to be documented via an AIA Document E203-2013, Building Information Modeling and Digital Data Exhibit. We also expect the Project will pursue and achieve sustainability measures supporting Cooper sustainability initiatives (this assessment is currently in progress). The design and construction process will include basic commissioning with the enhanced commissioning agent being hired by Cooper. The design team will be expected to engage with, coordinate with and allow for an effective commissioning process to occur. A construction manager will be engaged

prior to the completion of pre-design to provide common pre-construction tasks such as cost estimating, scheduling, and providing constructability advice. While the construction manager will typically lead these pre-construction and construction phase activities, the design team will be expected to actively participate in all aspects of this work to ensure a project that is completed in the most cost and time effective manner possible at the highest quality possible. The following is a representative, although not all-encompassing, list of tasks the consulting engineer[s] are responsible for during the design process.

- **General**

- Support development of schematic design (SD) phase, design development (DD) phase, construction documents (CD) phase drawings and specifications with Cooper and its representatives to include development of options/alternates to support the development of design and enable timely Cooper and Program Manager decisions. Cooper's design phase approval process will be communicated prior to the start of the SD phase.
- Support the development and communications to obtain timely AHJ entitlements, design, and permit approvals. The design phase will not be deemed complete until AHJ approvals for the design have been received.
- Participate in reviewing and updating target value design (TVD) budget the Project's duration to include assisting in the evaluation and preparation of cost saving alternative during the design and construction phases and incorporating approved alternatives within the design documents. Assume 250 hours of participation.
- Coordinate and incorporate within SD, DD and CD documents all details associated with owner-furnished medical equipment planner consultant, AV/IT/IS/security equipment consultant to complete the project. This includes fixed equipment, moveable equipment, furniture, and all low voltage systems.
- Coordinate and incorporate within SD, DD and CD documents all details associated with Cooper occupancy requirements to include phased occupancy. Design documents will support phased occupancy and temporary certificates of occupancy to support Cooper occupancy requirements.
- To further its mission, Cooper University Care will soon begin the significant, multi-year, multi-phased project on the site of the existing academic medical center campus center campus location (Camden, New Jersey). The project will be accomplished in two (2) phases, as described within the below bullet points. The scope of the engagement will include Phase A as the project scope. Phase B up through Schematic Design is included in this engagement; however, the Design Development through the Construction Administration phases for Phase B will be accomplished as a future additional engagement and not part of this proposal.
- It is anticipated that this project will require multiple early packages to support the currently planned construction schedule. At a minimum, the consulting engineer should consider an early normal power distribution gear and transformers and early emergency power systems and transfer gear in the project scope.

- **Central Utility Plant**

- The engineer shall review the current operations of the existing Cogeneration Plant. Emissions shall be reviewed and coordinated with the new boiler addition. The CoGen power, heat recovery, and chilled water operations shall be reviewed and integrated into the Campus Expansion Plan. Further, Considerations such as any impact to the campus Air Permit resulting from the boiler replacement, shall be made clear to the Owner and the Engineer shall coordinate with specialty consultant(s) as required.

- **General Building Systems Scope of Services**

- Site survey to validate the existing MEP infrastructure conditions on campus for the main equipment located in the Central Energy Plant (CEP). Confirm how the existing steam, chilled water, normal power, emergency power and oxygen services are distributed on site. Previously prepared Existing Conditions report will be made available but the EOR will be required to perform their own site analysis to confirm all findings and how those existing services are to be leverage to support the new expansions of the campus. Site survey to include the Cogen and Heat Recovery equipment.
- The existing CEP chilled water and heating systems will require upgrading to accommodate the new Tower A project and are to be strategically designed to allow a seamless expansion to support future Towers B&C. Work shall include the integration of the existing standalone chiller plants into a single cohesive whole. By replacing the 750-ton chiller/cooling tower within the CEP, the chilled water plant will expand by 1500 tons to support Tower A, Bridge and new enclosure at MD Anderson. The heating plant upgrade will include installation of a new 28,000 PPH steam boiler and making modifications to the cogeneration system to augment the overall heating system distribution. Considerations such as any impact to the campus Air Permit resulting from the boiler replacement, shall be made clear to the Owner and the Engineer shall coordinate with specialty consultant(s) as required. A new Heat Exchanger within the CEP is required to generate heating hot water for the new Tower A. The steam lines from the existing Roberts Pavilion will be extended to Tower A for humidification. Tower A shall be equipped with HVAC equipment sized and configured to operate with 100% outdoor air in a pandemic mode as directed by the Owner. Separate, stand alone, air-side systems within Tower A shall serve the MCC as required and directed by the Owner. This Consulting Engineer to verify all calculations, loads, and methodologies suggested in the Conceptual Design Package.
- A new campus generator plant shall be constructed adjacent to the existing generators that are located within the CEP. The initial fit out of the new plant will be to provide the required new generators to support the new Tower A with a strategic growth plan to add future generators to allow the phasing out of the existing aged generators that support existing buildings on campus and to provide capacity for the future Tower B and C emergency loads. The existing FO system shall be replaced or augmented to serve generator run times at power levels serving the eventual campus build out.

- Medium voltage normal power service shall be extended to support Tower A. Coordination with the local service provider will be required.
- Oxygen from the existing bulk storage location must be extended to Tower A. The fire pump and fire reserve shall be coordinated with the Roberts Pavilion.
- Tower A shall be provided with high performance energy efficient HVAC systems whose performance will exceed the requirements of the current energy code by at least 20%. The base design shall be robust in a manner which would accommodate LEED Silver construction or compliance with the WELL building certification as directed the Owner. The base design shall include a geotechnical system capable of supporting at least 175 tons of colling or 2,000 MBH heating, summer/winter respectively. The work required to support a geothermal test well shall be included and this information shall be used to perform final sizing of the geothermal field. The cost of a separate specialty consultant to complete the DD and CD design work and support the construction of the geothermal field shall be borne by the Owner. The energy recovery systems in the CEP shall be modified and upgraded to support the campus 10-year expansion plans. A complete steam, chilled water, natural gas, and electrical metering package must be developed for the entire campus. A new campus wide integrated BMS/EMS is required to monitor, control, and optimize the major energy consuming systems.

Construction Administration (CA) and Project Closeout: The MEP/FP engineering team will lead, support, and provide an approved CA Plan that ensures the MEP/FP engineering team will provide timely and effective construction phase administration. Full-time on-site services are not required, although there may be periods of the project (sometimes sustained periods) where increased representation will be warranted. The MEP/FP engineering team will ensure that the MEP/FP engineering team meets the needs of the project as it evolves through its construction duration with a weekly visit by the appropriate discipline anticipated to be the minimum requirement. The team will work together during the early phases of the project to better define expectations regarding this scope of service. The project team will generate RFI responses on average within five (5) days upon receipt and submittal responses on average within ten (10) days upon receipt. The MEP/FP engineering team will collaborate with Cooper's enhanced commissioning agent to ensure proactive coordination with regards to operating systems meet design parameters for efficiency, output, and overall performance. The MEP/FP engineering team will ensure all punch list items are completed and that all required closeout documents are turned over to the owner in accordance with the contract documents.

Post Occupancy Survey: Eleven (11) months after the Certificate of Occupancy is awarded to the project, the MEP/FP engineering team will coordinate with the design consultants and construction team to walk through the project with Cooper and the Program Manager and assess performance issues related to equipment, finishes, and building performance before warranties expire.

D. PROPOSAL REQUIREMENTS

The Proposal(s) for MEP/FP engineering services shall provide the information necessary for an evaluation of each firm by Cooper and the Program Manager. This information coupled with interviews for shortlisted firms will provide the basis for selection of the MEP/FP engineering services provider.

RFQ acknowledgement and intent to respond are to be transmitted via email to John Delli Carpini (jdelli@hammes.com)

Questions are to be electronically submitted by date noted (12pm EST) to John Delli Carpini (jdelli@hammes.com)

Qualification Proposals shall not exceed thirty (20) pages, excluding summary team resumes, and are to be electronically submitted by date noted (3pm EST) to:

- Robert Stag, Manager Contracting – stag-robert@cooperhealth.edu
- John Healy, SVP at Hammes Company Healthcare - jhealy@hammes.com
- Marvin Daniels, VP at Hammes Company Healthcare - mdaniels@hammes.com
- John Delli Carpini, SPX at Hammes Company Healthcare – jdelli@hammes.com

There shall be ***no direct communication*** with Cooper senior management, staff or Selection Committee members during upon receipt of the RFP through the architectural firm selection announcement. Any communication could result in firm disqualification. All questions should be directed through the Program Manager noted above.

Proposal Format for MEP/FP Engineering Services

Cover Letter

Table of Contents

Section 1.0 - Executive Summary

Please provide a brief summary which describes and highlights the experience, qualifications and particular expertise for this project for each of the firms being proposed to meet the basic services scope of work.

Section 2.0 - Company Information

- 2.1 Discuss the Firm's background, ownership and proposed contact office.
- 2.2 Indicate if the firm is currently licensed in New Jersey.
- 2.3 Discuss the stability of the firm's leadership.
- 2.4 Is firm proposing to work under any Joint Venture or other partnership agreements? If yes, please provide requested information for each firm and each firm's role in the JV or partnership.
- 2.5 A description of any litigation involving the firm in the last five years.
- 2.6 Has the firm, under its current name or any predecessor names, ever declared bankruptcy?
- 2.7 Has the firm ever been dismissed from work on a project? Describe the circumstances.
- 2.8 Describe any fiduciary arrangements with manufacturers or distributors.
- 2.9 Provide a statement indicating the annual healthcare project volume in the past five years.
- 2.10 Provide Proof of Insurance

Section 3.0 – Project Experience

Please provide one-page descriptions and profiles of five (5) projects of similar scope and complexity to the project described earlier in this RFP and which involved the MEP/FP engineer and other members of the proposed MEP/FP engineering team. Emphasis should be placed on those projects involving the firms and personnel to be assigned to this project. Each project profile shall include a reference for the project to include the reference's name, title, role on the project and contact information.

Please also include a matrix that reflects all projects where the MEP/FP engineering firm has worked with other Consultants of the proposed MEP/FP engineering team.

Section 4.0 – Project Planning & Management Team

Please provide a narrative which describes your approach toward management of the Project and anticipated contractual arrangements described for various delivery of services requirements– recognizing the time constraints set forth in the Project Schedule. The following information shall be provided to highlight the experience and qualifications of each of the key personnel (from each firm) to be assigned to the Project:

- 4.1 Project Team Organization Chart or matrix indicating staff and structure for each phase of the project. Identify the role of each proposed team member, the amount of time each team member will spend on the project including onsite and offsite time, the day to day main point of contact and escalation provisions for major issues.
- 4.2 List of current assignments and schedules for personnel assigned to the Project.
- 4.3 How your firm would address turnover of personnel assigned to the Project
- 4.4 How your firm has provided sustainability leadership and maximized efficiency targets at minimal cost to the Project.
- 4.5 A list of all sub-consultants proposed as part of your team for this project and their specific role on your team. Additional client references must be provided for each sub-consultant(s) listed. Owner has full discretion to review, evaluate and accept or reject any proposed sub-consultant(s) listed.

Note – If sub-consultant(s) are required as part of your team to fulfill your ability to provide the services outlined in this RFP, a written commitment from your firm should be provided regarding your responsibility for the work of the sub-consultant(s) on your team. Owner will not retain responsibility for your sub-consultant's work effort or deliverables.

Section 5.0 – Tower A & Master Campus Plan Approaches

Please provide a narrative describing your approach for the items listed below.

- 5.1 Your approach to community partnership includes urban context considerations Particularly as it relates to noise and light pollution and impacts on surrounding properties and environments.
- 5.2 Your design management approach and strategies to manage supply chain and inflation challenges.
- 5.3 How will your firm continue to develop an Owner approved conceptual a design package as described below. A conceptual design package will be provided to the selected structural engineering team.
 - Tower A functional program, block and stack diagrams and adjacency drawings.

- Tower A structural grid/lateral support basis of design.
 - Tower A MEP engineering narrative describing infrastructure augmentations, utility routing and associated energy initiatives.
 - Tower B and C adjacent drawings and concept diagrams.
 - Tower B and C MEP infrastructure report, including central plant.
 - KPU analysis of service lines associated with Towers A, B, and C.
- 5.4 Your target value design (TVD) approach during preconstruction and construction with project team members.
- 5.5 Your management approach to managing multiple planning and design development work efforts to include staffing approach.
- 5.6 Your management approach for required AHJs for this Project.
- 5.7 Your contract administration process to support a lean construction project delivery includes RFIs, submittals, alternative assessment, field observations, quality control, etc.
- 5.8 Your diversity and inclusion approach with specific description and narratives on successful diversity inclusion (SBE, MBE, WBE and Veteran) implementation on similar projects within the last 5 years with respect to achieving and exceeding target goals and or “good faith” measures adopted by previous clients.
- 5.9 Schedule opinions that you would propose to Cooper and the Program Manager to enable Tower A construction to start as early as possible to enable Tower A construction to achieve substantial completion by December 31, 2026. Opinions should describe the durations of Owner and AHJ approvals to support proposed schedule opinions.

Section 6.0 – Standard Form of Agreement

Provide any and all itemized and specific comments on the proposed draft contract found at Exhibit C. In addition, design phase deliverables requirements have been described within Exhibit E. If there are no comments, please state such. Keep in mind this consultant will be contracted with the Architect not as an owner direct agreement.

Note: Proposals provided in response to this RFP without exceptions noted, will be considered to have acknowledged full acceptance of the terms of the standard agreements.

Section 7.0 – Team Member Resumes (not included in noted page limit)

Summary resumes of each proposed team member (no more than 1 page per resume). Resume shall include two individual references per proposed team member.

Section 8.0 – Fee Proposal

Exhibit G shall be completed by short-listed architectural firms and shall be provided to Cooper on the designated day of the interview.

E. OWNER'S DISCRETION

Owner, at its discretion, may:

1. Choose not to accept any or all proposals submitted in response to this RFQ.
2. Use additional selection criteria, at its own discretion, not identified in this document.
3. Make an award, at its own discretion, based on factors other than the fee proposal.
4. Request that a respondent submit an alternate sub-consultant.
5. Retain all documents submitted in response to this proposal; however, it will not make public any confidential information provided such information is clearly identified.

F. EXHIBITS

- A. Cooper University Bed Count
- B. Master Campus Plan Overview
- C. AIA Document B101 Agreement
- D. Design Scope of Services & Responsibilities Assignments
- E. Design Phase Deliverables
- F. Facility Condition Assessment
- G. Proposal Fee, Reimbursable Expenses & Hourly Rates
- H. Insurance Requirements To Owner: Copper University Health Care
 - General Liability
 - \$1,000,000.00 Combined Single Limit for Bodily Injury and Property Damage
 - \$5,000,000.00 General in the Aggregate
 - Cyber Liability of not less than \$3,000,000.00
 - Excess Umbrella of not less than \$10,000,000.00
 - Employers Liability
 - \$2,000,000.00
 - Automobile Liability
 - \$1,000,000.00 Combined Single Limit for Bodily Injury and Property Damage
 - Workers Compensation
 - \$1,000,000.00
 - Errors & Omissions Professional Liability
 - \$5,000,000 General Aggregate

Cooper University Hospital
Projected Space Program Summary
Use for Conceptual Planning Purposes Only

Main Hospital	Current State	Proposed Space Needs				
		Maintain Roberts	Replace Kelemen & Dorrance	Growth 108 Beds	Total Replace + Growth	Total Projected
	DGSF	DGSF	DGSF	DGSF	DGSF	DGSF
Inpatient	305,161	150,356	310,338	75,080	385,418	535,774
Diagnostic & Treatment (D&T)	180,266	45,872	145,511	59,000	204,511	250,383
Ancillary	50,325	22,479	42,604	20,516	63,120	85,599
Support	45,222	4,529	68,660	21,620	90,280	94,809
Administrative	60,798	736	62,426	10,584	73,010	73,746
Public	12,776	12,776	-	2,916	2,916	15,692
Total	654,548	236,748	629,539	189,716	819,255	1,056,003
Total Beds	637	208	429	108	537	745
BGSF Factor (Ext Walls, Stairs, Elev, Circ)	1.12		1.30	1.30	1.30	1.24
Total BGSF *	736,115	241,563	818,401	246,630	1,065,031	1,306,594
BGSF/ Bed	1,156	1,161	1,908	2,284	1,983	1,754

*Excludes Central Energy Plant

47.0%
25.0%
7.7%
11.0%
8.9%
0.4%

	DGSF	BGSF
Pavilion A	203,200	264,000
Pavilion B	204,333	265,800
Pavilion C	402,150	523,000
Roberts Dock	2,077	2,700
Tower C Road Infill	4,923	6,400
Total NEW SF	816,683	1,061,900
Admin (Backfill TBD)	43316	
Admin (Backfill TBD)		

EXHIBIT A Space Program Input

Use for Conceptual Planning Purposes Only

Cooper University Hospital Master Space Program Summary

Area / Department	Existing			DGSF/ KPU	DGSF/KPU Ranges		DGSF/ KPU	Maintain		
	Bldg	KPU	DGSF		Low	High		KPU	DGSF	Gap
Pavilion										
10P - ICU (underway)	Pavilion	28 Beds	20,800	743	700	950	743	28	20,800	0
9P Cardio PCU Stepdown	Pavilion	30 Beds	21,371	712	600	750	712	30	21,371	0
8P Surgery Med Surg	Pavilion	30 Beds	21,371	712	600	750	712	30	21,371	0
7P Ortho Neuro	Pavilion	30 Beds	21,371	712	600	750	712	30	21,371	0
6P Surgery Med Surg	Pavilion	30 Beds	21,740	725	600	750	725	30	21,740	0
5P Oncology	Pavilion	30 Beds	21,787	726	600	750	726	30	21,787	0
4P ICU	Pavilion	30 Beds	21,916	731	700	950	731	30	21,916	0
Subtotal Beds		208	150,356	723			723	208	150,356	0

Additional Growth

Area / Department	Existing			DGSF/ KPU	DGSF/KPU Ranges		DGSF/ KPU	Growth		
	Bldg	KPU	DGSF		Low	High		KPU	DGSF	Gap
GROWTH										
Bed Growth - ICU							750	8	6,000	(6,000)
Bed Growth - Med Surg							712	58	41,296	(41,296)
Bed Growth - CDU							500	10	5,000	(5,000)
Bed Growth - Oncology							712	32	22,784	(22,784)
Subtotal Beds							695	108	75,080	(75,080)

Area / Department	Existing			DGSF/ KPU	DGSF/KPU Ranges		DGSF/ KPU	Target SF for Replacement		
	Bldg	KPU	DGSF		Low	High		KPU	DGSF	Gap
Kelemen										
10N Med Surg	Kelemen	36 Beds	9,312	259	▲ 600	750	712	36	25,632	(16,320)
10S INCU / Med Surg	Kelemen	34 Beds	9,317	274	▲ 600	750	712	34	24,208	(14,891)
9N Med Surg	Kelemen	36 Beds	9,331	259	▲ 600	750	712	36	25,632	(16,301)
9S Med Surg	Kelemen	34 Beds	9,412	277	▲ 600	750	712	34	24,208	(14,796)
8N Med Surg	Kelemen	37 Beds	9,638	260	▲ 600	750	712	37	26,344	(16,706)
8S Med Cardio	Kelemen	36 Beds	9,343	260	▲ 600	750	712	36	25,632	(16,289)
7N Trauma Stepdown	Kelemen	9 Beds	3,881	431	▲ 600	750	712	9	6,408	(2,527)
7N Int. Trauma Med Surg	Kelemen	23 Beds	6,065	264	▲ 600	750	712	23	16,376	(10,311)
7S Pediatrics	Kelemen	27 Beds	8,584	318	▲ 600	750	712	27	19,224	(10,640)
6N PICU	Kelemen	6 Beds	4,189	698	700	950	750	6	4,500	(311)
6N PIMU	Kelemen	12 Beds	6,398	533	▲ 600	750	712	12	8,544	(2,146)
5N										
5S Psych	Kelemen	15 Beds	6,696	446	▲ 650	900	712	15	10,680	(3,984)
4N CCU	Kelemen	12 Beds	6,711	559	▲ 700	950	750	12	9,000	(2,289)
3N TSICU	Kelemen	16 Beds	9,339	584	▲ 700	950	750	16	12,000	(2,661)
CDU										
Clinical Decision Unit (CDU)	Kelemen	20 Rooms	7,595	380	▲ 450	750	500	20	10,000	(2,405)
Emergency (1 Bed)	Kelemen	1 Bed					700	1	700	(700)
Subtotal Beds		354	115,811	327			704	354	249,088	(133,277)

5th Floor
LDR(8), Csection (2)
Imaging - Ante Postpartum
Post Partum (10)

4th Floor
NICU (35)
TBD

605

EXHIBIT A

Space Program Input

Use for Conceptual Planning Purposes Only

Cooper University Hospital

Master Space Program Summary

Area / Department	Bldg	Existing		DGSF/ KPU	DGSF/KPU Ranges		DGSF/ KPU	Maintain		
		KPU	DGSF		Low	High		KPU	DGSF	Gap
Area / Department		Existing		DGSF/ KPU	DGSF/KPU Ranges		DGSF/ KPU	Target SF for Replacement		
		KPU	DGSF		Low	High		KPU	DGSF	Gap
Dorrance										
06 LDR (8) / Csection (2) / (9) Triage	Dorrance N/S	8 LDR	11,426	1,428	1,000	1,400	1,150	8	9,200	(1,824)
06 LDR ED / Triage	Dorrance	9 LDR	inc				450	9	4,050	
Imaging - Ante Postpartum	Dorrance N	3 Rooms	3,329	1,110	750	1,500	1,150	3	3,450	(121)
05 NICU	Dorrance N	35 Beds	10,178	291	450	750	450	35	15,750	(5,572)
05 Post Partum (inc. 9 Non Lic)	Dorrance S	25 Beds	5,780	231	650	800	720	16	11,520	(5,740)
03 Post Partum (inc 7 non lic)	Dorrance S	31 Beds	8,256	266	650	800	720	24	17,280	(9,024)
Subtotal Dorrrance Beds		111	38,994	351				95	61,250	(22,281)

12,650
7000
19,650

Additional Growth

5th Floor
LDR(8), Csection (2)
#REF!
Post Partum (10)

Area / Department		Existing		DGSF/ KPU	DGSF/KPU Ranges		TARGET	Target SF for Replacement			Growth		
		KPU	DGSF		Low	High		KPU	DGSF	Gap	KPU	DGSF	Gap
CATH/ IR / NEURO													
Cath/EP	Kelemen	6 Rooms	13,286	2,214	2,600	3,500	3,200	6	19,200	(5,914)			
Future CATH / EP / IR (Placeholder)							3,200				2	6,400	(6,400)
Treatment													
Dialysis, inc 1st FI Office	4 Kelemen	5 Rooms	2,184	437	300	600	500	5	2,500	(316)			
Short Procedure Unit	5 Kelemen	1 Proc	3,267	3,267	1,200	2,000	1,500	1	1,500				
Special Testing Unit - Infusion	5 Kelemen	9 Chairs	1,961	218	300	600	400	9	3,600	(1,639)			
Special Testing Unit - Endo/Bronch/I	6 Kelemen	8 Proc	8,926	1,116	1,200	2,000	1,500	8	12,000	(3,074)			
Peds Treatment	7 Kelemen	2 Chairs	1,111	556	300	600	500	2	1,111				
SURGERY													
Surgical - Day Surgery	Pavilion	8 OR	23,254	2,907	2,600	3,500							
Surgical -OR Pavilion	Pavilion	11 OR	22,618	2,056	2,600	3,500							
Surgical -OR Kelemen	Kelemen	12 OR	39,375	3,281	2,600	3,500	3,200	12	38,400				
Future Growth (6 IP, 2 OP, 1 Onc Growth)							3,200				9	28,800	(28,800)
Subtotal Procedural Areas		62	115,982	1,871				43	78,311	(10,943)	11	35,200	(35,200)

Area / Department		Existing		DGSF/ KPU	DGSF/KPU Ranges		TARGET	Replacement			Growth		
		KPU	DGSF		Low	High		KPU	DGSF	Gap	KPU	DGSF	Gap
Emergency - Trauma	Kelemen	5 Rooms	3,264	653			700	5	3,500		1	3,200	(3,200)
Emergency		52	29,498	567									
Emergency - Adult (excl. Imaging)		26 Rooms	19,044	732	650	750	700	26	18,200	844	23	16,100	(16,100)
Emergency - Behavioral	-	Rooms	495										
Emergency - Peds	Kelemen	8 Rooms	2,860	358	650	750	700	8	5,600	(2,740)			
Emergency - I Track	Kelemen	18 Rooms	2,679	149	450	650	450	18	8,100	(5,421)			
Emergency - Admin/EMS			4,420										
Emergency - Waiting / Trauma Waiting													
Subtotal Emergency		57	32,762	575			621	57	35,400	(7,317)	24	19,300	(19,300)

EXHIBIT A Space Program Input

Cooper University Hospital Master Space Program Summary

Use for Conceptual Planning Purposes Only

Area / Department						Existing	DGSF/ KPU	DGSF/KPU Ranges			DGSF/ KPU	Maintain							
						Bldg	KPU	DGSF	Low	High		KPU	DGSF	Gap					
Area / Department						Existing		DGSF/ KPU	DGSF/KPU Ranges			TARGET	Replacement			Growth			
						FI	Bldg	KPU	DGSF	Low	High		KPU	DGSF	Gap	KPU	DGSF	Gap	
Imaging - ED						1	Kelemen	5	Rooms	2,001	400	<div><div></div></div>	1,150	5	5,750	(3,749)			
Emergency - Imaging (2 Rad, 2 CT,																			
Imaging - Main						2	Kelemen	6	Rooms	4,352	725	<div><div></div></div>	800	6	4,800	(448)			
Imaging - EEG / Echo																			
Imaging (12) + IR (2)						G	Kelemen	14	Rooms	19,586	1,399	<div><div></div></div>	1,500	14	21,000	(1,414)	3	4,500	(4,500)
Imaging - Nuc Med						G	Kelemen	4	Rooms	5,583	1,396	<div><div></div></div>	1,500	4	6,000	(417)			
Subtotal Imaging								29		31,522	1,087		1,097	29	31,800	(6,028)	3	4,500	(4,500)

Additional Growth

Area / Department					Existing		DGSF/ KPU	DGSF/KPU Ranges		TARGET	Replacement			Growth			Pandemic (Surge)			Total
FI	Bldg	KPU	DGSF	Low	High	KPU		DGSF	Gap		KPU	DGSF	Gap	KPU	DGSF	Gap	DGSF			
Ancillary (Pavilion)					22,479															
	Central Sterile Processing	G Pavilion	31 OR	8,566	276	▲ 400	<div><div></div></div>	600	500	31	15,500	(6,934)	9	4,500	(4,224)				20,000	
	Laboratory	G Pavilion	637 Beds	13,913	22	▲ 20	<div><div></div></div>	60	35			13,913	108	3,780	(3,758)	100	3,500	(3,500)	7,280	
Ancillary (Dorrance)					308															
	Laboratory (Womens)	6 Dorrance N	637 Beds	308	0.5				0	637	350							350		
Ancillary (Kelemen)					27,538															
	PT/OT/PMR	5 Kelemen	637 Beds	5,289	8	▲ 10	<div><div></div></div>	20	10	637	6,370	(1,081)	108	1,080	(1,072)	100	1,000	(1,000)	8,450	
	Biomed	2 Kelemen	637 Beds	2,234	3.5	▲ 2	<div><div></div></div>	6	4	637	2,548	(314)	108	432	(428)	100	400	(400)	3,380	
	Pharmacy	2 Kelemen	637 Beds	9,632	15	▲ 15	<div><div></div></div>	35	20	637	12,740	(3,108)	108	2,160	(2,145)	100	2,000	(2,000)	16,900	
	Laboratory (Cytology/POC/Blood Bank)	G Kelemen	637 Beds	4,809	8					Consolidate										
	Laboratory (Morgue)	G Kelemen	637 Beds	1,745	3					Consolidate										
	RT/ Agility Shop	G Kelemen	637 Beds	3,829	6	8	<div><div></div></div>	15	8	637	5,096	(1,267)	108	864	(858)	100	800	(800)	6,760	
Subtotal Ancillary					50,325						42,604	7,721		12,816	(12,816)		7,700	(7,700)	63,120	

Area / Department					Existing		DGSF/ KPU	DGSF/KPU Ranges		TARGET	Replacement			Growth			Pandemic (Surge)			Total				
FI.					KPU	DGSF		Low	High		KPU	DGSF	Gap	KPU	DGSF	Gap	KPU	DGSF	Gap					
Support (Pavilion)						4,529	7				Maintain													
Nutrition -Restaurant					1	Pavilion															637	Beds	4,529	
Support (Kelemen)						28,208	2			2														
IT - Data Processing					2	Kelemen															637	Beds	1,310	
Bed Storage/Repair					2	Kelemen	637	Beds	1,075	2														
Nutrition - Dining					2	Kelemen	637	Beds	9,027	14	<div><div></div></div>		30	25	637	15,925	(6,898)	108	2,700	(2,700)	100	2,500	(2,500)	21,125
Nutrition - Kitchen					1	Kelemen	637	Beds	11,288	18	<div><div></div></div>		45	30	637	19,110	(7,822)	108	3,240	(3,240)	100	3,000	(3,000)	25,350
Switchboard, PBX					1	Kelemen	637	Beds	513	1			1	637	513	0	108	87	(87)	100	81	(81)	681	
EVS / Linen					G	Kelemen	637	Beds	951	6	<div><div></div></div>		10	15	637	9,555	(5,092)	108	1,620	(1,620)	100	1,500	(1,500)	12,675
Mat'l Mgmt - Offices, Receiving, Storage					G	Kelemen	637	Beds	3,538															
Plant Ops / Facilities & Engineering					G	Kelemen	637	Beds	506													0		
Support (Dorrance)						12,480	2			6														
IT/ Medical Informatics					1	Dorrance S															637	Beds	1,460	
Mat'l Mgmt - Mail & Receiving					1	Dorrance S	637	Beds	925	1	<div><div></div></div>		10	6	637	3,822	(1,052)	108	648	(648)	100	600	(600)	5,070
EVS / Linen					1	Dorrance S	637	Beds	1,665	3	<div><div></div></div>		30	20	637	12,740	(6,932)	108	2,160	(2,160)	100	2,000	(2,000)	16,900
EVS / Linen					G	Dorrance S	637	Beds	3,192	5	<div><div></div></div>		30	20	637	12,740	(6,932)	108	2,160	(2,160)	100	2,000	(2,000)	16,900
Plant Ops / Facilities & Engineering					G	Dorrance S	637	Beds	4,414	7	<div><div></div></div>		12	8	637	5,096	(176)	108	864	(864)			0	5,960
Transport					G	Dorrance S	637	Beds	824	1			1	637	824	0	108	140	(140)	100	129	(129)	1,093	
Subtotal Support						45,222	71			108		68,660	(27,972)	108	11,641	(11,641)	100		9,979	(9,979)		90,280		

EXHIBIT A

Space Program Input

Use for Conceptual Planning Purposes Only

Cooper University Hospital

Master Space Program Summary

Area / Department					DGSF/ KPU	DGSF/KPU Ranges		DGSF/ KPU	Maintain			Additional Growth			
						Low	High		KPU	DGSF	Gap				
Area / Department					DGSF/ KPU	DGSF/KPU Ranges		TARGET	Replacement			Growth			Total
						Low	High		KPU	DGSF	Gap	KPU	DGSF	Gap	DGSF
Education:					30	20	40	30	637	19,110	286	108	3,240	(3,240)	22,350
Administrative, MCC	4	Dorrance S	637 Beds	1,918	3										
Education, Classroom/Educ	4	Dorrance S	637 Beds	3,639	6										
Administrative, VP Educ	3	Dorrance S	637 Beds	176	0										
Education, Classroom/Library	1	Dorrance N	637 Beds	4,069	6										
Education, Conf. Rooms	1	Conf Addition	637 Beds	9,594	15										
Administrative (Pavilion):					736										
Residents	1	Pavilion	637 Beds	736	1										
Administrative (Kelemen):					12,672			20	637	12,740	(68)	108	2,160	(2,160)	14,900
Offices, Hospitalist	10	Kelemen	637 Beds	805	1										
Residents, Int Med	9	Kelemen	637 Beds	634	1										
Administrative, Central Monitoring	8	Kelemen	637 Beds	477	1										
Administrative, Nursing Admin	2	Kelemen	637 Beds	2,771	4	▲	6	10							
Administrative, QA/ PI /RM / UR / IC	2	Kelemen	637 Beds	795	1										
Offices, Trauma	2	Kelemen	637 Beds	4,576	7										
Administrative, Volunteers / Pastoral	G	Kelemen	637 Beds	2,614	4										
Retail / Support					1,350			3	637	1,911	(561)	108	324	(324)	2,235
Administrative, Credit Union	2	Dorrance N	637 Beds	998	2										
Administrative, Cooper Solutions	1	Dorrance N	637 Beds	352	1										
Administrative (Dorrance):					26,644			45	637	28,665	(2,021)	108	4,860	(4,860)	33,525
Offices, OnCall	7	Dorrance S	637 Beds	2,680	4										
Offices, Neonate & Fetal Med	7	Dorrance S	637 Beds	1,679	3										
Resident, On Call	7	Dorrance N	637 Beds	3,926	6										
Offices, Adult Health Inst.	4	Dorrance N	637 Beds	3,540	6										
Administrative, Research	4	Dorrance N	637 Beds	1,090	2										
Offices, Heart Institute	3	Dorrance N	637 Beds	5,869	9										
Offices, Hospitalist / Pat. Safety	2	Dorrance S	637 Beds	6,004	9										
Administrative, HIM / Case Managemer	1	Dorrance S	637 Beds	621	1	▲	8	12							
Administrative, Safety & Security	1	Dorrance N	637 Beds	843	1	▲	3	5							
Resident Lockers	1	Dorrance S	637 Beds	392	1										
Subtotal Administrative					60,798				62,426	(2,364)		10,584	(10,584)		73,010

Area / Department					DGSF/ KPU	DGSF/KPU Ranges		TARGET	Replacement			Growth			Total
						Low	High		KPU	DGSF	Gap	KPU	DGSF	Gap	DGSF
Public					13	15	30	20				108	2,160	5,834	2,160
Lobby/Reception - Main		Pavilion	637 Beds	7,994	13	▲	15	30				108	2,160	5,834	2,160
Gift Shop / Vendin / Café / Retail		Pavilion	637 Beds	4,065	6		3	7				108	648	3,417	648
Chapel / Pastoral Care		Pavilion	637 Beds	717	1	▲	4	12				108	108	609	108
Subtotal Public					12,776				-			2,916	9,860		2,916

EXHIBIT A

Space Program Input

Use for Conceptual Planning Purposes Only

Cooper University Hospital
Master Space Program Summary

Area / Department	Existing			DGSF/ KPU	DGSF/KPU Ranges	DGSF/ KPU	Maintain		
	Bldg	KPU	DGSF				KPU	DGSF	Gap
					Low	High			

Additional Growth

[illegible]

Master Campus Plan

Board of Trustees

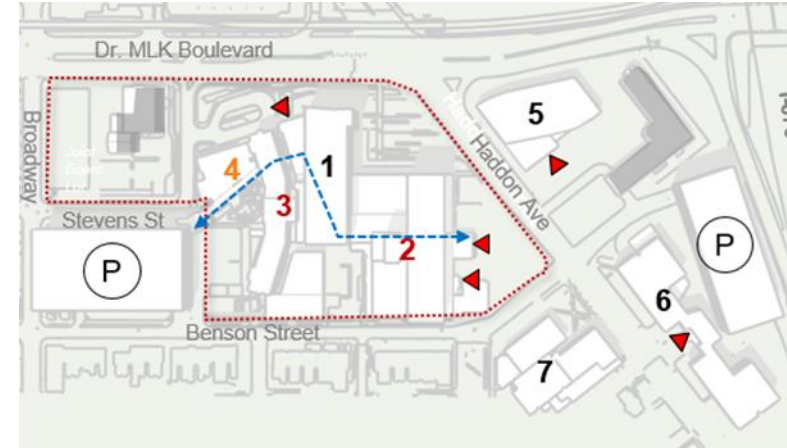
December 14, 2021

Robert Hockel, FACHE
Senior VP, Hospital Operations

- Existing space *insufficient* and *inefficient*
 - Clinical, Ancillary, Support, Education & Research space needs
 - Eliminate the negative impact on patient and staff experience, & operational efficiency
- Address aging plant and infrastructure
- No long-term investment in Kelemen & Dorrance
- Provide for *continued growth* and *future flexibility*

Hospital:

- A. Corner of MLK Blvd / Haddon Ave
- B. Dorrance (North) / Conf Addition
- C. Ronald McDonald Lot* / Joint Board Lot*
- D. Dorrance (South)
- E. Kelemen Replacement or Repurpose



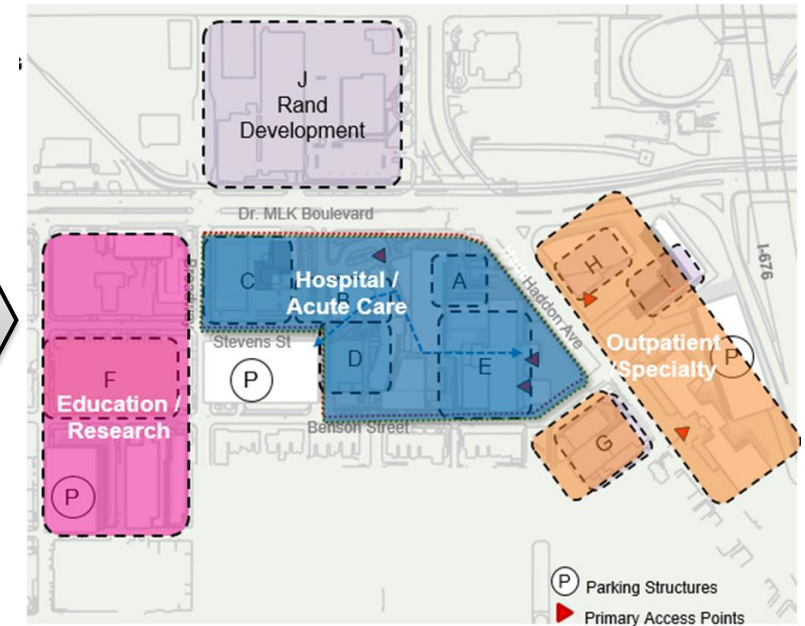
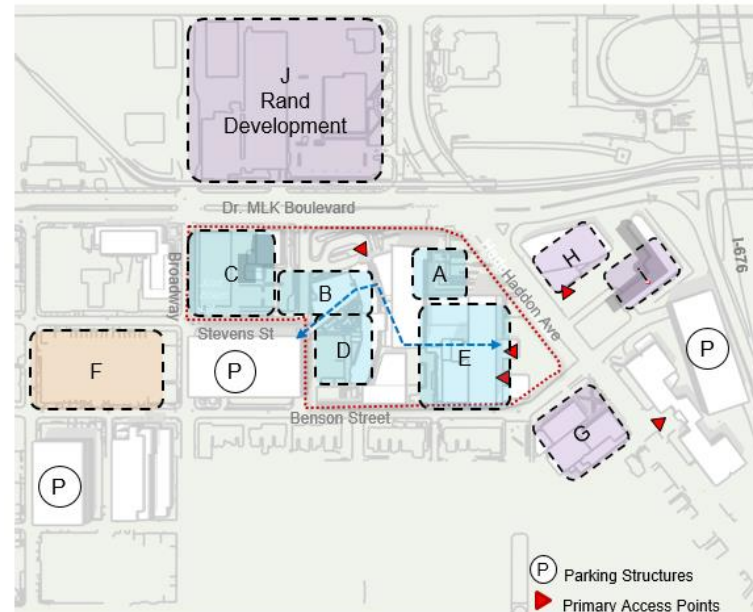
Education / Research:

- F. Block 180 Development*
 - Potential Site for RMDH

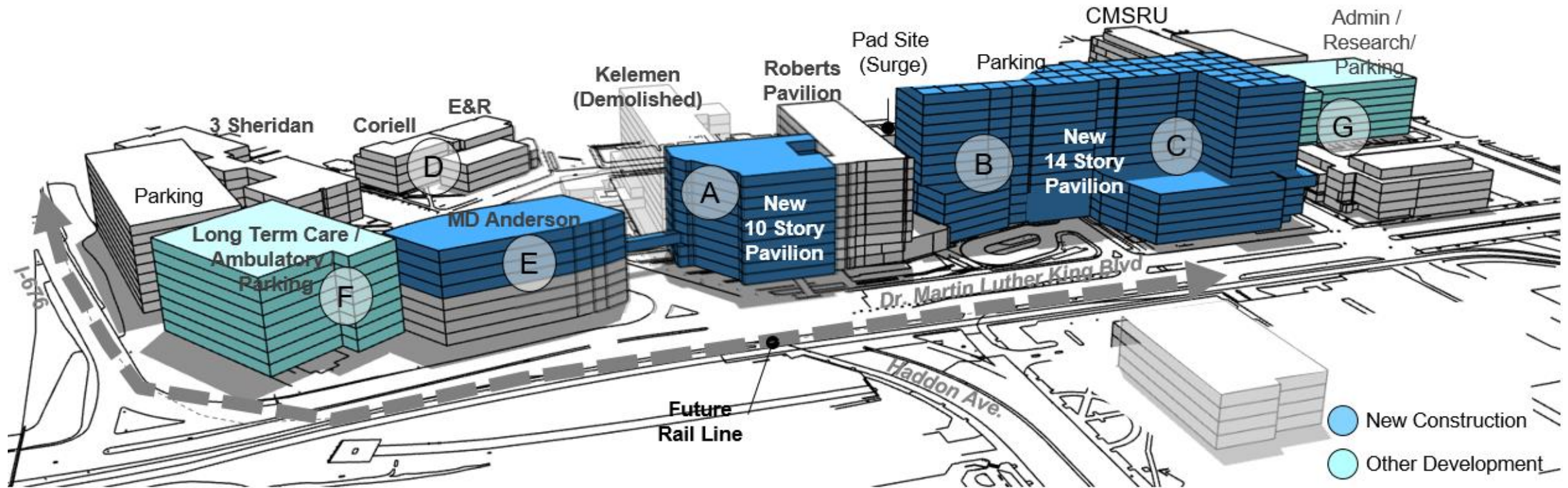
Ambulatory:

- G. Coriell Institute (Lease up in 2024)
- H. MDA Vertical Expansion (4 Stories)
- I. Majestic Lot*
- J. Rand Development

*Requires site acquisition



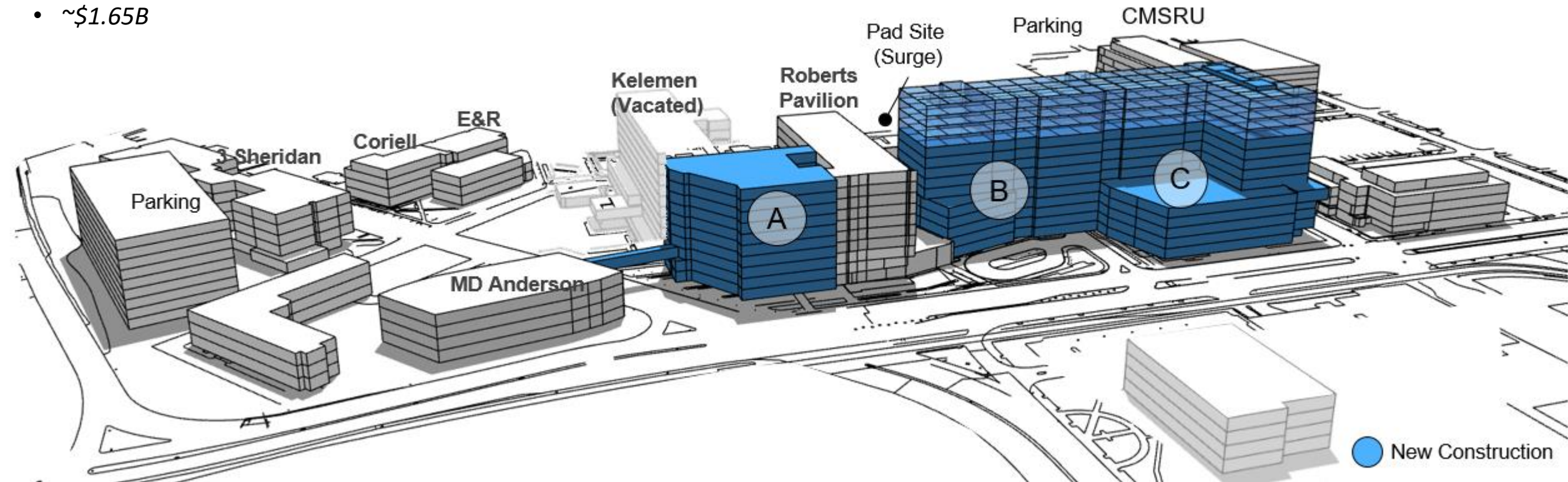
- Aligns with Cooper's strategic planning priorities and ambulatory network planning
- New bed pavilions (A, B & C), 100% private bed model, additional space to accommodate growth, and full replacement of Kelemen & Dorrance.
- Highest & best use of adjacent campus properties & opportunities



10-Year Campus Vision Exhibit B

- New bed pavilions (A, B & C) achieves 100% private bed model, accommodates projected 108 bed growth, procedural growth, diagnostic & testing growth and fully replaces Dorrance
- Dorrance is fully demolished to provide space for pandemic use
- Kelemen is vacated can be demolished or repurposed
- ~\$1.65B

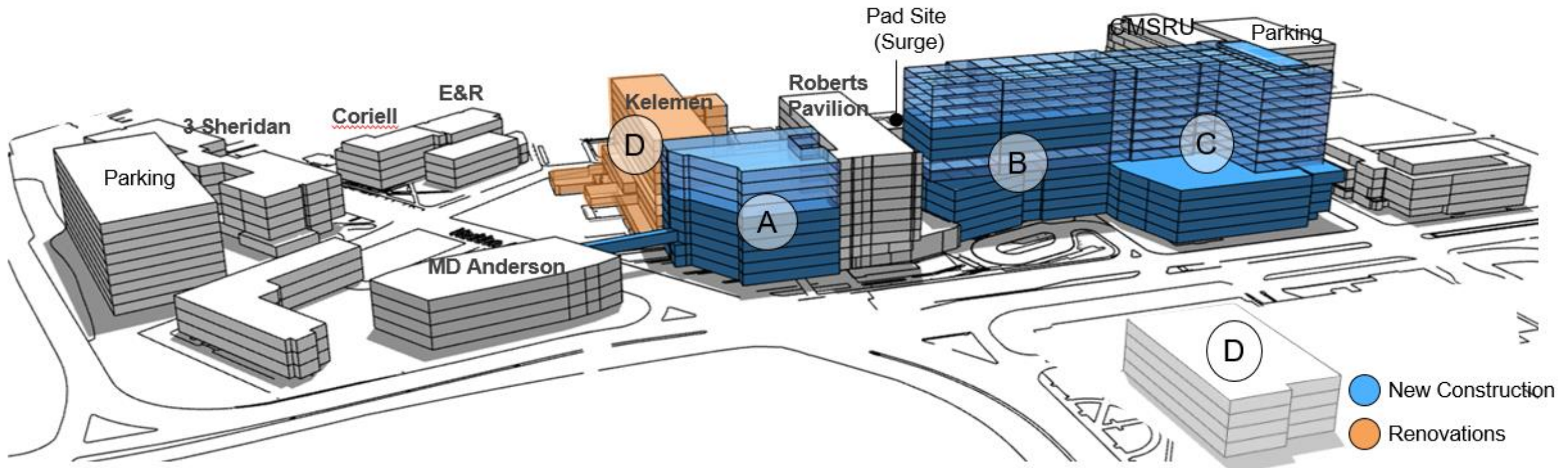
745 Total Beds (537 New Beds)
100% Private



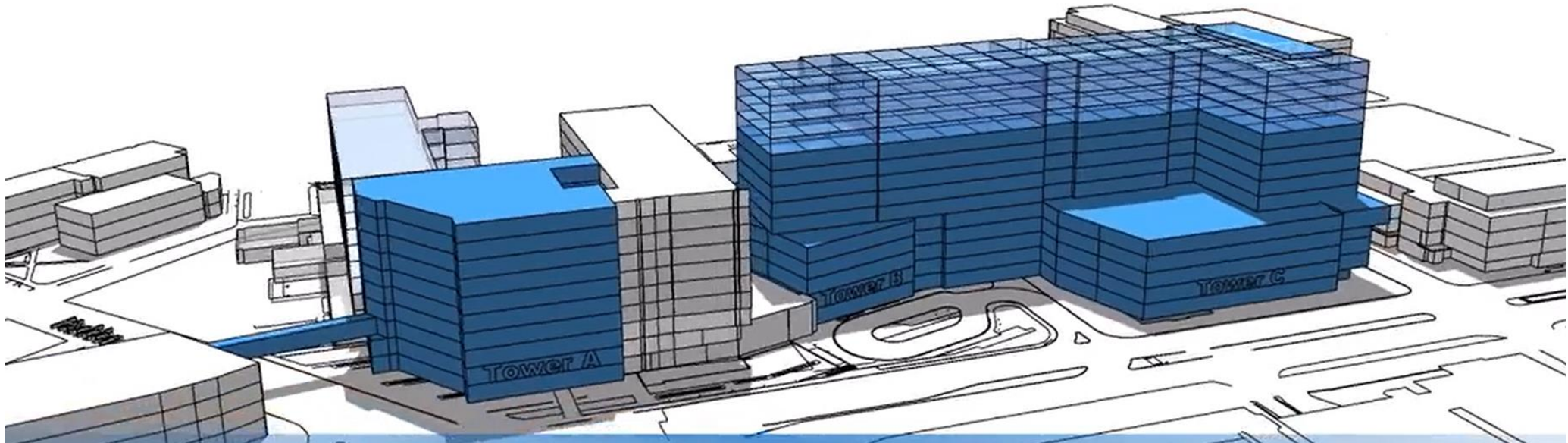
Master Campus Plan Proposal

Exhibit B

- New bed pavilions (A, B & C) accommodates projected 108 bed growth, procedural growth, diagnostic & testing growth
- Shell space provides flexibility to fit-out space to meet future strategic needs
- Dorrance is fully demolished to provide space for pandemic use
- Kelemen vacated floors can be repurposed for non acute care use
- \$1.3B over 8 years



10 Year Vision



Master Plan is Designed to Maximize Future Flexibility

Exhibit B

PHASE 1

New 10-story Tower (Pavilion A)

- Enabler to replace Dorrance
- New Beds
- Bridge to Cancer Center

Cost: \$265M

Timing: End of 2026 (five years)

Expected / Favorable

- Volume Demand
- Financial condition

Continue with Plan

If NOT continuing with plan:

- Must fully renovate Kelemen Building: \$450MM
- \$80M to fully fit-out Pavilion A
- Operational challenges persist
- ED is not replaced
- Diagnostic and procedural spaces remain with current footprint

PHASE 2

New 14-story Towers (Pavilions B & C)

- Dorrance is fully demolished
- Shell space for targeted and discretionary use

Cost: \$1.035B (\$1.3B Total)

Timing: End of 2029 (eight years)

Expected / Favorable

- Volume Demand
- Financial condition

Continue to 10-Year Vision

IF NOT continuing to 10-Year Vision:

- Shell 187K targeted shell space and 250K discretionary
- Fit-out floors when needed / capable

10-Year Campus Vision

New 14-story Towers (Pavilions B & C)

- Floors fitted-out to accommodate planned volumes
- Shell space for flexible use

Cost: \$350M (\$1.65B Total)

Timing: 2029+

Expected / Favorable

- Volume Demand
- Financial condition

Highest and Best Use of Shell

- Discretionary shell of 4 floors of Pavilions B & C
- Fit-out floors when needed for any future needs

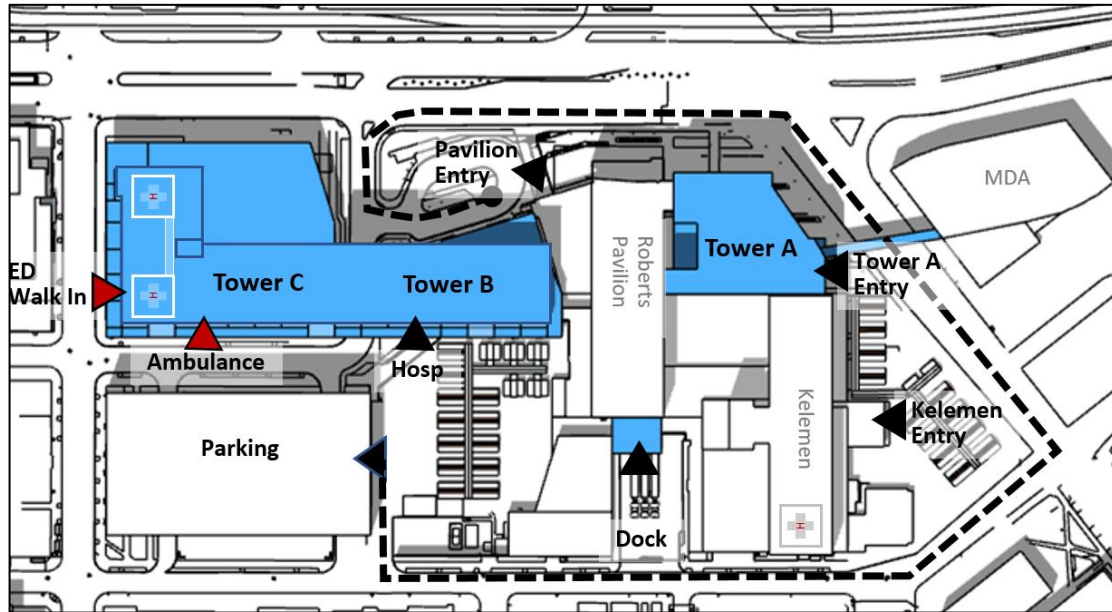
Master Campus Plan Proposal Exhibit B

CRITERIA	MCP PROPOSAL
Projected Costs	\$1.3B (8YR)
Pavilions	A: 10 Stories(93 beds) B: 14 Stories (112 beds) C: 14 Stories (0 beds) Roberts 10 Stories: (208 Beds) Kelemen 10 Stories: (332 Beds)
Total Bed Capacity	745
Select Private Bed Ratios	745 (70%) 700 (75%) 650 (80%) 600 (86%)
Timing	~8 Years Total Tower A ~2026 93 Beds Tower B & C ~2029 112 Beds
DGSF/Bed (600-750 Industry Standard)	Pavilion A: 720 Roberts: 710 Pavilion B & C: 730 Kelemen 323+

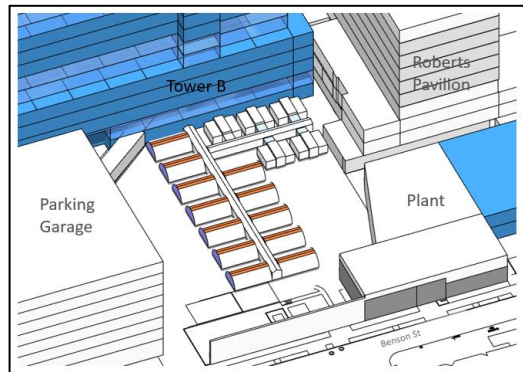
CRITERIA	MCP PROPOSAL
Dorrance	Dorrance: Demolished
OR/ Procedural	Kelemen ORs Replaced + 9 Growth Cath Labs Replaced + 2 Growth
Ancillary/ED	ER Replaced (~2029) +24 Bed Growth Imaging/IR Replaced (~2029) + 3 Growth
Flexible Options	Provides options to accelerate or decelerate beds based on market forces, disrupters, or changes in financial plan
Shell Space	187,500 (Targeted) 250,000 (Discretionary)
Other	(+) Shell easy fit-out in future as \$\$ becomes available (+) Enables Dorrance demolition & pathway to vacate Kelemen (+) Tower A starts immediately (no enabler) (+) Provides adequate time to acquire & relocate RMDH (+) Includes bridge to MDA (-) Initial beds replace Dorrance not all additional (-) Additional Parking may be required by Camden City

Surge/Emergency Preparedness

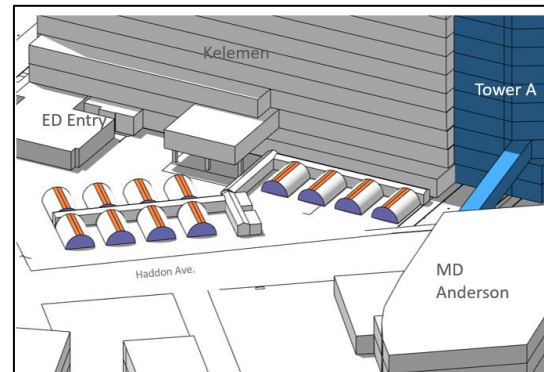
Exhibit B



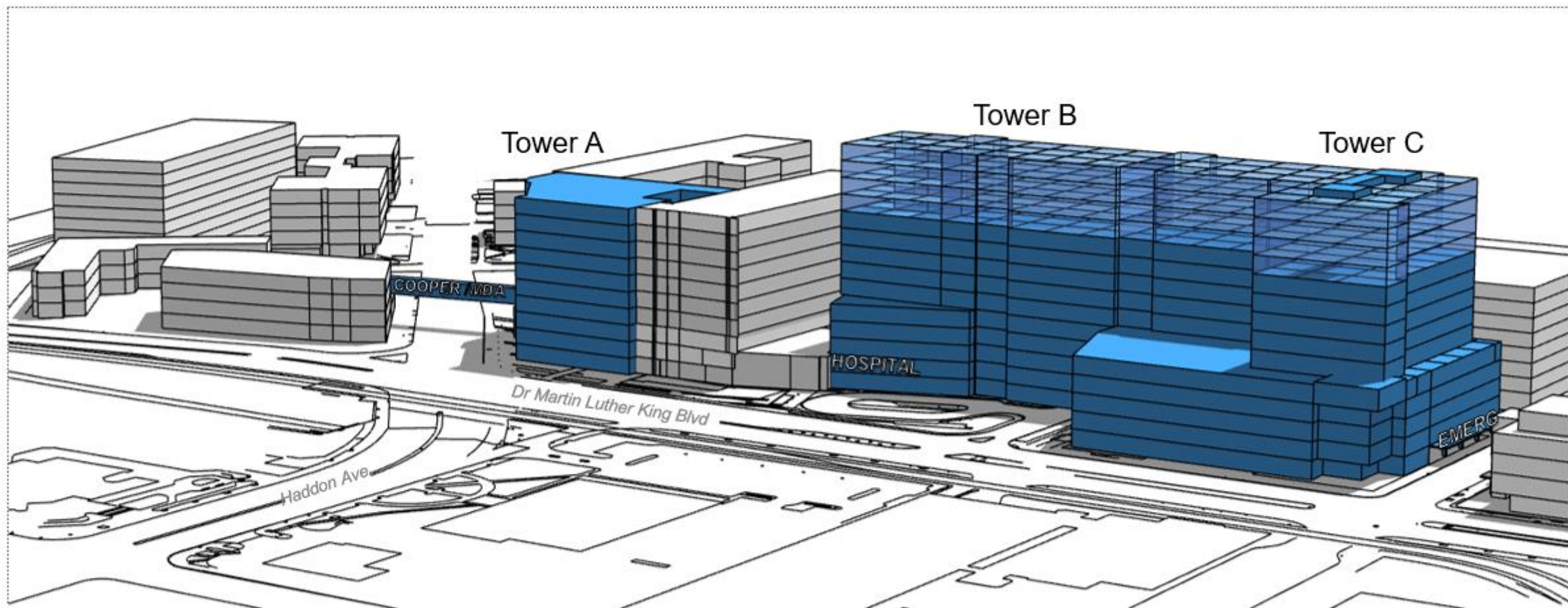
- Upgraded and expanded Medical Command Center in Tower A adjacent to new conference center
- Alternative Care Pad site
 - Initially within Kelemen Circle
 - Long-term Pad site with utilities
- New bed units with ability to flex up (5-10 beds/unit) utilizing multi-purpose rooms, waiting areas, etc.
- Shell floors to provide temporary alternative care space

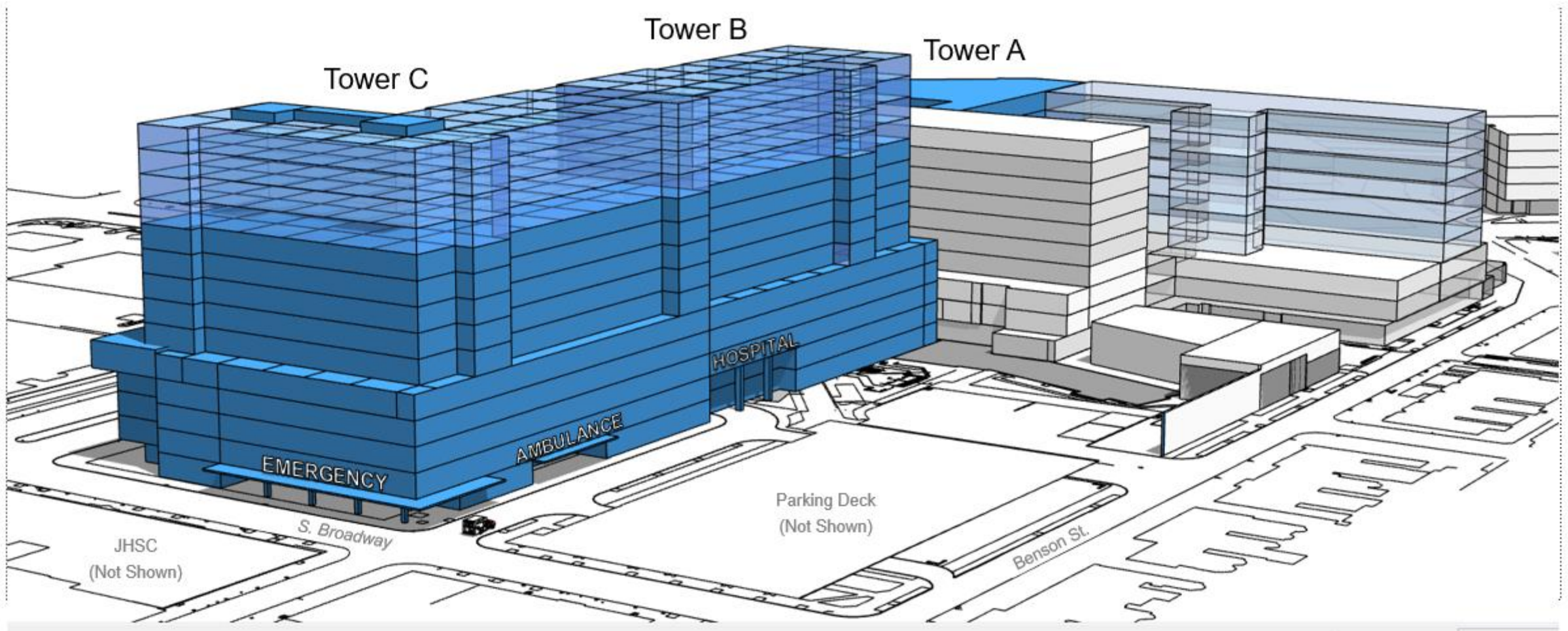


Long-Term Surge Plan



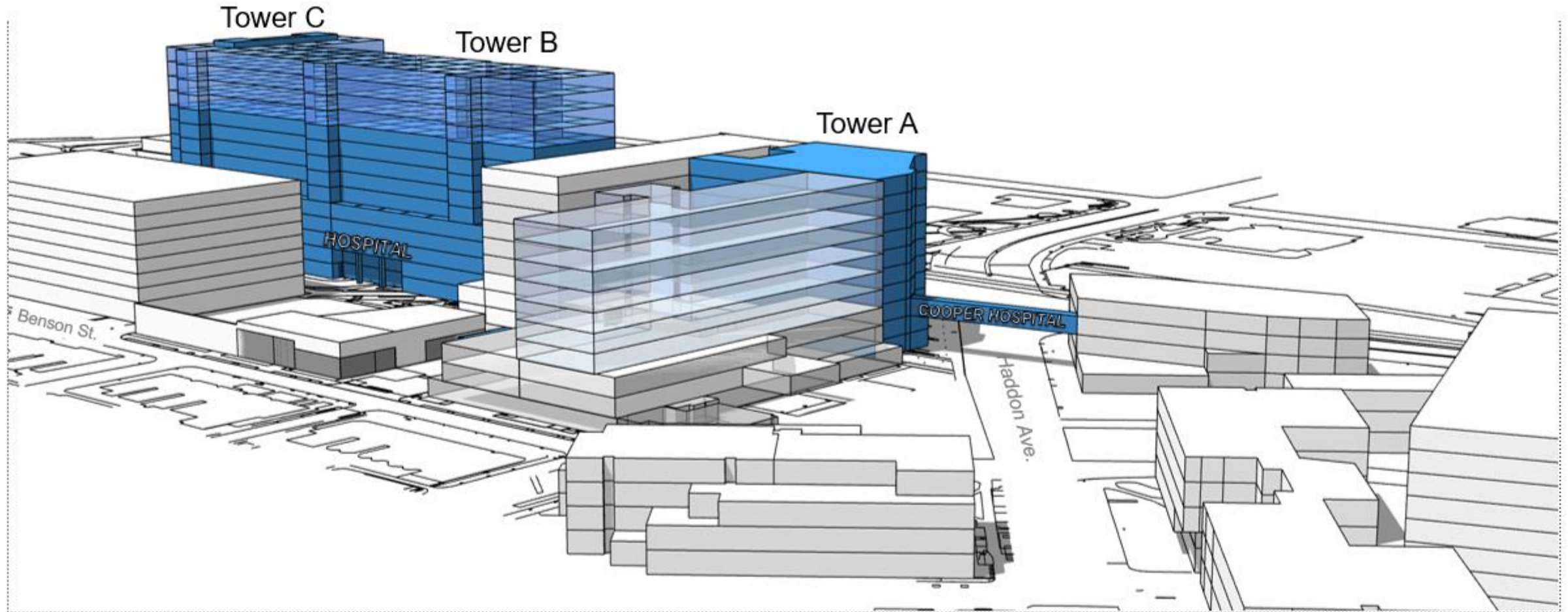
Initial Surge Plan





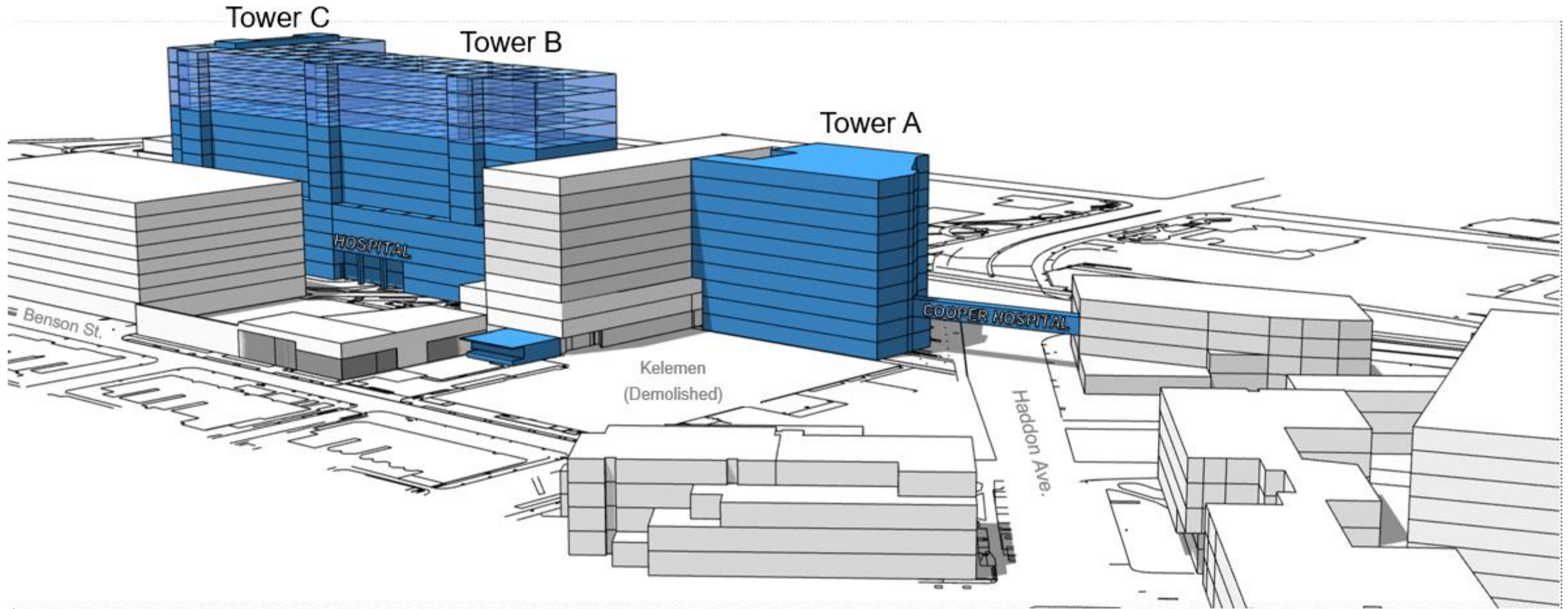
View from South Haddon Avenue

Exhibit B



View from South Haddon Avenue

Exhibit B



- Cooper Board of Trustees Approval
- Finalize funding sources, financial plan
- Procurement/Selection of Project Team
 - Owners representative, design team, project management, construction team, legal team, civil & project engineering, environmental consultants, etc.
 - Determine project delivery/project management methodology
- Develop Bid documents/final GMP
- Project schedule/phasing
- Start due diligence studies
 - Zoning, surrounding infrastructure, utilities, soil borings, hazmat, land use approvals, parking & traffic studies, etc.
- Regulatory applications and approvals
 - Municipal, DOH, etc.
- Develop Capital Campaign
- Design (CD, SD, DD)
- Construction
- Move Planning
- Occupancy (TCO, CO, move execution)



DRAFT AIA® Document B101™ – 2017

Standard Form of Agreement Between Owner and Architect

AGREEMENT made as of the « » day of « » in the year « »
(In words, indicate day, month and year.)

BETWEEN the Architect's client identified as the Owner:
(Name, legal status, address and other information)

«The Cooper Health System»
«1 Cooper Plaza»
«Camden, NJ 08103»

and the Architect:
(Name, legal status, address and other information)

«See Project Addendum»

for the following Project:
(Name, location and detailed description)

«See Project Addendum»

The Owner and Architect agree as follows.

ADDITIONS AND DELETIONS:

The author of this document has added information needed for its completion. The author may also have revised the text of the original AIA standard form. An *Additions and Deletions Report* that notes added information as well as revisions to the standard form text is available from the author and should be reviewed.

This document has important legal consequences. Consultation with an attorney is encouraged with respect to its completion or modification.

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ARTICLE 1 INITIAL INFORMATION

§ 1.1 This Agreement is based on the Initial Information set forth in this Section 1.1.
(For each item in this section, insert the information or a statement such as "not applicable" or "unknown at time of execution.")

§ 1.1.1 The Owner's program for the Project:
(Insert the Owner's program, identify documentation that establishes the Owner's program, or state the manner in which the program will be developed.)

«See Project Addendum»

§ 1.1.2 The Project's physical characteristics:
(Identify or describe pertinent information about the Project's physical characteristics, such as size; location; dimensions; geotechnical reports; site boundaries; topographic surveys; traffic and utility studies; availability of public and private utilities and services; legal description of the site, etc.)

«See Project Addendum»

§ 1.1.3 The Owner's budget for the Cost of the Work, as defined in Section 6.1:
(Provide total and, if known, a line item breakdown.)

«See Project Addendum»

§ 1.1.4 The Owner's anticipated design and construction milestone dates:

.1 Design phase milestone dates, if any:

«See Project Addendum»

.2 Construction commencement date:

«See Project Addendum»

.3 Substantial Completion date or dates:

«See Project Addendum»

.4 Other milestone dates:

« »

§ 1.1.5 The Owner intends the following procurement and delivery method for the Project:
(Identify method such as competitive bid or negotiated contract, as well as any requirements for accelerated or fast-track design and construction, multiple bid packages, or phased construction.)

«See Project Addendum»

§ 1.1.6 The Owner's anticipated Sustainable Objective for the Project:
(Identify and describe the Owner's Sustainable Objective for the Project, if any.)

«N/A»

§ 1.1.6.1 If the Owner identifies a Sustainable Objective, the Owner and Architect shall complete and incorporate AIA Document E204™–2017, Sustainable Projects Exhibit, into this Agreement to define the terms, conditions and services related to the Owner's Sustainable Objective. If E204–2017 is incorporated into this agreement, the Owner and Architect shall incorporate the completed E204–2017 into the agreements with the consultants and contractors performing services or Work in any way associated with the Sustainable Objective.

§ 1.1.7 The Owner identifies the following representative in accordance with Section 5.3:
(List name, address, and other contact information.)

The Cooper Health System
1 Cooper Plaza
Camden, NJ 08103
Attn: Vice President of Design & Construction
Attn: Director of Design & Construction

§ 1.1.8 The persons or entities, in addition to the Owner's representative, who are required to review the Architect's submittals to the Owner are as follows:
(List name, address, and other contact information.)

«See Project Addendum»

§ 1.1.9 The Owner shall retain the following consultants and contractors:
(List name, legal status, address, and other contact information.)

.1 Geotechnical Engineer:

«See Project Addendum»

.2 Civil Engineer:

« See Project Addendum»

.3 Other, if any:

(List any other consultants and contractors retained by the Owner.)

«See Project Addendum»

§ 1.1.10 The Architect identifies the following representative in accordance with Section 2.3:
(List name, address, and other contact information.)

See Project Addendum »

§ 1.1.11 The Architect shall retain the consultants identified in Sections 1.1.11.1 and 1.1.11.2:
(List name, legal status, address, and other contact information.)

§ 1.1.11.1 Consultants retained under Basic Services:

.1 Structural Engineer:

«See Project Addendum»

.2 MEP Engineer:

«See Project Addendum»

.3 Interior Designer:

«See Project Addendum»

§ 1.1.11.2 Consultants retained under Supplemental Services:

«See Project Addendum»

§ 1.1.12 Other Initial Information on which the Agreement is based:

«See Exhibit 1 for Proposal and Exhibit 2 for Architect's Proposal, if applicable »

§ 1.2 The Owner and Architect may rely on the Initial Information. Both parties, however, recognize that the Initial Information may materially change and, in that event, the Owner and the Architect shall appropriately adjust the Architect's services, schedule for the Architect's services, and the Architect's compensation. The Owner shall adjust the Owner's budget for the Cost of the Work and the Owner's anticipated design and construction milestones, as necessary, to accommodate material changes in the Initial Information.

§ 1.3 The parties shall agree upon protocols governing the transmission and use of Instruments of Service or any other information or documentation in digital form. The parties will use AIA Document E203™-2013, Building Information Modeling and Digital Data Exhibit, to establish the protocols for the development, use, transmission, and exchange of digital data.

§ 1.3.1 Any use of, or reliance on, all or a portion of a building information model without agreement to protocols governing the use of, and reliance on, the information contained in the model and without having those protocols set forth in AIA Document E203™-2013, Building Information Modeling and Digital Data Exhibit, and the requisite AIA Document G202™-2013, Project Building Information Modeling Protocol Form, shall be at the using or relying party's sole risk and without liability to the other party and its contractors or consultants, the authors of, or contributors to, the building information model, and each of their agents and employees.

ARTICLE 2 ARCHITECT'S RESPONSIBILITIES

§ 2.1 The Architect shall provide professional services as set forth in this Agreement. The Architect represents that it is properly licensed in the jurisdiction where the Project is located to provide the services required by this Agreement, or shall cause such services to be performed by appropriately licensed design professionals.

§ 2.2 The Architect shall perform its services consistent with the professional skill and care ordinarily provided by architects practicing in the same or similar locality under the same or similar circumstances. The Architect shall perform its services as expeditiously as is consistent with such professional skill and care and the orderly progress of

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User Notes: (1836209507)

the Project. This standard of care shall be applicable to any design-related services or Instruments of Service provided by Architect and any of its consultants in connection with the Project, which design services and Instruments of Service are incorporated into this Agreement.

§ 2.2.1 Architect represents that it has the requisite experience to perform the services set forth in this Agreement. Architect has conducted a reasonable investigation of any consultants it proposed to use for the Project to determine that each possesses the requisite expertise and personnel to perform services on the Project. Architect further represents and agrees that in the event of any material deviation from the above standard of care, Architect and its consultants shall re-perform the services or re-draw any Instruments of Service at no additional cost to the Owner. In the event that Architect's deviation from the standard of care is determined to result in the need to remove and reconstruct any portion of the Work, Architect shall be responsible for the cost of such removal and reconstruction of the Work.

§ 2.3 The Architect shall identify a representative authorized to act on behalf of the Architect with respect to the Project for Owner's review and approval. Once appointed, the Architect's representative shall not be changed without the Owner's written consent, which shall not be unreasonably withheld.

§ 2.4 Except with the Owner's knowledge and consent, the Architect shall not engage in any activity, or accept any employment, interest or contribution that would reasonably appear to compromise the Architect's professional judgment with respect to this Project.

§ 2.5 The Architect shall maintain the following insurance until termination of this Agreement. If any of the requirements set forth below are in addition to the types and limits the Architect normally maintains, the Owner shall pay the Architect as set forth in Section 11.9. All carriers shall be acceptable to the Owner and maintain and A.M. Best Rating of "A" or better and Architect shall provide Owner ninety (90) days prior written notice of cancellation/non-renewal, reduction of limits or coverage. All claims-made forms must have at least one (1) year extended reporting provision available regardless of the canceling party, with the exception of the Professional Liability policy which shall have two-year "tail" coverage from the date of issuance of an Occupancy Permit or the Issuance of a Certificate of Substantial Completion on the Project, whichever occurs later.

Commented [KE1]: Checking with Conner Strong

§ 2.5.1 Commercial General Liability with policy limits of not less than «One Million Dollars» (\$ «1,000,000.00») for each occurrence and «Two Million Dollars» (\$ «2,000,000.00») in the aggregate for bodily injury and property damage.

§ 2.5.2 Automobile Liability covering vehicles owned, and non-owned vehicles used, by the Architect with policy limits of not less than «One Million Dollars» (\$ «1,000,000.00») per accident for bodily injury, death of any person, and property damage arising out of the ownership, maintenance and use of those motor vehicles, along with any other statutorily required automobile coverage.

§ 2.5.3 Commercial umbrella or excess liability with limits of not less than «Ten Million Dollars» (\$«10,000,000.00») per occurrence and in the aggregate.

§ 2.5.4 The Architect may achieve the required limits and coverage for Commercial General Liability and Automobile Liability through a combination of primary and excess or umbrella liability insurance, provided such primary and excess or umbrella liability insurance policies result in the same or greater coverage as the coverages required under Sections 2.5.1 and 2.5.2, and in no event shall any excess or umbrella liability insurance provide narrower coverage than the primary policy. The excess policy shall not require the exhaustion of the underlying limits only through the actual payment by the underlying insurers.

§ 2.5.5 Workers' Compensation at statutory limits.

§ 2.5.6 Employers' Liability with policy limits not less than «Five Hundred Thousand Dollars» (\$ «500,000.00») each accident, «Five Hundred Thousand Dollars» (\$ «500,000.00») each employee, and «Five Hundred Thousand Dollars» (\$ «500,000.00») policy limit.

§ 2.5.7 Professional Liability covering negligent acts, errors and omissions in the performance of professional services with policy limits of not less than «Five Million Dollars» (\$ «5,000,000.00») per claim and «Five Million Dollars» (\$ «5,000,000.00») in the aggregate. To the extent the Professional Liability excludes environmental

liability claims, a separate pollution liability policy with limits of not less than Five Million Dollars (\$ «5,000,000.00») per occurrence and Five Million Dollars (\$ «5,000,000.00») in the aggregate shall be maintained.

~~§ 2.5.8 Cyber Liability with limits of not less than «Three Million Dollars» (\$«3,000,000.00») per claim and in the aggregate. Coverage shall as a minimum include insuring agreements for Security and Privacy Liability, Breach Response, Regulatory Proceedings and Cyber Extortion/Ransomware;~~

§ 2.5.9 Additional Insured Obligations. To the fullest extent permitted by law, the Architect shall cause the primary and excess or umbrella policies for Commercial General Liability and Automobile Liability to include the Owner as an additional insured for claims caused in whole or in part by the Architect's negligent acts or omissions. The additional insured coverage shall be primary and non-contributory to any of the Owner's insurance policies and shall apply to both ongoing and completed operations.

§ 2.5.10 The Architect shall provide certificates of insurance to the Owner that evidence compliance with the requirements in this Section 2. Architect shall promptly advise Owner upon receipt of any notice from any insurance of cancellation or potential cancellation of any of the coverages required by this Section. In the event any consultants hired by the Architect are not covered by Architect's professional liability policy, Architect shall submit for the Owner's prior review and approval evidence concerning the available insurance coverages provided by said consultants.

§ 2.5.11 Waiver of Subrogation. Architect shall waive all right of recovery damages against Owner, its agents, officers, directors, employees, and Program Manager to the extent these damages are covered by the Commercial General Liability, Worker's Compensation, Comprehensive Auto Liability, or Umbrella Excess Liability Insurance, as required above.

ARTICLE 3 SCOPE OF ARCHITECT'S BASIC SERVICES

§ 3.1 The Architect's Basic Services consist of those described in this Article 3 and include usual and customary structural, mechanical, electrical, plumbing, and fire protection engineering services. Services not set forth in this Article 3 are Supplemental or Additional Services.

§ 3.1.1 The Architect shall manage the Architect's services, consult with the Owner, research applicable design criteria, attend Project meetings, communicate with members of the Project team, and report progress to the Owner.

§ 3.1.2 The Architect shall coordinate its services with those services provided by the Owner and the Owner's consultants. The Architect shall be entitled to rely on, and shall not be responsible for, the accuracy, completeness, and timeliness of, services and information furnished by the Owner and the Owner's consultants. The Architect shall provide prompt written notice to the Owner if the Architect becomes aware of any error, omission, or inconsistency in such services or information.

§ 3.1.3 As soon as practicable after the date of this Agreement, the Architect shall submit for the Owner's approval a schedule for the performance of the Architect's services. The schedule initially shall include anticipated dates for the commencement of construction and for Substantial Completion of the Work as set forth in the Initial Information. The schedule shall include allowances for periods of time required for the Owner's review, for the performance of the Owner's consultants, and for approval of submissions by authorities having jurisdiction over the Project. Once approved by the Owner, time limits established by the schedule shall not, except for reasonable cause, be exceeded by the Architect or Owner. With the Owner's approval, the Architect shall adjust the schedule, if necessary, as the Project proceeds until the commencement of construction.

§ 3.1.4 The Architect shall not be responsible for an Owner's directive or substitution, or for the Owner's acceptance of non-conforming Work, made or given without the Architect's written approval.

§ 3.1.5 The Architect shall contact governmental authorities required to approve the Construction Documents and entities providing utility services to the Project. The Architect shall respond to applicable design requirements imposed by those authorities and entities. The Architect shall use reasonable care in accordance with professional standards to prepare the Construction Documents to comply with applicable laws, statutes, ordinances, codes, orders, rules, and regulations applicable to the Project in effect as of the date of their completion.

§ 3.1.6 The Architect shall assist the Owner in connection with the Owner's responsibility for filing documents required for the approval of governmental authorities having jurisdiction over the Project.

§ 3.2 Schematic Design Phase Services

§ 3.2.1 The Architect shall review the program and other information furnished by the Owner, and shall review laws, codes, and regulations applicable to the Architect's services.

§ 3.2.2 The Architect shall prepare a preliminary evaluation of the Owner's program, schedule, budget for the Cost of the Work, Project site, the proposed procurement and delivery method, and other Initial Information, each in terms of the other, to ascertain the requirements of the Project. The Architect shall notify the Owner of (1) any inconsistencies discovered in the information, and (2) other information or consulting services that may be reasonably needed for the Project.

§ 3.2.3 The Architect shall present its preliminary evaluation to the Owner and shall discuss with the Owner alternative approaches to design and construction of the Project, including the feasibility of incorporating environmentally responsible design approaches. The Architect shall reach an understanding with the Owner regarding the requirements of the Project.

§ 3.2.4 Based on the Project requirements agreed upon with the Owner, the Architect shall prepare and present, for the Owner's approval, a preliminary design illustrating the scale and relationship of the Project components.

§ 3.2.5 Based on the Owner's approval of the preliminary design, the Architect shall prepare Schematic Design Documents for the Owner's approval. The Schematic Design Documents shall consist of drawings and other documents including a site plan, if appropriate, and preliminary building plans, sections and elevations; and may include some combination of study models, perspective sketches, or digital representations. Preliminary selections of major building systems and construction materials shall be noted on the drawings or described in writing.

§ 3.2.5.1 The Architect shall consider sustainable design alternatives, such as material choices and building orientation, together with other considerations based on program and aesthetics, in developing a design that is consistent with the Owner's program, schedule and budget for the Cost of the Work. The Owner may obtain more advanced sustainable design services as a Supplemental Service under Section 4.1.1.

§ 3.2.5.2 The Architect shall consider the value of alternative materials, building systems and equipment, together with other considerations based on program and aesthetics, in developing a design for the Project that is consistent with the Owner's program, schedule, and budget for the Cost of the Work.

§ 3.2.6 The Architect shall submit review to the Owner an estimate of the Cost of the Work prepared in accordance with Section 6.3.

§ 3.2.7 The Architect shall submit the Schematic Design Documents to the Owner, and request the Owner's approval.

§ 3.3 Design Development Phase Services

§ 3.3.1 Based on the Owner's approval of the Schematic Design Documents, and on the Owner's authorization of any adjustments in the Project requirements and the budget for the Cost of the Work, the Architect shall prepare Design Development Documents for the Owner's approval. The Design Development Documents shall illustrate and describe the development of the approved Schematic Design Documents and shall consist of drawings and other documents including plans, sections, elevations, typical construction details, and diagrammatic layouts of building systems to fix and describe the size and character of the Project as to architectural, structural, mechanical, electrical and fire protection systems, and other appropriate elements. The Design Development Documents shall also include outline specifications that identify major materials and systems and establish, in general, their quality levels.

§ 3.3.2 The Architect shall update review the updated the estimate of the Cost of the Work submitted by the Owner's Contractor (the "Design Development Estimated Construction Cost") and, If the Design Development Estimated Construction Cost exceeds the budget for the Owner's Cost of the Work, Architect shall make all necessary adjustments (during the Construction Documents Phase) to the design to bring the estimated Construction Cost within the Owner's budget for the Cost of Work at no additional cost to the Owner prepared in accordance with Section 6.3.

§ 3.3.3 The Architect shall submit the Design Development Documents to the Owner, advise the Owner of any adjustments to the estimate of the Cost of the Work, and request the Owner's approval.

§ 3.4 Construction Documents Phase Services

§ 3.4.1 Based on the Owner's approval of the Design Development Documents, and on the Owner's authorization of any adjustments in the Project requirements and the budget for the Cost of the Work, the Architect shall prepare Construction Documents for the Owner's approval. The Construction Documents shall illustrate and describe the further development of the approved Design Development Documents and shall consist of Drawings and Specifications setting forth in detail the quality levels and performance criteria of materials and systems and other requirements for the construction of the Work. The Owner and Architect acknowledge that, in order to perform the Work, the Contractor will provide additional information, including Shop Drawings, Product Data, Samples and other similar submittals, which the Architect shall review in accordance with Section 3.6.4.

§ 3.4.2 The Architect shall incorporate the design requirements of governmental authorities having jurisdiction over the Project into the Construction Documents.

§ 3.4.3 During the development of the Construction Documents, the Architect shall assist the Owner in the development and preparation of (1) procurement information that describes the time, place, and conditions of bidding, including bidding or proposal forms; (2) the form of agreement between the Owner and Contractor; and (3) the Conditions of the Contract for Construction (General, Supplementary and other Conditions). The Architect shall also compile a project manual that includes the Conditions of the Contract for Construction and Specifications, and may include bidding requirements and sample forms.

§ 3.4.4 The Architect shall update the estimate for the Cost of the Work prepared in accordance with Section 6.3.

§ 3.4.5 The Architect shall submit the Construction Documents to the Owner, advise the Owner of any adjustments to the estimate of the Cost of the Work, take any action required under Section 6.5, and request the Owner's approval.

§ 3.5 Procurement Phase Services

§ 3.5.1 General

The Architect shall assist the Owner in establishing a list of prospective contractors. Following the Owner's approval of the Construction Documents and the budget for the Cost of the Work, the Architect shall assist the Owner in (1) obtaining either competitive bids or negotiated proposals; (2) confirming responsiveness of bids or proposals; (3) determining the successful bid or proposal, if any; and, (4) awarding and preparing contracts for construction.

§ 3.5.2 Competitive Bidding

§ 3.5.2.1 Bidding Documents shall consist of bidding requirements and proposed Contract Documents.

§ 3.5.2.2 The Architect shall assist the Owner in bidding the Project by:

- .1 facilitating the distribution of Bidding Documents to prospective bidders; and
- .2 preparing responses to questions from prospective bidders and providing clarifications and interpretations of the Bidding Documents to the prospective bidders in the form of addenda.

§ 3.5.2.3 If the Bidding Documents permit substitutions, upon the Owner's written authorization, the Architect shall, as an Additional Service, consider requests for substitutions and prepare and distribute addenda identifying approved substitutions to all prospective bidders.

§ 3.5.3 Negotiated Proposals

§ 3.5.3.1 Proposal Documents shall consist of proposal requirements and proposed Contract Documents.

§ 3.5.3.2 The Architect shall assist the Owner in obtaining proposals by:

- .1 facilitating the distribution of Proposal Documents for distribution to prospective contractors and requesting their return upon completion of the negotiation process;
- .2 organizing and participating in selection interviews with prospective contractors;

- .3 preparing responses to questions from prospective contractors and providing clarifications and interpretations of the Proposal Documents to the prospective contractors in the form of addenda; and,
- .4 participating in negotiations with prospective contractors, and subsequently preparing a summary report of the negotiation results, as directed by the Owner.

§ 3.5.3.3 If the Proposal Documents permit substitutions, upon the Owner's written authorization, the Architect shall, consider requests for substitutions and prepare and distribute addenda identifying approved substitutions to all prospective contractors.

§ 3.6 Construction Phase Services

§ 3.6.1 General

§ 3.6.1.1 The Architect shall provide administration of the Contract between the Owner and the Contractor as set forth below and in AIA Document A201™-2017, General Conditions of the Contract for Construction. If the Owner and Contractor modify AIA Document A201-2017, those modifications shall not affect the Architect's services under this Agreement unless the Owner and the Architect amend this Agreement.

§ 3.6.1.2 The Architect shall advise and consult with the Owner during the Construction Phase Services. The Architect shall have authority to act on behalf of the Owner only to the extent provided in this Agreement. The Architect shall not have control over, charge of, or responsibility for the construction means, methods, techniques, sequences or procedures, or for safety precautions and programs in connection with the Work, nor shall the Architect be responsible for the Contractor's failure to perform the Work in accordance with the requirements of the Contract Documents. The Architect shall be responsible for the Architect's negligent acts or omissions. In the event the Architect observes Contractor performing Work not in accordance with the Contract Documents, observes conduct by Contractor in violation of applicable building codes, safety standards or otherwise observes conduct by Contractor which the Architect otherwise considers to be unsafe, the Architect shall promptly notify Contractor of its non-compliance, and shall provide prompt written notice to the Program Manager of such non-compliance, but shall not have control over or charge of, and shall not be responsible for, acts or omissions of the Contractor or of any other persons or entities performing portions of the Work.

§ 3.6.1.3 Subject to Section 4.2 and except as provided in Section 3.6.6.5, the Architect's responsibility to provide Construction Phase Services commences at the earlier of the issuance of any building permit (including any early release or fast-track packages) or the issuance of the Notice to Proceed to the Contractor to commence construction of the Work with the award of the Contract for Construction and terminates on the date the Architect issues the final Certificate for Payment.

§ 3.6.2 Evaluations of the Work

§ 3.6.2.1 The Architect shall visit the site at intervals appropriate to the stage of construction, or as otherwise required in Section 4.2.3, to become generally familiar with the progress and quality of the portion of the Work completed, and to determine, in general, if the Work observed is being performed in a manner indicating that the Work, when fully completed, will be in accordance with the Contract Documents and the requirements of architectural and/or building statutes, ordinances, codes, rules and regulations applicable to the Project. However, the Architect shall not be required to make exhaustive or continuous on-site inspections to check the quality or quantity of the Work. On the basis of the site visits, the Architect shall keep the Owner reasonably informed about the progress and quality of the portion of the Work completed, and promptly report to the Owner (1) known deviations from the Contract Documents, (2) known deviations from the most recent construction schedule submitted by the Contractor, and (3) defects and deficiencies observed in the Work.

§ 3.6.2.2 The Architect has the authority to reject Work that does not conform to the Contract Documents. Whenever the Architect considers it necessary or advisable, the Architect shall have the authority to require inspection or testing of the Work in accordance with the provisions of the Contract Documents, whether or not the Work is fabricated, installed or completed. However, neither this authority of the Architect nor a decision made in good faith either to exercise or not to exercise such authority shall give rise to a duty or responsibility of the Architect to the Contractor, Subcontractors, suppliers, their agents or employees, or other persons or entities performing portions of the Work.

§ 3.6.2.3 The Architect shall interpret and decide matters concerning performance under, and requirements of, the Contract Documents on written request of either the Owner, Program Manager or Contractor. The Architect's

response to such requests shall be made in writing within any time limits agreed upon or otherwise with reasonable promptness.

§ 3.6.2.4 Interpretations and decisions of the Architect shall be consistent with the intent of, and reasonably inferable from, the Contract Documents and shall be in writing or in the form of drawings. When making such interpretations and decisions, the Architect shall endeavor to secure faithful performance of the design intent and by both Owner and Contractor, shall not show partiality to either, and shall not be liable for results of interpretations or decisions rendered in good faith. The Architect's decisions on matters relating to aesthetic effect shall be final if consistent with the intent expressed in the Contract Documents.

§ 3.6.2.5 Unless the Owner and Contractor designate another person to serve as an Initial Decision Maker, as that term is defined in AIA Document A201–2017, the Architect shall render initial decisions on Claims between the Owner and Contractor as provided in the Contract Documents.

§ 3.6.3 Certificates for Payment to Contractor

§ 3.6.3.1 The Architect shall review and certify the amounts due the Contractor and shall issue certificates in such amounts. The Architect's certification for payment shall constitute a representation to the Owner, based on the Architect's evaluation of the Work as provided in Section 3.6.2 and on the data comprising the Contractor's Application for Payment, that, to the best of the Architect's knowledge, information and belief, the Work has progressed to the point indicated, the quality of the Work is in accordance with the Contract Documents, and that the Contractor is entitled to payment in the amount certified. The foregoing representations are subject to (1) an evaluation of the Work for conformance with the Contract Documents upon Substantial Completion, (2) results of subsequent tests and inspections, (3) correction of minor deviations from the Contract Documents prior to completion, and (4) specific qualifications expressed by the Architect.

§ 3.6.3.2 The issuance of a Certificate for Payment shall not be a representation that the Architect has (1) made exhaustive or continuous on-site inspections to check the quality or quantity of the Work, (2) reviewed construction means, methods, techniques, sequences or procedures, (3) reviewed copies of requisitions received from Subcontractors and suppliers and other data requested by the Owner to substantiate the Contractor's right to payment, or (4) ascertained how or for what purpose the Contractor has used money previously paid on account of the Contract Sum.

§ 3.6.3.3 The Architect shall maintain a record of the Applications and Certificates for Payment.

§ 3.6.4 Submittals

§ 3.6.4.1 The Architect shall review the Contractor's submittal schedule and shall not unreasonably delay or withhold approval of the schedule. The Architect's action in reviewing submittals shall be taken in accordance with the approved submittal schedule or, in the absence of an approved submittal schedule, with reasonable promptness while allowing sufficient time, in the Architect's professional judgment, to permit adequate review. The Architect shall review, approve and return submittal to the Contractor within fourteen (14) ~~10~~ calendar days of receipt.

§ 3.6.4.2 The Architect shall review and approve, or take other appropriate action upon, the Contractor's submittals such as Shop Drawings, Product Data and Samples, but only for the limited purpose of checking for conformance with information given and the design concept expressed in the Contract Documents. Review of such submittals is not for the purpose of determining the accuracy and completeness of other information such as dimensions, quantities, and installation or performance of equipment or systems, which are the Contractor's responsibility. The Architect's review shall not constitute approval of safety precautions or construction means, methods, techniques, sequences or procedures. The Architect's approval of a specific item shall not indicate approval of an assembly of which the item is a component. However, if Architect notices open and obvious inaccuracies, incompleteness and/or deficiencies in Contractor's submittals or other information provided by Contractor, then Architect shall immediately notify Owner, Program Manager and Contractor in writing of same and shall not approve of the Contractor's proposed use of such incomplete, inaccurate or deficient submittals in Contractor's performance of the Work.

§ 3.6.4.3 If the Contract Documents specifically require the Contractor to provide professional design services or certifications by a design professional related to systems, materials, or equipment, the Architect shall specify the appropriate performance and design criteria that such services must satisfy. The Architect shall review and take appropriate action on Shop Drawings and other submittals related to the Work designed or certified by the

Contractor's design professional, provided the submittals bear such professional's seal and signature when submitted to the Architect. The Architect's review shall be for the limited purpose of checking for conformance with information given and the design concept expressed in the Contract Documents. The Architect shall be entitled to rely upon, and shall not be responsible for, the adequacy and accuracy of the services, certifications, and approvals performed or provided by such design professionals, but shall review any such work product provided by such design professionals which are then incorporated into the Architect's Instruments of Service in accordance with the standard of care customarily practiced by an Architect on a project of a similar nature in the location of the Project.

§ 3.6.4.4 Subject to Section 4.2, the Architect shall review and respond to requests for information about the Contract Documents. The Architect shall set forth, in the Contract Documents, the requirements for requests for information (RFIs). Requests for information shall include, at a minimum, a detailed written statement that indicates the specific Drawings or Specifications in need of clarification and the nature of the clarification requested. To the extent the Owner is required to furnish information or make a decision in order for the Architect to respond to an RFI, then Owner and Program Manager shall be given timely notice of any such RFIs in writing, as well as reasonable period of time for Owner to respond, prior to Architect furnishing any written response to any such RFIs. The Architect's response to such requests shall be made in writing within any time limits agreed upon, or otherwise with reasonable promptness. If appropriate, the Architect shall prepare and issue supplemental Drawings and Specifications in response to the requests for information.

§ 3.6.4.5 The Architect shall maintain a record of submittals and copies of submittals supplied by the Contractor in accordance with the requirements of the Contract Documents.

§ 3.6.4.6 All formal written project communication shall be executed through the Owner's designated project management system.

§ 3.6.5 Changes in the Work

§ 3.6.5.1 The Architect may order minor changes in the Work that are consistent with the intent of the Contract Documents and do not involve an adjustment in the Contract Sum or an extension of the Contract Time. Subject to Section 4.2, the Architect shall prepare Change Orders and Construction Change Directives for the Owner's approval and execution in accordance with the Contract Documents.

§ 3.6.5.2 The Architect shall maintain records relative to changes in the Work. Architect shall review and approve Change Orders within five (5) business days of receipt of change and prior to submitting to the Owner for approval. Upon completion of the Project, Architect shall provide Owner with updated contract documents in electronic format.

§ 3.6.6 Project Completion

§ 3.6.6.1 The Architect shall:

- .1 conduct inspections to determine the date or dates of Substantial Completion and the date of final completion;
- .2 issue Certificates of Substantial Completion;
- .3 forward to the Owner, for the Owner's review and records, written warranties and related documents required by the Contract Documents and received from the Contractor; and,
- .4 issue a final Certificate for Payment based upon a final inspection indicating that, to the best of the Architect's knowledge, information, and belief, the Work complies with the requirements of the Contract Documents.

Architect shall assist Owner and/or Owner's representative in developing and executing a closeout checklist.

§ 3.6.6.2 The Architect's inspections shall be conducted with the Owner to check conformance of the Work with the requirements of the Contract Documents and to verify the accuracy and completeness of the list submitted by the Contractor of Work to be completed or corrected.

§ 3.6.6.3 When Substantial Completion has been achieved, the Architect shall inform the Owner about the balance of the Contract Sum remaining to be paid the Contractor, including the amount to be retained from the Contract Sum, if any, for final completion or correction of the Work.

§ 3.6.6.4 The Architect shall forward to the Owner the following information received from the Contractor: (1) consent of surety or sureties, if any, to reduction in or partial release of retainage or the making of final payment; (2)

affidavits, receipts, releases and waivers of liens, or bonds indemnifying the Owner against liens; and (3) any other documentation required of the Contractor under the Contract Documents.

§ 3.6.6.5 Upon request of the Owner, and prior to the expiration of one year from the date of Substantial Completion, the Architect shall, without additional compensation, conduct a meeting with the Owner to review the facility operations and performance.

ARTICLE 4 SUPPLEMENTAL AND ADDITIONAL SERVICES

§ 4.1 Supplemental Services

§ 4.1.1 The services listed below are not included in Basic Services but may be required for the Project. The Architect shall provide the listed Supplemental Services only if specifically designated in the table below as the Architect's responsibility, and the Owner shall compensate the Architect as provided in Section 11.2. Unless otherwise specifically addressed in this Agreement, if neither the Owner nor the Architect is designated, the parties agree that the listed Supplemental Service is not being provided for the Project.

(Designate the Architect's Supplemental Services and the Owner's Supplemental Services required for the Project by indicating whether the Architect or Owner shall be responsible for providing the identified Supplemental Service. Insert a description of the Supplemental Services in Section 4.1.2 below or attach the description of services as an exhibit to this Agreement.)

Supplemental Services	Responsibility (Architect, Owner, or not provided)
§ 4.1.1.1 Development of Building Information Models for post construction use	See Project Addendum
§ 4.1.1.2 Civil engineering	See Project Addendum
§ 4.1.1.3 Landscape design	See Project Addendum
§ 4.1.1.4 Detailed cost estimating beyond that required in Section 6.3	See Project Addendum
§ 4.1.1.5 On-site project representation	See Project Addendum
§ 4.1.1.6 Conformed documents for construction	See Project Addendum
§ 4.1.1.7 As-designed record drawings	See Project Addendum
§ 4.1.1.8 As-constructed record drawings	See Project Addendum
§ 4.1.1.9 Post-occupancy evaluation	See Project Addendum
§ 4.1.1.10 Facility support services	See Project Addendum
§ 4.1.1.11 Tenant-related services	See Project Addendum
§ 4.1.1.12 Telecommunications/data design	See Project Addendum
§ 4.1.1.13 Security evaluation and planning	See Project Addendum
§ 4.1.1.14 Commissioning	See Project Addendum
§ 4.1.1.15 Sustainable Project Services pursuant to Section 4.1.3	See Project Addendum
§ 4.1.1.16 Multiple bid packages	See Project Addendum
§ 4.1.1.17 Historic preservation	See Project Addendum
§ 4.1.1.18 Other services provided by specialty Consultant	See Project Addendum
§ 4.1.1.19 Other Supplemental Services	See Project Addendum

§ 4.1.2 Description of Supplemental Services

§ 4.1.2.1 A description of each Supplemental Service identified in Section 4.1.1 as the Architect's responsibility is provided below.

(Describe in detail the Architect's Supplemental Services identified in Section 4.1.1 or, if set forth in an exhibit, identify the exhibit. The AIA publishes a number of Standard Form of Architect's Services documents that can be included as an exhibit to describe the Architect's Supplemental Services.)

«See Project Addendum»

§ 4.1.2.2 A description of each Supplemental Service identified in Section 4.1.1 as the Owner's responsibility is provided below.

(Describe in detail the Owner's Supplemental Services identified in Section 4.1.1 or, if set forth in an exhibit, identify the exhibit.)

«See Project Addendum»

§ 4.1.3 If the Owner identified a Sustainable Objective in Article 1, the Architect shall provide, as a Supplemental Service, the Sustainability Services required in AIA Document E204™-2017, Sustainable Projects Exhibit, attached to this Agreement. The Owner shall compensate the Architect as provided in Section 11.2.

§ 4.2 Architect's Additional Services

The Architect may provide Additional Services after execution of this Agreement without invalidating the Agreement. Additional services shall be provided only if given written authorization by the Owner. Any invoices by the Architect for Additional Services shall require an executed written amendment, based upon AIA Document Form G802-2007, Amendment to Professional Services Agreement, or another form mutually agreeable to the parties. Except for services required due to the fault of the Architect, any Additional Services provided in accordance with this Section 4.2 shall entitle the Architect to compensation pursuant to Section 11.3 and an appropriate adjustment in the Architect's schedule.

§ 4.2.1 Upon recognizing the need to perform the following Additional Services, the Architect shall notify the Owner with reasonable promptness and explain the facts and circumstances giving rise to the need. The Architect shall not proceed to provide the following Additional Services until the Architect receives the Owner's written authorization:

- .1 Services necessitated by a change in the Initial Information, previous instructions or approvals given by the Owner, or a material change in the Project including size, quality, complexity, the Owner's schedule or budget for Cost of the Work, or procurement or delivery method;
- .2 Services necessitated by the enactment or revision of codes, laws, or regulations, including changing or editing previously prepared Instruments of Service;
- .3 Changing or editing previously prepared Instruments of Service necessitated by official interpretations of applicable codes, laws or regulations that are either (a) contrary to specific interpretations by the applicable authorities having jurisdiction made prior to the issuance of the building permit, or (b) contrary to requirements of the Instruments of Service when those Instruments of Service were prepared in accordance with the applicable standard of care;
- .4 Services necessitated by decisions of the Owner not rendered in a timely manner or any other failure of performance on the part of the Owner or the Owner's consultants or contractors;
- .5 Preparing digital models or other design documentation for transmission to the Owner's consultants and contractors, or to other Owner-authorized recipients;
- .6 Preparation of design and documentation for alternate bid or proposal requests proposed by the Owner;
- .7 Preparation for, and attendance at, a public presentation, meeting or hearing;
- .8 Preparation for, and attendance at, a dispute resolution proceeding or legal proceeding, except where the Architect is party thereto;
- .9 Evaluation of the qualifications of entities providing bids or proposals;
- .10 Consultation concerning replacement of Work resulting from fire or other cause during construction; or,
- .11 Assistance to the Initial Decision Maker, if other than the Architect.

§ 4.2.2 To avoid delay in the Construction Phase, the Architect shall prior to performing any of ~~provide the~~ following Additional Services, notify the Owner in writing, with reasonable promptness, and explain the facts and circumstances giving rise to the need to provide the Additional Services. If, upon receipt of the Architect's notice, the Owner determines that all or parts of the services are not required, the Owner shall give prompt written notice to the Architect and the Owner shall have no further obligation to compensate the Architect for these services. The Owner shall compensate the Architect for those Additional Services authorized consistent with the procedures and procedures set forth in Section 11.3 of this Agreement.

- .1 Reviewing a Contractor's submittal out of sequence from the submittal schedule approved by the Architect;

- .2 Responding to the Contractor's requests for information that are not prepared in accordance with the Contract Documents or where such information is available to the Contractor from a careful study and comparison of the Contract Documents, field conditions, other Owner-provided information, Contractor-prepared coordination drawings, or prior Project correspondence or documentation;
- .3 Preparing Change Orders and Construction Change Directives that require evaluation of Contractor's proposals and supporting data, or the preparation or revision of Instruments of Service;
- .4 Evaluating an extensive number of Claims as the Initial Decision Maker; or,
- .5 Evaluating substitutions proposed by the Owner or Contractor and making subsequent revisions to Instruments of Service resulting therefrom.

§ 4.2.3 Intentionally deleted.

§ 4.2.4 Except for services required under Section 3.6.6.5 and those services that do not exceed the limits set forth in Section 4.2.3, Construction Phase Services provided more than 60 days after (1) the date of Substantial Completion of the Work or (2) the initial date of Substantial Completion identified in the agreement between the Owner and Contractor, whichever is earlier, shall be compensated as Additional Services to the extent the Architect incurs additional cost in providing those Construction Phase Services.

§ 4.2.5 Intentionally deleted.

ARTICLE 5 OWNER'S RESPONSIBILITIES

§ 5.1 Unless otherwise provided for under this Agreement, the Owner shall provide information in a timely manner regarding requirements for and limitations on the Project, including a written program, which shall set forth the Owner's objectives; schedule; constraints and criteria, including space requirements and relationships; flexibility; expandability; special equipment; systems; and site requirements.

§ 5.2 The Owner shall establish the Owner's budget for the Project, including (1) the budget for the Cost of the Work as defined in Section 6.1; (2) the Owner's other costs; and, (3) reasonable contingencies related to all of these costs. The Owner shall update the Owner's budget for the Project as necessary throughout the duration of the Project until final completion. If the Owner significantly increases or decreases the Owner's budget for the Cost of the Work, the Owner shall notify the Architect. The Owner and the Architect shall thereafter agree to a corresponding change in the Project's scope and quality.

§ 5.3 The Owner shall identify a representative authorized to act on the Owner's behalf with respect to the Project. The Owner shall render decisions and approve the Architect's submittals in a timely manner in order to avoid unreasonable delay in the orderly and sequential progress of the Architect's services.

§ 5.4 The Owner shall furnish surveys to describe physical characteristics, legal limitations and utility locations for the site of the Project, and a written legal description of the site. The surveys and legal information shall include, as applicable, grades and lines of streets, alleys, pavements and adjoining property and structures; designated wetlands; adjacent drainage; rights-of-way, restrictions, easements, encroachments, zoning, deed restrictions, boundaries and contours of the site; locations, dimensions, and other necessary data with respect to existing buildings, other improvements and trees; and information concerning available utility services and lines, both public and private, above and below grade, including inverts and depths. All the information on the survey shall be referenced to a Project benchmark.

§ 5.5 The Owner shall furnish services of geotechnical engineers, which may include test borings, test pits, determinations of soil bearing values, percolation tests, evaluations of hazardous materials, seismic evaluation, ground corrosion tests and resistivity tests, including necessary operations for anticipating subsoil conditions, with written reports and appropriate recommendations.

§ 5.6 The Owner shall provide the Supplemental Services designated as the Owner's responsibility in Section 4.1.1.

§ 5.7 If the Owner identified a Sustainable Objective in Article 1, the Owner shall fulfill its responsibilities as required in AIA Document E204™-2017, Sustainable Projects Exhibit, attached to this Agreement.

§ 5.8 The Owner shall coordinate the services of its own consultants with those services provided by the Architect. Upon the Architect's request, the Owner shall furnish copies of the scope of services in the contracts between the

Owner and the Owner's consultants. The Owner shall furnish the services of consultants other than those designated as the responsibility of the Architect in this Agreement, or authorize the Architect to furnish them as an Additional Service, when the Architect requests such services and demonstrates that they are reasonably required by the scope of the Project. The Owner shall require that its consultants and contractors maintain insurance, including professional liability insurance, as appropriate to the services or work provided.

§ 5.9 The Owner shall furnish tests, inspections and reports required by law or the Contract Documents, such as structural, mechanical, and chemical tests, tests for air and water pollution, and tests for hazardous materials.

§ 5.10 The Owner shall furnish all legal, insurance and accounting services, including auditing services, that may be reasonably necessary at any time for the Project to meet the Owner's needs and interests.

§ 5.11 The Owner shall provide prompt written notice to the Architect if the Owner becomes aware of any fault or defect in the Project, including errors, omissions or inconsistencies in the Architect's Instruments of Service.

§ 5.12 Except as otherwise provided in this Agreement, or when direct communications have been specifically authorized, the Owner shall endeavor to communicate with the Contractor and the Architect's consultants through the Architect about matters arising out of or to the Contract Documents. The Owner shall promptly notify the Architect of any direct communications that may affect the Architect's services.

§ 5.13 Before executing the Contract for Construction, the Owner shall coordinate the Architect's duties and responsibilities set forth in the Contract for Construction with the Architect's services set forth in this Agreement. The Owner shall provide the Architect a copy of the executed agreement between the Owner and Contractor, including the General Conditions of the Contract for Construction.

§ 5.14 The Owner shall provide the Architect access to the Project site prior to commencement of the Work and shall obligate the Contractor to provide the Architect access to the Work wherever it is in preparation or progress.

§ 5.15 The Owner shall provide, and shall require that its consultants and contractors provide, prompt written notice to the Program Manager if they become aware of any fault or defect in the Project. Including errors, omissions or inconsistencies in any documents produced by, or services provided by, the Program Manager.

§ 5.16 In the agreements between the Owner and the Owner's consultants or contractors, the Owner shall include a duty that the consultant or contractor cooperate with the Program Manager and provide information and documents reasonably necessary for the Program Manager to prepare and update the Project Management Plan or as otherwise required for the Program Manager to perform its services.

ARTICLE 6 COST OF THE WORK

§ 6.1 For purposes of this Agreement, the Cost of the Work shall be the total cost to the Owner to construct all elements of the Project designed or specified by the Architect and shall include contractors' general conditions costs, overhead and profit. The Cost of the Work does not include the compensation of the Architect; the costs of the land, rights-of-way, financing, or contingencies for changes in the Work; or other costs that are the responsibility of the Owner.

§ 6.2 The Owner's budget for the Cost of the Work is provided in Initial Information, and shall be adjusted throughout the Project as required under Sections 5.2, 6.4 and 6.5. Evaluations of the Owner's budget for the Cost of the Work, and the preliminary estimate of the Cost of the Work and updated estimates of the Cost of the Work, prepared by the Architect, represent the Architect's judgment as a design professional. It is recognized, however, that neither the Architect nor the Owner has control over the cost of labor, materials, or equipment; the Contractor's methods of determining bid prices; or competitive bidding, market, or negotiating conditions. Accordingly, the Architect cannot and does not warrant or represent that bids or negotiated prices will not vary from the Owner's budget for the Cost of the Work, or from any estimate of the Cost of the Work, or evaluation, prepared or agreed to by the Architect.

§ 6.3 In preparing estimates reviewing and evaluating estimates of the Cost of Work, the Architect shall be permitted to include contingencies for design, bidding, and price escalation; to determine what materials, equipment, component systems, and types of construction are to be included in the Contract Documents; to recommend reasonable adjustments in the program and scope of the Project; and to include design alternates as may be

necessary to adjust the estimated Cost of the Work to meet the Owner's budget. The Architect's estimate-opinion of the Cost of the Work shall be based on current area, volume or similar conceptual estimating techniques. If the Owner requires a detailed estimate of the Cost of the Work, the Architect shall provide such an estimate, if identified as the Architect's responsibility in Section 4.1.1, as a Supplemental Service.

§ 6.4 If, through no fault of the Architect, the Procurement Phase has not commenced within 90 days after the Architect submits the Construction Documents to the Owner, the Owner's budget for the Cost of the Work shall be adjusted to reflect changes in the general level of prices in the applicable construction market.

§ 6.5 The Owner will work with an appropriate outside company to provide cost estimates to ensure that the project remains on budget. Should the Architect fail to conform their design to this budget, the Architect shall be responsible to revise Drawings and Specifications that are required to eliminate scope. Design elements, added by the Architect, shall be removed from the drawings at the Architect's expense, and shall not be considered as reimbursable to the Project. Only items added to the scope by the Owner will be considered as warranting additional fee to have the Architect remove said design from the drawings Drawings and Specifications.

§ 6.6 If the Owner's budget for the Cost of the Work at the conclusion of the Construction Documents Phase Services is exceeded by the lowest bona fide bid or negotiated proposal, the Owner shall

- .1 give written approval of an increase in the budget for the Cost of the Work;
- .2 authorize rebidding or renegotiating of the Project within a reasonable time;
- .3 terminate in accordance with Section 9.5;
- .4 in consultation with the Architect, revise the Project program, scope, or quality as required to reduce the Cost of the Work; or,
- .5 implement any other mutually acceptable alternative.

§ 6.7 If the Owner chooses to proceed under Section 6.6.4, the Architect without additional compensation, shall modify the Construction Documents as necessary to comply with the Owner's budget for the Cost of the Work at the conclusion of the Construction Documents Phase Services, or the budget as adjusted under Section 6.6.1. The Architect's modification of the Construction Documents shall be the limit of the Architect's responsibility under this Article 6.

ARTICLE 7 COPYRIGHTS AND LICENSES

§ 7.1 The Architect and the Owner warrant that in transmitting Instruments of Service, or any other information, the transmitting party is the copyright owner of such information or has permission from the copyright owner to transmit such information for its use on the Project.

§ 7.2 Provided the Owner makes payment in accordance with this Agreement, the Owner shall have ownership of all Instruments of Service, including Drawings and Specifications.

§ 7.3 Intentionally deleted.

§ 7.3.1 In the event the Owner uses the Instruments of Service without retaining the authors of the Instruments of Service, the Owner releases the Architect and Architect's consultant(s) from all claims and causes of action arising from such uses. The Owner, to the extent permitted by law, further agrees to indemnify and hold harmless the Architect and its consultants from all costs and expenses, including the cost of defense, related to claims and causes of action asserted by any third person or entity to the extent such costs and expenses arise from the Owner's use of the Instruments of Service under this Section 7.3.1. The terms of this Section 7.3.1 shall not apply if the Owner rightfully terminates this Agreement for cause under Section 9.4.

§ 7.4 Except for the licenses granted in this Article 7, no other license or right shall be deemed granted or implied under this Agreement. The Owner shall not assign, delegate, sublicense, pledge or otherwise transfer any license granted herein to another party without the prior written agreement of the Architect. Any unauthorized use of the Instruments of Service shall be at the Owner's sole risk and without liability to the Architect and the Architect's consultants.

§ 7.5 Except as otherwise stated in Section 7.3, the provisions of this Article 7 shall survive the termination of this Agreement.

ARTICLE 8 CLAIMS AND DISPUTES

§ 8.1 General

§ 8.1.1 The Owner and Architect shall commence all claims and causes of action against the other and arising out of or related to this Agreement, whether in contract, tort, or otherwise, in accordance with the requirements of the binding dispute resolution method selected in this Agreement and within the period specified by applicable law, but in any case not more than 10 years after the date of Substantial Completion of the Work. The Owner and Architect waive all claims and causes of action not commenced in accordance with this Section 8.1.1.

§ 8.1.2 The Architect shall indemnify and hold the Owner and Owner's trustees, officers, employees, and agents harmless from and against damages, losses and judgments arising from claims by third parties, including reasonable attorneys' fees and expenses recoverable under applicable law, to the extent that they are caused by the negligent, reckless, or intentional acts or omissions of Architect, its employees and agents, in the performance of professional services under this Agreement.

§ 8.2 Mediation

§ 8.2.1 Any claim, dispute or other matter in question arising out of or related to this Agreement shall be subject to mediation as a condition precedent to binding dispute resolution. If such matter relates to or is the subject of a lien arising out of the Architect's services, the Architect may proceed in accordance with applicable law to comply with the lien notice or filing deadlines prior to resolution of the matter by mediation or by binding dispute resolution.

§ 8.2.2 The Owner and Architect shall endeavor to resolve claims, disputes and other matters in question between them by mediation, which, unless the parties mutually agree otherwise, shall be administered by the American Arbitration Association in accordance with its Construction Industry Mediation Procedures in effect on the date of this Agreement. A request for mediation shall be made in writing, delivered to the other party to this Agreement, and filed with the person or entity administering the mediation. The request may be made concurrently with the filing of a complaint or other appropriate demand for binding dispute resolution but, in such event, mediation shall proceed in advance of binding dispute resolution proceedings, which shall be stayed pending mediation for a period of 60 days from the date of filing, unless stayed for a longer period by agreement of the parties or court order. If an arbitration proceeding is stayed pursuant to this section, the parties may nonetheless proceed to the selection of the arbitrator(s) and agree upon a schedule for later proceedings. All negotiations, discussions and communications pursuant to this Section 8.2 shall be deemed confidential and shall be treated as compromise and settlement negotiations for purposes of applicable evidentiary requirements.

§ 8.2.3 The parties shall share the mediator's fee and any filing fees equally. The mediation shall be held in the place where the Project is located, unless another location is mutually agreed upon. Agreements reached in mediation shall be enforceable as settlement agreements in any court having jurisdiction thereof.

§ 8.2.4 If the parties do not resolve a dispute through mediation pursuant to this Section 8.2, the method of binding dispute resolution shall be the following:

(Check the appropriate box.)

☐ Arbitration pursuant to Section 8.3 of this Agreement

☒ Litigation in a court of competent jurisdiction

☐ Other: (Specify)

☐

If the Owner and Architect do not select a method of binding dispute resolution, or do not subsequently agree in writing to a binding dispute resolution method other than litigation, the dispute will be resolved in a court of competent jurisdiction.

§ 8.3 Arbitration

§ 8.3.1 If the parties have selected arbitration as the method for binding dispute resolution in this Agreement, any claim, dispute or other matter in question arising out of or related to this Agreement subject to, but not resolved by, mediation shall be subject to arbitration, which, unless the parties mutually agree otherwise, shall be administered by the American Arbitration Association in accordance with its Construction Industry Arbitration Rules in effect on the

date of this Agreement. A demand for arbitration shall be made in writing, delivered to the other party to this Agreement, and filed with the person or entity administering the arbitration.

§ 8.3.1.1 A demand for arbitration shall be made no earlier than concurrently with the filing of a request for mediation, but in no event shall it be made after the date when the institution of legal or equitable proceedings based on the claim, dispute or other matter in question would be barred by the applicable statute of limitations. For statute of limitations purposes, receipt of a written demand for arbitration by the person or entity administering the arbitration shall constitute the institution of legal or equitable proceedings based on the claim, dispute or other matter in question.

§ 8.3.2 The foregoing agreement to arbitrate, and other agreements to arbitrate with an additional person or entity duly consented to by parties to this Agreement, shall be specifically enforceable in accordance with applicable law in any court having jurisdiction thereof.

§ 8.3.3 The award rendered by the arbitrator(s) shall be final, and judgment may be entered upon it in accordance with applicable law in any court having jurisdiction thereof.

§ 8.3.4 Consolidation or Joinder

§ 8.3.4.1 Either party, at its sole discretion, may consolidate an arbitration conducted under this Agreement with any other arbitration to which it is a party provided that (1) the arbitration agreement governing the other arbitration permits consolidation; (2) the arbitrations to be consolidated substantially involve common questions of law or fact; and (3) the arbitrations employ materially similar procedural rules and methods for selecting arbitrator(s).

§ 8.3.4.2 Either party, at its sole discretion, may include by joinder persons or entities substantially involved in a common question of law or fact whose presence is required if complete relief is to be accorded in arbitration, provided that the party sought to be joined consents in writing to such joinder. Consent to arbitration involving an additional person or entity shall not constitute consent to arbitration of any claim, dispute or other matter in question not described in the written consent.

§ 8.3.4.3 The Owner and Architect grant to any person or entity made a party to an arbitration conducted under this Section 8.3, whether by joinder or consolidation, the same rights of joinder and consolidation as the Owner and Architect under this Agreement.

§ 8.4 The provisions of this Article 8 shall survive the termination of this Agreement.

ARTICLE 9 TERMINATION OR SUSPENSION

§ 9.1 If the Owner fails to make payments to the Architect in accordance with this Agreement, such failure shall be considered substantial nonperformance and cause for termination or, at the Architect's option, cause for suspension of performance of services under this Agreement. If the Architect elects to suspend services, the Architect shall give seven days' written notice to the Owner before suspending services. In the event of a suspension of services, the Architect shall have no liability to the Owner for delay or damage caused the Owner because of such suspension of services. Before resuming services, the Owner shall pay the Architect all sums due prior to suspension and any expenses incurred in the interruption and resumption of the Architect's services. The Architect's fees for the remaining services and the time schedules shall be equitably adjusted.

§ 9.2 If the Owner suspends the Project, the Architect shall be compensated for services performed prior to notice of such suspension. When the Project is resumed, the Architect shall be compensated for expenses incurred in the interruption and resumption of the Architect's services. The Architect's fees for the remaining services and the time schedules shall be equitably adjusted.

§ 9.3 If the Owner suspends the Project for more than 90 cumulative days for reasons other than the fault of the Architect or its consultants, the Architect may terminate this Agreement by giving not less than seven days' written notice.

§ 9.4 Either party may terminate this Agreement upon not less than seven days' written notice should the other party fail substantially to perform in accordance with the terms of this Agreement through no fault of the party initiating the termination.

§ 9.5 The Owner may terminate this Agreement upon not less than seven days' written notice to the Architect for the Owner's convenience and without cause.

§ 9.5.1 In the event of any termination under Sections 9.4 or 9.5, the Architect shall cooperate in good faith and provide any information reasonably requested by Owner in connection with the completion of the Project. The Architect will be entitled to compensation for time spent providing such assistance at the hourly rates provided in Architect's proposal appended to this Agreement. In no event shall the Architect be entitled to additional monies for anticipated profit be allowed on services not performed.

§ 9.6 If the Owner terminates this Agreement for its convenience pursuant to Section 9.5, or the Architect terminates this Agreement pursuant to Section 9.3, the Owner shall compensate the Architect for services performed prior to termination, Reimbursable Expenses incurred, and costs attributable to termination, including the costs attributable to the Architect's termination of consultant agreements.

§ 9.7 Except as otherwise expressly provided herein, this Agreement shall terminate one year from the date of Substantial Completion.

ARTICLE 10 MISCELLANEOUS PROVISIONS

§ 10.1 This Agreement shall be governed by the law of the place where the Project is located, excluding that jurisdiction's choice of law rules. If the parties have selected arbitration as the method of binding dispute resolution, the Federal Arbitration Act shall govern Section 8.3.

§ 10.2 Terms in this Agreement shall have the same meaning as those in AIA Document A201-2017, General Conditions of the Contract for Construction, as amended.

§ 10.3 The Owner and Architect, respectively, bind themselves, their agents, successors, assigns, and legal representatives to this Agreement. Neither the Owner nor the Architect shall assign this Agreement without the written consent of the other, except that the Owner may assign this Agreement to a lender providing financing for the Project if the lender agrees to assume the Owner's rights and obligations under this Agreement, including any payments due to the Architect by the Owner prior to the assignment.

§ 10.4 If the Owner requests the Architect to execute certificates, the proposed language of such certificates shall be submitted to the Architect for review at least 14 days prior to the requested dates of execution. If the Owner requests the Architect to execute consents reasonably required to facilitate assignment to a lender, the Architect shall execute all such consents that are consistent with this Agreement, provided the proposed consent is submitted to the Architect for review at least 14 days prior to execution. The Architect shall not be required to execute certificates or consents that would require knowledge, services, or responsibilities beyond the scope of this Agreement.

§ 10.5 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 Architect.

§ 10.6 Unless otherwise required in this Agreement, the Architect shall have no responsibility for the discovery, presence, handling, removal or disposal of, or exposure of persons to, hazardous materials or toxic substances in any form at the Project site.

§ 10.7 If the Architect or Owner receives information specifically designated as "confidential" or "business proprietary," the receiving party shall keep such information strictly confidential and shall not disclose it to any other person except as set forth in Section 10.8.1. This Section 10.8 shall survive the termination of this Agreement. The Architect shall require of the Architect's consultants similar agreements to maintain the confidentiality of information specifically designated as confidential by Owner. In the event the Architect or Owner believes that it is necessary to disclose information which the other party has designated as being confidential, the party seeking to make the disclosure shall provide the other party with prior written notice of its intent to make such disclosures, so that the other party can consent to such disclosures or make a determination as to whether to take action or seek to utilize alternative procedures as might be available to ensure the continued confidentiality of the information.

§ 10.7.1 The receiving party may disclose "confidential" or "business proprietary" information after 7 days' notice to the other party, when required by law, arbitrator's order, or court order, including a subpoena or other form of compulsory legal process issued by a court or governmental entity, or to the extent such information is reasonably

necessary for the receiving party to defend itself in any dispute. The receiving party may also disclose such information to its employees, consultants, or contractors in order to perform services or work solely and exclusively for the Project, provided those employees, consultants and contractors are subject to the restrictions on the disclosure and use of such information as set forth in this Section 10.8.

§ 10.8 The invalidity of any provision of the Agreement shall not invalidate the Agreement or its remaining provisions. If it is determined that any provision of the Agreement violates any law, or is otherwise invalid or unenforceable, then that provision shall be revised to the extent necessary to make that provision legal and enforceable. In such case the Agreement shall be construed, to the fullest extent permitted by law, to give effect to the parties' intentions and purposes in executing the Agreement.

ARTICLE 11 COMPENSATION

§ 11.1 For the Architect's Basic Services described under Article 3, the Owner shall compensate the Architect as follows:

«See Project Addendum»

§ 11.2 For the Architect's Supplemental Services designated in Section 4.1.1 and for any Sustainability Services required pursuant to Section 4.1.3, the Owner shall compensate the Architect as follows:
(Insert amount of, or basis for, compensation. If necessary, list specific services to which particular methods of compensation apply.)

«See Project Addendum»

§ 11.3 For Additional Services that may arise during the course of the Project, including those under Section 4.2, the Owner shall compensate the Architect as follows:
(Insert amount of, or basis for, compensation.)

«Lump sum or time and materials as agreed upon prior to additional service»

§ 11.4 Compensation for Supplemental and Additional Services of the Architect's consultants when not included in Section 11.2 or 11.3, shall be the amount invoiced to the Architect plus « » percent (« »%), or as follows:
(Insert amount of, or basis for computing, Architect's consultants' compensation for Supplemental or Additional Services.)

«Consultant additional services will be included in the lump sum or time and materials agreement in 11.3»

§ 11.5 When compensation for Basic Services is based on a stipulated sum or a percentage basis, the proportion of compensation for each phase of services shall be as follows: See Project Addendum

§ 11.7 The hourly billing rates for services of the Architect and the Architect's consultants are set forth below. The rates shall be adjusted in accordance with the Architect's and Architect's consultants' normal review practices.
(If applicable, attach an exhibit of hourly billing rates or insert them below.)

«See Exhibit 2 - Architect's Proposal»

§ 11.8 Compensation for Reimbursable Expenses

§ 11.8.1 Reimbursable Expenses are in addition to compensation for Basic, Supplemental, and Additional Services and include expenses incurred by the Architect and the Architect's consultants directly related to the Project, as follows:

- .1 Transportation and authorized out-of-town travel and subsistence;
- .2 Long distance services, dedicated data and communication services, teleconferences, Project web sites, and extranets;
- .3 Permitting and other fees required by authorities having jurisdiction over the Project;
- .4 Printing, reproductions, plots, and standard form documents;
- .5 Postage, handling, and delivery;

- .6 Expense of overtime work requiring higher than regular rates, if authorized in advance by the Owner;
- .7 Renderings, physical models, mock-ups, professional photography, and presentation materials requested by the Owner or required for the Project;
- .8 If required by the Owner, and with the Owner's prior written approval, the Architect's consultants' expenses of professional liability insurance dedicated exclusively to this Project, or the expense of additional insurance coverage or limits in excess of that normally maintained by the Architect's consultants;
- .9 All taxes levied on professional services and on reimbursable expenses;
- .10 Site office expenses;
- .11 Registration fees and any other fees charged by the Certifying Authority or by other entities as necessary to achieve the Sustainable Objective; and,
- .12 Other similar Project-related expenditures.

§ 11.8.1.2 As a condition of payment, Architect shall itemize each reimbursable expense for which reimbursement is sought and shall provide Owner with such supporting documentation as Owner requires to confirm the validity and reasonableness of the amount sought.

§ 11.8.2 For Reimbursable Expenses the compensation shall be the expenses incurred by the Architect and the Architect's consultants plus «zero» percent («0» %) of the expenses incurred.

§ 11.9 Architect's Insurance. If the types and limits of coverage required in Section 2.5 are in addition to the types and limits the Architect normally maintains, the Owner shall pay the Architect for the additional costs incurred by the Architect for the additional coverages as set forth below:
(Insert the additional coverages the Architect is required to obtain in order to satisfy the requirements set forth in Section 2.5, and for which the Owner shall reimburse the Architect.)

«Not Applicable»

§ 11.10 Payments to the Architect

§ 11.10.1 Initial Payments

§ 11.10.1.1 An initial payment of «zero» (\$ «0») shall be made upon execution of this Agreement and is the minimum payment under this Agreement. It shall be credited to the Owner's account in the final invoice.

§ 11.10.1.2 If a Sustainability Certification is part of the Sustainable Objective, an initial payment to the Architect of «zero» (\$ «0») shall be made upon execution of this Agreement for registration fees and other fees payable to the Certifying Authority and necessary to achieve the Sustainability Certification. The Architect's payments to the Certifying Authority shall be credited to the Owner's account at the time the expense is incurred.

§ 11.10.2 Progress Payments

§ 11.10.2.1 Unless otherwise agreed, payments for services shall be made monthly in proportion to services performed. Payments are due and payable within thirty (30) days of presentation of the Architect's invoice. Amounts unpaid «zero» («0») days after the invoice date shall bear interest at the rate entered below, or in the absence thereof at the legal rate prevailing from time to time at the principal place of business of the Architect.
(Insert rate of monthly or annual interest agreed upon.)

«0» % «zero»

The Owner's final payment to the Architect shall be made no later than 90 days after the issuance of the Certificate of Substantial Completion is received by the Owner. Owner shall not be responsible for any invoice received after ninety (90) days.

§ 11.10.2.2 The Owner shall not withhold amounts from the Architect's compensation to impose a penalty or liquidated damages on the Architect, or to offset sums requested by or paid to contractors for the cost of changes in the Work, unless the Architect agrees or the Owner has notified the Architect in writing that the Owner determined that the amounts are not due as a result of an alleged breach of a professional duty of care and has made withheld or offset the amounts based upon a good faith estimate of the damages resulting from that alleged breach of a professional duty of care or has been found liable for the amounts in a binding dispute resolution proceeding.

§ 11.10.2.3 Records of Reimbursable Expenses, expenses pertaining to Supplemental and Additional Services, and services performed on the basis of hourly rates shall be available to the Owner at mutually convenient times.

ARTICLE 12 SPECIAL TERMS AND CONDITIONS

Special terms and conditions that modify this Agreement are as follows:
(Include other terms and conditions applicable to this Agreement.)

«The Architect's records shall be subject to audit by Owner or Owner's designated representative and such records shall include but not be limited to accounting records, timesheets, payroll records, invoices, expense reimbursement supporting documentation, payroll records, additional service files, correspondence and electronic communications, general ledger entries, and any other records which may have a bearing on matters of interest to Owner in connection with the Project. These records shall be subject to audit during the Project and for a period of five years beyond the Certificate of Final Completion.»

ARTICLE 13 SCOPE OF THE AGREEMENT

§ 13.1 This Agreement represents the entire and integrated agreement between the Owner and the Architect 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 Architect.

§ 13.2 This Agreement is comprised of the following documents identified below:

- .1 AIA Document B101™-2017, Standard Form Agreement Between Owner and Architect
- .2 AIA Document E203™-2013, Building Information Modeling and Digital Data Exhibit:
- .3 Exhibits:
(Check the appropriate box for any exhibits incorporated into this Agreement.)

[☐] AIA Document E204™-2017, Sustainable Projects Exhibit, dated as indicated below:
(Insert the date of the E204-2017 incorporated into this agreement.)

[☐]

[☒] Other Exhibits incorporated into this Agreement:
(Clearly identify any other exhibits incorporated into this Agreement, including any exhibits and scopes of services identified as exhibits in Section 4.1.2.)

«Request for Proposal & Architect's Proposal»
- .4 Other documents:
(List other documents, if any, forming part of the Agreement.)

«Cooper Contractor Safety Program
Cooper Design Standards»

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

OWNER (Signature)

« »« »

(Printed name and title)

ARCHITECT (Signature)

« »« »

(Printed name, title, and license number, if required)

EXHIBIT D

Design Scope of Services & Responsibility Assignments

Description of Services	Responsibility					Comments
	Basic Services	Additional Services	Owner	Others	Not Provided	
Architectural Design Services	X					not included in RFP; awarded separately
Interior Design Services	X					not included in RFP; awarded separately
Structural Design Services	X					not included in RFP; awarded separately
MEP/FP Design Services	X					
Low Voltage/Security/AV Design Services	X					
Civil Engineering			X			
Landscape Architecture	X					not included in RFP; awarded separately
Food Service Design Services	X					not included in RFP; awarded separately
Furniture Selection and Specification	X					not included in RFP; awarded separately
Furniture Procurement and Placement			X			
Medical Equipment Planning			X			
Wayfinding Design, Selection and Procurement	X					not included in RFP; awarded separately
Artwork Selection and Procurement			X			
Physicist Reports			X			
Site Analysis - Geotech			X			
Site Analysis - Topo, Surveys			X			
Site Selection			X			
Masterplanning					X	
Programming & Blocking/Stacking Design	X					not included in RFP; awarded separately
Building Exterior Scheme Options	X					not included in RFP; awarded separately
Target Value Design (TVD) Process Support	X					
Schematic Design	X					
Design Development	X					
Construction Documents	X					
Bidding and Negotiation assistance	X					
Construction Administration						
Site Observation visits	X					
Full time site presence		X				
As-Built Drawing Incorporation for Record Drawings	X					
Contractor Closeout Documents Review	X					
BIM Coordination with Record Drawings	X					
Basic Commissioning	X					
Enhanced Commissioning			X			
Construction Schedule Development and monitoring				X		Construction Manager
Cost Estimating				X		Construction Manager
Existing Facility Analysis/Inventories		X				
Existing as-built Drawings			X			
Documentation of Existing Conditions		X				
Presentation Renderings and Models	X					not included in RFP; awarded separately
Preparation of Fundraising Documents		X				
Coordination of Owner's Specialty Consultants	X					
Building Permit and Application Fees				X		Construction Manager
AHJ Design Review and Inspection Fees			X			

Exhibit E – Deliverables by Phase

PROGRAM VALIDATION

- Conceptual Design Package analysis & validation.
- Analysis to include benchmark comparison and variance analysis explanations based upon Industry Standard & Firm experience.
- Updated project budget and schedule input.
- Statement of understanding and this Firms' findings and recommendations based from meeting minutes and other reports/documents, as required, to complete this phase.

SCHEMATIC DESIGN

Architectural (scope of service not included in MEP/FP Engineering RFP, but to be included in AIA B101-2017 Agreement):

- Outline Specifications.
- Floor plans including rooms, room names, and departments defined. General structural grid, stairs, elevators, shafts, pneumatic tube stations, and coordination of major MEP and structural components indicated.
- Life Safety plans showing overall smoke compartments and exits.
- Enlarged typical patient room plans with preliminary headwall elevations.
- Area tabulations for new construction and renovation by level (as applicable).
- Building section (s)
- Typical wall section(s) (as applicable)
- Narrative interior design description along with sketches, as needed, to help illustrate the design intent at this phase.
- Narrative demolition plan description.
- Assessment report of existing chases and ability to modify/upgrade/replace existing services within these chases.
- Square footage reconciliation against prior approved basis accomplished in the prior phase. Variance analyses, justifications, reduction opportunities, and A/E recommendations shall also be provided with the reconciliation.
- Coordination of site and civil with structural considerations and Community Engagement methodologies.

Mechanical:

- Narrative/Outline Specifications
- Major loads for chilled water and steam & how they are served
- Size & rough configuration for mechanical rooms
- AHU size and location
- Layout for major mechanical rooms
- Major equipment (chillers & boilers) identified
- Identify sized & general location of chases needed
- Duct riser diagram (supply and return)

- Typical enlarged patient room one line duct plan
- Description of zoning requirements with approx. number of ceiling boxes
- Assessment report of existing mechanical systems and their available capacities.
- Identification of potential tie-in locations and potential impacts to ongoing services and day-to-day operations.

Electrical:

- Narrative/Outline Electrical Specifications – Include:
 - Lighting fixture description by area
 - Allowance for specialty lighting (lighting consultant)
- Major loads for normal and emergency power & how they are served
- Size & rough configuration for electrical rooms
- Schematic riser diagram, including size of switchgear
- Identify major equipment, such as emergency generators
- Narrative/Outline Low-Voltage/systems Specifications (by separate IT consultant)
- Assessment report of existing mechanical systems and their available capacities.
- Identification of potential tie-in locations and potential impacts to ongoing services and day-to-day operations.

Plumbing/Med Gas:

- Narrative/Outline Specifications – Include:
 - Plumbing narrative/outline specifications – include sanitary & storm sewer & natural gas
 - Med gas narrative/outline specifications – identify existing building tie-ins
- Major loads for med gas system & how served
- Identify any equipment rooms needed
- Identify general plumbing fixture types to be used
- Outline requirements for major risers
- Identify pump locations
- General description of handicapped fixture requirements
- General description of hands free fixture requirements
- Assessment report of existing mechanical systems and their available capacities.
- Identification of potential tie-in locations and potential impacts to ongoing services and day-to-day operations.

Fire Protection:

- Narrative/Outline Specifications
- Major loads for sprinklers & how served
- Note areas of different coverage types Identify hazard designations
- Single line diagrams for main and standpipes
- Identify fire department connection
- Determine whether project is high-rise
- Determine whether a fire pump is needed
- Identify service entrance
- Assessment report of existing mechanical systems and their available capacities.

- Identification of potential tie-in locations and potential impacts to ongoing services and day-to-day operations.

Documents:

- Three (3) sets of full-size blue lines, six (6) sets of half-sized sets, and three (3) sets of project manuals (or outline/narrative specifications) will be provided with the Schematic Design package. In addition, three (3) CDs including Schematic Design drawings and project manual sections in the approved electronic format as well as in PDF format.
- Meeting minutes and other reports/documents, as required, to complete this phase.

DESIGN DEVELOPMENT**Architectural: (scope of service not included in MEP/FP Engineering RFP, but to be included in AIA B101-2017 Agreement)**

- DD Specification
- Scaled DD building plans with building perimeter and structural grid dimensionally fixed. Major MEP systems architectural requirements (rooms, shafts, etc.) indicated. Doors and window systems indicated. Room data summary indicated (i.e. casework, accessories, and equipment layouts, etc.).
- Life Safety plans showing smoke compartments and fire/smoke walls.
- Enlarged typical room plans.
- Area tabulations for new construction and renovation by level.
- Reflected ceiling plans of key areas and design elements (i.e. patient rooms, major public spaces).
- Building section(s).
- Typical wall sections.
- Typical section details.
- Refined overall building elevations for each major building façade indicating material, fenestration, entrances, special features, floor levels, and vertical dimensions.
- Three-dimensional sketch(s).
- Interim life safety plan.
- Demolition plan.
- Phasing plan to support occupancy and permitting requirements.
- Square footage reconciliation against prior approved basis accomplished in the prior phase. Variance analyses, justifications, reduction opportunities, and A/E recommendations shall also be provided with the reconciliation.

Mechanical:

- DD Specifications.
- Refined loads for chilled water and steam that go back to the CEP.
- Layout for all mechanical rooms.
- Schedule for all major mechanical equipment.
- Sizes of 4-pipe system to AHU's.
- Single line diagrams with sizes for major duct distributions.
- Refined AHU sizes and locations.
- Terminal boxes.
- Enlarged typical room plans.

- Identification of agreed upon tie-in locations, known impacts to ongoing services and day-to-day operations, and the interim actions to be taken as a result of the required modifications to the mechanical system.

Electrical:

- DD Specifications
- Major loads for normal and emergency power that go back to the CEP.
- DD light fixture schedule.
- Size & rough configuration for electrical rooms.
- Layout for electrical rooms.
- Electrical panels identified.
- Riser Diagram.
- Enlarged typical room plans.
- Identification of agreed upon tie-in locations, known impacts to ongoing services and day-to-day operations, and the interim actions to be taken as a result of the required modifications to the electrical system.
- Low voltage (telecommunications, IT, security systems, etc) requirements to be purchased and relocated along with responsibility assignments.

Plumbing:

- DD Specifications.
- Major loads for med gas system that go back to the CEP.
- Major loads for domestic water system that go back to the CEP.
- Define what areas are manufactured headwall units as opposed to gas outlets in the wall.
- Riser Diagram.
- Med gas zone valves located.
- Enlarged typical room plans.
- Identification of agreed upon tie-in locations, known impacts to ongoing services and day-to-day operations, and the interim actions to be taken as a result of the required modifications to the plumbing/med gas system.

Fire Protection:

- DD Specifications.
- Major loads for sprinkler that go back to the CEP.
- Single line diagrams with sizes for main and standpipes.
- Identification of agreed upon tie-in locations, known impacts to ongoing services and day-to-day operations, and the interim actions to be taken as a result of the required modifications to the fire protection system.

Documents:

- Three (3) sets of full size blue lines, six (6) sets of half-sized sets, and three (3) sets of project manuals (or outline/narrative specifications) will be provided with the Design Development package. In addition, three (3) CDs including Design Development drawings and project manual sections in the approved electronic format as well as in PDF format.
- Furniture equipment plan (by room) defining all items to be purchased and relocated along with responsibility assignments.
- Meeting minutes and other reports/documents, as required, to complete this phase.

CONSTRUCTION DOCUMENTS**Architectural (scope of service not included in MEP/FP Engineering RFP, but to be included in AIA B101-2017 Agreement):**

- Update all deliverables provided during Design Development.
- Complete construction documents to support phasing plan and occupancy plan for the project. Specific phasing deliverables shall be provided as needed to support this plan.
- Complete construction documents within the approved project budget.

Structural (scope of service not included in MEP/FP Engineering RFP, but to be included in AIA B101-2017 Agreement):

- Complete construction documents to support phasing plan and occupancy plan for the project. Specific phasing deliverables shall be provided as needed to support this plan.
- Complete construction documents within the approved project budget.

Mechanical:

- Update all deliverables provided during Design Development.

Electrical:

- Update all deliverables provided during Design Development.

Plumbing/Med Gas:

- Update all deliverables provided during Design Development.

Fire Protection:

- Update all deliverables provided during Design Development.

Documents:

- Three (3) sets of full-size blue lines, six (6) sets of half-sized sets, and three (3) sets of project manuals (or outline/narrative specifications) will be provided with the Schematic Design package. In addition, three (3) CDs including

Design Development drawings and project manual sections in the approved electronic format as well as in PDF format.

- Furniture equipment plan (by room) defining all items to be purchased and relocated along with responsibility assignments.
- Meeting minutes and other reports/documents, as required, to complete this phase.

PROJECT CLOSEOUT & POST OCCUPANCY

- Lessons learned document regarding the project design and construction for this project.
- Post occupancy evaluation report.
- Two (2) sets of full size as-built drawings. In addition, one (1) CD of as-built drawings in the approved electronic format and another CD of as-built drawings in PDF format.



CBRE

CBRE Healthcare presents

FACILITY CONDITION ASSESSMENT

For Camden Campus – Central Energy Plant

Prepared for

 **Cooper**
University Health Care

June 2020

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EXECUTIVE SUMMARY

General

CBRE Healthcare has completed a defined facility condition assessment (FCA) of Cooper University Health Care – Central Energy Plant located in Camden, New Jersey. The assessment information which follows includes a survey of the site, building envelope, interior finishes, mechanical, plumbing, electrical, and low voltage systems. The information in this report was obtained through interviews with the facility staff, field observations, and review of available existing documentation.

The purpose of this assessment is to evaluate and identify the major building systems and equipment deficiencies which will require capital for repairs or replacement in the near and long term. These recommendations are presented in the narrative section and 10-year capital spending plan of this report.

We would like to thank the Cooper University Health Care staff for their assistance with the completion of this report.

Architectural

The Central Energy Plant (CEP) is composed of several connected structures which have been built in phases; the older structures (Boiler Plant) were brick structures built in 1979 along Benson Street. At some point, it appears the west roof of the Boiler Plant was raised, probably to accommodate new equipment. In 1985, another building was constructed (1985 Building). Most recently, in 2019, a building (Infill) was constructed in the area between the Boiler Plant and 1985 Building to create one large footprint. These one-story structures vary slightly in height by phase and total approximately 15,000 square feet.

All the CEP buildings originated with block and brick masonry. Later, sections became painted, split-face block. All facades will need at least one refurbishment during this capital spending plan to maintain these exterior finishes.

The older Boiler Plant roofs are in fair condition. They will reach the end of their projected life during this spending period and are recommended for replacement. The balance of the roofs is new and in excellent condition.

Several exterior hollow metal doors and frames serve the building. They are showing signs of weathering and wear and should be scheduled for repair and refinishing during the 10-year spending plan cycle.

The streetscape along Haddon Street is well landscaped and in good condition. However, the drive and parking stalls along the east side of the building are in fair condition and should be scheduled for resurfacing during the 10-year capital spending period.

The capital spending plan includes the following recommendations:

- Restore all facades
- Replace roofs A and B
- Install OSHA-approved rooftop fall protection
- Resurface and stripe parking
- Repair, prep, and repaint all hollow metal doors, frames, and louvers

Mechanical

The CEP houses three, high-pressure steam boilers, deaerator feedwater heater, steam condensate receiver, water softeners, house-compressed air compressors, 750-ton and 1,000-ton chillers, two cooling towers, new co-generation system, and medical air compressors.

The deaerator feedwater heater is 42 years old and will require replacement as well as the 2,500-gallon steam condensate surge tank and domestic water softeners. The remaining equipment is in fair to good condition.

The following are the recommendations included in the capital spending plan:

- Replace deaerator feedwater heater
- Replace 2,500-gallon steam condensate surge tank
- Replace water softening equipment
- Repair/replace infrastructure piping
- Replace 900-bhp watertube boiler

Electrical

The normal and emergency electrical power systems serving the facility are in excellent to poor condition. New switchgear and distribution equipment is in excellent condition and was installed to serve the new co-generation system. The main service entrance 26.4-kV switchgear for the campus is in good condition; it was installed around 2008. However, some unit substations, transformers, distribution panels, automatic transfer switches, and panelboards original to the 1970s still remain. Two of the generators have been in service since 1977, while another has been in service since the early 1990s—all three exceed the expected useful service life. Generator 4 is in good condition and was installed in 2006.

The following recommendations are included in the capital spending plan:

- Replace generators 1, 2, and 3 with larger, low emissions generators
- Replace emergency generator paralleling switchgear
- Replace unnamed Square D unit substation serving 1985 Building
- Replace four automatic transfer switches
- Replace Federal Pacific switchboard SWBD-PP-BP
- Replace 500-kVA transformers T-1, T-10, and T-11

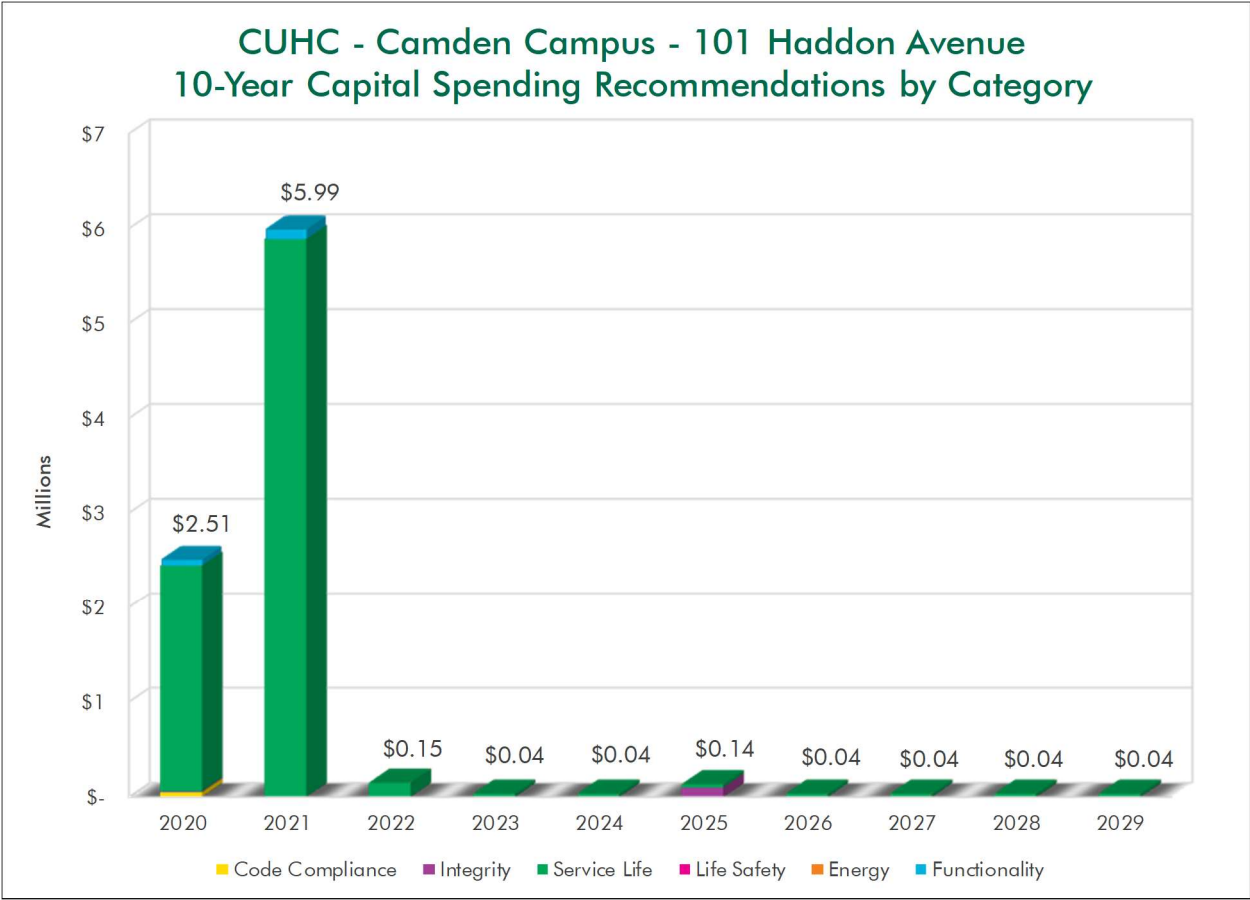
- Replace Federal Pacific distribution panels "Dist. Panel 1" and "Dist. Panel 2"
- Replace unnamed motor control center serving 1985 Building (Square D; Model 5)
- Replace Federal Pacific panelboards
- Replace distribution panels, transformers, and panelboards
- Create updated single-line diagrams for campus electrical system (campus wide)
- Expand emergency power system to include chilled water system

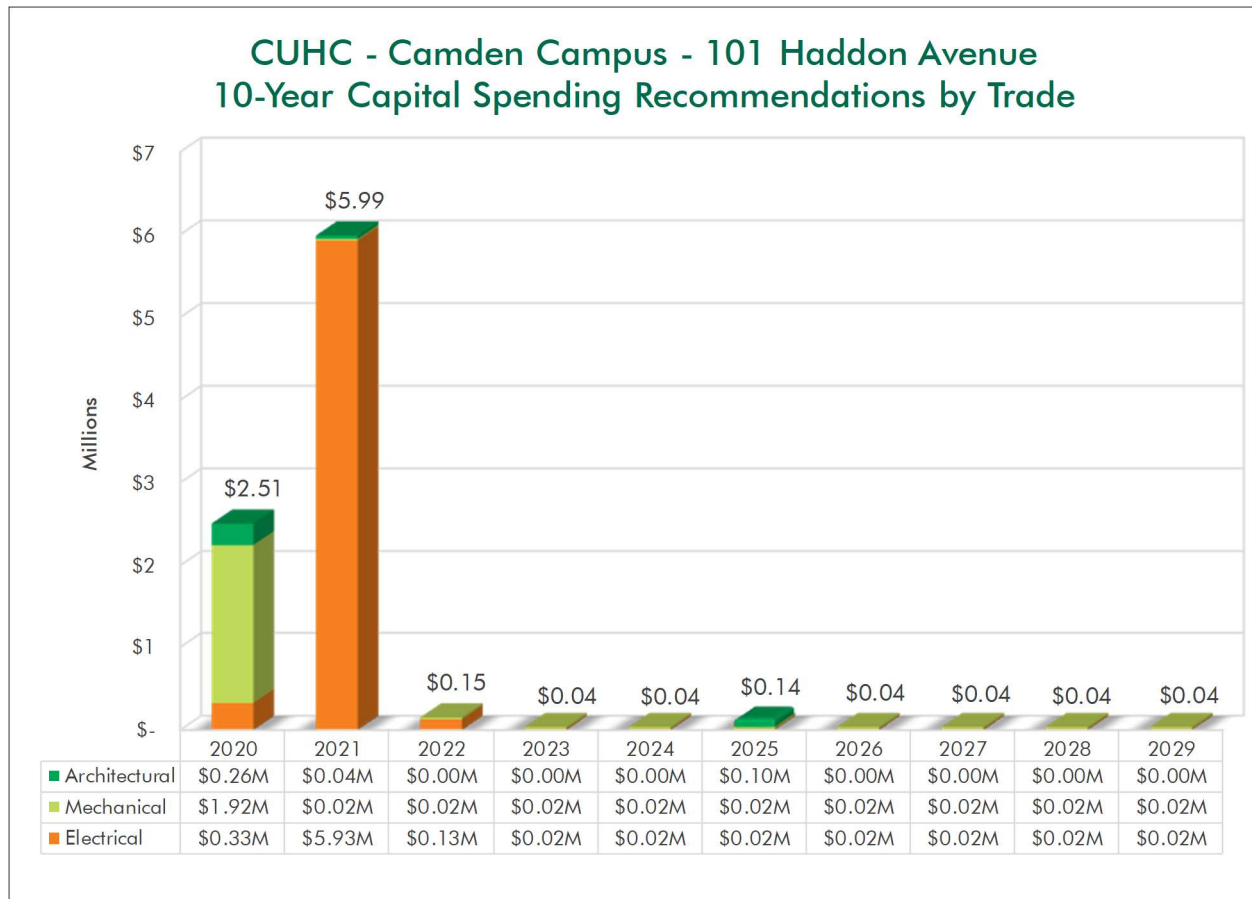
Capital Spending

The proposed ten-year capital expenditure for resolving the architectural, mechanical, and electrical deficiencies is projected at \$8,988,000. The capital amount is expressed in 2019 dollars without additions for escalation or inflation.

PRELIMINARY BUDGET COSTS							
YEAR	CODE COMPLIANCE	INTEGRITY	SERVICE LIFE	LIFE SAFETY	ENERGY	FUNCTIONALITY	TOTALS
2020	\$ 50,000	\$ 10,000	\$ 2,385,000	\$ -	\$ -	\$ 60,000	\$ 2,505,000
2021	\$ -	\$ -	\$ 5,888,000	\$ -	\$ -	\$ 100,000	\$ 5,988,000
2022	\$ -	\$ -	\$ 150,000	\$ -	\$ -	\$ -	\$ 150,000
2023	\$ -	\$ -	\$ 35,000	\$ -	\$ -	\$ -	\$ 35,000
2024	\$ -	\$ -	\$ 35,000	\$ -	\$ -	\$ -	\$ 35,000
2025	\$ -	\$ 100,000	\$ 35,000	\$ -	\$ -	\$ -	\$ 135,000
2026	\$ -	\$ -	\$ 35,000	\$ -	\$ -	\$ -	\$ 35,000
2027	\$ -	\$ -	\$ 35,000	\$ -	\$ -	\$ -	\$ 35,000
2028	\$ -	\$ -	\$ 35,000	\$ -	\$ -	\$ -	\$ 35,000
2029	\$ -	\$ -	\$ 35,000	\$ -	\$ -	\$ -	\$ 35,000
SUBTOTALS	\$ 50,000	\$ 110,000	\$ 8,668,000	\$ -	\$ -	\$ 160,000	\$ 8,988,000

The following two graphs illustrate the yearly expenditures by trade (architectural, mechanical, and electrical infrastructure) and by category (life safety, integrity, code compliance, energy conservation, service life, and functionality).





Facility Condition Index:

Today, many healthcare organizations utilize facility condition index (FCI) data to support their mission and strategic goals regarding building renovations and repairs. This key performance indicator will give Cooper University Health Care the ability to establish target condition ratings, compare buildings to each other, and support master facility plans.

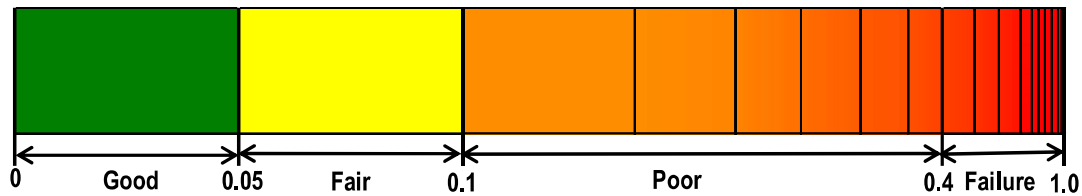
The FCI is a benchmark metric to analyze the overall condition of a building and the effect of investing in facility improvements. It is the ratio of deferred maintenance dollars to replacement dollars and provides a straightforward comparison of an organization's key estate assets. To calculate the FCI for a building, divide the total estimated cost to complete deferred maintenance projects for the building by its estimated replacement value.

The FCI equation is shown below:

$$\text{FCI} = \frac{\text{Deferred Maintenance Cost}}{\text{Replacement Cost}}$$

The FCI is a relative indicator of condition and should be tracked over time to maximize its benefit. It is advantageous to define condition ratings based on type of building and the services it provides. The Building Owners and Managers Association International provides a standard FCI rating: good (under 0.05), fair (0.05 to 0.10), and poor (over 0.10). When the FCI exceeds 0.4, the building should be considered for replacement.

This rating system is shown below:



Therefore, the lower the FCI, the lower the need for remedial or renewal funding relative to the facility's value. For example, an FCI of 0.07 signifies a 7% deficiency ratio which is generally considered to be in the fair range. An FCI of 0.7 means that 70% of the building needs extensive repairs or replacement. The FCI is a relative indicator of condition and should be tracked over time to maximize its benefit.

Extended Facility Condition Index:

For a comprehensive facility funding analysis, the deferred maintenance and future capital renewal can be integrated to provide a second facility benchmark, extended facility condition index (EFCI). The EFCI equation is shown below:

$$\text{EFCI} = \frac{\text{Deferred Maintenance (\$)} + \text{Future CSP Renewals (\$)}}{\text{Replacement Cost (\$)}}$$

The EFCI can be used with various funding options to calculate the condition of the building over a given time period.

Facility Condition Index Benchmarking:

The table below represents the summary-level findings for the FCA CSP.

Key FCI Findings	Metric
Building Square Footage	15,000
Average Building Cost/Square Foot*	\$ 1,333
Total Building Replacement Value	\$ 20,000,000
Total Deferred Maintenance Needs	\$ 5,228,000

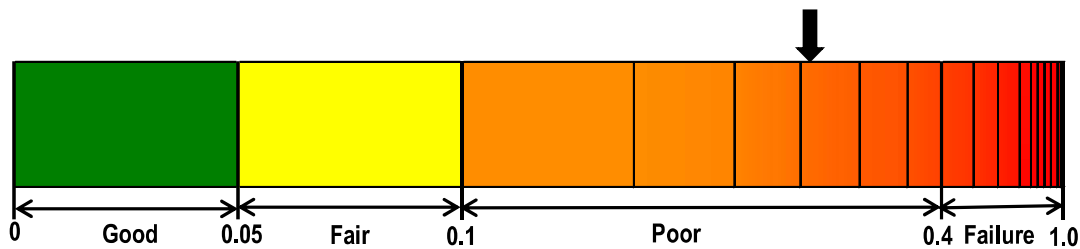
Key FCI Findings	Metric
Total Future CSP Renewal Needs	\$ 3,000,000
Total Non-infrastructure Needs	\$ 760,000
Total 10-Year Capital Needs	\$ 8,988,000

**Average Building Cost per Square Foot represents a normalized average of the building's replacement value based on total building's square footage and total building's replacement value.*

Note: Replacement value does not include cost of land, site work, site utilities, foundations, wall construction, medical equipment, dietary equipment, and FF&E.

One of the major goals of the FCA is to calculate the FCI for Central Energy Plant. This gives an overall condition of each building and a total for the campus. The calculation is based on an FCI scale described and shown above.

$$\text{FCI Calculation: } \frac{\$5,228,000}{\$20,000,000} = 0.26 \text{ (poor range)}$$



The FCI value is in the poor range. If no facility capital investments occur during the next ten years, the EFCI will increase and be within the failure range. The next section below evaluates various infrastructure capital options and their impact on the EFCI.

Capital Spending Forecasting:

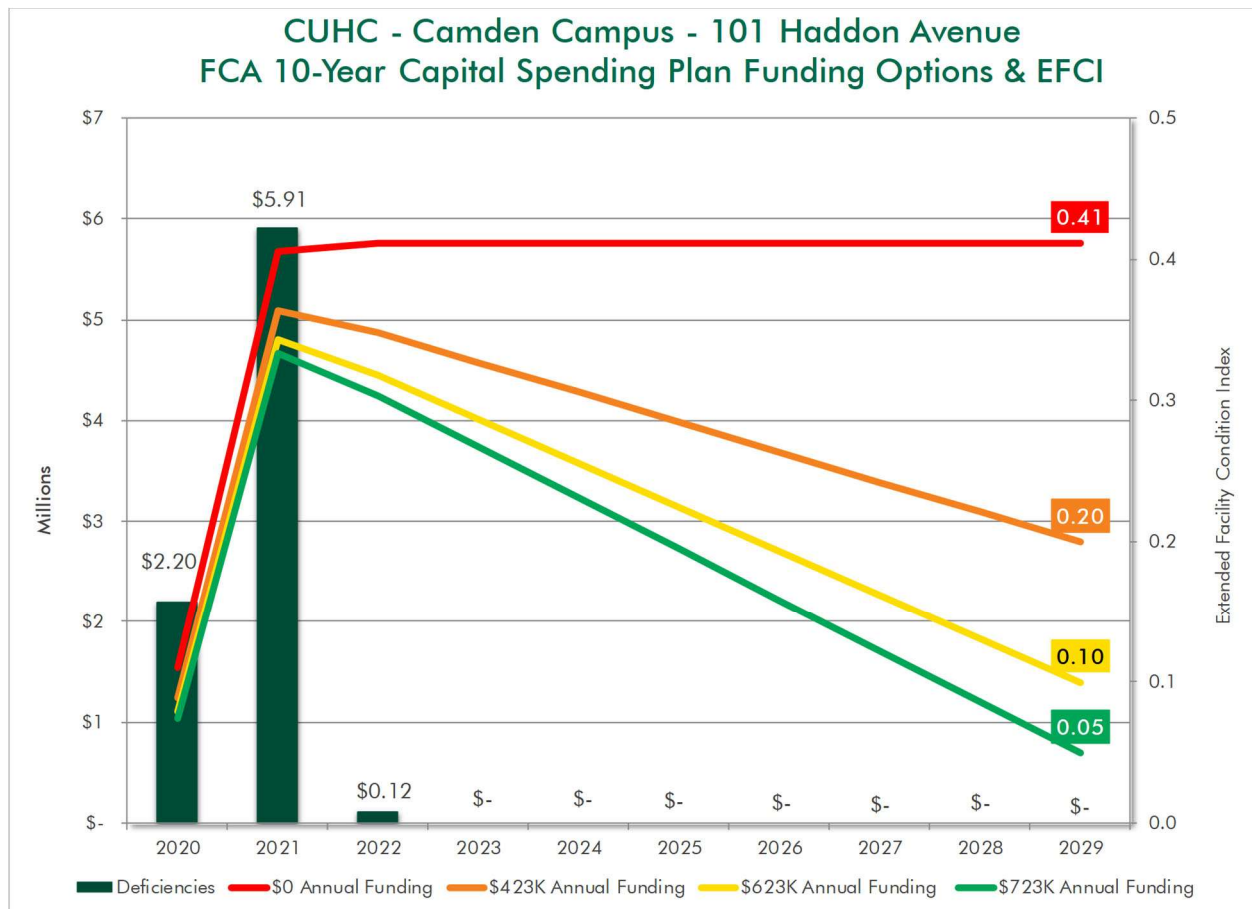
Please note that this FCA report integrates both deferred maintenance and future capital renewal projections into a comprehensive facility funding analysis to calculate the EFCI. As part of this benchmarking, CBRE Healthcare has provided four capital spending forecasting scenarios below for Central Energy Plant. Seeing the effects of different funding strategies will allow the organization to understand the impact of their portfolio. With this forecasting model, hospital leadership can compare the current level of funding versus increased or decreased levels of capital investment with their effect on the overall EFCI.

$$\text{EFCI Calculation: } \frac{\$8,228,000}{\$20,000,000} = 0.41 \text{ (failure range)}$$

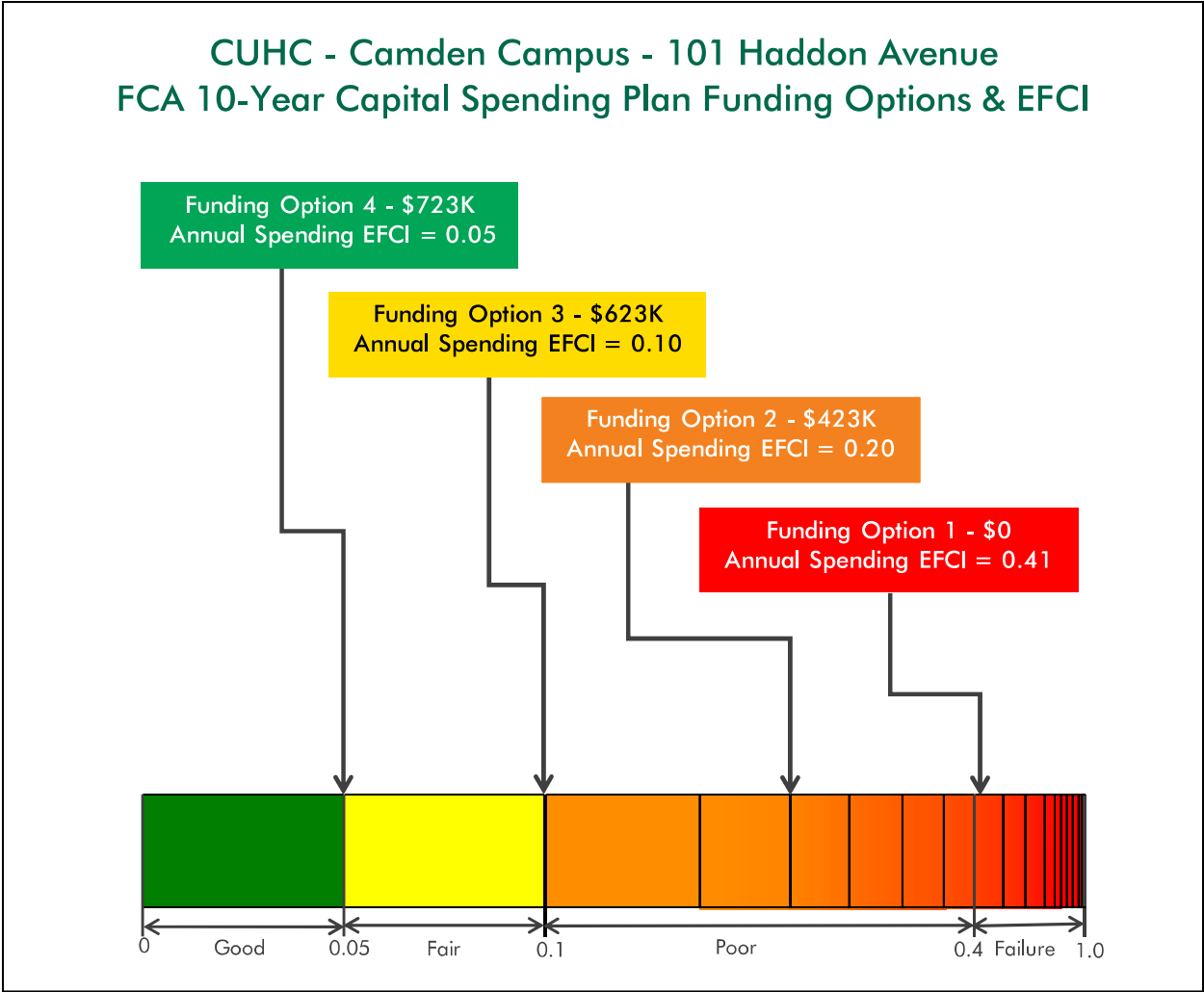
The following is a summary of the four capital spending model options:

- **Option 1 – Worst Case:** Provide no capital funding and allow the EFCI to increase.
- **Option 2 - Poor:** Provide capital funding so the EFCI is at 0.20 in year 10.
- **Option 3 – Fair/Poor:** Provide capital funding so the EFCI ends at the transition between the fair and poor EFCI ranges at 0.10 in year 10.
- **Option 4 – Good/Fair:** Provide capital funding so the EFCI ends at the transition between the good and fair ranges at 0.05 in year 10.

The four funding options along with their respective EFCI are shown below:



The four spending options and their corresponding EFCI are shown below:

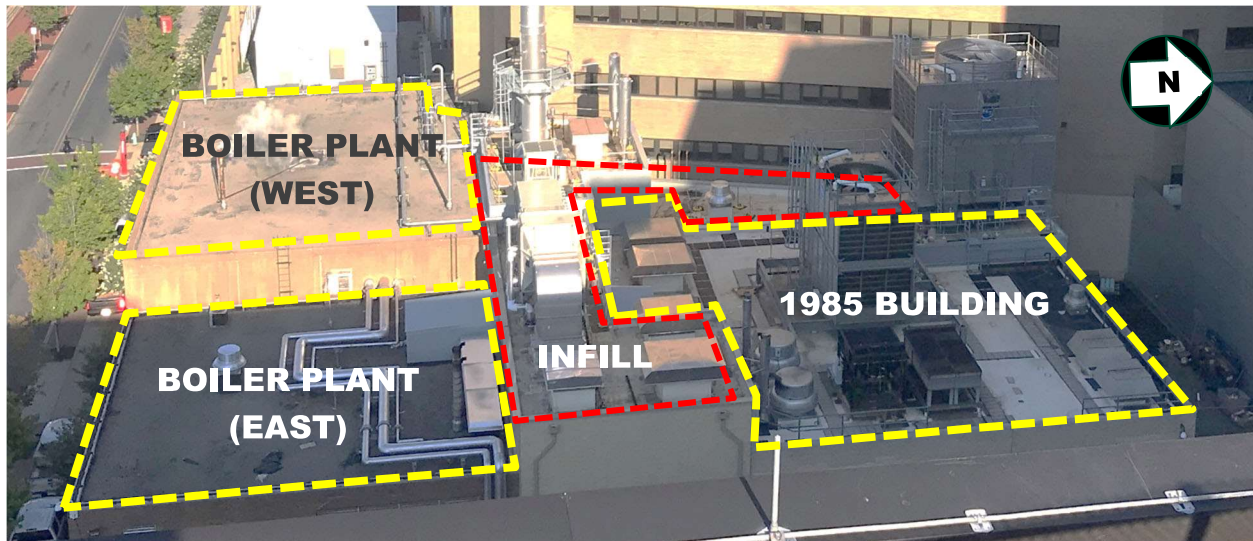


ARCHITECTURAL ASSESSMENT

General

The Central Energy Plant (CEP) is composed of several connected structures which have been built in phases; the older structures (Boiler Plant) were brick structures built in 1979 along Benson Street. At some point, it appears that the west roof of the Boiler Plant was raised, probably to accommodate new equipment. In 1985, another building was constructed (1985 Building). Most recently, in 2019, a building (Infill) was constructed in the area between the Boiler Plant and 1985 Building to create one large footprint. These one-story structures vary slightly in height by phase and total approximately 15,000 square feet.

The CEP houses high-pressure steam boilers, a deaerator feedwater heater, a steam condensate receiver, water softeners, house-compressed air compressors, two chillers, two cooling towers, a new co-generation system, and medical air compressors. Main normal and emergency electrical service systems are also located adjacent to this building to the west.



Aerial View of CEP



View of CEP from Benson Street

Building Envelope

All the CEP buildings originated with block and brick masonry. Later, sections became painted, split-face block. The aggregate panels added above the stone coping suggest the roof was likely raised above the original west half of the Boiler Plant building to accommodate new equipment. All facades will require at least one refurbishment during this spending period to maintain the exterior finishes.



Boiler Plant (East): Older Brick Masonry Walls



Infill & 1985 Bldg: Split-face Block Masonry Walls



Boiler Plant (west): South Façade (raised roof)



Boiler Plant (west): Southeast Brick Façade

Recommendations

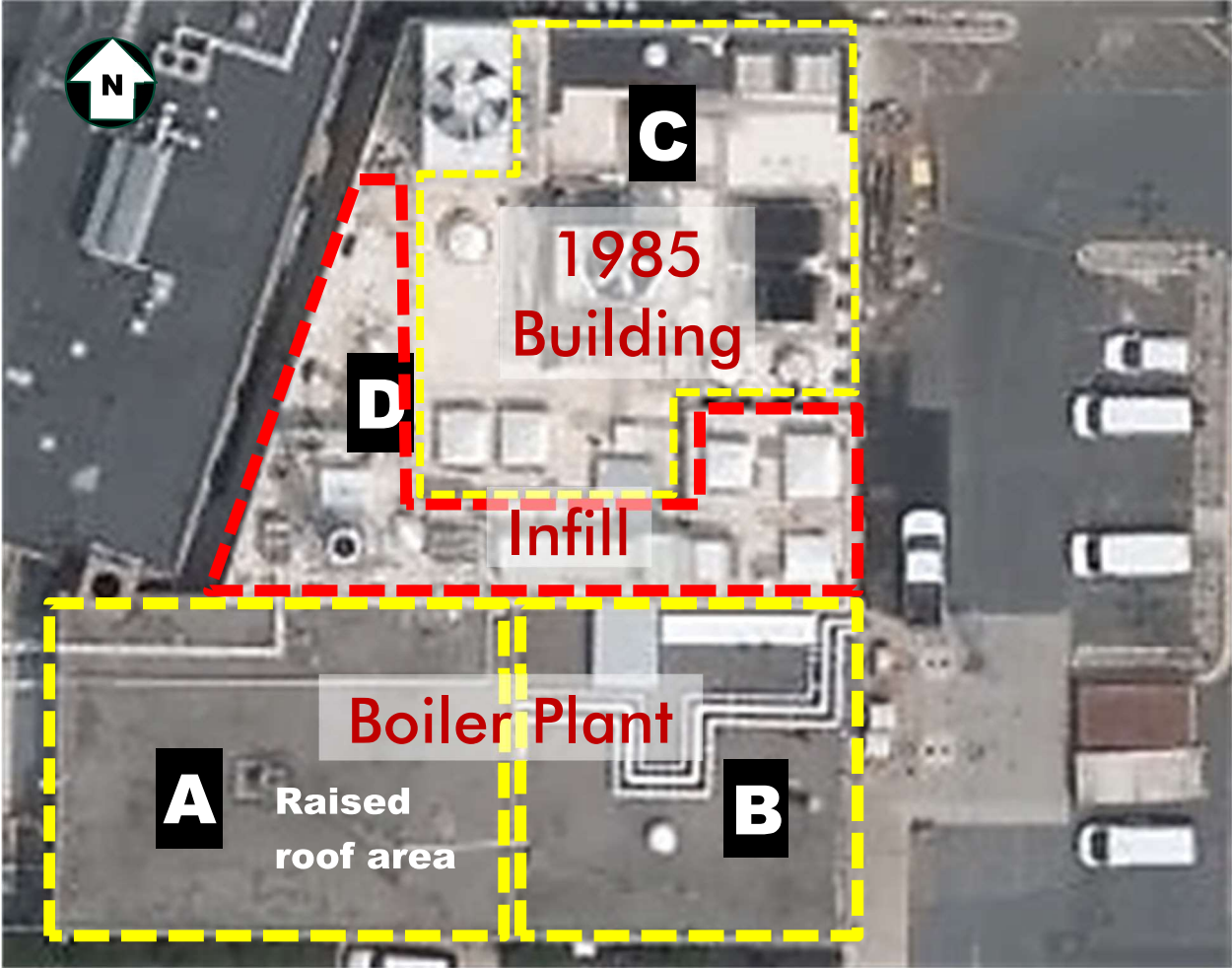
- Restore all facades

Roof Systems

The roof areas are divided into the older, late 1970s ballasted sections along Benson Street and the new, mechanically fastened membrane systems where most of the rooftop equipment is located. The older sections are in fair condition and will reach the end of their projected life during this capital spending period. Therefore, the Boiler Plant roofs are recommended for replacement. The balance of the roofs is new and in excellent condition.

Fall protection has been OSHA's most frequently cited standard as reported by the "Agency for Safety and Health". Employees using the roofs should be protected from edge falls. Passive protection is preferred as personal fall protection has an element of user error or simply non-use. No fall protection was found during the site visit. An allowance is included in the spending plan for either railings or roof anchors to be added as roofs are replaced.

Roof	Year Installed	Description	Condition	Comments
A	1979	Ballasted Membrane	Fair	Replace
B	1979	Ballasted Membrane	Fair	Replace
C	2019	Mech. Fastened Membrane	Excellent	Replaced during Infill project
D	2019	Mech. Fastened Membrane	Excellent	New when Infill was constructed



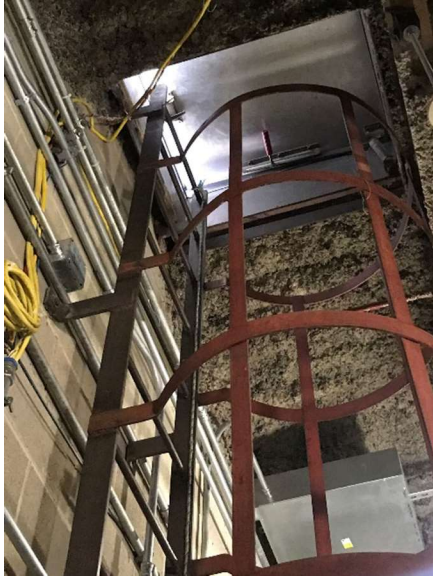
Roof Plan



1985 Building Roof



Boiler Plant (west) Raised Roof



Ladder to Roof Hatch



Infill Roof

Recommendations

- Replace Boiler Plant ballasted roofs
- Install OSHA-approved rooftop fall protection

Windows and Exterior Doors

Windows:

There are no windows in the facility, as it is all mechanical/electrical-related space. However, there are metal louvers which are recommended to be painted along with metal doors and frames.



Boiler Plant (east): Louvers

Exterior Doors:

Several exterior hollow metal doors and frames serve the building. They are showing signs of weathering and wear and are recommended to be repaired and refinished during the 10-year capital spending cycle.



1985 Bldg: Man Door & Overhead Door



Infill: Pair of Man Doors



Boiler Plant (east): Single Man Door

Recommendations

- Repair, prep, and repaint all hollow metal doors, frames, and louvers

Site, Landscaping and Parking

Site and Landscaping:

The streetscape along Haddon Street is well landscaped and in good condition.



Landscaping along Benson Street



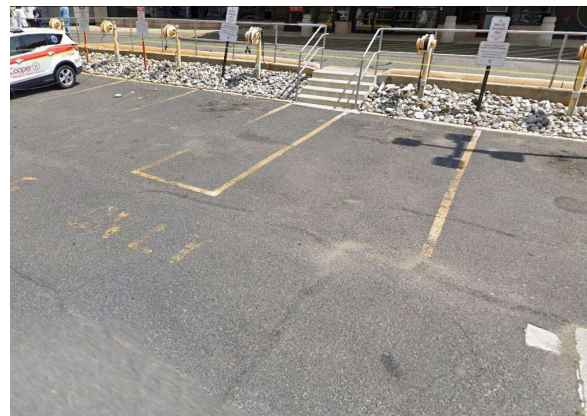
Southeast Corner Landscaping along Benson St.

Parking:

The drive and parking spaces along the east side of the building are in fair condition. They are recommended to be resurfaced and striped.



East of Bldg: Paved Asphalt & Concrete Drive



East of Bldg: Asphalt Parking Area

Recommendations

- Resurface and stripe asphalt parking and drive areas

Building Interior Finishes

The interior finishes are exposed masonry. No issues were observed or reported.

Recommendations

- None

MECHANICAL ASSESSMENT

Chilled Water Systems

Chillers:

Chilled water is produced in the Central Energy Plant (CEP) by a 1,000-ton, steam-driven centrifugal chiller and 750-ton, electric centrifugal chiller. The 750-ton chiller uses R134A refrigerant and was installed in 2012. The 1,000-ton chiller was installed in 2019. Both chillers were manufactured by York. The CEP supplies chilled water to Kelemen Pavilion and Dorrance Building.



CEP: 750-ton York Chiller



CEP (1985 Bldg): 1000-ton York Chiller

Cooling Towers:

Two sets of EVAPCO cooling towers are located on the roof of the CEP (1985 Building). One 8-year-old tower serves the 750-ton chiller and the other new tower serves the 1,000-ton chiller. With proper operation and maintenance, they can be expected to provide at least 10 more years of service.



CEP (1985 Bldg) Roof: EVAPCO Cooling Towers

Chilled Water Piping and Distribution:

Two primary, variable-speed pumps circulate chilled water through the 750-ton chiller and to Kelemen Pavilion and Dorrance Building. A separate chilled water pump circulates chilled water through the 1000-ton chiller and to two primary pumps for distribution. The chilled water piping is schedule 40 carbon steel with welded fittings. The smaller piping is rigid copper with solder/brazed fittings. The chilled water and condenser water piping is in good condition. Some of the remaining infrastructure piping was installed in 1975. There were no reports of problems with the infrastructure piping. An annual allowance is provided for the repair/replacement of infrastructure piping in the CEP.



Condenser Water & Primary CHW Pumps

Condenser Water System:

Condenser water is supplied from the cooling towers on the roof of the CEP (1985 Building). The condenser water piping is schedule 40 carbon steel with welded fittings. The condenser water piping was in good to fair condition. No issues were observed or reported with the condenser water system.



CEP (1985 Bldg): Condenser Water Pumps

Recommendations

- Repair/replace infrastructure piping

Steam and Heating Systems

Boilers:

High pressure steam (HPS) is produced by three, Cleaver-Brooks boilers. Boilers #1 and #3 are dual-fuel, 40,311-MBH, watertube boilers which were installed in 1975. Boiler #1 was recently retubed and is in good condition. Boiler #3 has been taken out of service due to various operational and overall condition issues. This unit is recommended to be replaced.

Boiler #2 is a dual-fuel, 33,480-MBH, firetube boiler which was installed in 2011. With the completion of the Combined Heat and Power project, one of the boilers is planned to be removed. The cost of the boiler removal is part of this project.

A 100,000-lbs/hr Cleaver-Brooks deaerator feedwater heater was installed in 1978. This deaerator feedwater heater requires replacement, as well as the 2500-gallon steam condensate surge tank. The feedwater pumps are new and can be expected to provide at least 10 more years of service.



Watertube Steam Boiler #1



Firetube Steam Boiler #2



Watertube Steam Boiler #3



Fuel Oil Pumps Serving the Boilers

Steam and Condensate Distribution:

The steam piping is schedule 40 carbon steel and steam condensate piping is schedule 80 carbon steel. Typical repairs and modifications have occurred during years of service. The steam and condensate piping within the CEP are in good condition.



Deaerator Feedwater Heater (1978)



2500-gallon Steam Condensate Surge Tank

Recommendations

- Replace 900-bhp watertube boiler
- Replace deaerator feedwater heater
- Replace 2500-gallon steam condensate surge tank

Air Conditioning and Ventilation Systems

There are no air conditioning and ventilation systems in this building.

Recommendations

- None

Plumbing Systems

Water Softeners:

The majority of the water softening system has been in service for 25+ years. While typical repairs and maintenance have occurred, the equipment has reached the end of its expected service life. The capital spending plan provides for the replacement of the CEP water softeners.



CEP Water Softeners

Natural Gas Distribution:

The boilers are served by the natural gas utility service. An uninterrupted main service line enters the CEP on the west side of the building. The natural gas system is in good condition. There are no issues observed or reported with this system.



Natural Gas Service for Boilers

Recommendations

- Replace water softening equipment

Medical Gas Systems

Medical Air System:

Medical air is produced in the CEP by two BeaconMedaes assemblies and two Atlas Copco compressors with remote air dryers. The equipment was installed in 2013 and provides medical air for Dorrance Building, Kelemen Pavilion, and Roberts Pavilion.



BeaconMedaes Medical Air Assemblies



Atlas Copco Medical Air Compressors

Recommendations

- None

Fire Protection System

The CEP is served by an automatic sprinkler system which provides 100% coverage of the building. The installation date of this system could not be confirmed. However, it is tested on a regular basis

and reported to be in good condition. There were no major issues reported or observed with the CEP sprinkler system. With proper operation and maintenance, it can be expected to provide at least 10 more years of service.

Recommendations

- None

ELECTRICAL ASSESSMENT

Normal Power Systems

General:

The power systems serving the CEP and the entire Cooper University Health Care - Camden Campus are not properly reflected in up-to-date single-line diagrams. An engineer is recommended to be engaged to create new single-line diagrams that properly reflect the current normal and emergency power systems on campus.

Service:

Primary and secondary electrical services are fed from PSE&G State Street and Camden Iron substations at 26.4 kV. These services are fed to the Switchgear Room located adjacent to the CEP.

Main Campus Switchgear:

The main campus switchgear is located in a white building adjacent to the CEP as described above. The main campus 26.4-kV switchgear was manufactured by Eaton and installed in 2008 along with new transformers and feeders. The switchgear is in good condition and has at least 19 years of remaining service life based on an expected useful service life of 30 years. The 26.4-kV switchgear feeds Roberts Pavilion and two 26.4-kV transformers which step down the voltage to 13.2 kV. The transformers feed 13.2-kV switchgear which distributes power to the CEP (Boiler Plant and 1985 Building), Kelemen Pavilion, and Dorrance Building. The 13.2-kV switchgear is in good condition.



"Service A" Section of 26.4-kV Switchgear



"Service B" Section of 26.4-kV Switchgear



26.4-kV to 13.2-kV Transformer



13.2-kV Feeder Switchgear

Main Boiler Plant and 1985 Building Switchgear:

The 13.2-kV feeder switchgear, previously mentioned, feeds transformer T-1 which serves the Boiler Plant. T-1 feeds the main distribution switchboards for the Boiler Plant. Distribution switchboards SWBD-PP-BP, "Dist. Panel 1", and "Dist. Panel 2" all serve as main distribution for the Boiler Plant. These switchboards were all manufactured by Federal Pacific Electric (FPE) and installed in the 1970s. FPE distribution equipment is a potential fire hazard as the breakers do not operate reliably. Transformer T-1 and the above-named switchboards are all recommended for replacement.

The 13.2-kV feeder switchgear also feeds an unnamed Square D unit substation which serves as the main distribution for the 1985 Building. The unit substations step down the 13.2-kV feed to 480/277 V via a 1500-kVA transformer. The distribution side of the unit substation is 2000 A. The unit substation has been in service since 1985, has exceeded the expected useful service life of 20 years, and is recommended for replacement.



SWBD-PP BP



1985 Bldg: Unit Substation

Distribution Panels:

The normal and emergency power 480/277-V and 208/120-V distribution panels serving the facility were manufactured by FPE, Square D, and Eaton and have various installation dates. The FPE panels have been in service since the 1970s and should be replaced first. The Square D panels and Eaton panels may require replacement within the next 10 years. An allowance has been provided in the capital spending plan to replace distribution panels along with smaller transformers and panelboards on an as needed basis.



FPE Distribution Panel C-8



Square D Distribution Panel GDP-2A

Motor Control Centers:

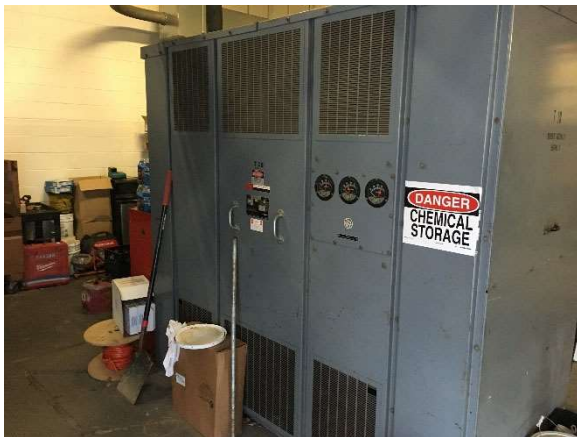
There was one motor control center (MCC) observed in the 1985 Building. The Square D Model 5 MCC was installed in 1985 and is in fair condition. It has exceeded the expected useful service life of 30 years and is recommended for replacement.



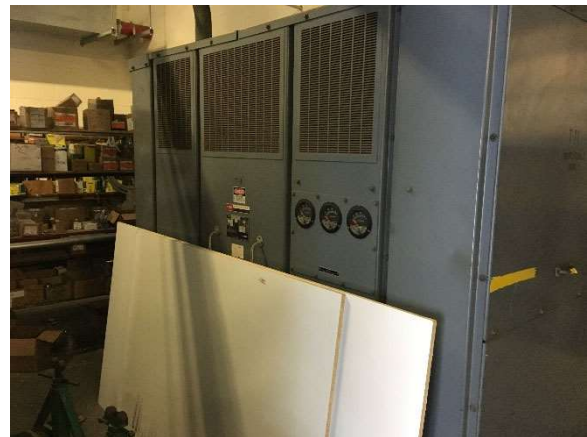
Square D Model 5 MCC

Transformers:

There are two transformers located in the Boiler Plant that step up the generator voltage to 2300 V for long distance distribution to the Kelemen Pavilion emergency power distribution. Transformers T-10 and T-11 were manufactured by FPE and were installed in the 1970s. They have exceeded the expected useful service life of 30 years and are recommended for replacement. Additional smaller transformers serve the 1985 Building and step down the voltage to 208/120 V. These transformers can be replaced on an as needed basis with the allowance to replace distribution panels, transformers, and panelboards provided in the capital spending plan.



Transformer T-10



Transformer T-11

Branch Circuit Panels:

The branch circuit panels (panelboards) provide power to facility lighting and branch circuit receptacles, as well as various other systems and equipment. The panelboards were manufactured by FPE, Square D, and Eaton and installed at various times. The FPE panelboards present a potential fire hazard due to unreliable breakers and are recommended for immediate replacement. Additional panelboards can be replaced on an as needed basis with the allowance to replace distribution panels, transformers, and panelboards provided in the capital spending plan.



FPE & Square D Panelboards



Eaton Panelboards

Recommendations

- Create updated single-line diagrams for campus electrical system (campus wide)
- Replace unnamed Square D unit substation serving 1985 Building
- Replace Federal Pacific switchboard SWBD-PP-BP
- Replace 500-kVA transformers T-1, T-10, and T-11
- Replace Federal Pacific distribution panels "Dist. Panel 1" and "Dist. Panel 2"
- Replace unnamed motor control center serving 1985 Building (Square D; Model 5)
- Replace Federal Pacific panelboards
- Replace distribution panels, transformers, and panelboards

Emergency Power Systems

Generators:

Four emergency generators serve the campus. Generators 1, 2, and 3 have exceeded the expected service life of 30 years and are recommended for replacement. The generators are recommended to be replaced with lower emission generators than what is currently in place. The table below summarizes the generators:

Generator	Manufacturer	Capacity (kW)	Run Hours	Year Installed
1	Marathon Electric/Cummins	750	2006	1978
2	Marathon Electric/Cummins	750	2081	1978
3	Marathon Electric/Detroit Diesel	1100	670	1991
4	Caterpillar	1500	492	2006



Generator 1



Generator 2



Generator 3



Generator 4

Fuel Tank:

The emergency generators are served by two, 15,000-gallon, underground storage tanks.

Emergency Distribution:

The generators feed an ASCO emergency paralleling switchgear that distributes power to the automatic transfer switches (ATSs) and emergency distribution panels for the CEP and other buildings on campus. The paralleling switchgear is in good condition but will not have enough capacity to serve the new generators when the existing are replaced. The paralleling switchgear is recommended to be replaced.

The emergency power system currently does not include the chilled water system located in the CEP. The addition of the chilled water system to the emergency power system is recommended such that chilled water can be provided to the air handlers in the event of a normal power outage.



Emergency Paralleling Switchgear



ATS-10

Automatic Transfer Switches:

Five transfer switches serve the facility: four ATs and one MTS (manual transfer switch). The MTS was recently installed to serve the co-generation system. All four ATs have exceeded the expected useful service life of 30 years and are recommended for replacement. The table below describes the ATs:

ATS	Manufacturer	Capacity (Amps)	Branch Served	Year Installed
ATS-8	ASCO	70	Equipment	1989
ATS-9	Russelectric	600	Equipment	1978
ATS-10	Russelectric	150	Equipment	1978
ATS-14	ASCO	400	Critical	1989
MTS-A	ASCO	1200	Equipment	2019



ATS-14



MTS-A

Uninterruptable Power Supply:

The facility does not have a central uninterruptable power supply (UPS) system.

Recommendations

- Replace generators 1 and 2 with larger, low emissions generators
- Replace generator 3 with larger, low emissions generator
- Replace emergency generator paralleling switchgear
- Expand emergency power system to include chilled water system
- Replace automatic transfer switch ATS-8
- Replace automatic transfer switch ATS-9
- Replace automatic transfer switch ATS-10
- Replace automatic transfer switch ATS-14

Lightning Protection

There is not an air terminal and ground wire lightning protection system located on the parapets of the facility. The facility is single story and does not require a lightning protection system.

Recommendations

- None

Lighting

Interior Lighting:

The interior lighting serving the facility is in good condition with no dark spots or maintenance issues observed. The overhead fixtures utilize fluorescent lamps.

The exit signs and emergency lighting are on the emergency power system.

Exterior Lighting:

The exterior lighting serving the campus consists of pole-mounted fixtures and wall-packs. The exterior lighting has mostly been retrofitted or replaced with energy efficient LED lamps and is in good condition. There are some wall packs utilizing fluorescent lamps that should be retrofitted with LED lamps as a maintenance item.



Typical Pole-mounted Fixture



Wall Pack w/ Compact Fluorescent Lamp

Recommendations

- None

Low Voltage Systems

Telephone System:

The telephone system serving the campus was upgraded to a Cisco Voice-over Internet Protocol (VoIP) system in 2017. An allowance for yearly, campus-wide telephone system upgrades (inclusive of telephones and system equipment) is included in the capital spending plan for the Kelemen Pavilion.

Fire Alarm System:

During the site visit, a Siemens, Cerberus Pyrotronics, addressable fire alarm system was in service and at the end of service life. A project was reported to have been funded to replace the existing system head-end with a voice capable system. However, the funding did not cover all fire alarm devices serving the facilities. There are recommendations in the capital spending plans for Dorrance Building and Kelemen Pavilion to replace fire alarm devices. The few devices remaining in the CEP which require replacement should be replaced under those projects.



Siemens Fire Alarm Panels

Nurse Call:

The facility does not have a nurse call system.

Overhead Paging:

The facility does not have an overhead paging system.

CCTV and Access Control:

Please refer to the reports for Dorrance Building and Kelemen Pavilion for information regarding the security systems.

Recommendations

- None

Vertical Conveyance Systems

Pneumatic Tube System:

The facility does not have a pneumatic tube system.

Elevators:

The facility does not have any elevators.

Recommendations

- None

CAPITAL SPENDING PLAN

Description of Categories

Code Compliance: Violations of code conditions (these are from general observations as this FCA is not a comprehensive code compliance survey)

Integrity: Components or systems which are broken or in poor condition

Service Life: Components or systems which have surpassed their useful lifespan

Life Safety: Conditions or items representing a risk of physical harm to building occupants (these are from general observations as this FCA is not a comprehensive life safety survey)

Energy: Conditions resulting in a measurable, negative impact on energy consumption

Functionality: Components representing a measurable, negative impact to daily operations or put the building at risk for unplanned downtime

The cost estimates for the capital expenditure section of the report are developed based on overall general conceptual numbers and our understanding of the scope, as well as previous projects of similar scope. The estimates utilize industry standards and benchmarks. Before each recommendation is implemented, the client will need to engage design professionals to develop detailed estimates for each recommendation by studying the existing conditions in detail and reviewing the owner's specific needs, as well as considering the market conditions at the time of implementation.

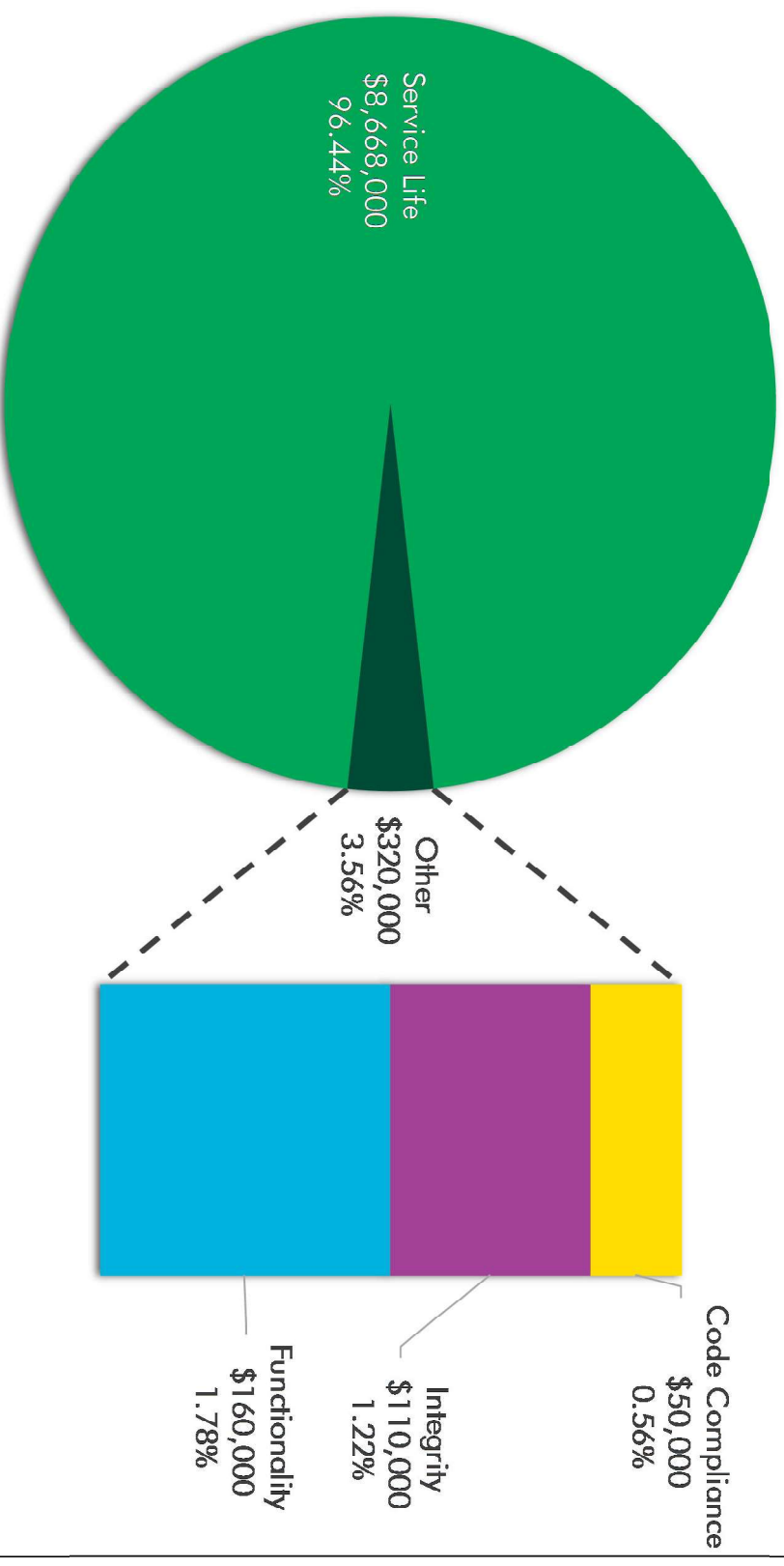
TEN-YEAR CAPITAL SPENDING PROJECTIONS
Cooper University Health Care - Central Energy Plant
Preliminary Project Totals - All Trades Sorted by Year & Priority

Preliminary Budget Costs							Project Total										
Identifier	Trade	Bldg./Addn	Recommendations	Category	Priority	Deferred Maintenance	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	Project Total
1	CEP-M-005	MECH	CEP	Replace 900-shp wastewater boiler	Service Life	Yes	\$ 1,200,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 1,200,000
2	CEP-M-001	MECH	CEP	Replace desander feedwater heater	Service Life	Yes	\$ 200,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 200,000
3	CEP-M-003	MECH	CEP	Replace water softening equipment	Service Life	Yes	\$ 350,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 350,000
4	CEP-M-002	MECH	CEP	Replace 2500-gallon steam condensate surge tank	Service Life	Yes	\$ 150,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 150,000
5	CEP-M-004	MECH	CEP	ALLOWANCE: Repair/replace infrastructure piping	Service Life	No	\$ 20,000	\$ 20,000	\$ 20,000	\$ 20,000	\$ 20,000	\$ 20,000	\$ 20,000	\$ 20,000	\$ 20,000	\$ 20,000	\$ 200,000
6	CEP-E-008	ELEC	CEP	Replace 500-kVA transformers T-1, T-10, & T-11	Service Life	Yes	\$ 45,000	\$ 45,000	\$ 45,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 135,000
7	CEP-E-005	ELEC	CEP	Replace automatic transfer switch ATS-9	Service Life	Yes	\$ 60,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 60,000
8	CEP-E-007	ELEC	CEP	Replace Federal Pacific switchboard SWMD-PF-AP	Service Life	Yes	\$ 40,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 40,000
9	CEP-E-009	ELEC	CEP	Replace Federal Pacific distribution panels: Dist. Panel 1* & Dist. Panel 2*	Service Life	Yes	\$ 40,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 40,000
10	CEP-E-006	ELEC	CEP	Replace automatic transfer switch ATS-10	Service Life	Yes	\$ 35,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 35,000
11	CEP-E-012	ELEC	CEP	Replace Federal Pacific panelboards	Service Life	Yes	\$ 30,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 30,000
12	CEP-E-013	ELEC	CEP	ALLOWANCE: Replace distribution panels, transformers, & panelboards	Service Life	No	\$ 15,000	\$ 15,000	\$ 15,000	\$ 15,000	\$ 15,000	\$ 15,000	\$ 15,000	\$ 15,000	\$ 15,000	\$ 15,000	\$ 150,000
13	CEP-A-002	ARCH	CEP	Replace Boiler Plant ballasted roof (8,000 SF @ \$25/SF)	Service Life	No	\$ 200,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 200,000
14	CEP-E-014	ELEC	CAMPUS	Create updated single-line diagrams for campus electrical system (campus wide)	Functionality	No	\$ 60,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 60,000
15	CEP-A-003	ARCH	CEP	ALLOWANCE: Install OSHA-approved rooftop fall protection	Code Compliance	Yes	\$ 50,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 50,000
16	CEP-A-005	ARCH	CEP	Repair, prep, & repaint all hollow metal doors, frames, & louvers	Integrity	Yes	\$ 10,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 10,000
17	CEP-E-001	ELEC	CEP	ALLOWANCE: Replace generators 1 & 2 w/ larger, low emissions generators	Service Life	Yes	\$ -	\$ 2,500,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 2,500,000
18	CEP-E-004	ELEC	CEP	Replace automatic transfer switch ATS-14	Service Life	Yes	\$ -	\$ 48,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 48,000
19	CEP-E-002	ELEC	CEP	Replace emergency generator paralleling switchgear	Service Life	No	\$ -	\$ 1,500,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 1,500,000
20	CEP-E-016	ELEC	CEP	ALLOWANCE: Replace generator 3 w/ larger, low emissions generator	Service Life	No	\$ -	\$ 1,400,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 1,400,000
21	CEP-E-015	ELEC	CEP	Expand emergency power system to include chilled water system	Functionality	No	\$ -	\$ 100,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 100,000
22	CEP-E-003	ELEC	CEP	Replace unimaged Square D unit substation serving 1985 Bldg	Service Life	Yes	\$ -	\$ 300,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 300,000
23	CEP-E-010	ELEC	CEP	Replace automatic transfer switch ATS-8	Service Life	Yes	\$ -	\$ 20,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 20,000
24	CEP-A-004	ARCH	SITE	Resurface & strip parking & drive areas (5,000 SF @ \$8/SF)	Service Life	No	\$ -	\$ 40,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 40,000
25	CEP-E-011	ELEC	CEP	Replace unimaged MCC serving 1985 Bldg (Square D, Model 5)	Service Life	Yes	\$ -	\$ -	\$ 70,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 70,000
26	CEP-A-001	ARCH	CEP	ALLOWANCE: Restore all facades	Integrity	No	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 100,000	\$ -	\$ -	\$ -	\$ -	\$ 100,000
ALL TRADES YEARLY TOTALS							\$ 2,505,000	\$ 5,988,000	\$ 150,000	\$ 35,000	\$ 35,000	\$ 135,000	\$ 35,000	\$ 35,000	\$ 35,000	\$ 35,000	\$ 8,988,000

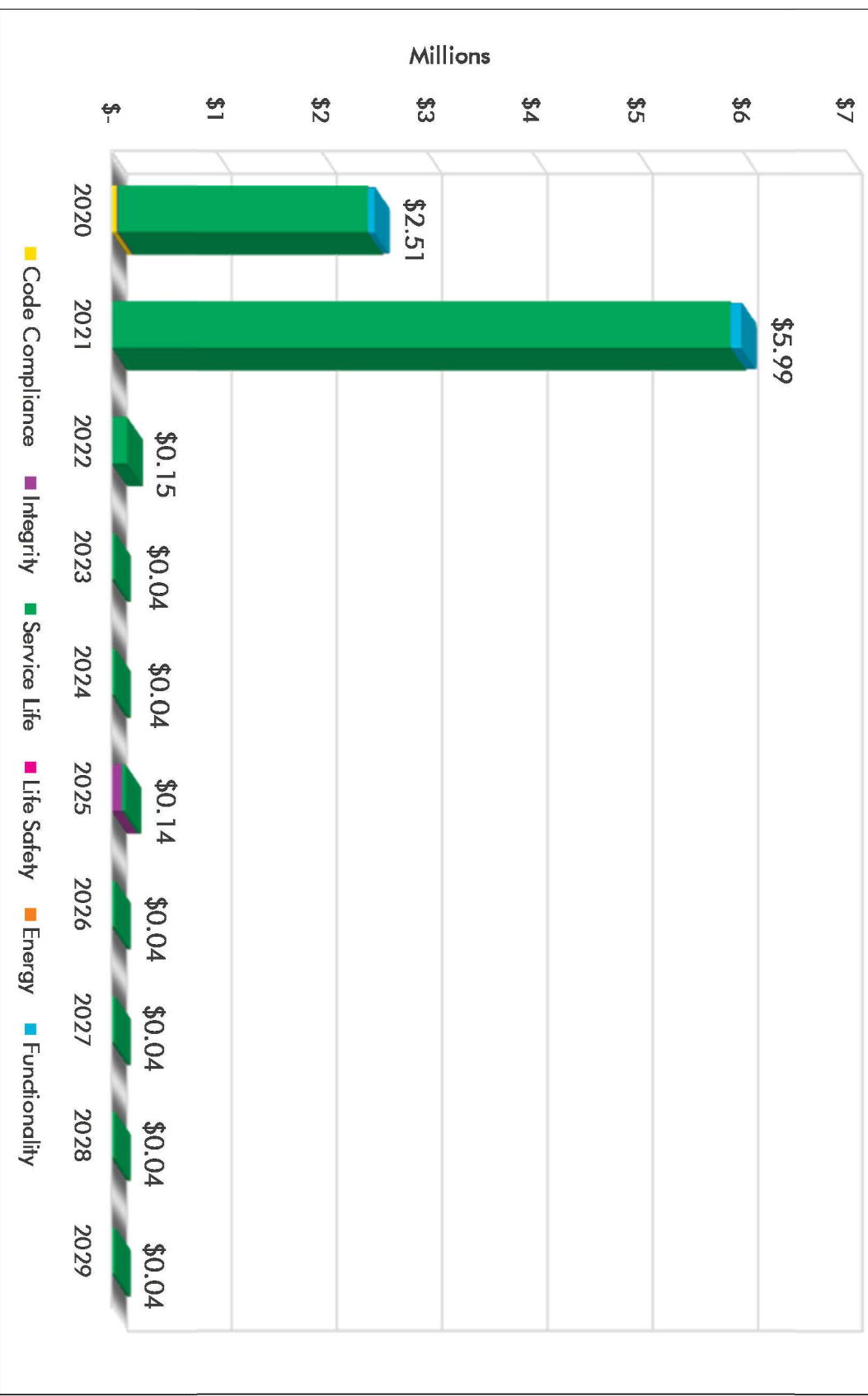
TEN-YEAR CAPITAL SPENDING PROJECTIONS
Cooper University Health Care - Central Energy Plant
Categorized Capital Spending Summary by Year

PRELIMINARY BUDGET COSTS									
YEAR	CODE COMPLIANCE	INTEGRITY	SERVICE LIFE	LIFE SAFETY	ENERGY	FUNCTIONALITY	TOTALS		
2020	\$ 50,000	\$ 10,000	\$ 2,385,000	\$ -	\$ -	\$ 60,000	\$ 2,505,000		
2021	\$ -	\$ -	\$ 5,888,000	\$ -	\$ -	\$ 100,000	\$ 5,988,000		
2022	\$ -	\$ -	\$ 150,000	\$ -	\$ -	\$ -	\$ 150,000		
2023	\$ -	\$ -	\$ 35,000	\$ -	\$ -	\$ -	\$ 35,000		
2024	\$ -	\$ -	\$ 35,000	\$ -	\$ -	\$ -	\$ 35,000		
2025	\$ -	\$ 100,000	\$ 35,000	\$ -	\$ -	\$ -	\$ 135,000		
2026	\$ -	\$ -	\$ 35,000	\$ -	\$ -	\$ -	\$ 35,000		
2027	\$ -	\$ -	\$ 35,000	\$ -	\$ -	\$ -	\$ 35,000		
2028	\$ -	\$ -	\$ 35,000	\$ -	\$ -	\$ -	\$ 35,000		
2029	\$ -	\$ -	\$ 35,000	\$ -	\$ -	\$ -	\$ 35,000		
SUBTOTALS	\$ 50,000	\$ 110,000	\$ 8,668,000	\$ -	\$ -	\$ 160,000	\$ 8,988,000		

CUHC - Camden Campus - 101 Haddon Avenue Total Capital Spending Recommendations by Category



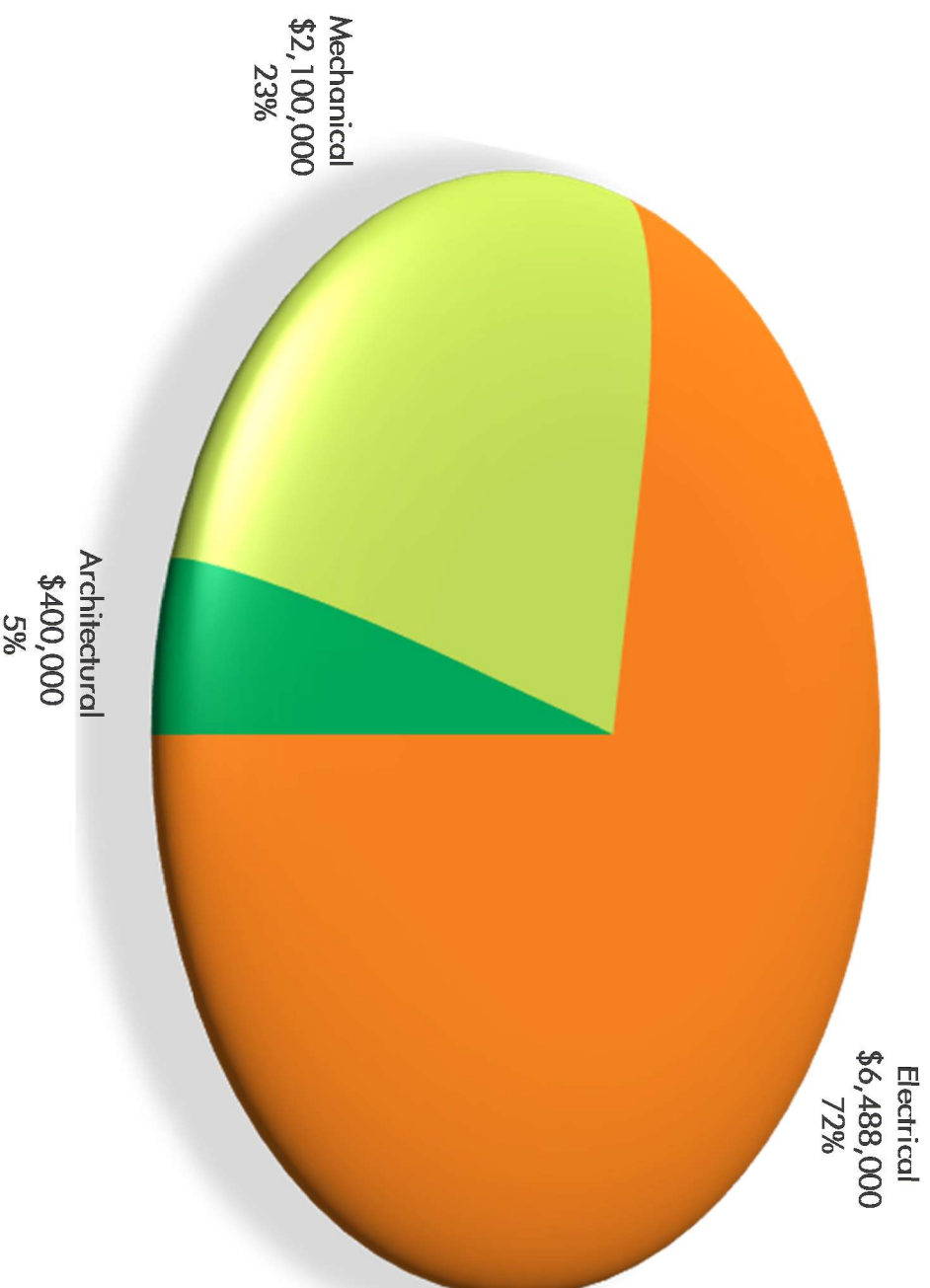
CUHC - Camden Campus - 101 Haddon Avenue 10-Year Capital Spending Recommendations by Category



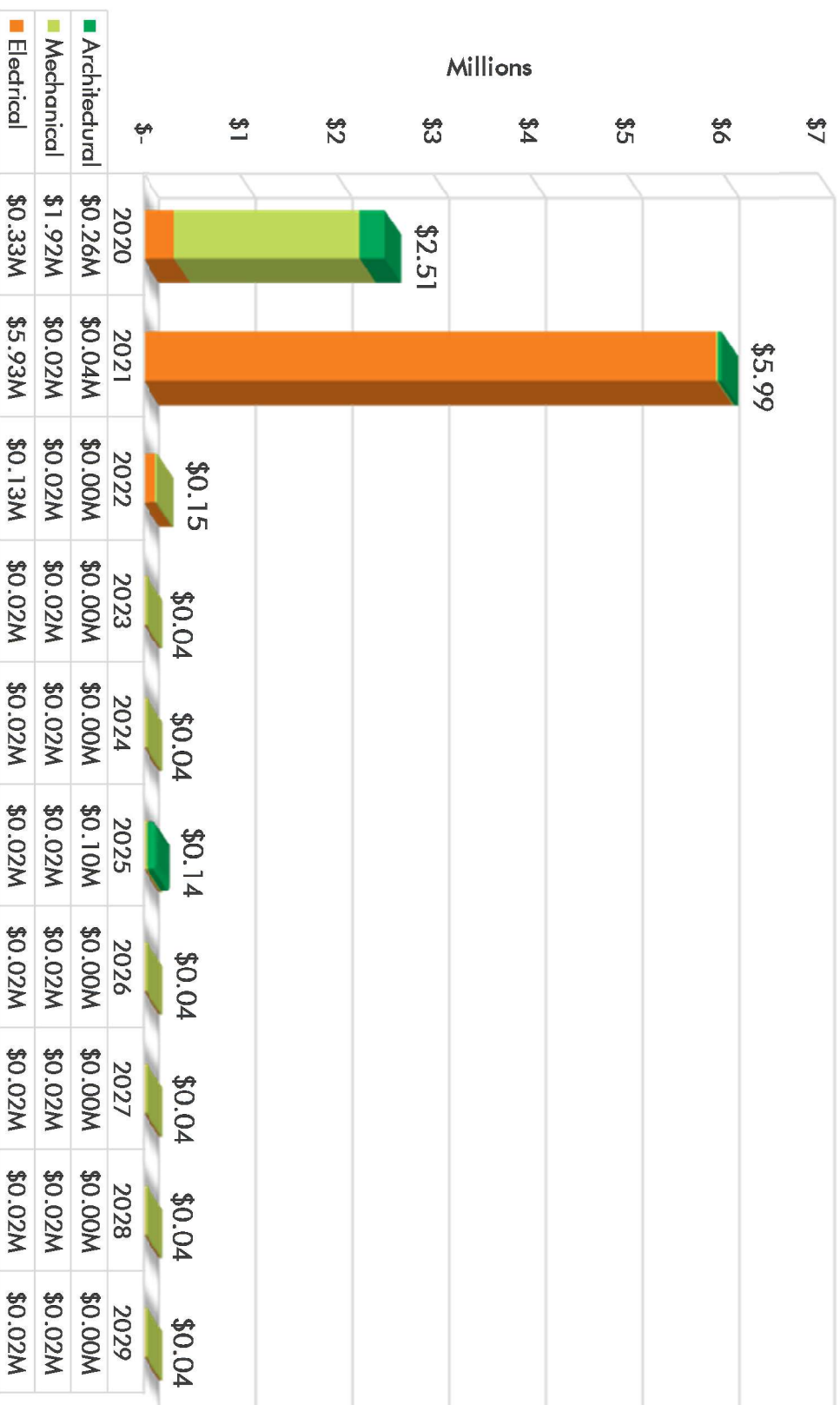
TEN-YEAR CAPITAL SPENDING PROJECTIONS
Cooper University Health Care - Central Energy Plant
Yearly Capital Spending Summary by Trade

TRADE	PRELIMINARY BUDGET COSTS										TOTAL
	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	
Architectural	\$ 260,000	\$ 40,000	\$ -	\$ -	\$ -	\$ 100,000	\$ -	\$ -	\$ -	\$ -	\$ 400,000
Mechanical	\$ 1,920,000	\$ 20,000	\$ 20,000	\$ 20,000	\$ 20,000	\$ 20,000	\$ 20,000	\$ 20,000	\$ 20,000	\$ 20,000	\$ 2,100,000
Electrical	\$ 325,000	\$ 5,928,000	\$ 130,000	\$ 15,000	\$ 15,000	\$ 15,000	\$ 15,000	\$ 15,000	\$ 15,000	\$ 15,000	\$ 6,488,000
SUBTOTALS	\$ 2,505,000	\$ 5,988,000	\$ 150,000	\$ 35,000	\$ 35,000	\$ 135,000	\$ 35,000	\$ 35,000	\$ 35,000	\$ 35,000	\$ 8,988,000

CUHC - Camden Campus - 101 Haddon Avenue Total Capital Spending Recommendations by Trade



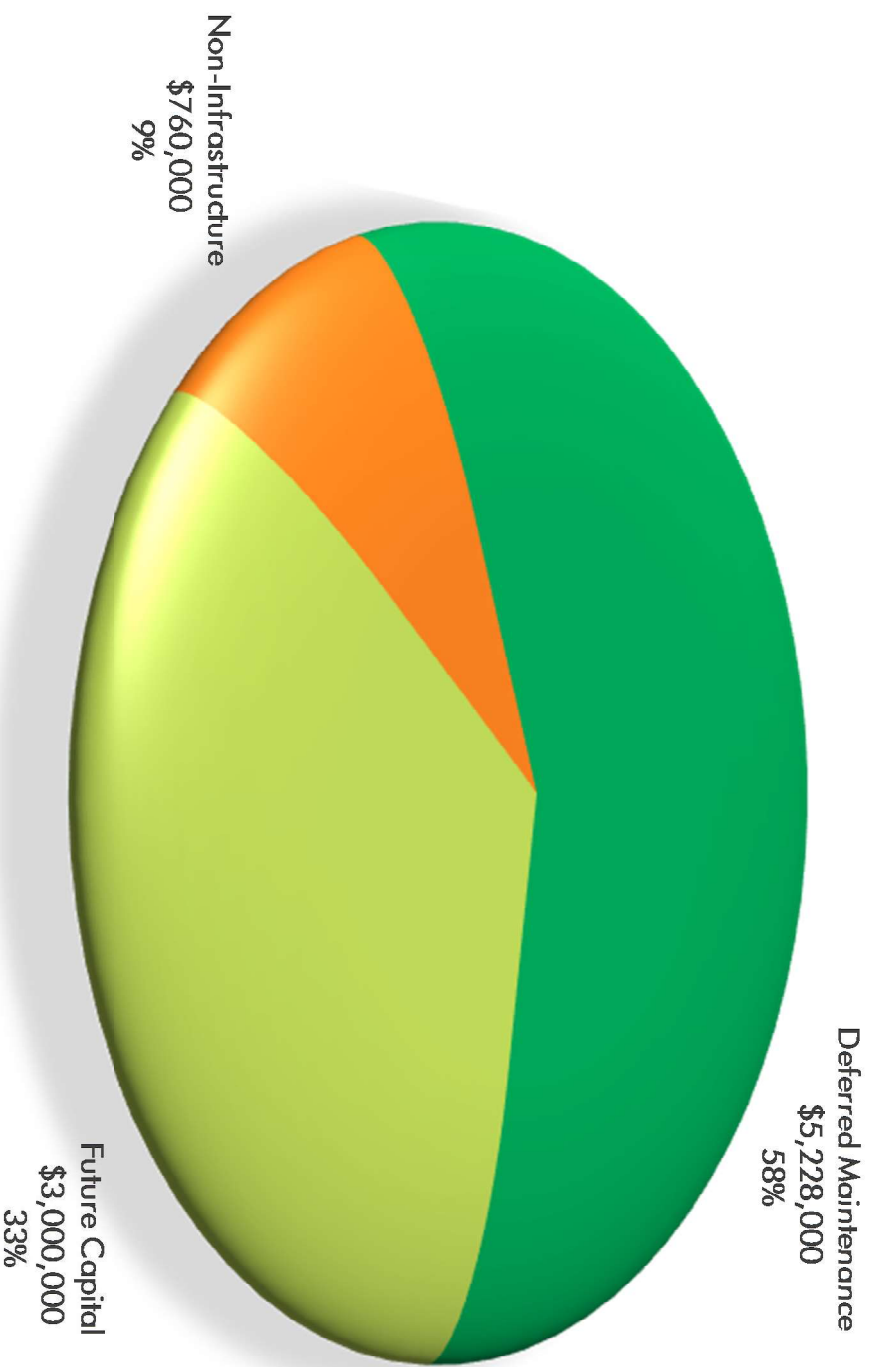
CUHC - Camden Campus - 101 Haddon Avenue 10-Year Capital Spending Recommendations by Trade



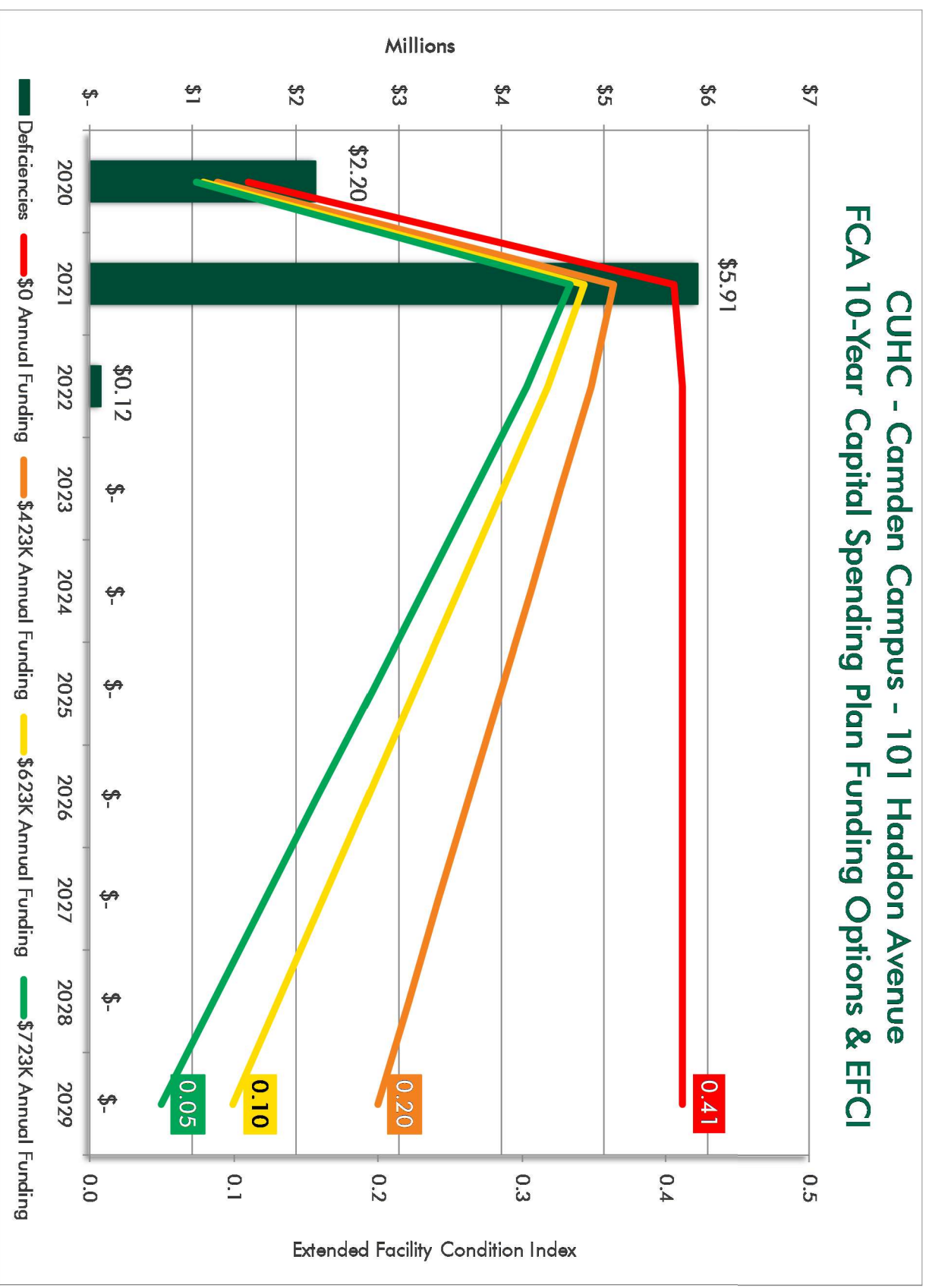
TEN-YEAR CAPITAL SPENDING PROJECTIONS
Cooper University Health Care - Central Energy Plant
Yearly Capital Spending Summary by Capital Type

CAPITAL TYPE	PRELIMINARY BUDGET COSTS										TOTAL
	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	
Deferred Maintenance	\$ 2,200,000	\$ 2,913,000	\$ 115,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 5,228,000
Future Capital	\$ -	\$ 3,000,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 3,000,000
Non-Infrastructure	\$ 305,000	\$ 75,000	\$ 35,000	\$ 35,000	\$ 35,000	\$ 135,000	\$ 35,000	\$ 35,000	\$ 35,000	\$ 35,000	\$ 760,000
SUBTOTALS	\$ 2,505,000	\$ 5,988,000	\$ 150,000	\$ 35,000	\$ 35,000	\$ 135,000	\$ 35,000	\$ 35,000	\$ 35,000	\$ 35,000	\$ 8,988,000

CUHC - Camden Campus - 101 Haddon Avenue Total Capital Spending Recommendations by Capital Type



CUHC - Camden Campus - 101 Haddon Avenue FCA 10-Year Capital Spending Plan Funding Options & EFCI



CUHC - Camden Campus - 101 Haddon Avenue FCA 10-Year Capital Spending Plan Funding Options & EFCI

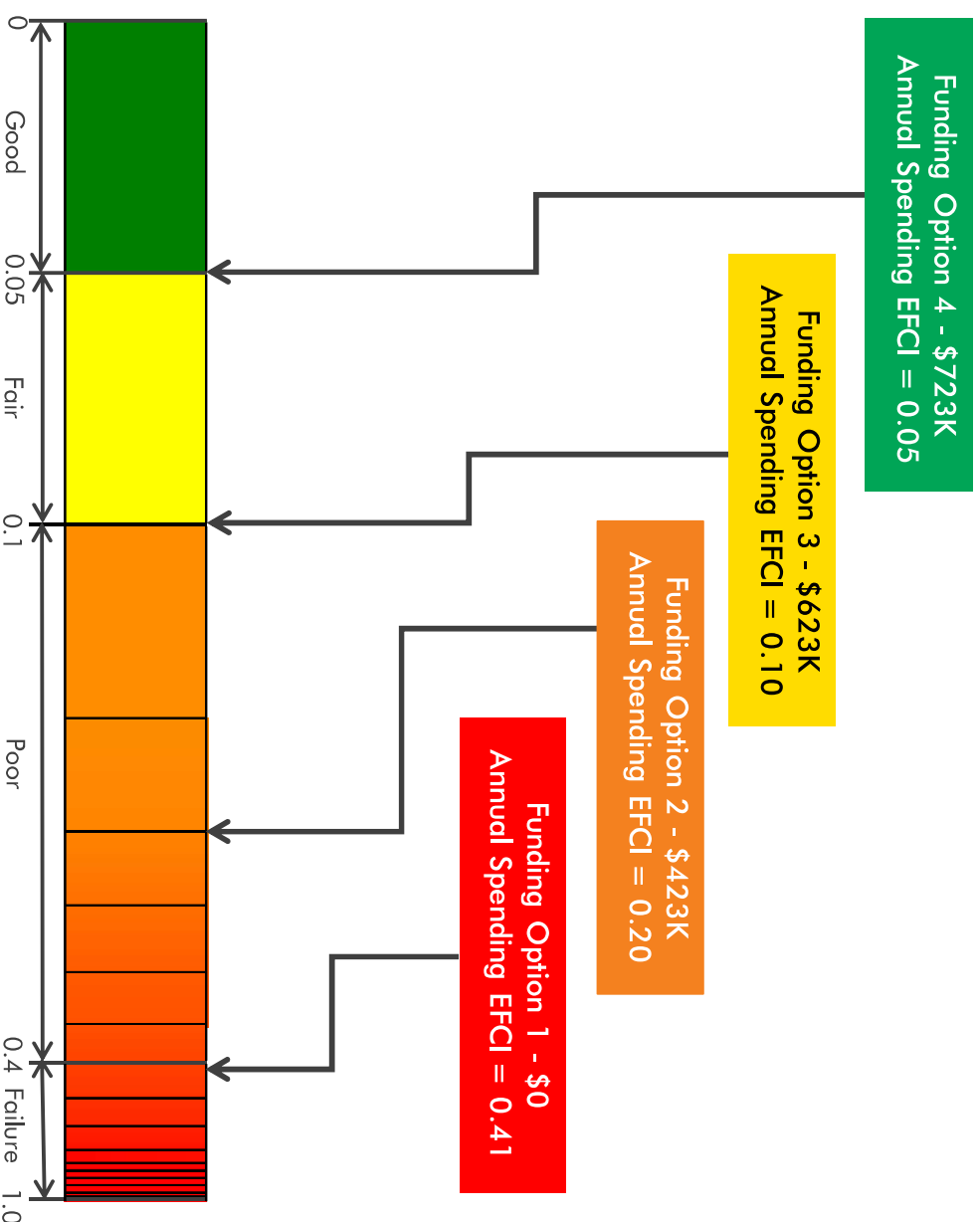


Exhibit G MEP/FP Engineer's Compensation & Schedule of Values

MEP/FP ENGINEER FEES & REIMBURSABLE EXPENSES CAP

Pre-Design Program - Schedule of Value Description	Not to Exceed Dollar Value
Tower A – Conceptual Design Package Validation Fees	\$ _____
Master Campus Plan Infrastructure Conceptual Plan (continuation of engineering basis of design needed prior to SDs) Professional Fees	\$ _____
Towers B & C Space Program, KPU Data & Conceptual Design Package validation Fees	\$ _____
Pre-Design Phase Reimbursable Expenses	\$ _____

Tower A Design Phase Schedule of Value Description (includes Infrastructure Design Needed for Tower A)	Not to Exceed Dollar Value
Tower A Schematic Design Professional Fees – <u>10%</u> of the Cost of Work	\$ _____
Tower A Schematic Design Reimbursable Expenses	\$ _____
Tower A Design Development Professional Fees – <u>25%</u> of the Cost of Work	\$ _____
Tower A Design Development Reimbursable Expenses	\$ _____
Tower A Construction Documents Professional Fees – <u>40%</u> of the Cost of Work	\$ _____
Tower A Construction Documents Reimbursable Expenses	\$ _____

Tower A Bidding / Negotiation Phase Professional Fees – <u>2%</u> of the Cost of Work	\$ _____
Tower A Bidding / Negotiation Phase Reimbursable Expenses	\$ _____
Tower A Construction Phase Professional Fees – <u>23%</u> of the Cost of Work	\$ _____
Tower A Construction Phase Reimbursable Expenses	\$ _____
Tower A Fees & Reimbursable Expenses TOTAL	\$ _____

Towers B & C Design Phase Schedule of Value Description	Not to Exceed Dollar Value
Towers B & C Schematic Design Professional Fees	\$ _____
Towers B & C Schematic Design Reimbursable Expenses	\$ _____
Towers B & C Fees & Reimbursable Expenses TOTAL	\$ _____

Specialty & Other Consultants (included in above SOVs) INCLUDE ASTERISK (*) IF SBE, WBE, MBE, or VETERAN FIRM	Not to Exceed Dollar Value
Low Voltage / IT Professional Fees	\$ _____
Fire Protection Professional Fees	\$ _____
Security Professional Fees	\$ _____
Audio Visual Professional Fees	\$ _____

Co-Generation Professional Fees	\$ _____
Commissioning Professional Fees	\$ _____
Specialty & Other Consultant Reimbursable Expenses	\$ _____
Specialty & Other Consultant Reimbursable Expenses	\$ _____
Specialty & Other Consultant Fees & Reimbursable Expenses TOTAL	\$ _____

The schedule of values (SOV) described within the prior page represent fixed fees for each item.

HOURLY BILLING RATES FOR ENGINEER & ENGINEER'S CONSULTANT'S SERVICES

Consulting Engineer (rates include DPE and agreed upon multiplier)

Principal: \$ _____ (includes DPE multiplier of _____)

Project Manager: \$ _____ (includes DPE multiplier of _____)

Project Designer: \$ _____ (includes DPE multiplier of _____)

Project Architect: \$ _____ (includes DPE multiplier of _____)

Senior Graphic Designer: \$ _____ (includes DPE multiplier of _____)

Junior Graphic Designer: \$ _____ (includes DPE multiplier of _____)

Senior Construction Administrator: \$ _____ (includes DPE multiplier of _____)

Junior Construction Administrator: \$ _____ (includes DPE multiplier of _____)

Senior Draftsman / BIM: \$ _____ (includes DPE multiplier of _____)

Junior Draftsman / BIM: \$ _____ (includes DPE multiplier of _____)

Senior Specification Writer: \$ _____ (includes DPE multiplier of _____)

Junior Specification Writer: \$ _____ (includes DPE multiplier of _____)

Clerical: \$ _____ (includes DPE multiplier of _____)

Specialty Consultants (rates include DPE and agreed upon multiplier)

Principal: \$ _____ (includes DPE multiplier of _____)
Project Manager: \$ _____ (includes DPE multiplier of _____)
Senior Engineer: \$ _____ (includes DPE multiplier of _____)
Junior Engineer: \$ _____ (includes DPE multiplier of _____)
Senior Designer: \$ _____ (includes DPE multiplier of _____)
Junior Designer: \$ _____ (includes DPE multiplier of _____)
Senior Construction Administrator: \$ _____ (includes DPE multiplier of _____)
Junior Construction Administrator: \$ _____ (includes DPE multiplier of _____)
Senior Draftsman / BIM: \$ _____ (includes DPE multiplier of _____)
Junior Draftsman / BIM: \$ _____ (includes DPE multiplier of _____)
Senior Specification Writer: \$ _____ (includes DPE multiplier of _____)
Junior Specification Writer: \$ _____ (includes DPE multiplier of _____)
Clerical: \$ _____ (includes DPE multiplier of _____)

Other Consultants (rates include DPE and agreed upon multiplier)

Principal: \$ _____ (includes DPE multiplier of _____)
Project Manager: \$ _____ (includes DPE multiplier of _____)
Senior Engineer: \$ _____ (includes DPE multiplier of _____)
Junior Engineer: \$ _____ (includes DPE multiplier of _____)
Senior Designer: \$ _____ (includes DPE multiplier of _____)
Junior Designer: \$ _____ (includes DPE multiplier of _____)
Senior Construction Administrator: \$ _____ (includes DPE multiplier of _____)
Junior Construction Administrator: \$ _____ (includes DPE multiplier of _____)
Senior Draftsman / BIM: \$ _____ (includes DPE multiplier of _____)
Junior Draftsman / BIM: \$ _____ (includes DPE multiplier of _____)
Senior Specification Writer: \$ _____ (includes DPE multiplier of _____)
Junior Specification Writer: \$ _____ (includes DPE multiplier of _____)
Clerical: \$ _____ (includes DPE multiplier of _____)