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# Standard Fairfax County Agreement Between Owner and Architect

(Rev. 3/8/2018)

THIS DOCUMENT HAS IMPORTANT LEGAL CONSEQUENCES: CONSULTATION  
WITH AN ATTORNEY IS ENCOURAGED WITH RESPECT TO ITS COMPLETION OR  
MODIFICATION

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## AGREEMENT

Made as of the 13<sup>th</sup> day of December in the year of  
Two-Thousand and Twenty One  
**BETWEEN** the Owner: Fairfax County  
(name and address) Board of Supervisors  
Fairfax, Virginia

and the Architect:  
RRMM Architects  
2900 S. Quincy Street, Suite 710  
Arlington, VA 22206

For the following Project:  
(include detailed description of Project, location, address, and scope).

This project is for full design and construction administration services for the approximately 21,000 SF Patrick Henry Library, Project 30030/LB-000015. The facility is located at 101 Maple Avenue, Vienna, Virginia. The services shall consist of Programming, Assessment, Concept/Schematic Design, Design Development, Phasing, Construction Documents, Permitting, Bidding, Construction Administration, and Post Construction

Total Basic Services	\$1,577,346
Total Not-to-Exceed Services (see 11.1)	\$ 632,654

Total Fee	<u>\$2,210,000</u>
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The Owner and Architect agree as set forth below:

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# Fairfax County Design Contract Agreement between Owner and Architect

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# TERMS AND CONDITIONS OF AGREEMENT BETWEEN OWNER AND ARCHITECT

## **ARTICLE 1** **ARCHITECT'S RESPONSIBILITIES**

### **1.1 ARCHITECT'S SERVICES**

- 1.1.1 The Architect's services consist of those services performed by the Architect, Architect's employees and the architect's consultants, as more specifically enumerated in Articles 2 and 3 of this Agreement and any other services included in Article 12.
- 1.1.2 The Architect's services shall be performed as expeditiously as is consistent with professional skill and care and the orderly progress of the Work. Upon request of the Owner, the Architect shall submit for the Owner's approval a schedule for the performance of the Architect's services, which may be adjusted as the Project proceeds, and shall include allowances for periods of time required for the Owner's review and for approval of submissions by authorities having jurisdiction over the Project. Time limits established by this schedule approved by the Owner shall not, except for reasonable cause, be exceeded by the Architect or Owner.

This contract is subject to the appropriation of funds by the Board of Supervisors of Fairfax County.

- 1.1.3 The services covered by this Agreement are subject to the time limitations contained in Article 11.

## **ARTICLE 2** **SCOPE OF ARCHITECT'S BASIC SERVICES**

### **2.1 DEFINITION**

- 2.1.1 The Architect's basic services shall consist of a Space Programming, Existing Conditions Assessment, Schematic Design Phase, Design Development Phase, Construction Documents Phase, Bidding Phase, Construction Administration Phase, and Post Construction Phase as described in detail in the paragraphs below. The basic services shall also include structural, mechanical, plumbing, electrical, civil, basic services for sustainable development (refer to Section 2.13), and all directly related design services and coordination, cost consultant services and, any other services included as part of the Architect's Scope of Basic Services. Additional special services including Geotechnical, Value Engineering, Specialized Sustainable Development services, Heating Ventilating and Air Conditioning (HVAC) Commissioning and Peer Review, Special Inspections, and Survey (and any other required special Not-to-Exceed services) are included as Not-to-Exceed (NTE) services. Note that the geotechnical and special inspections firms are required to be under contract as sub-consultants to the Architect, unless specified approved otherwise by the Building Design and Construction Director.



- 2.1.2 The Architect is obligated under this contract to prepare all drawings and specifications, as defined herein, and in compliance with all applicable County, State, and Federal codes and in such a manner that will enable the securing of applicable permits.

All new construction, alterations and physical changes to facilities must comply with 28 Code of Federal Regulations Part 35.151, as detailed in the Department of Justice Title II ADA Regulations and the 2010 ADA Standards for Accessible Design. New construction and alterations to street level intersections of pedestrian walkways with streets, roads and highways must provide sloped surface or curb cut ramps that comply with the 2012 Virginia Construction Code (VCC) and the ICC/ANSI A117.1-2009 Standard or the 2010 ADA Standards for Accessible Design (*rev. 4-13-11*).

Compliance with these codes should be considered minimum standards and the Architect shall design the project to produce a functionally efficient, durable quality, and energy conserving facility.

- 2.1.3 The Architect shall include all interior, exterior and site signage in the design documents, as directed.
- 2.1.4 The Architect shall be reasonably available to the Owner for consultation, meetings or site visits on a daily basis during the Owner's normal work week.
- 2.1.5 The Architect shall serve as recording secretary of all meetings of the Architect, the Owner, and the Using Agency. The Architect shall provide a complete written summary of such meetings to the Project Manager within five (5) working days; and, also, during the construction phase a copy of each summary will be provided to the Project Engineer, if such meetings affect the construction process.
- 2.1.6 During the Design Phase, the Architect's requests for payment shall be accompanied by appropriate documentation of completed work. Such documentation shall include progress drawings and/or progress reports. The Owner shall not be responsible for payment of costs incurred for services provided in subsequent design phases until approvals for the preceding phase have been granted.
- 2.1.7 A Fixed Construction Cost (FCC) including all site work of \$17,200,000 is hereby established based on an approximately a 21,000 square foot (SF) library and a separate parking structure. The FCC shall remain fixed unless changed by amendment. The FCC includes a finished building of approximately 21,000 SF library and a separate parking structure, site work, utilities, demolition, accessibility improvements, interior finishes, basic A/V systems, security systems, IT infrastructure, and escalation to the construction period per the project schedule. The Fixed Construction Cost excludes systems furniture, IT cabling and systems, loose furniture, environmental abatement for asbestos and contaminated soil, and non-durable, loose equipment. If a significant delay from the assumed bid date of November 2023 occurs, through no fault of the Architect, the Architect may request an adjustment in writing. The Architect's responsibilities for designing the project within the Fixed Construction Cost shall be limited to those described herein.
- 2.1.8 The Architect shall, without additional fee, correct or revise the drawings, specifications, and/or other materials furnished under this contract, if the Owner finds that such revision



is necessary to correct errors or deficiencies for which the Architect is responsible. Disagreements on responsibility may be resolved, at the discretion of the Architect, through the provisions of Article 7.

- 2.1.9 The Architect shall not change or replace the designated Project Manager without input from the Owner. The Owner reserves the right to reject an unsatisfactory Project Manager. The selection of the new Project Manager will be based on relevant project management experience and background on similar projects.

## **2.2 SPACE PROGRAM REPORT**

- 2.2.1 The Architect shall develop a detailed space program report in conjunction with the County to ensure that all required elements for the facility have been identified. The space program shall reflect subtotals and totals for net square footage and gross square footage, and clearly reflect all grossing factors. Space programming must adhere to County space programming standards included in the Guidelines for Architects and Engineers accessible at: <https://www.fairfaxcounty.gov/publicworks/guidelines-architects-and-engineers>
- 2.2.2 The Architect shall coordinate the Space Program Report with the County's space programming standards for comparable County facilities to assure consistency.
- 2.2.3 The Architect shall make such modifications, as are necessary and approved by the Owner, to the Space Program Report.
- 2.2.4 The Architect shall meet with the Using Agency as required to refine the program and establish specific spaces and relationships.
- 2.2.5 The Architect shall review available plans for the existing facility. The Architect shall conduct field visits to determine the general condition of the existing site and the building systems. Condition of the existing site and the building systems including mechanical, electrical and plumbing shall be documented in a report. The report shall serve as the basis for the determination of renovation/expansion or replacement of the structure.
- 2.2.6 The Architect shall evaluate the adequacy of the existing utilities to support the proposed building expansion/renovation.
- 2.2.7 The Architect shall prepare, for Owner approval, a Programming Summary Report and Existing Conditions Assessment (Building & Site), that identifies all spaces, functions, adjacencies, and square foot area for each of the spaces, as well as the conditions of the existing building systems, adequacy of existing utilities, and all site and zoning issues. The report shall be presented in written form as mutually agreed upon. Six (6) copies of the draft report and six (6) copies of the final report shall be submitted to the Owner.

### **Space Program / Existing Conditions Assessment Phase Deliverables:**

<b>Space Program Report / Existing Conditions Assessment</b>	<p>Space Program Report:</p> <ul style="list-style-type: none"> <li>▪ Space allocations matrix</li> <li>▪ Breakdown of net space and gross space, including clear delineation of all grossing factors utilized</li> <li>▪ Adjacency matrix</li> <li>▪ Adjacency diagrams</li> <li>▪ List of infrastructure, fixed equipment and furniture, built-ins and unique features required in each space</li> <li>▪ Final programming report</li> </ul> <p>Existing Condition Report:</p> <ul style="list-style-type: none"> <li>▪ Evaluation of the building systems including mechanical, electrical, and plumbing</li> <li>▪ Evaluation of existing utilities to support expansion/renovation</li> <li>▪ Code evaluation</li> <li>▪ LEED evaluation with anticipated cost impacts</li> </ul>
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## 2.3 SCHEMATIC DESIGN

- 2.3.1 The Architect, based on the approved Space Programming Report and Existing Conditions Assessment (Building & Site), shall prepare for the Owner's approval, design documents for three distinct Conceptual Design alternatives for building and site. The three Conceptual Design alternatives shall include site plan, floor plan, colored elevations, and perspective drawings, preliminary phasing plans, and other conceptual level graphic drawings as required clearly depicting the character and form of the building and the building relationship to the site. The Architect shall provide comparative order of magnitude construction cost information for the three concepts. Construction phasing and temporary facilities must be addressed for the selected Conceptual Plan. The Owner shall select one concept that will be developed into the Schematic Design including architectural and engineering plans, elevations and section drawings, and other documents illustrating the scale and relationship of the project components as required.
- 2.3.2 As part of developing the Conceptual Design alternatives the Architect shall fully comply with all applicable zoning regulations, including but not limited to setbacks, transitional screening requirements, bulk plan angle, parking requirements, and floor area ratio. The Architect shall fully comply with the Fairfax County Comprehensive Plan and Public Facilities Manual, including but not limited to frontage improvements; stormwater detention, water quality and adequate outfall considerations; vehicle access and circulation; existing easements and other land use restrictions (wetlands and RPA among others) and all other considerations effecting land use and site layout.
- 2.3.3 The Architect shall conduct project research to identify threats/risks that need to be considered for the facility design as part of the Crime Prevention through Environmental Design (CPTED) scope of work (Attachment D).
- 2.3.4 The Architect shall meet with Fairfax County staff to present the Conceptual Design alternatives, and such meetings shall include meeting the Owner's Architectural Peer Review Committee and other meetings, as required, to attain consensus on the selected Conceptual Design alternative.



- 2.3.5 The Architect shall register the project with the United States Green Building Council (USGBC) as a Leadership in Energy and Environmental Design (LEED) project, and Fairfax County shall be registered as the Owner. LEED administrative costs for registration and applications for certification shall be included as part of the direct costs for the project.
- 2.3.6 The Architect shall include in the Schematic Design documents an outline of specifications tailored to the project, describing major building systems and materials.
- 2.3.7 The Architect shall submit to the Owner a Statement of Probable Construction Cost prepared by an independent cost consultant in the Construction Specifications Institute's (CSI) 50 Division format, based on the schematic level of project plans and specifications. The Architect and Owner shall agree on Schematic Design documents such that the Statement of Probable Cost is consistent with the contractual Fixed Construction Cost. The cost estimate shall clearly identify the cost of the new building scope or work and building renovation scope of work.
- 2.3.8 The Architect shall fully comply with the Public Facilities Manual, Comprehensive Plan, Zoning Ordinance, the Virginia Uniform Statewide Building Code (VUSBC), and all other regulatory requirements including the Americans with Disabilities Act Accessibility Guidelines and the 2012 Virginia Construction Code (VCC) and the ICC/ANSI A117.1-2009 applicable to the selected schematic design, and shall meet with County Code and Zoning officials, and the Virginia Department of Transportation (VDOT) as required to account for design issues, review comments, and other evaluations/value engineering considerations.
- 2.3.9 The Architect shall meet with staff from the Building Design and Construction Division (BDCD) and Facilities Management Department (FMD) to review the schematic design and the alternate mechanical systems under consideration, and identify system alternatives and the recommended system(s).
- 2.3.10 The Architect shall make modifications, as required by the Owner, to the selected Schematic Design documents, and shall include the actual space program square footages as part of the final Schematic Design submittal.
- 2.3.11 The Architect shall prepare an Energy Model of the approved schematic design using eQuest, Trane Trace, or DOE-2 or other pre-approved equivalent.
- 2.3.11.1 Optimization of Energy Efficient Building Envelope  
Evaluate building envelope components using the energy model to optimize the building envelope. Establish a lighting power density target for the evaluation. The evaluation shall consider 5 to 10 individual options, which may include, but is not limited to the following: glazing selections, wall/roof types, roof reflectivity, shading, building orientation, and glazing percentage. Evaluations shall then be made of 3 to 4 combinations of the individual options. These iterative evaluations will include life cycle cost analysis for various options to balance energy use and first cost over the life of the building. Provide a summary of all options considered and results of life cycle cost analysis.
- 2.3.11.2 Selection of Energy Efficient HVAC System

Evaluate three different HVAC systems using the optimized building envelope and prepare a life cycle cost analysis. All analysis shall use current Fairfax County prevailing utility rates with an appropriate escalation factor. Provide a summary of all HVAC options and results of life cycle cost analysis.

2.3.11.3 Determination of LEED Points for Energy Efficiency

Use the optimized building envelope and selected HVAC system to determine the LEED points for energy efficiency. Provide a summary of the LEED analysis that includes all assumptions and inputs used in the analysis for both the LEED baseline and the design case including the schedule of operations for major loads such as ventilation, lighting, plug loads, cooling, and heating.

2.3.12 The Architect shall meet with the project stakeholders to evaluate options for sustainable design under the LEED Green Building process, including Low Impact Development options, and shall complete a LEED scorecard and other appropriate documentation.

2.3.13 Based on the selected Schematic Design, the Architect shall retain a geotechnical engineering firm, which is acceptable to the Owner, to conduct a geotechnical investigation and prepare a geotechnical report. **(NTE item)**

2.3.14 The Architect shall attend comment review meetings with the County Project Manager to review and resolve all Schematic Design review comments.

2.3.15 The Architect shall participate in Community meetings and presentations and respond to feedback or comments, as required; and shall make appropriate modifications to the Schematic Design, as agreed upon by the County.

2.3.16 The Architect shall submit a copy of their formal, written plan for project Quality Control and Quality Assurance (QC/QA) Plan for the Architect, Mechanical, Electrical, Plumbing, Civil and Structural Consultants, and for coordination between all Consultants and disciplines. The QC/QA Plan shall include plan review checklists, shall be submitted prior to the end of the Schematic Design Phase, and shall be reviewed by the Owner for concurrence.

**Schematic Design Phase Deliverables:**

<p><b>Schematic Design</b></p>	<p>Conceptual Design Alternatives</p> <ul style="list-style-type: none"> <li>▪ Site plans, floor plans, elevations, preliminary phasing, and perspective (w/color) for three alternate design concepts</li> <li>▪ CPTED project research and security assessment</li> <li>▪ Comparative cost information of three conceptual designs</li> <li>▪ Construction Phasing and Temporary Facilities, if applicable.</li> </ul> <p>Schematic Design</p> <ul style="list-style-type: none"> <li>▪ Table of programmed space size vs. actual space size</li> <li>▪ Index of all plan sheets to be used</li> <li>▪ Building floor plans, elevations, sections and roof plans, and site plans and updated perspective views (with color)</li> <li>▪ Outline specifications in 50 Division Construction Specifications Institute (CSI) format</li> </ul>
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	<ul style="list-style-type: none"> <li>▪ Other specifics to explain the building and site design intent &amp; proposals</li> <li>▪ Fixed equipment and furniture plan</li> <li>▪ Descriptive overview of proposed major building systems and equipment, and options for systems and equipment</li> <li>▪ Summary of all building envelope options considered and results of life cycle cost analysis</li> <li>▪ Summary of the three HVAC options and results of life cycle cost analysis</li> <li>▪ Summary of the LEED analysis for energy efficiency</li> <li>▪ Updated Project Schedule</li> <li>▪ Geotechnical Report</li> <li>▪ Independent Construction Cost Estimate</li> <li>▪ LEED scorecard and verification of registration in Fairfax County's name</li> <li>▪ QC/QA Plan</li> <li>▪ Completed QC checklists and "marked-up" QC review plans with the submittal</li> <li>▪ Plans in AutoCAD and PDF format saved on compact disk</li> <li>▪ Construction Phasing and Temporary Facilities, if applicable</li> </ul>
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## 2.4 DESIGN DEVELOPMENT

- 2.4.1 Based on the Owner's approval of any adjustments to the schematic documents, the Architect shall prepare for approval by the Owner, Design Development Documents consisting of drawings and other documents to fix and describe the size and character of the entire project as to architectural, structural, mechanical and electrical systems, materials and such other elements as may be appropriate.
- 2.4.2 The Architect shall prepare outline specifications setting forth the basic requirements of the facility, which shall include catalog cuts of basic systems and equipment. The Architect shall prepare systems furniture layout plans, loose furniture layout plans, an inventory list of loose and systems furniture, and an order of magnitude budget for loose and systems furnishings based on preferred County contract options.
- 2.4.3 The Architect shall prepare site plans for submittal to ALL reviewing agencies and authorities. The Architect shall complete site plans and notify the Project Manager when the plans will be submitted to VDOT and Land Development Services (LDS) for site plan review and permitting. The Architect shall also submit site plan notices, as required by LDS, to adjacent landowners and submit all records to the Project Manager.
- 2.4.4 The Architect shall schedule and attend a pre-submission meeting with LDS for both the site and building plans.
- 2.4.5 The Architect shall ensure that site plan documents include all applicable zoning, paving, drainage, wetlands limits, flood plain boundaries, grading, accessible route(s) for the disabled, ground water control, roads, curbs, utilities, landscaping, construction phasing for erosion and sediment control, and any other required project feature.
- A. The Architect shall apply for and obtain any required General VPDES Permit for

Discharges of Stormwater from Construction Activities.

- B. The Architect is responsible for coordinating with the Owner and utility companies to identify existing utilities, required relocations, and utility requirements for this facility. The Architect shall advise the Owner of any specific utility locations that need to be determined or verified using ~~the Owner's utility locating consultant~~ test pits.
  - C. The Architect shall apply for and obtain any required wetlands permits.
  - D. The County of Fairfax will pay all permit fees directly to the issuing authority or agency. The Architect shall prepare and submit to the County, signed and sealed vellum originals of all on-site and off-site easement plats for review and approval. All easement plats are to be prepared in conformance with DPWES Plat Standards. Note that although the project is located on County owned property, easements will be required for storm sewer, sanitary sewer, stormwater detention and BMP facilities, conservation easements and other purposes, as applicable. Easements and plats will also be required for certain other dry utilities including Verizon telephone and Dominion Virginia Power.
  - E. The Architect shall prepare all requests for waivers or modifications that are reasonably foreseeable based on the regulations in effect at the date of the contract, based on the existing site conditions and project scope.
- 2.4.6 The Architect shall provide for one on board progress review meeting with the County Project Manager, Using Agency, and FMD at the midpoint of the Design Development phase.
- 2.4.7 The Architect shall update the Energy Model for the project to reflect the Design Development Documents. Identify and provide to the Owner a summary of any additional Energy Conservation Measures (ECM's). The ECM's shall be reviewed to determine which additional ECM's to analyze for the project.
- 2.4.8 The HVAC Commissioning and Peer Review Consultant shall review the Design Development documents and prepare written comments for submittal directly to the Owner. The Architect shall address all technical and quality control comments, which are identified by the HVAC Commissioning and Peer Review Consultant. The HVAC Commissioning and Peer Review work shall be performed as a Not to Exceed (NTE) contract element.
- 2.4.9 The Architect shall coordinate with appropriate Fairfax County agencies to determine the actual building occupant loads, and the actual occupancy patterns. The HVAC systems shall provide ventilation levels per the International Mechanical Code with modifications for "intermittent or variable occupancy" as allowed by Fairfax County LDS (letter to industry 05-02). HVAC cooling equipment shall be sized based upon the actual occupant load levels anticipated in the facility based on coordination with DPWES and the Using Agency. Cooling equipment shall not be unreasonably oversized due to the effects of using calculations for theoretical occupant loads, safety factors, assumed duct leakage, or selection of next higher size equipment.



- 2.4.10 The Architect shall have the Statement of Probable Cost updated by the independent cost estimator, and submit the detailed update to the Owner in CSI format. The Architect shall also submit construction cost benchmarking information for other comparable facilities recently bid or constructed in the Metropolitan Washington D.C. area. The cost estimate shall clearly identify the cost of the new building scope or work and building renovation scope of work.
- 2.4.11 The Architect shall make such adjustments as are necessary in the project plans and specifications to conform to the limits of the Fixed Construction Cost provided in the contract, and shall cooperate and coordinate with the Owner in identifying and resolving issues for Value Engineering cost reductions.
- 2.4.12 The Architect shall conduct a CPTED review of the final Design Development documents. The CPTED review is to be conducted by a qualified person, approved by the Owner in advance, and all review comments are to be provided to the Owner along with the Architect's proposed course of action, per Attachment D.
- 2.4.13 The Architect shall attend a comment review meeting with the Project Manager to review and resolve all Design Development review comments.
- 2.4.14 The Architect shall prepare and submit detailed plans and sections showing the mechanical and electrical room layouts, including equipment, piping and ductwork. Plans and sections must demonstrate adequate access and clearances for maintenance.
- 2.4.15 The Architect shall continue to facilitate the LEED design process, submit the updated score sheet, and compile appropriate documentation.

**Design Development Phase Deliverables:**

<b>Design Development</b>	<ul style="list-style-type: none"> <li>▪ Index of all plan sheets to be used</li> <li>▪ Building floor plans, elevations, sections, roof plans, phasing plans, and site plans &amp; details and updated perspective views (with color)</li> <li>▪ Basic Mechanical, Electrical and Plumbing (MEP) plans</li> <li>▪ Outline specifications</li> <li>▪ Detailed description of major building systems &amp; equipment not defined by plans and outline specs</li> <li>▪ Summary any additional Energy Conservation Measures (ECM's) and the corresponding life cycle analysis</li> <li>▪ Initial HVAC Equipment, Door Hardware, Finish, and Electric Panel Board schedules</li> <li>▪ Sole Source product list</li> <li>▪ Interior layout plan w/ loose &amp; fixed furniture &amp; equipment</li> <li>▪ Fixed Furniture and Equipment (FF&amp;E) outline specifications</li> <li>▪ Loose furniture list and outline specifications as applicable</li> <li>▪ Preliminary Easement Plats</li> <li>▪ Updated life-cycle cost analysis for selected mech. system, and for any alternative systems or elements still under consideration</li> <li>▪ HVAC Peer Review and Commissioning review comments</li> <li>▪ CPTED consultant review comments and Architect's responses</li> <li>▪ Updated project design schedule</li> </ul>
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	<ul style="list-style-type: none"> <li>▪ Completed QC checklists and “marked-up” QC review plans with the submittal</li> <li>▪ LEED Scorecard</li> <li>▪ Updated, Independent Construction Cost Estimate</li> <li>▪ Plans in AutoCAD and PDF format <del>saved on compact disk</del></li> </ul>
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## 2.5 VALUE ENGINEERING (NTE Item)

- 2.5.1 The Architect shall enter into a contract with a Certified Value Specialist (CVS) for performing a Value Engineering (VE) analysis at the completion of the Design Development phase. The VE work shall be performed as a NTE contract element.
- 2.5.2 The VE analysis shall consist of a minimum 40-hour study and/or workshop conducted by the CVS and Owner’s VE team members.
- 2.5.3 The VE team shall be comprised of members representing various disciplines and will be coordinated with the Owner. The VE team members shall be different from the project team members, with the exception of the CVS and cost estimator. The Owner shall have the option to have the CVS conduct the VE as a Module I training session.
- 2.5.4 The Architect shall provide four copies of the independent cost estimate, and specifications, and five copies of the plans to the VE Team for their use.
- 2.5.5 The Architect and Consultants shall present an overview of the project to the VE team at the start of the VE session.
- 2.5.6 The Architect and Consultants shall attend a presentation meeting on the VE team’s recommendations. The VE team shall include visual aids as part of the presentation. The CVS shall forward the spreadsheet summarizing all VE recommendations to the Owner, in the Owner’s specified format, within two business days of the VE Study completion.
- 2.5.7 The Architect shall provide the Architect’s and Consultants’ comments on the VE Report to the Owner within seven calendar days of receipt of the report.
  - 2.5.7.1 The evaluation of the Value Engineering Report shall include an analysis of any ECM’s recommendations or changes to the established optimized building envelope or selected energy efficient HVAC system.
- 2.5.8 The Architect shall participate in the joint review and VE resolution meeting.
- 2.5.9 The Architect shall submit five copies of a final VE Report to the owner within seven calendar days of the resolution meeting.
- 2.5.10 The Architect shall implement all final VE recommendations accepted by the Owner into the project design.
  - A. Additional service fees may be considered for the effort required to address approved VE proposals if the approved item: 1) is a change to design information previously accepted at the Schematic Design phase; 2) is a change to the basic scope of work for the project; or 3) requires a significant revision to the basic scope of the Architect’s



design services as contemplated in the design contract.

- B. Additional service fees will not be considered for VE items that are 1) Within the scope of the project and design contract, 2) Related to information shown on DD drawings for the first time and, 3) required to bring the project within the Fixed Construction Cost.

## **2.6 CONSTRUCTION DOCUMENTS**

- 2.6.1 Based on the approved Design Development documents, the agreed upon VE recommendations, any further refinements in the scope or quality of the project, and any adjustments to the project budget authorized by the Owner, the Architect shall prepare for approval by the Owner, Construction Documents consisting of drawings and specifications setting forth, in detail, the requirements for construction of the project which are in compliance with all federal, state, and County codes. Plans and specification submitted to the Owner for bidding shall reflect requirements of the Fairfax County Construction Contract-General Conditions and the County Guidelines for Architects and Engineers.
- 2.6.2 The Architect shall ensure that all site plan documents shall comply with all Fairfax County Zoning Ordinances, the Fairfax County Public Facilities Manual, and the Fairfax County Comprehensive Plan. Such documents shall include, but not be limited to, any requirements related to paving, drainage, stormwater detention and water quality, adequate outfall, tree preservation, ground water control, roads, curbs, accessible route(s) for the disabled, utilities, parking service areas, site lighting, electrical and communications infrastructure (empty conduits), landscaping, and any other project required features. The site lighting design shall conform to the Zoning Ordinance Standards and photometric design must be submitted to the Owner for review and approval.
- 2.6.3 The Architect shall submit to, obtain approval of, and secure any and all required permits including, but not limited to Building and Site Plan permits from LDS, VDOT permits and any permits or approvals from any other County agency or Authority such as Fire and Rescue Department, the Health Department or the Water Authority, including any required demolition permits. The Architect shall provide prints of documents required for the VDOT, and LDS site and building permit review and approval. The Architect shall submit the site plans to LDS for permit review immediately after resolution of VE recommendations, or immediately after completion of the Design Development Phase if no VE Phase is required. The Architect shall submit the building plans for LDS permit review at 75% Construction Document stage.
- 2.6.4 The Architect shall also prepare the VDOT Initial Street Acceptance Package and submit it to VDOT, prior to the Bidding Phase, for approval.
- 2.6.5 The Architect shall employ the services of a Plan Expeditor acceptable to the Owner for the purpose of facilitating an expedited review and approval process for LDS site and building plan permits, and associated LDS permit documents.

- 2.6.6 The Architect shall obtain all required State and Federal Permits including but not limited to Virginia DEQ permits for Virginia Stormwater Management Program and Equipment Emissions (such as, for example emergency generators, or boilers), as applicable.
- 2.6.7 The Architect shall schedule and attend post-submission meetings with LDS for the site and building permit reviews.
- 2.6.8 The Architect shall respond in writing to all Owner review comments at 50% CD and 100% CD review phases, and shall keep the Project Manager advised of progress and completion of reviews.
- 2.6.9 The Architect shall prepare and present three interior design options to the Owner, including wall, floor, and ceiling finishes, millwork, and loose and systems furniture. Based on the accepted interiors option, the Architect shall prepare and submit the project Color Board to the Owner. The Architect shall also coordinate with the Owner on recommendations for loose furniture selections, which shall be reviewed by the Project Manager. The Architect shall coordinate floor plans, clearance, and IT and electrical wiring with the systems furniture product.
- 2.6.10 The Architect shall review the detailed systems furniture drawings prepared by the Owner's systems furniture vendor, and sign and seal the systems furniture drawings prepared by others. The Architect shall return the signed and sealed systems furniture drawings to the Owner, and the Owner shall process for permit approval.
- 2.6.11 The Architect shall update the floor plan layouts for systems furniture and loose furniture, and make corresponding updates to the inventory list of loose furnishings and the loose furniture cost estimate. Note: All loose furniture and systems furniture is to be procured by the Owner, separate from the construction contract for the base building project.
- 2.6.12 The Architect shall coordinate with the Owner for approval of the design for site and interior and exterior building signage, and shall incorporate all site, and interior and exterior building signage in the design documents.
- 2.6.13 The Architect shall obtain an updated, independent construction cost estimate in the specified CSI format prepared by an independent estimator at the 50% CD stage, and the 100% CD stage. The Architect shall review the estimates and submit comments to the Owner. If the construction cost estimate exceeds the Fixed Construction Cost, the Architect shall provide the Owner with a written evaluation that includes recommended alternatives for bringing the project cost back within the Fixed Construction Cost. The cost estimate shall clearly identify the cost of the new building scope or work and building renovation scope of work.
- 2.6.14 The Architect shall submit complete sets of documents, including Construction Cost Estimate, Specifications and Plans to the Owner at the 50% CD stage (50% CD's) for County review. The Architect shall continue working on the CD's during this 50% CD review by the County. The County will provide any review comments to the Architect within 10 business days of receipt of the 50% CD's.
- 2.6.15 The Architect shall provide for two coordination meetings with the Owner during development of the CD's, one on board progress review meeting with the County Project



Manager and Project Engineer to review Owner's 50% CD review comments, and a coordination meeting with the Project Manager and Project Engineer approximately one week prior to submission of the 100% CD's.

- 2.6.16 Subsequent to the 50% CD review, and upon request from the Owner, the Architect shall provide three (approximately 20"x30") computer generated, color renderings matted, and framed. The Architect shall also provide six 8" X 10" photo quality prints of the rendering, and provide the electronic file of the selected rendering to the Owner. The rendering shall be in electronic format, unless otherwise approved by the Owner, and the Architect shall submit a draft rendering for review and comments prior to submittal of framed rendering and rendering prints.
- 2.6.17 One week prior to the scheduled submittal of the 100% CD's, the Owner will meet with the Architect to review the progress of work on the CD's, and the progress of required quality control and coordination work to verify that the 100% CD's meet the Owner's requirements for completeness and quality control. The Architect shall present the 100% CD's and the QC/QA program documentation to the Owner at this meeting.
- 2.6.18 The Architect shall provide for a 100% CD plan review meeting with the Project Manager after the receipt of all non-LDS County review comments, and shall incorporate responses to all review comments into a set of Back Check Documents. The Architect shall submit two sets of Back Check Documents for County review after incorporating all final County review comments on the 100% CD's. The Architect shall reconcile all LDS permit review comments and all quality control review comments into the 100% CD Back Check set, prior to bid advertisement.
- 2.6.19 The HVAC Commissioning and Peer Review Consultant shall review the 100% CD's, including the points list and the sequences of operations and prepare written comments for submittal directly to the Owner, in accordance with the scope of work for this NTE contract item as define in Attachments B and C. The Architect shall address all technical and quality control comments, which are identified by the HVAC Commissioning and Peer Review consultant.
- 2.6.20 The Architect will update the Energy Model for the project to reflect all final design decisions.
  - 2.6.20.1 The revised Energy Model shall be acceptable to USGBC- LEED when submitted for approval. The Owner reserves the right to retain up to 50% of the cost of the Energy Model preparation and revision, pending approval of the model by USGBC- LEED.
  - 2.6.20.2 The Architect shall submit to the Owner the final energy analysis showing the predicted electrical and gas usage (BTU's) for the project. The final energy model is to provide a prediction of the first year actual electrical and gas energy consumption. It is the County's expectation that the model/predicted consumption will be within 10% of the actual first year energy consumption.
  - 2.6.20.3 The Architect shall provide an updated operating cost estimate for energy consumption with comparisons to at least three (3) similar buildings in the region or to national energy standards for such similar buildings.

- 2.6.21 The Architect shall compile all available LEED project documentation, and submit to USGBC for design phase approval of all LEED points that can be approved at this stage. The Architect shall provide a copy of the design phase LEED submittal package to the Owner.
- 2.6.22 The Architect shall provide ¼" scale Mechanical and Electrical Room layout plans including equipment, piping, and ductwork for all mechanical areas to ensure appropriate access and clearances for the equipment specified as the basis of design and other manufacturers listed as acceptable in the specifications.
- 2.6.23 After resolution of all final Owner comments on the Back Check Documents, the Architect shall submit one final set of Bid Documents to the Owner for use in printing the documents to be used in contractor bidding for the project. The Bid Documents shall incorporate all Owner review comments and all regulatory review comments including revisions required for building and site permit approval.
- 2.6.24 The Architect shall make necessary revisions to the building and site permit drawings, as necessary, to assure that the permit drawings match the Bid Documents.
- 2.6.25 The Architect shall certify that, to the best of the Architect's knowledge, information and belief that the Construction Documents consisting of drawings and specifications setting forth in detail the requirements for the construction of the project, were designed in accordance with all applicable professional and architectural standards.
- 2.6.26 The Architect, shall provide to the Owner, for reproduction or other use by the County in bidding the project:
- Original drawings appropriately signed, sealed and dated on every drawing sheet;
  - One copy of the construction plans;
  - Original and one copy of the specifications (signed, sealed, and dated on the Cover Page(s)), which incorporate the Fairfax County Construction Contract Sections A through E and reflect the requirements of the current Guidelines for Architects and Engineers;
  - The latest updated estimate of probable construction cost;
  - All required permits obtained from LDS (site and building), VDOT, VPDES, and others, as applicable; and
  - ~~Two compact disks, each~~ Compile drawing files containing the final 100% CD's (including civil, architectural, structural, mechanical, electrical, and plumbing plans, and specifications). Drawing files shall be in AutoCAD (version 2007 or later) and PDF format and specifications shall be in MS Word.

**Construction Document Phase Deliverables:**

<b>50% Construction Documents</b>	<ul style="list-style-type: none"> <li>▪ Building and site plans and details</li> <li>▪ Specifications (incorporating County standard front end boilerplate)</li> <li>▪ 50% CD Construction Cost Estimate</li> <li>▪ Major Equipment list</li> <li>▪ Sequence of Operations for HVAC systems &amp; other major equipment</li> </ul>
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	<ul style="list-style-type: none"> <li>▪ HVAC controls points list</li> <li>▪ Electrical and Plumbing line and riser diagrams</li> <li>▪ HVAC Equipment, Door Hardware, &amp; Electric Panel Board schedules</li> <li>▪ Millwork, door and window details</li> <li>▪ Structural beam and column schedules, and details</li> <li>▪ Finish and interior/exterior signage schedules, and details</li> <li>▪ Fixed furniture and equipment plans, specs and cost estimates</li> <li>▪ Loose furniture plans, specifications, and cost estimate</li> <li>▪ Completed CPTED Review Checklist</li> <li>▪ Final Easement Plats</li> <li>▪ Materials and color samples, and two copies of color board (s)</li> <li>▪ Photometric analysis for site lighting design</li> <li>▪ Updated Project Schedule</li> <li>▪ LEED Scorecard</li> <li>▪ 1/4" scale Mechanical and Electrical Room layout plans including equipment, piping and ductwork for all mechanical areas to show required access and clearances for the equipment specified as the basis of design and other manufacturers listed as acceptable in the specifications</li> <li>▪ Summary list of warranty requirements</li> <li>▪ Summary list of Attic Stock requirements</li> </ul>
<b>100% Construction Documents Set</b>	<ul style="list-style-type: none"> <li>▪ Complete Plans</li> <li>▪ Complete Specifications</li> <li>▪ 100% CD Construction Cost Estimate</li> <li>▪ All required permits (Site, Building, VDOT, VPDES, DEQ equipment exhaust, wetlands, demolition etc.)</li> <li>▪ Rendering</li> <li>▪ Final furniture, fabric, color and other finish decisions</li> <li>▪ Completed specifications for Sections A through E of County Construction Contract</li> <li>▪ Construction Schedule and Recommendation for Construction Duration</li> <li>▪ Utility coordination information (plans, contacts)</li> <li>▪ Updated Independent Construction Cost Estimate</li> <li>▪ Completed QC checklists and "marked-up" QC review plans with the submittal reflecting QC &amp; coordination reviews (100% CD Pre Review meeting)</li> <li>▪ Complete Finish and interior/exterior signage schedules</li> <li>▪ Updated Fixed furniture and equipment plans, specs and cost estimates.</li> <li>▪ Updated loose furniture plans, specs and cost estimate</li> <li>▪ Completed CPTED Review Checklist</li> <li>▪ List of warranty requirements from the specifications</li> <li>▪ List of attic stock from specifications</li> <li>▪ Updated Project Schedule</li> <li>▪ Initial VDOT Acceptance Package</li> <li>▪ Final energy analysis showing the predicted electrical and gas usage (BTU's) for the project</li> </ul>

	<ul style="list-style-type: none"> <li>▪ HVAC Peer Review and Commissioning review comments and Architect's responses</li> <li>▪ LEED Scorecard</li> <li>▪ Two copies of electronic version plans in AutoCAD and PDF format and specifications in MS Word format <del>on compact disk</del></li> </ul>
<b>Permit Documents</b>	<ul style="list-style-type: none"> <li>▪ Approved (permitted) plans (Building, &amp; Site, Building Sign, Retaining wall, and Systems Furniture as applicable)</li> <li>▪ Easement plats</li> <li>▪ All permits, including Building Sign and Systems Furniture as applicable(copies)</li> </ul>
<b>100% CD-Back Check Documents</b>	<ul style="list-style-type: none"> <li>▪ All complete plans and specifications</li> <li>▪ Fixed Furnishings &amp; Equipment (FF&amp;E) and loose furniture plans</li> </ul>
<b>Bid Documents</b>	<ul style="list-style-type: none"> <li>▪ All complete plans and specifications signed and sealed on bond</li> <li>▪ FF&amp;E and loose furniture plans</li> <li>▪ Update to 100% CD Cost Estimate, prior to bid opening</li> <li>▪ Two copies of all plans and specifications on compact disk in AutoCAD and MS Word format, respectively</li> <li>▪ Construction Set of plans and specifications</li> </ul>

## 2.7 BIDDING PHASE

- 2.7.1 The Architect, following the Owner's approval of the Construction Documents and the latest updated estimate of Construction Cost, shall assist the Owner in obtaining bids or negotiated proposals and assist in awarding and preparing contracts for construction.
- 2.7.2 The Architect and the principal engineering consultant(s) shall attend a pre-bid meeting scheduled by the Owner to answer questions from potential bidders.
- 2.7.3 The Architect shall provide clarifications through the Building Design and Construction Division (BDCD) of the bid documents, if required, to correct errors and omissions of the Architect, and document clarifications. The Architect shall provide the response to bid phase questions and issues to BDCD in BDCD addenda format.
- 2.7.4 After building and site permit approvals, bid advertisement and issuance of the final bid addenda, the Architect shall submit a final update to the estimate of probable construction cost. This final cost estimate update shall be submitted to the Owner not less than 48 hours prior to the scheduled bid opening, may be in letter format, and shall reflect any changes resultant from permit review comments, bid addenda, and market conditions.
- 2.7.5 At the sole discretion of the Owner, the Architect shall redesign the project, at no cost to the Owner, if the lowest responsible bid exceeds the Fixed Construction Cost by more than 10%.
- 2.7.6 The Architect shall provide a general review of the Contractor's bids and verification of the Contractor's experience and references
- 2.7.7 The Architect shall provide an updated Cost Estimate, at no cost to the Owner, after the bid opening if the lowest responsible bid is not within 10% of the Architect's Cost



Estimate. This revised Cost Estimate will address the difference between the cost of the lowest responsible bid and the 100% Construction Cost estimate. The revised Cost Estimate shall be submitted within 72 hours of the bid opening.

**Bid Phase Deliverables:**

<b>Bid Documents</b>	<ul style="list-style-type: none"><li>▪ All complete plans and specifications signed (original signature) and sealed on each page of drawings and on cover of specifications</li><li>▪ FF&amp;E and loose furniture plans</li><li>▪ Update to 100% CD Cost Estimate, prior to bid opening</li><li>▪ Two copies of all plans in AutoCAD and PDF format and specifications in MS Word format <del>on compact disk</del></li><li>▪ Construction Set of plans and specifications</li></ul>
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**2.8 CONSTRUCTION ADMINISTRATION**

- 2.8.1 The Architect shall be a representative to the Owner, and represent the Owner's interest during construction. The Architect shall have the authority to act on behalf of the Owner with the Owner's prior written approval and/or to the extent as provided under Section D-General Conditions of Fairfax County Construction Contract, current as of the date of this Agreement, unless otherwise modified by written instrument. The Architect shall advise and consult with the Owner on all instructions to be issued by the Architect to the Contractor.
- 2.8.2 The Architect's responsibility to provide Basic Services for the Construction Phase under this Agreement commences with the award of the Contract for Construction and terminates at the earlier of the approval by the Owner of the final Certificate for Payment or 60 days after the date of Substantial Completion of the Work, except as provided for in Section 2.9.
- 2.8.3 The Architect shall provide administration of the Contract for Construction in accordance with the requirements of the Fairfax County Construction Contract- Sections A through E.
- 2.8.4 Duties responsibilities and limitations of authority of the Architect shall not be restricted, modified, or extended without written agreement of the Owner and Architect.
- 2.8.5 The Architect shall provide on-site construction administration services as required and as agreed upon herein to ensure that the quality of construction is in conformance with the contract documents.
- 2.8.6 Subsequent to all building and site plan permit approvals and successful bid opening, and prior to the Contractor's notice-to-proceed date, the Architect shall prepare and issue a Construction Set of documents for use by the Contractor and Owner that compiles all addendum issues and final permit review issues into a single coordinated set of plans and specifications into a single comprehensive set of Construction Documents. The Construction Set shall include annotations to reflect the source of all changes to the format of the Bid Documents. This set will only be provided if requested by the Owner.
- 2.8.7 The Architect shall issue Contract Documents to the Contractor in electronic format,

subject to Contractor's executing a release agreement with the Architect.

- 2.8.8 The Architect shall assist the Owner in review and coordination of the systems furniture procurement, systems furniture permitting, systems furniture power and IT wiring, and coordination of systems furniture installation with the Contractor's base building work.
- 2.8.9 The Architect shall require of each of the engineering consultants sufficient time in proportion to their share of the facility design, to conduct field observations of the construction process and to recommend corrective action where deficiencies occur.
- 2.8.10 The Architect shall visit the site at intervals appropriate to the stage of construction or as otherwise agreed by the Owner and Architect in writing. The Architect shall monitor the progress and quality of the Work completed and determine if the Work is being performed in accordance with the Contract Documents. 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 on-site observations as an architect, the Architect shall keep the Owner informed of the progress and quality of the Work, and shall endeavor to protect the Owner against defects and deficiencies in the Work. As described in Section 3.2, more extensive site representation may be agreed to as an Additional Service.
- 2.8.11 The Architect and his consultants are to provide field observations during the construction phase. The Architect shall submit reports to the Building Design Branch with a copy to the BDCD within three (3) days of the observation. The Architect shall require of each of his engineering consultants sufficient time in proportion to their share of the facility design, to conduct field observations of the construction progress. The time required shall be sufficient to enable the consultant to determine whether the construction is in accordance with the design intent and plans and specifications for that portion of the work designed by the consultant, and to recommend corrective action where deficiencies occur. Time spent by the Architect in providing services to correct or assist the Contractor in correcting construction deficiencies will be compensated as under Section 3.3 and as required by the Section D of the Fairfax County Construction Contract for reimbursement by the Contractor.
- 2.8.12 Upon completion of the Construction Phase, the Architect and each of the aforementioned consultants, will provide a statement, in duplicate, to the BDCD attesting to the fact that:
  - a. He has observed the construction progress.
  - b. He has observed that the equipment has been installed in accordance with the plans and specifications.
  - c. He has observed equipment operating tests, as applicable.
  - d. To the best of his knowledge, the construction has been performed in accordance with the plans and specifications.

Final payment to the Architect/Engineer will not be made prior to completion of this report.



- 2.8.13 The Architect shall not be responsible for construction means, methods, techniques, sequences, or procedures, or for safety precautions and programs in connection with the Work, since these are solely the Contractor's responsibility under the Contract for Construction. The Architect shall not be responsible for the Contractor's schedules or failure to carry out the Work in accordance with the Contract Documents. The Architect shall not be responsible for acts or omissions of the Contractor, Subcontractors, or their agents or employees, or of any other persons performing portions of the Work.
- 2.8.14 The Architect shall at all times have access to the Work wherever it is in preparation or progress.
- 2.8.15 Except as may otherwise be provided in the Contract Documents or when direct communications have been specially authorized, the Owner and Contractor shall **not** communicate through the Architect. Communications by and with the Architect's consultants shall be through the Architect.
- 2.8.16 Based on the Architect's observations and evaluations of the Contractor's Applications for Payment, the Architect shall review the amounts due the Contractor.
- 2.8.17 The Architect's review of the Contractor's Application for Payment shall constitute a representation to the Owner, based on the Architect's observations at the site as provided in Section 2.8.10 and on the data comprising the Application for Payment, that the Work has progressed to the point indicated and that, to the best of the Architect's knowledge, information and belief, quality of the Work is in accordance with the Contract Documents. The foregoing representations are subject to an evaluation of the work for conformance with the Contract Documents upon Substantial Completion, to results of subsequent tests and inspections, to minor deviations from the Contract Documents correctable prior to completion and to specific qualifications expressed by the Architect. However, the review 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 material 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.
- 2.8.18 The Architect shall have authority to reject work that does not conform to the Contract Documents. The Architect will have authority, with the Owner's permission and prior approval, to require additional inspection or testing of the Work in accordance with the provisions of the Contract Documents, whether or not such 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, material and equipment suppliers, their agents or employees or other persons performing portions of the Work.
- 2.8.19 The Architect shall review and approve the Contractor's submittals such as Shop Drawings, Product Data and Samples, but only for the limited purpose of checking such submittals for conformance with the information contained therein and the design concept expressed in the Contract Documents. The Architect's action shall be taken with

such reasonable promptness as to cause no delay in the work or in the construction of the Owner or of separate contractors, while allowing sufficient time in the Architect's professional judgment to permit adequate review. Review of such submittals is not conducted for the purpose of determining the accuracy and completeness of other details such as dimensions and quantities or for substantiating instructions for installation or performance of equipment or systems designed by the Contractor, all of which remain the responsibility of the Contractor to the extent required by the Contract Documents. The Architect's review shall not constitute approval of safety precautions or, unless otherwise specifically stated by the Architect, of 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. When professional certification of performance characteristics of materials, systems or equipment is required by the Contract Documents, the Architect shall be entitled to rely upon such certification to establish that the materials, systems, or equipment will meet the performance criteria required by the Contract Documents.

- 2.8.20 The Architect shall prepare recommendations for Change Orders, with supporting documentation and data if deemed necessary by the Architect as provided in Sections 2.8.25, 3.1, and 3.3. for the Owner's approval and execution in accordance with the Contract Documents.
- 2.8.21 The Architect shall be an interpreter of the requirement of the Contract Documents. The Architect shall make recommendations on all claims of the Owner or Contractor relating to the execution and progress of the work and on all other matters or questions related thereto. These recommendations shall be made in writing within 15 calendar days of receipt of request from the Owner.
- 2.8.22 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.
- 2.8.23 The Architect's recommendations to the Owner on matters relating to aesthetic effect shall be made within 15 calendar days of request from the Owner and shall be consistent with the intent expressed in the Contract Documents.
- 2.8.24 The Architect shall render written recommendations within a reasonable time on all claims, disputes or other matters in question between the Owner and Contractor relating to the execution or progress of the Work as provided in the Contract Documents.
- 2.8.25 The Architect's recommendations on claims, disputes, or other matters, including those in question between the Owner and Contractor, except for those relating to aesthetic effect as provided in Section 2.8.23, shall be as provided in this Agreement and in the Contract Documents.
- 2.8.26 The Architect shall provide construction administration services for the anticipated construction contract duration to be determined in Phase II to include, but not be limited to:
- Attendance at Pre-construction Meeting
  - Field observations during construction (average 4-6 hours per week), followed by



- written reports to the Owner within three days
- Attendance at biweekly construction progress meetings, and documentation of meeting minutes
- Review of shop drawings and maintaining shop drawing logs
- Issuance of Requests for Proposals (RFP) and maintaining RFP log
- Review of Proposed Change Orders (PCO), maintaining PCO log, providing a written summary analysis of design related contractor claims as requested by the Owner
- Response to Requests for Information (RFI) and maintaining RFI logs
- Coordinate any proposed equal product or substitution submittals with the Owner prior to approval or rejection
- Review of Payment Applications and Issuance of Certificates for Payment
- Requirements of Fairfax County's Construction Contract Sections A through E, current at the time of award of the design contract
- HVAC Commissioning Agent shall be involved in review of shop drawings, and shall provide system commissioning for the entire HVAC system (NTE)
- Retain the services of a qualified testing and inspection firm to conduct LDS required Special Inspections and other testing/inspections, as required (NTE)
- Assist the Owner in ensuring that the contractor has utilized the proper construction scheduling methodology
- Regularly review Contractor's records and documentation required for LEED certification
- Assist the Owner in ensuring that all contractor scheduling updates are submitted for review in a timely manner
- Regularly update and maintain as-built documents in electronic format (AutoCAD, MS Word) for plans and specifications including all Field Orders, Change Orders, and Request for Information responses and Construction Change Directives (CCD)
- Review Operations and & Maintenance (O&M) Manuals, As-Built construction documents, warranties, and attic stock
- Submit two copies of the final Finishes Binder to the Owner to include product information and samples for all finish materials implemented on the project
- Provide substantial completion inspection and prepare punch list, issue certificate of substantial completion, and provide one punch list follow-up inspection
- Provide up to four hours of classroom style training for Owner's systems operations and maintenance staff to provide background and strategy related to major building systems design and intent. Training shall occur on-site, or at a mutually convenient location within Fairfax County that is acceptable to the Owner, prior to Contractor's equipment training

2.8.27 The Architect, in conjunction with the Owner, shall conduct inspections and document deficiencies noted and shall determine the date of Substantial Completion and Final Completion. The Architect shall prepare the deficiency list (punch-lists) to include a compilation of items from all consultants and the Owner. The Architect shall prepare the Punch List in a software spreadsheet or database format that is mutually acceptable to the Owner and Contractor, and shall include data fields necessary to support the Contractor's coordination of punch-list tracking and resolution. The Architect shall make one site visit, up to four hours on-site, to be scheduled by the Owner, for the purpose of back checking the status of the Punch List resolution. The Architect shall receive and forward to the Owner written warranties and related documents required by the Contract

Documents and assembled by the Contractor and shall issue a Final Certificate for Payment.

**Construction Administration Phase Deliverables:**

<b>As-built Documents</b>	▪ All plans, specifications, addenda, on CD reflecting FO, CO, CCD, and RFI information
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**2.9 POST CONSTRUCTION**

- 2.9.1 The Architect shall provide no more than one day (8 hours) of assistance to the Owner at the expiration of the one-year warranty period.
- 2.9.2 The Architect is to be available to the Owner during the one-year warranty period and shall be compensated under the provisions of Sections 3.3 and 3.4 for all services which are not a result of Basic Services in the contract not being completed, and not the result of design related error or omissions of the Architect.
- 2.9.3 The Architect shall compile all required LEED project documentation, including compilation of Contractor provided documentation, and submit the LEED certification application to USGBC. The Architect shall provide a copy of the LEED submittal package to the Owner.
- 2.9.4 The Architect shall provide the necessary support to the Owner in pursuing bond release from the Construction Agreement in the LDS Bond Package for the project. Such support includes letter of approval from the Geotechnical Engineer of Record.
- 2.9.5 The Architect shall prepare the VDOT Final Street Acceptance Package and submit the completed package to VDOT within four months of Substantial Completion, as required.
- 2.9.6 The Architect shall compare the actual water and energy consumption for the first year of building occupancy to the modeled/predicted energy and water consumption. If the actual usage is not within 10% of the model/prediction, the Architect shall analyze and provide a report to the Owner indicating why the actual energy and water consumption did not meet the model/prediction. The report shall include verifications that the equipment, systems, building envelope, and other factors were constructed in accordance to the design and model. The report shall also include all factors that may have an impact to explaining why the actuals do not match the model/prediction. The report is to be provided within three months of the end of warranty.

**Post Construction Deliverables:**

<b>Post Construction</b>	▪ Report on the analysis of the actual water and energy consumption for the first year of building occupancy against the energy and water consumption model/prediction including verification that the facility was constructed in accordance to the model/design and stating all factors that may have an impact on the variation of the actuals versus model/prediction.
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**2.10 SUBMITTALS**



- 2.10.1 The Architect shall provide to the Owner copies of project documents as shown in the schedule below:

Documents	Cost	Specs	Bldg	Site Report
Space Program; Existing Conditions Assessment				3
Schematic Design Documents	3	6	6*	7*
Design Development Documents	3	6	6*	8*
Value Engineering	4	4	5*	5*
50% Construction Documents	3	3	3*	3*
100% Construction Documents	3	7	7*	8*
100% Construction Documents (Back Check Set)	0	2	2*	2*
Permit Documents	(As required by LDS)			
Bid Documents	(As required by 2.6.26)			
As-Builts	(As required by 2.8.6 and 2.10.5)			
* Coordinate final number of half and full size with project manager				
One (1) full size, (4) half size sets				

- 2.10.1 Bond originals of the final plans and reproducible copies of the specifications and any amendments or addenda shall be provided to the Owner. All plans shall be signed and sealed and dated on each sheet by the responsible Virginia registered Professional Engineer (PE)/Architect (RA). Each volume of specifications must be signed sealed and dated on the cover page by the responsible Virginia licensed and registered Professional Engineer or Architect.
- 2.10.2 The Architect shall submit one copy of the QC/QA plan for the project in hard copy, and electronic format, in accordance with Section 2.12. The QC/QA plan for the Architect and Consultants is to be submitted prior to the end of the Schematic Design Phase.
- 2.10.4 The Architect shall provide the Contractor with a complete, electronic set of plans and specifications in AutoCAD, Version 2007 or later, and MS Word format, respectively, for the Contractor's use in preparing as-built drawing in electronic format, subject to the Contractor's executing a release agreement with the Architect. Turnover of electronic files to the contractor is subject to the contractor's acceptance of a Release of Liability agreement that is mutually agreeable to the Architect and the Owner. The Architect shall review the as-built plans and specifications submitted by the Contractor. The Architect shall provide the Owner with full size reproducible of the as-built plans and one copy of the as-built specifications as prepared by the General Contractor. The as-built documents shall include all changes through the construction phase. The Architect shall also submit two copies of electronic as-built information on CD.
- 2.10.5 The Architect shall provide to the Owner, two electronic copies of the construction documents (plans and specifications) updated to reflect the construction changes per section 1.7.2, within 90 days of substantial completion.

## **2.11 TIME AND PERFORMANCE**

- 2.11.1 All basic services shall be performed to meet the Project Schedule (Attachment G) which shall be mutually agreed upon by the Architect and Owner. The Architect acknowledges and agrees that time is of the essence for the performance of this contract. Any

indulgence by the Owner in allowing the Architect additional time to perform shall not constitute a waiver of the schedule or that time is of the essence.

- 2.11.2 Schedule – The Architect shall complete the site and building plan documents for submission to the LDS site and building permit review, in accordance with the contract Project Schedule. The Architect shall submit a complete, detailed design phase schedule as an attachment to the final fee proposal. That Project Schedule is a part of this contract by attachment (Attachment G). Project Schedule shall be in MS Project format. Design phase schedule shall be updated and submitted to the Owner at the start of each design phase, with justification for any changes/delays that exceed two weeks.
- 2.11.3 The Architect shall prepare a projected construction sequence showing major activities, and submit this to the Owner in MS Project format prior to completion of Construction Documents. The Architect shall use this projected construction sequence as the basis for their recommended construction duration.

## **2.12 QUALITY CONTROL/QUALITY ASSURANCE (QC/QA)**

- 2.12.1 The Architect shall review all major document submissions that are made to the Owner with an established quality control procedure, comparable to Redi-check system that includes close attention to details, accuracy, consistency, coordination, and completeness of the work product. The quality control procedure is to be reviewed and approved by the Owner. The Architect's quality control review shall be completed and all comments incorporated into the documents prior to each submittal. All members of the quality control review team shall sign-off on the QC/QA sheet provided by the Owner and indicate the number of hours spent performing QC/QA. The Architect shall submit the completed QC/QA form on the Cover Sheet of all required plan submissions (SD, DD, 50% CD and 100% CD). Plan submissions will not be accepted by the Owner without the completed and signed QC/QA form.
- 2.12.2 The Architect shall submit one copy of their complete QC/QA program, including checklists, prior to completion of the SD phase. The Architect shall submit completed QC checklists and "marked-up" QC review plans with the submittal at the end of each design phase. The Owner's representatives will meet with the Architect one week prior to the scheduled 100% CD submission date to verify the completeness of the documents and to verify the satisfactory implementation of the Architect's QC/QA plan.
- 2.12.3 The Architect shall verify that all applicable requirements in the County's Guidelines for Architects and Engineers are reflected in the plans and specifications.

## **2.13 SUSTAINABLE DEVELOPMENT/LEED REQUIREMENTS**

- 2.13.1 The Architect is responsible to design the project and to provide evaluation, analysis, and documentation to conform to the Fairfax County Sustainable Development Policy requirements that the project be designed and constructed to attain a LEED certification at Gold level, a minimum of 50% energy performance improvement over the current ASHRAE baseline, and achieve Net Zero Energy design.
- 2.13.2 The Architect's Basic Services shall include the routine services required to attain LEED certification at the specified level of Gold, including but not limited to:



- Project registration with USGBC-LEED.
- Conduct a LEED coordination meeting at the onset of design with all team stakeholders, and prepare a preliminary LEED scorecard for review.
- Conduct analysis and evaluation at each project design phase to determine, in conjunction with the Owner, the appropriate sustainable design elements to be incorporated into the project design documents, including but not limited to:
  - Site work design, open space, water quality, heat island effect, light pollution reduction, and parking capacity;
  - Reduction in water consumption, low flow fixtures;
  - Reduction in energy consumption, Energy Modeling, life cycle review of alternate mechanical systems, HVAC Commissioning, refrigerant management, and credit for County purchased green power;
  - Re-use of existing building elements, construction waste management, recycled content materials, regionally manufactured materials, rapidly renewable materials, and certified wood; and
  - Outside air, construction IAQ management, low-emitting materials, indoor chemical and pollutant source control, lighting systems controls, thermal comfort, and day lighting and views.
- Update the LEED scorecard at the DD and 100% CD phase and submit to the Owner for review as part of the design phase submittal.
- Compile all required documentation on evaluation and analysis as required by LEED for formal certification.
- Review Contractor submittals to assure conformance with LEED requirements and contract documents, and verify Contractor's compilation of LEED required documentation on at least a monthly basis.
- Compile all required project documentation, including compilation of Contractor provided documentation, and submit the LEED certification application to USGBC. The Architect shall provide a copy of the LEED submittal package to the Owner.
- At the end of the one-year warranty period, review the actual water and energy consumption for the first year of the building use against the energy and water consumption projections/models, and provide a report to the Owner on the validation of the energy and water consumption models.

2.13.3 Specialized services that may be considered for additional service approval under the Not-to-Exceed Contract item for Sustainable Design/LEED include examples such as the following:

- Gray water re-use systems
- Geothermal mechanical systems and other on-site renewable energy systems (including passive solar)
- Active solar and photovoltaic systems
- Advanced lighting control systems such as integration of lighting systems with natural daylight levels.
- Evaluation and proposal for strategies to achieve Net Zero Energy design
- A minimum 50% energy performance improvement over current ASHRAE baseline.

## 2.14 NOT-TO-EXCEED CONTRACT ITEMS

2.14.1 The following is a list of tasks that are included as not-to-exceed (NTE) contract items. The Architect will be reimbursed for the actual costs for each of these tasks up to the NTE limit. No reimbursement will be made beyond the NTE amount without advance authorization from the Owner. The Architect must justify any increase in the NTE amounts based on a change in the scope of the work for the task:

- Survey
  - A. Topographic and Boundary Survey
  - B. B. Utility Designation Survey
  - C. C. Utility Test Pits
- Geotechnical Investigation/Report
- ~~Equipment Layout, Specifications and Commissioning~~
- Value Engineering (see Section 2.5)
- HVAC Commissioning and HVAC Peer Review (see Attachments B and C)
- LDS Special Inspections and Testing
- Sustainable Development/LEED Specialized Design Services (see Section 2.13)
- Net Zero Energy Design Strategies
- Building Envelope Peer Review, Commissioning and Testing
- Stormwater Enhancement Feasibility Study
- Zoning Approvals
- Temporary Facility Design

2.14.2 A Not-to-Exceed Item- Topographic and Boundary Survey- If required, the Architect shall prepare a topographic and boundary survey for this project after the Architect has reviewed existing plans and/or as-builts. All information on the survey shall be referenced to a project benchmark.

2.14.2 .B Not-to-Exceed Item- Utility Designation Survey - The Architect shall have a utility designation survey completed after the Architect has performed the topographic survey to set a benchmark. The subsurface utility engineering firm must be approved by the Owner. This utility designation survey information shall be verified before bidding if the time between the first utility designation and bidding exceeds 24 months.

2.14.2 .C Not-to-Exceed Item- Utility Test Pits – The Architect shall obtain tests pits of existing utilities at locations determined by the Architect and Owner. The subsurface utility engineering firm must be approved by the Owner.

2.14.3 Not-to-Exceed Item- Geotechnical Investigation/Report- The Architect shall provide to the Owner, a Geotechnical Investigation and Report. Selected Geotechnical firm must be acceptable to the Owner. The Architect shall submit the Geotechnical Report to LDS for review and approval, as required.

2.14.4 Not-to-Exceed Item- LDS Special Inspections and Testing- The Architect shall provide to



the Owner, a recommendation of three firms capable of performing the work required for Special Inspections. The Architect shall obtain a technical proposal and fee proposal from the three firms to the Owner.

~~2.14.5 Not-to-Exceed Item- The Architect shall prepare layout plans and specifications for equipment for the new addition. The Architect shall also provide commissioning to ensure optimum performance of the selected equipment.~~

2.14.6 Not-to-Exceed Item- Envelope Peer Review, Commissioning and Testing Services - The Architect shall engage a firm experienced in envelope commissioning to review the plans and specifications and provide comments and revisions at DD, 50% and 100% CD stages and provide site observations of the building envelope installation during construction. (see Attachment I).

2.14.7 Not-to-Exceed Item- Stormwater Enhancements Feasibility Study - The Architect shall provide stormwater enhancement feasibility study to assist the owner determining additional stormwater enhancement options above the minimum code requirement.

### **ARTICLE 3**

#### **ADDITIONAL SERVICES**

#### **3.1 GENERAL**

3.1.1 The services described in this Article 3 are not included in Basic Services unless so identified in Article 2, and they shall be paid for by the Owner as provided in this Agreement, in addition to the compensation for Basic Services. The services described under Sections 3.3 and 3.4 shall only be provided if authorized or confirmed in writing by the Owner prior to performing the services. If services described under Contingent Additional Services in Section 3.3 are required due to circumstances beyond the Architect's control, the Architect shall notify the Owner prior to commencing such services. If the Owner deems that such services described under Section 3.3 are not required, the Owner shall give prompt written notice to the Architect. If the Owner indicates in writing that all or part of such Contingent Additional Services are not required, the Architect shall have no obligation to provide those services.

3.1.2 The Architect shall provide project related additional services when requested, and authorized in writing by the Owner prior to commencing the additional services, including those described in Sections 3.2, 3.3, and 3.4. Additional services shall be paid for by the Owner as hereinbefore provided unless such services are already included in the Architect's Scope of Basic Services, or the scope of Not to Exceed Services.

3.1.3 The Architect will provide basic services throughout the duration of the construction period. If the duration exceeds that agreed to in this contract, the Architect will be compensated only for the increase in level of services required by the extension for that period of the time extension not due to any fault of the Architect. Such increase in services will be specifically tied to the scope of services and the Architect's final accepted proposal, and they must be requested in writing from the Owner in advance. The Owner must be notified prior to incurring any the additional services. The Owner need not compensate the Architect if such notification is not given.

### **3.2 PROJECT REPRESENTATION BEYOND BASIC SERVICES**

- 3.2.1 If more extensive representation at the site than is described in Article 2 is required, the Architect shall provide one or more Project Representatives to assist in carrying out such additional on-site responsibilities.
- 3.2.2 Project Representatives shall be employed, and directed by the Architect, and the Architect shall be compensated therefore as agreed by the Owner and Architect. The duties, responsibilities, and limitations of authority of Project Representatives shall be as agreed and appended to this document.
- 3.2.3 Through the observations by such Project Representatives, the Architect shall endeavor to provide further protection for the Owner against defects and deficiencies in the Work, but the furnishing of such project representation shall not modify the rights, responsibilities, or obligations of the Architect as described elsewhere in this Agreement.

### **3.3 CONTINGENT ADDITIONAL SERVICES**

- 3.3.1 Making revisions in Drawings, Specifications, or other documents when such revisions are:
  - 1. inconsistent with approvals or instructions previously given by the Owner, including revisions made necessary by adjustments in the Owner's program or Project budget;
  - 2. required by the enactment or revision of codes, laws, or regulations subsequent to the preparation of such documents; or
  - 3. due to changes required as a result of the Owner's failure to render decisions in a timely manner.
- 3.3.2 Providing services required because of significant changes in the Project including, but not limited to, size, quality, complexity, the Owner's schedule, or the method of bidding or negotiating and contracting for construction, except for services required under Section 5.2.5.
- 3.3.3 Preparing Drawings, Specifications, and other documentation and supporting data, evaluating Contractor's proposals, and providing other services in connection with Change Orders and Construction Change Directives except as required by Section 2.8. All change orders shall be reviewed by the Owner and the Architect for determination of the responsibility of the Architect or his consultants for costs incurred by the Owner due to design errors, omissions, or a failure of performance. Recovery of such costs will be as determined by the Owner. The fee due the Architect for any change order not the result of errors, omissions, or a failure of performance or covered under Article 2 will be compensated under Article 11, Section 11.2 or as mutually agreed upon. Section 3.3.3 shall not apply to services, drawings or clarifications necessary to correct any error, omission, conflict or ambiguity in the Architect's work.
- 3.3.4 Providing consultation concerning replacement of Work damaged by fire or other cause during construction, and furnishing services required in connection with the replacement of such Work.



- 3.3.5 Providing services made necessary by the default of the Contractor, by major defects, or deficiencies in the Work of the Contractor, or by failure of performance of either the Owner or Contractor under the Contract for Construction.
- 3.3.6 Providing services in evaluating an extensive number of claims submitted by the Contractor or others in connection with the Work.
- 3.3.7 Providing services in connection with a public hearing, or legal proceeding except where the Architect is party thereto.
- 3.3.8 Providing documents for separate or sequential bids or providing services in connection with bidding, negotiation or construction prior to the completion of the construction Documents Phase, unless such methods were contemplated as part of the agreed scope of services.

#### **3.4 OPTIONAL ADDITIONAL SERVICES**

- 3.4.1 Providing analyses of the Owner's needs and programming the requirements of the Project, except as required by Article 2.
- 3.4.2 Providing financial feasibility or other special studies, except as otherwise provided for in Article 2.
- 3.4.3 Providing planning surveys, site evaluations, or comparative studies of prospective sites, except as required by Article 2.
- 3.4.4 Providing special surveys, environmental studies, and submissions required for approvals of governmental authorities or others having jurisdiction over the Project.
- 3.4.5 Providing services relative to future facilities, systems, and equipment.
- 3.4.6 Providing services to investigate existing conditions or facilities or to make measured drawings thereof, except as required by Article 2.
- 3.4.7 Providing services to verify the accuracy of drawings or other information furnished by the Owner.
- 3.4.8 Providing coordination of construction performed by separate contractors or by the Owner's own forces and coordination of services required in connection with construction performed and equipment supplied by the Owner.
- 3.4.9 Providing services in connection with the work of a construction manager, or separate consultants retained by the Owner.
- 3.4.10 Providing analyses of owning and operating costs, except as required by Article 2.
- 3.4.11 Providing interior design and other similar services required for or in connection with the selection, procurement or installation of furniture, furnishings, and related equipment, except as required by Article 2.

- 3.4.12 Providing services for planning tenant or rental spaces, except as required by Article 2.
- 3.4.13 Making investigations, inventories of materials, equipment, or valuations and detailed appraisals of existing facilities, except as required by Article 2.
- 3.4.14 Preparing a set of reproducible record drawings showing significant changes in the Work made during construction based on marked-up prints, drawings, and other data furnished by the Contractor to the Architect, except as required by Article 2.
- 3.4.15 Providing assistance in the utilization of equipment or systems such as testing, adjusting, and balancing, preparation of operation and maintenance manuals, training personnel for operation and maintenance, and consultation during operation, except as required by Article 2.
- 3.4.16 Providing services after issuance to the Owner of the final Certificate for Payment, or in the absence of a final Certificate for Payment, more than 60 days after the date of Substantial Completion of the Work, except as required by Article 2.
- 3.4.17 Providing services of consultants for other than architectural, structural, mechanical, and electrical engineering and other consultant service portions of the Project provided as a part of Basic Services and Article 2.
- 3.4.18 Providing any other services not otherwise included in this Agreement or not customarily furnished in accordance with generally accepted architectural practice.

#### **ARTICLE 4**

#### **OWNER'S RESPONSIBILITIES**

- 4.1 The Owner shall provide full information regarding requirements for the Project, including a program, which shall set forth the Owner's objectives, schedule, constraints, and criteria, including information required to develop space requirements and relationships, flexibility, expandability, special equipment, systems, and site requirements.
- 4.2 The Owner shall establish and update an overall budget for the Project, including the Construction Cost, the Owner's other costs and reasonable contingencies related to all of these costs.
- 4.3 The Owner shall designate a representative authorized to act on the Owner's behalf with respect to the Project. The Owner or such authorized representative shall render decisions in a timely manner pertaining to documents submitted by the Architect in order to avoid unreasonable delay in the orderly and sequential progress of the Architect's services.
- 4.4 The Owner shall furnish available existing surveys describing physical characteristics, legal limitations, and utility location for the site of the Project, unless otherwise provided for under Article 2 and a written legal description of the site. The surveys and legal information shall may include, as applicable, grades, and lines of streets, alleys, pavements and adjoining property and structure; adjacent drainage; rights-of-way, restrictions, easements, encroachments, zoning, deed restrictions, boundaries, and



contours of the site; locations, dimensions, and necessary data pertaining 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, ~~unless otherwise provided for under Article 2. All the information on the survey shall be referenced to a project benchmark.~~

4.5 The Owner shall furnish the services of geotechnical engineers when such services are requested by the Architect unless otherwise provided for under Article 2. Such services may include but are not limited to test borings, test pits, determinations of soil bearing values, percolation tests, evaluations of hazardous materials, ground corrosion and resistivity tests, including necessary operations for anticipating subsoil conditions, with reports and appropriate professional recommendations.

4.6 The Owner shall furnish structural, mechanical, chemical, air and water pollution tests, tests for hazardous materials, and other laboratory and environmental tests, inspections and reports required by law or the Contract Documents, unless otherwise provided for under Article 2.

Such action by the Owner does not relieve the Architect of any responsibilities under the terms of this contract.

4.7 The Owner shall furnish all legal, accounting and insurance counseling services as may be necessary at any time for the Project, including auditing services the Owner may require to verify the Contractor's Applications for Payment or to ascertain how or for what purposes the Contractor has used the money paid by or on behalf of the Owner.

4.8 The service, information, surveys and reports required by Sections 4.5 through 4.8 shall be furnished at the Owner's expense unless otherwise provided for under Article 2, and the Architect shall be entitled to rely upon the accuracy and completeness thereof. Such action by the Owner does not relieve the Architect of any responsibilities under the terms of this contract.

4.9 Prompt written notice shall be given by the Owner to the Architect if the Owner becomes aware of any fault or defect in the Project or nonconformance with the Contract Documents.

4.10 The proposed language of certificates or certifications requested of the Architect or Architect's consultants shall be submitted to the Architect for review and approval in accordance with the Project Schedule and with the Fairfax County Construction Contract-General Conditions and Section 1000.

## **ARTICLE 5**

### **CONSTRUCTION COST**

#### **5.1 DEFINITION**

5.1.1 The construction Cost shall be the total cost or estimated cost to the Owner of all elements of the Project designed or specified by the Architect, based on the agreed upon Project Schedule. The cost estimate shall clearly identify the cost of the new building scope or work and building renovation scope of work.

- 5.1.2 The Construction Cost shall include the cost of labor and materials furnished by the Owner and equipment designed, specified, selected, or specially provided for by the Architect, plus a reasonable allowance for the Contractor's overhead and profit.
- 5.1.3 Construction Cost does not include the compensation of the Architect and Architect's consultants, the costs of the land rights-of-way, financing or other costs which are the responsibility of the Owner as provided in Article 4.

## **5.2 RESPONSIBILITY FOR CONSTRUCTION COST**

- 5.2.1 Evaluations of the Owner's Project budget, preliminary estimates of Construction Cost and detailed estimates of Construction Cost, if any, prepared by the Architect, represent the Architect's best judgment as a design professional familiar with the construction industry. It is recognized, however, that neither the Architect nor the Owner has control over the cost of labor, materials or equipment, over the Contractor's methods of determining bid prices, or over 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 Project budget or from any estimate of Construction Cost or evaluation prepared or agreed to by the Architect.
- 5.2.2 A Fixed Construction Cost is established in Section 2.1, and 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, with the Owner's approval, to make reasonable adjustments in the scope of the Project and to include in the Contract Documents alternate bids to adjust the Construction Cost to the Fixed Construction Cost limit. Fixed limits shall be increased in the amount of an increase in the Contract Sum occurring after execution of the Contract for Construction.
- 5.2.3 If the Bidding or Negotiation Phase has not commenced within six months after the Architect submits the Construction Documents to the Owner, any Project budget or Fixed Construction Cost shall be adjusted to reflect changes in the general level of prices in the construction industry between the date of submission of the Construction Documents to the Owner and the date on which proposals are sought.
- 5.2.4 If a limit of Fixed Construction Cost (adjusted as provided in Section 5.2.3) is exceeded by the lowest bona fide bid or negotiated proposal, the Owner shall:
1. Give written approval of an increase in such Fixed Construction Cost limit.
  2. Authorize rebidding or renegotiating of the Project within a reasonable time.
  3. If the Project is abandoned, terminate in accordance with Paragraph 8.3; or
  4. Cooperate in revising the Project scope and quality as required to reduce the Construction Cost, subject to Section 2.7.
- 5.2.5 If the Owner chooses to proceed under Section 5.2.4, the Architect, without additional charge, shall modify the Contract Documents as necessary to comply with the Fixed Construction Cost if established as a condition of this Agreement. The modification of Contract Documents shall be the limit of the Architect's responsibility arising out of the establishment of a Fixed Construction Cost.



## **ARTICLE 6**

### **USE OF ARCHITECT'S DRAWINGS, SPECIFICATIONS AND OTHER DOCUMENTS**

- 6.1 The Drawings, Specifications, and other documents prepared by the Architect for this Project are instruments of the Architect's service for use solely with respect to this Project and, unless otherwise provided, the Architect shall be deemed the author of these documents and shall retain all common law, statutory and other reserved rights, including the copyright. The Owner shall be permitted to retain copies, including reproducible copies, of the Architect's Drawings, Specifications and other documents for information and reference in connection with the Owner's use and occupancy of the Project. The Architect's Drawings, Specifications or other documents shall not be used by the Owner or others on other projects, except by agreement in writing and with appropriate compensation to the Architect. The Owner shall retain ownership of the documents (hard copy and electronic version) and shall have the right to modify the documents for maintenance, modifications, and/or renovations at the project. Such modifications shall be carried out at the Owner's own risk. This provision shall also be applicable to any sub-consultant who performs work on the project.
- 6.2 Submission or distribution of documents to meet official regulatory requirements or for similar purposes in connection with the Project is not to be construed as publication in derogation of the Architect's reserved rights.

## **ARTICLE 7**

### **CONTRACT DISPUTES**

- 7.1 Any dispute concerning a question of fact as a result of a contract with the County which is not disposed of by agreement shall be decided by the Director, Department of Public Works and Environmental Services, or designee, who shall reduce his decision to writing and mail or otherwise forward a copy thereof to the Architect within thirty (30) days of receipt of the claim or dispute or other matter. The decision of the Director, Department of Public Works and Environmental Services, or designee, shall be final and conclusive unless the Architect files a claim with the Fairfax County Board of Supervisors pursuant to Virginia law. Following the decision of the Board on the claim, the Architect may institute legal action in the Circuit Court of Fairfax County. The Architect may not institute legal action, prior to receipt of the public body's decision on the claim, unless the public body fails to render such decision within the time specified. Contractual claims, whether for money or other relief, shall be submitted in writing no later than sixty days after final payment; however, written notice of the Architect's intention to file such claim shall have been given at the time of the occurrence or beginning of the work upon which the claim is based and such notice is a condition precedent to any recovery on the claim or any recovery in a subsequent action based on the claim. Nothing herein shall preclude a contract from requiring submission of an invoice for final payment within a certain time after completion and acceptance of the work or acceptance of the goods. Pendency of claims shall not delay payment of amounts agreed due in the final payment.
- 7.2 The Architect shall contact the Building Design and Construction Division, Department of Public Works and Environmental Services for all design and coordination matters. The Architect shall contact the Building Design and Construction Division, Department

of Public Works and Environmental Services for coordination of construction contract matters.

## **ARTICLE 8**

### **TERMINATION, SUSPENSION, OR ABANDONMENT**

#### **8.1 TERMINATION FOR DEFAULT**

8.1.1 The owner, without prejudice to any other rights or remedy it may have, may by seven (7) days notice to the Architect, terminate the employment of the Architect and its right to proceed as to the entire Work or as to any portion thereof, and the Owner may take possession of the Work and complete the Work by contract or otherwise as the Owner may deem expedient if, in the opinion of the owner:

1. The insolvency, bankruptcy or financial condition of the Architect will hinder or impede the Architect's fulfillment of all contractual obligations, including completion within the Contract time; and/or
2. The Architect shall refuse to staff the Work with the proper number of design professionals or support staff; and/or
3. The Architect shall refuse or fail to prosecute the Work or any part thereof with such diligence will insure its completion within the time frame allowed by the project schedule, or shall fail to complete the Work within said period; and/or
4. The Architect shall fail to make prompt payment to its sub-consultants; and/or
5. The Architect shall fail or refuse to regard laws, permits, ordinances, resolutions or the instructions of the Owner, or otherwise be in material breach of this Contract; and/or
6. The Architect shall be in violation of any material provision of this agreement.

Such notice of termination shall be issued after notification to the Architect that termination is being considered and the specific reasons for such termination, and after affording the Architect a reasonable time to correct such reasons that are cited. Upon such termination, all finished or unfinished documents, data, studies, surveys, drawings, maps, models and reports prepared by the Architect under this contract shall, at the option of Owner, become its property for its use as it requires and shall be delivered to Owner upon request.

8.1.2 If the Owner so terminates the employment of the Architect, the Architect shall not be entitled to receive any further payment until the Work is finished. If the unpaid balance of the compensation to the Architect hereunder shall exceed the expense of completing the Architect's Basic Services, such excess shall be paid to the Architect. If such expenses exceed the unpaid balance, the Architect shall be liable to the Owner for the additional expenses.

#### **8.2 TERMINATION FOR CONVENIENCE**



- 8.2.1 The performance of Work under this Contract may be terminated by the Owner in whole or in part whenever the Owner shall determine that such termination is in its best interest. Any such termination shall be effected by delivery to the Architect of a Notice of Termination specifying the extent to which performance of the Work under the Contract is terminated, and the date upon which such termination becomes effective. After receipt of a Notice of Termination, the Architect shall submit to the Owner its termination claim in a prompt manner, but in no event later than three (3) months from the effective date of termination or it shall be deemed waived. The Architect's sole and exclusive remedy upon termination under this Section 8.2.1 shall be to receive payment of: (a) the pro rata share of the total fee earned to the date of termination; and (b) any bona fide expense of terminating the agreement of any consultant; and (c) any out-of-pocket expenses or other costs necessary to close out this contract, provided that such costs are approved in advance in writing by Owner. In no event shall the Architect be entitled to lost profits or consequential damages. In the event that a termination under Article 8.1.1 is found to have been improper, such termination shall automatically be converted to a termination for convenience as Architect's sole and exclusive remedy.
- 8.2.2 If the Project is suspended by the Owner for more than thirty (30) consecutive days, the Architect shall be compensated for services performed prior to notice of such suspension. When the Project is resumed, the Architect's compensation shall be equitably adjusted to provide for expenses incurred in the interruption and resumption of the Architect's services, provided the Architect demonstrates that the suspension caused the expenses. However, other than the expenses noted above, no additional costs will be allowed because of the suspension unless such suspension causes the duration of services to exceed the duration specified in Section 11.4 in which case the provisions of that paragraph will apply.

## **ARTICLE 9**

### **MISCELLANEOUS PROVISIONS**

- 9.1 This Agreement shall be governed by the law of the Commonwealth of Virginia.
- 9.2 Terms in the Agreement shall have the same meaning as that in Fairfax County Construction Contract Section A through D.
- 9.3 Causes of action between the parties to this Agreement pertaining to acts or failure to act shall be deemed to have accrued and the applicable statutes of limitations shall commence to run not later than either the date first year anniversary of Substantial Completion for acts or failure to act occurring prior to Substantial Completion, or the date of issuance of the final Certificate for Payment for acts or failure to act occurring after Substantial Completion.
- 9.4 The Owner and Architect, respectively, bind themselves, their partners, successors, assigns, and legal representatives to the other party to this Agreement and to the partners, successors, assigns and legal representatives of such other party with respect to all covenants of this Agreement. Neither Owner nor Architect shall assign this Agreement without the written consent of the other.
- 9.5 The Agreement represents the entire and integrated agreement between the Owner and 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 Owner and Architect.

- 9.6 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.
- 9.7 The Architect and Architect's consultants shall have no responsibility for the discovery, presence, handling, removal or disposal of or exposure of persons to hazardous materials in any form at the Project site, including but not limited to asbestos, asbestos products, polychlorinated biphenyl (PCB), mercury, or other toxic substances.

In the event that asbestos or other hazardous materials are encountered on the Project, the Architect shall report to the Owner the location of such materials to the extent the Architect has knowledge of such locations. Further, the Architect shall cooperate fully and coordinate its work with any consultant or specialist engaged by the Owner to deal with asbestos or other hazardous materials.

- 9.8 The Architect shall have the right to include representations of the design of the Project, including photographs of the exterior and interior, among the Architect's promotional and professional materials. The Architect's materials shall not include the Owner's confidential or proprietary information if the Owner has previously advised the Architect in writing of the specific information considered by the Owner to be confidential or proprietary.

## **ARTICLE 10**

### **PAYMENTS TO THE ARCHITECT**

#### **10.1 DIRECT PERSONNEL EXPENSE**

- 10.1.1 Direct Personnel Expense is defined as the prevailing direct salaries of the Architect's personnel engaged on the Project and the portion of the cost of their mandatory and customary contributions and benefits related thereto, such as employment taxes and other statutory employee benefits, insurance, sick leave, holidays, vacations, pensions and similar contributions and benefits.

#### **10.2 REIMBURSABLE EXPENSES**

- 10.2.1 All reimbursable expenses are to be included in the basic fee, except as noted as separate Not-to-Exceed items identified in the final accepted fee proposal and listed in Sections 2.14 and 11.1. Supporting data including receipts, invoices, logs, etc., shall be provided for all reimbursable expenses. The Architect shall bear all costs required to furnish copies of the supporting data requested by the Owner.

#### **10.3 PAYMENTS ON ACCOUNT OF BASIC SERVICES**

- 10.3.1 Payments for Basic Services shall be made monthly and, where applicable, shall be in proportion to services performed within each phase of service, on the basis set forth in Section 11.1.2.



- 10.3.2 When compensation is based on a percentage of Construction Cost and any portions of the Project are deleted or otherwise not constructed, compensation for those portions of the Project shall be payable to the extent services are performed on those portions, in accordance with the schedule set forth in Section 11.1, based on (1) the lowest bona fide bid or negotiated proposal, or (2) if no such bid or proposal is received, the most recent preliminary estimate of Construction Cost or detailed estimate of Construction Cost for such portions of the Project.

#### **10.4 PAYMENTS ON ACCOUNT OF ADDITIONAL SERVICES**

- 10.4.1 Payments on account of the Architect's Additional Services and for Reimbursable Expenses shall be made monthly upon presentation of the Architect's statement of services rendered or expenses incurred.

#### **10.5 PAYMENT WITHHELD**

- 10.5.1 No deductions shall be made from the Architect's compensation on account of penalty, liquidated damages, or other sums withheld from payments to contractors, or on account of the cost of changes in the Work other than those for which the Architect has been found to be responsible. The Owner may withhold those amounts which are due for design work included in Article 2 which is determined by the Owner to be defective.

#### **10.6 ARCHITECT'S ACCOUNTING RECORDS**

- 10.6.1 Records of Reimbursable Expenses and expenses pertaining to Additional Services and services performed based on a multiple of Direct Personnel Expense shall be available to the Owner or the Owner's authorized representative at mutually convenient times. The Architect shall maintain books, records and accounts of all costs pertaining to this contract in accordance with generally accepted accounting principles and practice which shall be open to the Owner's official auditing agency or its agent, at a mutually agreeable time, for the purpose of conducting in-progress and final cost audits. Post audits shall normally be completed within 90 days of completion of service under this contract. However, such records shall be available to the Owner for 36 months after completion of services. The Architect's accounting records shall be kept in accordance with generally accepted accounting principles and standards.

### **ARTICLE 11** **BASIS OF COMPENSATION**

The Owner shall compensate the Architect as follows:

#### **11.1 BASIC COMPENSATION**

- 11.1.1 FOR BASIC SERVICES, as described in Article 2, and any other services included in Article 12 as part of Basic Services, Basic Compensation shall be computed as follows: *(Insert basis of compensation, including stipulated sums, multiples, or percentages, and identify phases to which particular methods of compensation apply, if necessary).*

The following, based on the accepted fee proposal of the Architect dated October 27, 2021, shall be used for calculating the Architect's fee:

MMB

The total contract amount is \$2,210,000. This amount includes a fixed fee of \$1,577,346 for basic services (subject to the terms of 11.1.2) and services based on not-to-exceed amounts for:

**Topographic & Boundary Survey (\$19,995.60);**  
**Geotechnical (\$17,254.84);**  
**Value engineering (\$49,036.03);**  
**HVAC Commissioning & Peer Review (\$45,436.95);**  
**HVAC Enhanced Commissioning Path 1 (\$11,000.21)**  
**Special Inspections & Testing (\$50,000.00)**  
**Sustainable Development/LEED Specialized Design (\$56,207.55);**  
**Building Commissioning & Testing (\$28,633.00);**  
**HVAC Peer Review (\$6,903.00),**  
**Utility Designation & Test Pits (\$15,070.00);**  
**Stormwater Enhancement Feasibility Study (\$8,593.93);**  
**Zoning Approvals (\$50,000.00);**  
**Temporary Facility Design (\$40,000);**  
**Net Zero Design Strategies (\$50,000)**  
**Reimbursable (\$26,296.30);**

and Article 3.3 Services (\$158,226.47). The not-to-exceed work must be authorized by the Owner prior to commencement.

11.1.2 Where compensation is based on a stipulated sum or percentage of Construction Cost, progress payments for Basic Services in each phase shall total the following percentages of the total Basic Compensation payable: \*\*

*(Insert additional phases as appropriate).*

**\*\* Or as otherwise agreed upon based on fee breakdown reflected in the Basic Services Fee Proposal.**

Schematic Design Phase:	percent ( 15 %)
Design Development Phase:	percent ( 20 %)
Construction Documents Phase:	percent ( 43 %)
Bidding or Negotiation Phase:	percent ( 2 %)
Construction Phase: (Includes Post Construction Phase)	percent ( 20 %) See Section 2.8 and 2.9

Total Basic Compensation: All basic services shall be performed to meet the project schedule agreed to between the Architect and the Owner (Attachment G). The Architect acknowledges and agrees that time is of the essence for the performance of this contract. Any indulgence by the Owner in allowing the Architect additional time to perform shall not constitute a waiver of the schedule or alter the fact that time is of the essence.

The Architect will be compensated during the Construction Phase by monthly draws based on either: 1) percentage of completed construction or 2) equal monthly payments based on the construction duration of the contract for construction. The Architect shall select such method prior to the first draw for construction administration services and such method will remain in force for the entire duration of the Construction Phase.



## **11.2 COMPENSATION FOR ADDITIONAL SERVICES**

- 11.2.1 FOR PROJECT REPRESENTATION BEYOND BASIC SERVICES, as described in Section 2.8, compensation shall be computed as follows: See Sections 3.1 and 3.2
- 11.2.2 FOR ADDITIONAL SERVICES OF THE ARCHITECT, as described in Articles 3; other than (1) Additional Project Representation, as described in Paragraph 3.2, and (2) services included in Article 2 as part of Basic Services, but excluding services of consultants, compensation shall be computed as follows:  
*(Insert basis of compensation including rates and/or multiples of Direct Personnel Expense for Principals and employees and identify principals and classify employees, if required. Identify specific services to which particular methods of compensation apply, if necessary).*

**See Attachment F – Consultant Hourly Wage Rate Schedule**

**Hourly rates include all direct personnel expenses, markups, and profits. No other factors are applicable. Hourly rates for technical personnel not included in this list shall be mutually agreed upon prior to commencing the additional services.**

If the duration of the rates specified in Attachment F is exceeded, the rates applicable to additional services beyond the time frame of Attachment G will be negotiated at the time of the request for additional services. These rates will be the lesser of the rates that the Architect certifies are currently being paid, and the increase for inflation of the last rates contained in Attachment F by 4.3% per year. \*

- 11.2.3 FOR ADDITIONAL SERVICES OF CONSULTANTS, including additional structural, mechanical, and electrical engineering and other sub-consultant services, a multiplier of **(1.1)** times the amounts billed to the Architect for such services shall be allowed for Architect management and coordination of the Consultant Additional Services.

## **11.3 REIMBURSABLE EXPENSES**

- 11.3.1 FOR REIMBURSABLE EXPENSES, as described in Section 10.2, and any other items included as Reimbursable Expenses, no multiplier or mark-up is allowed.

## **11.4 ADDITIONAL PROVISIONS**

- 11.4.1 If, through no fault of the Architect, completion of the Basic Services of the contract has been significantly delayed (or extended by amendment) beyond twelve (12) months from the date of this contract, the Architect may request adjustments in the direct wage rates used to compensate the Architect for those Basic Services which have been delayed past the specified duration, provided that the Architect provides evidence that rates originally negotiated have, in fact, been exceeded and were actually paid. The Architect is obligated to perform all Basic Services contracted in the original General Scope of Services and the design contract regardless of the time stipulated. Additional

resources expended in performing these basic services will only be compensated if they are fully justified, are based on quantifiable elements of the accepted proposal in the original Scope of Services, and are authorized in advance as an additional service or contract amendment. Adjusted rates will be the lesser of the rates that the Architect certifies are currently being paid, and the increase for inflation of the last rates contained in Attachment F by 4.3% per year,\* subject to Owner approval.

- \* Wage rate escalation shall be based upon the Bureau of Labor Statistics, Compensation and wages and salaries; Employment Cost Index for private industry workers, wages and salaries for the Washington-Baltimore-Northern Virginia Region. Table 13 Compensation and Wages and Salaries (Not Seasonally Adjusted): Employment Cost Index for total compensation, and wages and salaries, for private industry workers, by area.  
([www.bls.gov/news.release/eci.toc.htm](http://www.bls.gov/news.release/eci.toc.htm))

## **ARTICLE 12**

### **OTHER CONDITIONS FOR SERVICES**

- 12.1 The Architect shall recommend to the Owner all required consultants. In consultation with the Architect, the Owner shall make a final determination of the personnel and consultants to provide the required services.
- 12.2 Truth-in-Negotiation Certificate: At the time of execution of this Agreement, the Architect is required to simultaneously execute a Truth-in-Negotiation Certificate stating that wage rates and other factual unit costs supporting the compensation of this Agreement are accurate, complete and current at the time of contracting. The original contract price and any additions thereto shall be adjusted to exclude any significant sums by which the County determines the contract price was increased due to inaccurate, incomplete, or non-current wage rates and other factual unit costs. All such contract adjustments shall be made within one (1) year following the end of this Agreement.

All formal and informal bids shall include the following provisions:

1. The Architect shall certify, upon signing a bid or proposal, that to the best of his or her knowledge no Fairfax County official or employee having official responsibility for the procurement transaction, or member of his or her immediate family, has received or will receive any financial benefit of more than nominal or minimal value relating to the award of this contract. If such a benefit has been received or will be received, this fact shall be disclosed with the bid or proposal or as soon thereafter as it appears that such a benefit will be received. Failure to disclose the information prescribed above may result in suspension or debarment, or rescission of the contract made, or could affect payment pursuant to the terms of the contract.
2. Whenever there is reason to believe that a financial benefit of the sort described in the preceding paragraph has been or will be received in connection with a bid, proposal or contract, and that the contractor has failed to disclose such benefit or has inadequately disclosed it, the County Executive, as a prerequisite to payment



pursuant to the contract, or at any other time, may require the contractor to furnish, under oath, answers to any interrogatories related to such possible benefit.

- 12.3 The approval of the Owner to release the completed drawings and Project Manual (specifications) for bidding does not release the Architect from his responsibilities under the terms of this agreement.
- 12.4 The Architect is not permitted to specify allowances in the Construction Contract unless authorized otherwise by the County's Building Design and Construction Division.
- 12.5 The Architect is to advise the Owner of any equipment which, to the best of his knowledge, due to production and delivery delays, may impact the program schedule.
- 12.6 The Architect is to specify only electrical components approved by Underwriters' Laboratories (or other testing agencies recognized by the Statewide Building Code) including electrical, mechanical and kitchen equipment.
- 12.7 The Architect shall not be responsible for the preparation of Environmental Impact Statements, project budgeting or economic feasibility studies unless required herein.
- 12.8 The Architect shall not be responsible for construction means, methods, techniques, sequences, or procedures, or for safety precautions and programs in connection with this work, and he shall not be responsible for the Contractor's failure to carry out the work in accordance with the Contract Documents nor shall his observations be construed as a guarantee of the Contractor's work.
- 12.9 Under Section 2.8, in the event of direct conflict, this contract shall take precedence over and be controlling as to the correlative provisions of the Fairfax County Construction Contract-Sections A through E, current as of the date of this Agreement. The Architect certifies that it has reviewed the Fairfax County Construction Contract- Sections A through E current as of the date of this Agreement and that its fee for Basic Services reflects any and all requirements of the Architect set forth in the County Construction Contract Sections A through E.
- 12.10 The Architect shall comply with Chapter 11 of the Code of the County of Fairfax, Virginia, through the term of this contract.

Furthermore, during the performance of this contract, the Architect agrees as follows:

- a. The Architect will not discriminate against any employee or applicant for employment because of race, religion, color, sex or national origin, except where religion, sex or national origin is a bona fide occupational qualification reasonably necessary to the normal operation of the Architect. The Architect agrees to post in conspicuous places, available to employees and applicants for employment, notices setting forth the provisions of this non-discrimination clause.

- b. The Architect, in all solicitations or advertisements for employees placed by or on behalf of the Architect, will state that such Architect is an equal opportunity employer.
- c. Notices, advertisements and solicitations placed in accordance with federal law, rule or regulation shall be deemed sufficient for the purpose of meeting the requirements of this section.

The Architect will include the provisions of the foregoing paragraphs a, b and c in every subcontract or purchase order of over \$10,000, so that the provisions will be binding upon each subcontractor or vendor.

12.11 The Architect, registered land surveyor, professional engineer, or consultant (as applicable) warrants that he has not employed any company or person other than a bona fide employee working for the Architect, land surveyor, professional engineer or consultant to solicit or secure this agreement and that he has not paid or agreed to pay any person, company or corporation, individual or firm, other than a bona fide employee working solely for the Architect, registered land surveyor, professional engineer or consultant any favor, commission, percentage, gift or any other compensation contingent upon or resulting from the award or making of this or any other agreement. In event of breach or violation of this provision, the County shall have the right to terminate this or any other agreement with this firm or individual without liability, and at its discretion, to deduct from the contract price, or otherwise recover, the full amount of such fee, commission, percentage, gift or consideration.

12.12 The Architect is required to be in compliance with the Virginia Public Procurement Act, Sections 2.2-4367 through 2.2-4377.

12.13 Insurance Requirements:

- a. The Architectural/Engineering (A/E) service firm shall be responsible for its professional services.

The A/E firm assumes all risk of damage or injury to its property or persons employed by the firm or in connection with the work contracted for, and of all damage or injury to any person or property, resulting from A/E errors, omissions or negligent act(s).

- b. The A/E shall, during the continuance of all work under the Contract, provide the following:
  - 1. Maintain statutory Workers' Compensation and Employer's Liability insurance in limits of not less than \$100,000 to protect the A/E from liability or damages for any injuries (including death and disability) of its employees, including liability or damage which may arise by virtue of statute or law in force within the Commonwealth of Virginia.



2. The A/E agrees to maintain Commercial General Liability insurance in the amount of \$1,000,000 per occurrence to protect the A/E, and the interest of the County, its officers and employees against any and all injuries to third parties, including bodily injury and personal injury. Completed operations liability endorsement shall continue in force for three years following completion of the construction of the project.
3. The A/E agrees to maintain Commercial Automobile Liability insurance in the amount of \$1,000,000 per occurrence to include owned, non-owned, and hired Automobile Liability insurance, including property damage, covering all owned, non-owned, borrowed, leased, or rented vehicles operated by the A/E.
4. The A/E agrees to maintain Professional Liability insurance as indicated in the Professional Liability Insurance Requirements Matrix below. In the event that the coverage in effect upon execution of this contract is terminated for any reason prior to the third year after completion of construction of the project, the A/E agrees to initiate new coverage in accordance with the Professional Liability Insurance Requirements Matrix unless otherwise specified by the County.

Any such new coverage will contain a provision which provides Prior Acts coverage to protect the A/E from claims caused by errors, omissions, or negligent acts which occurred during the time frame the A/E's liability was covered by the former insurance carrier.

**PROFESSIONAL LIABILITY INSURANCE REQUIREMENTS  
MATRIX  
(per claim)**

<b>Construction Value (CV)</b>	<b>High Risk*</b>	<b>Medium Risk**</b>	<b>Low Risk***</b>
Over \$20M CV	10% of CV	7 ½ % of CV	5% of CV
\$10M – \$20M CV	10% of CV or \$1M whichever is greater	7 ½ % of CV or \$1M whichever is greater	\$1,000,000
Less than \$10M CV	\$1,000,000	\$1,000,000	\$1,000,000

\* High Risk: Bridges, parking garages (3 or more levels), office buildings (3 or more levels), structures requiring extensive geotechnical analysis and foundation design, large special use facilities such a recreational facilities with a pool,

wastewater treatment plant systems, wastewater and stormwater pump stations, dams.

**\*\* Medium Risk:** Road Projects, local jails, large office use facilities less than three levels, medium public use facilities such as libraries, medium special use facilities such as police and fire and rescue stations, storm and sanitary sewers, stormwater detention systems, rehabilitation of facilities involving HVAC, mechanical and electrical systems.

**\*\*\* Low Risk:** Residential projects, low public use facilities such as wildlife reserves, channel improvements, rip rap stabilization, trails, small culvert systems, sidewalks.

5. Liability Insurance “Claims Made” basis:

If the liability insurance purchased by the A/E has been issued on a “claims made” basis, the A/E must comply with the following additional conditions. The limits of liability and the extensions to be included as described previously in these provisions remain the same. The A/E must either:

- a. Agree to provide certificates of insurance evidencing the above coverages for a period of two years after final payment for the professional services contract. This certificate shall evidence a “retroactive date” no later than the beginning of the A/E’s or sub-consultant’s work under this contract, or
- b. Purchase the extended reporting period endorsement for the policy or policies in force during the term of this contract and evidence the purchase of this extended reporting period endorsement by means of a certificate of insurance or a copy of the endorsement itself.

6. Liability insurance may be arranged by General Liability and Automobile Liability policies for the full limits required, or by a combination of underlying Liability policies for lesser limits with the remaining limits provided by an Excess or Umbrella Liability policy.

- a. The A/E agrees to provide insurance issued by companies admitted within the Commonwealth of Virginia, with the Best’s Key Rating of at least A:VI.
- b. European markets including those based in London, and the domestic surplus lines markets that operate on a non-admitted basis are exempt from this requirement provided that the A/E’s broker can provide financial data to establish that a market’s policyholder surpluses are



equal to or exceed the surpluses that correspond to Best's A:VI Rating or better.

7. Hold-harmless and Indemnification: Shall be provided as set forth in the Other Terms and Conditions section of the Agreement.
- c. No change, cancellation, or non-renewal shall be made in any insurance coverage without a 30-day written notice to the County. The A/E shall furnish a new certificate prior to any change or cancellation date. The failure of the A/E to deliver a new and valid certificate will result in suspension of all payments until the new certificate is furnished.
- d. Compliance by the A/E and all sub-consultants with the foregoing requirements as to carrying insurance shall not relieve the A/E and all sub-consultants of their liabilities provisions of the Contract.
- e. Contractual and other Liability insurance provided under this Contract shall not contain a supervision, inspection or engineering services exclusion that would preclude the County from supervising and/or inspecting the project as to the end result.
- f. Nothing contained in the specifications shall be construed as creating any contractual relationship between any sub-consultants and the County. The A/E shall be as fully responsible to the County for the acts and omissions of the sub-consultants and of persons employed by them as it is for acts and omissions of person directly employed by it.
- g. Precaution shall be exercised by the A/E at all times for the protection of persons (including employees) and property under their control.
- h. The A/E and all sub-consultants are to comply with the Occupational Safety and Health Act of 1970, Public Law 91-956, as it may apply to this Contract.
- i. The A/E will provide an original, signed Certificate of Insurance and such endorsements as prescribed herein.
  1. The A/E will secure and maintain all Certificates of Insurance of its sub-consultants which shall be made available to the County on demand.
  2. The A/E will provide on demand certified copies of all insurance coverages related to the Contract within ten business days of demand by the County. These certified copies will be sent to the County from the A/E's insurance agent or representative.
  3. The County of Fairfax, its employees and officers shall be named as an additional insured in the Automobile and General Liability policies and it shall be stated on the Insurance Certificate with the provision that this

coverage is primary to all other coverage the County may possess.

12.14 Other Terms and Conditions:

- a. The Architect shall indemnify, keep and save harmless the County, its agents, officials, employees and volunteers against claims of injuries, death, damage to property, patent claims, suits, liabilities, judgements, cost and expenses which may otherwise accrue against the County in consequence of the granting of a contract or which may otherwise result there from, if caused by any errors, omissions, or negligent acts of the Architect or his or her employees or their agents, or that of sub-consultants of his or her employees or their agents, if any; and the Architect shall, at his or her own expense, appear, defend and pay all charges of attorneys and all costs and other expenses including cost of investigation arising there from or incurred in connection with therewith; and if any judgment shall be rendered against the County in any such action, the Architect shall, at his or her own expense, satisfy and discharge the same. Architect expressly understands and agrees that any performance bond or insurance protection required by this Agreement, or otherwise provided by the Architect, shall in no way limit the responsibility to indemnify, keep and save harmless and defend the County as herein provided.
- b. The A/E firm agrees to accept liability for and bear the costs of change orders to the construction contract caused by errors, omissions, or negligent acts whose cumulative cost to the County exceeds two percent of the construction value. Cost of omissions will be limited to costs in excess of the bid amount had the omitted item been included in the bid. Any such determination by the County is subject to the provisions of Article 7.
- c. Criminal Background Investigation: Fairfax County reserves the right to conduct a Criminal Background Information Investigation on any employee that is working for the Architect or sub-consultant(s) on any public safety, criminal justice, or emergency management related projects. Fairfax County may require that any employee working on such project for the Architect or sub-consultant(s) be removed from the project team for reasons that may include the results of the Criminal Background Investigation. The Criminal Background Investigation may require fingerprinting of employees. The Criminal Background Investigation requirement shall be exercised at the sole discretion of Fairfax County.
- d. Emergency Contact Information: The consultant and sub consultants will be required to provide the Owner with emergency contact information including but not limited to non-business hour telephone contact number(s).
- e. Prohibition of Use of Asbestos Containing Materials: No asbestos containing materials of any kind are to be included in any product, material or equipment for this project.



- f. **Safety Provision:** All work performed under the contract by the Architect and all subconsultants shall adhere to current Occupational Safety and Health Administration (OSHA) and Virginia Occupational Safety and Health Administration (VOSH) Standards. The Architect shall ensure that all personnel performing work in, or adjacent to, locations subject to vehicular traffic receive appropriate training, including periodic update refresher courses, and comply with all current requirements for "Work Zone Training (WZT)" and/or "Work Zone Traffic Control (WZTC)".
- The Architect agrees to incorporate an ongoing work safety program for all new and existing employees working on this contract. All personnel within the limits of Fairfax County contract work are required to wear appropriate clothing and Personal Protective Equipment (PPE) including but not limited to hard hats, safety shoes, high visibility vests, and eye protection as appropriate. The Architect agrees to notify Fairfax County in writing within three working days of receipt of any safety violation or reportable accident involving personnel working on the County's project.
- g. **Architect's Personnel at Project Site:** The presence of the Architect's personnel at a project site, whether as on site representatives or otherwise, does not make the Architect or the Architect's personnel in any way responsible for those duties that belong to the Owner and/or other entities. The Architect is completely responsible for their employees in connection with their work or for any health or safety precautions and for inspecting or correcting the health or safety deficiencies of the Architect's own personnel. This includes, but is not limited to, the provision of the necessary personal protection equipment such as hard hats, work shoes and safety vests, and training, among others, related to confined spaces, open trenches and other site safety as required or recommended by the Occupations Safety and Health Administration. The Architect assumes all responsibility and liability for any injuries incurred by their employees on or off the Project site. The presence of the Architect's personnel at a project site is for the purpose of determining the integrity of the design provided to the County and is acceptable and in accordance with current design and safety standards.
- h. **Drug Free Workplace:** During the performance of a contract, the Architect agrees to (i) provide a drug-free workplace for the Architect's employees; (ii) post in conspicuous places, available to employees and applicants for employment, a statement notifying employees that the unlawful manufacture, sale, distribution, dispensation, possession, or use of a controlled substance or marijuana is prohibited in the Architect's workplace and specifying the actions that will be taken against employees for violations of such prohibition; (iii) state in all solicitations or advertisements for employees placed by or on behalf of the Architect that the Architect maintains a drug-free workplace; and (iv) include the provisions of the foregoing clauses in every subcontract of over \$10,000, so that the provisions will be binding upon each subcontractor or vendor. For the purposes of this section, "drug-free workplace" means a site for the performance of work done in conjunction with a specific contract awarded to an Architect, the employees of who are prohibited from engaging in the unlawful manufacture,

sale, distribution, dispensation, possession or use of any controlled substance or marijuana during the performance of the contract.

- i. The Architect agrees that the goods and/or services provided to Fairfax County pursuant to this Agreement are for the benefit of Fairfax County and that the Architect shall not undertake any actions or efforts stemming from or related to this Agreement that shall inure to the detriment of Fairfax County. Any information provided to the Architect for the performance of this Contract shall not be used for any other purpose without the written consent of the County Purchasing Agent.

- j. Certification Regarding Ethics in Public Contracting: In executing this contract, the Architect certifies they have not given any payment, loan, subscription, advance, deposit of money, services or anything of more than nominal value to any employee or official having responsibility for a procurement transaction.

If the Architect has given a payment, loan, subscription, advance, deposit of money, services or anything of more than nominal or minimal value to a public employee or official having official responsibility for a procurement transaction, and received consideration in substantially equal or greater value in exchange, the attached "Certification Regarding Ethics in Public Contracting Form" (Attachment H) must be completed and submitted to the Owner prior to contract award/execution.

- k. Certification Regarding Debarment/Suspension Certification: The Architect certifies by the execution of this Agreement, the following:
  - a. The Architect certifies, to the best of its knowledge and belief, that neither the Architect nor its Principals are suspended, debarred, proposed for debarment, or declared ineligible for the award of contracts from the United States federal government procurement or nonprocurement programs, or are listed in the *List of Parties Excluded from Federal Procurement and Nonprocurement Programs* issued by the General Services Administration.
  - b. "Principals," for the purposes of this certification, means officers, directors, owners, partners, and persons having primary management or supervisory responsibilities within a business entity (e.g., general manager, plant manager, head of a subsidiary, division, or business segment, and similar positions).
  - c. The Architect shall provide immediate written notice to Fairfax County if, at any time prior to execution of this Agreement, the Architect learns that this certification has become erroneous by reason of changed circumstances.



- d. This certification is a material representation of fact upon which reliance will be placed when executing this Agreement. If it is later determined that the Architect rendered an erroneous certification, in addition to other remedies available to Fairfax County government, Fairfax County may terminate the Agreement for default.

Patrick Henry Library and Garage, LB-000015

Total Basic Services	\$1,577,346
Total Not-to-Exceed Services	\$632,654
<u>Total Fee</u>	<u>\$2,210,000</u>

See: Attachment A - General Scope of Services  
Attachment B - HVAC Commissioning Scope  
Attachment C - HVAC Peer Review Scope  
Attachment D - CPTED Scope  
Attachment E - Consultant Total Price Summary  
Attachment F - Consultant Hourly Wage Rate Schedule  
Attachment G - Project Schedule (dated September 21, 2021)  
Attachment H - Certification Regarding Ethics in Public Contracting  
Attachment I - Building Exterior Envelope Peer Review, Commissioning and Testing

Truth-In-Negotiation Certificate, as provided for under Article 12.4.2 of this Agreement.

I hereby certify that wage rates and other factual unit costs supporting the compensation of this Agreement are accurate, complete, and current at the time of contracting.

ARCHITECT:

**RRMM Architects,**

By: 

Date: 11/10/2021

---

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

OWNER:

County of Fairfax  
Board of Supervisors


  
(Signature)

Carey F. Needham, Deputy Director  
Department of Public Works and Environmental Services  
Capital Facilities

DATE: 12-13-2021

ARCHITECT:

**RRMM Architects**

Virginia Registration No. 0410000295  
  
(Signature)

KETH D LEONARDO, Principal  
(Printed name and title)

DATE: 11/10/2021



## **GLOSSARY**

**A/E** – Architectural/Engineering

**A/V** - Audio/Visual

**ADA** - Americans with Disabilities Act

**ANSI** - American National Standards Institute

**AS-BUILT DRAWINGS** - The final set of drawings produced at the completion of a construction project that include all the changes that have been made to the original construction drawings.

**ATC** - Automatic Temperature Controls

**ATTIC STOCK** - The extra material, such as carpet tiles, fabric and systems furniture components that must be provided by the contractor.

**AUTOCAD** - Software application for 2D and 3D design and drafting

**BAS** - Building Automation System

**BDCD** – Building Design and Construction Division

**CCD** – Construction Change Directive

**CD** - Construction Documents

**COMMISSIONING AGENT** – – Selected consultant who verifies that HVAC systems and equipment are installed and operate in accordance with contract documents and design intent.

**CPTED** - Crime Prevention through Environmental Design

**CSI** - Construction Specifications Institute

**CVS** - Certified Value Specialist

**DD** - Design Development

**DEQ** - Virginia Department of Environmental Quality

**DOE** - Department of Energy

**DPWES** - Department of Public Works and Environmental Services

**DVP** - Dominion Virginia Power

**EMCS** – Energy Management Control System

**Fairfax County Construction Contract Sections A through F**

**A – Information for Bidders**

**B – Form of Bid**

**C – Owner-Contractor Agreement**

**D – General Conditions**

**E – Special Conditions**

**F – Escrow Agreement**

**FF&E** - Fixed Furniture and Equipment

**FMD** - Facilities Maintenance Department

**FO** - Field Order

**GROSSING FACTORS** – Factors (Percentage) applied to net square footage of usable space to account for the total building area (gross square footage).

**HVAC** - Heating, Ventilation and Air Conditioning

**HVAC PEER REVIEW** – Review of the design of the mechanical systems and load calculations by the selected consultant.

**IAQ** – Indoor Air Quality

**IT** - Information Technology

**LDS** - Land Development Services

**LEED** - Leadership in Energy and Environmental Design

**MEP** – Mechanical, Electrical, and Plumbing

**NTE SERVICES** – Not-to- Exceed Services

**O&M MANUALS** - Operations and Maintenance Manuals

**OSHA** - Occupational Safety and Health Administration

**PCO** - Proposed Change Order

**PE** – Professional Engineer

**PEER REVIEW** – Independent review by selected consultant



**PFM** – Public Facilities Manual

**PM** - Project Manager

**PPE** - Personal Protective Equipment

**QC/QA** - Quality Control/Quality Assurance

**RA** - Registered Architect

**RFI** - Request for Information

**RFP** - Request for Proposal

**SD** – Schematic Design

**TAB** - Testing and Balancing

**USGBC** - United States Green Building Council

**VDOT** - Virginia Department of Transportation

**VE** – Value Engineering

**VOSH** - Virginia Occupational Safety and Health Administration Standards

**VPDES** - Virginia Pollution Discharge Elimination System

**VSMP** - Virginia Stormwater Management Permit

**VUSBC** - Virginia Uniform Statewide Building Code

**WZT** - Work Zone Training

**WZTC** - Work Zone Traffic Control

**Patrick Henry Library and Garage**  
Fund No. 300-C30030, Project No. LB-000015

**General Scope of Services**  
October 2021

The scope of service is the full design and construction administration services for Patrick Henry Library and Garage. The facility is located at 101 Maple Avenue, Vienna (Tax Map 38-4, Parcel 142, in the Hunter Mill Magisterial District) and was constructed in 1971.

The existing, 13,800 square foot Patrick Henry Library, located in the town of Vienna, Virginia, was opened in 1971 and was later renovated in 1995. This branch library with a collection of approximately 90,000 volumes has outgrown the existing facility. The proposed library facility will provide a state of the art facility with upgraded building systems for operations and energy efficiency. The building should relate to the site and surrounding streets and buildings. The new facility will be comprised of an approximately 21,000 square foot library facility and a parking garage on a 1.43-acre lot. A separate parking structure must provide adequate parking spaces for the library and additional parking for the town of Vienna. The scope of work will also include the demolition of the existing facilities and all associated site work. The scope of work also include the design of an off-site temporary library. The project has a sustainability goal of LEED Gold, 50% energy performance improvement over the current ASRAE baseline, and Net Zero Energy Design.

Major disciplines required for the project include architecture, civil engineering, structural engineering, mechanical/plumbing engineering, electrical engineering, independent cost estimating, and a certified Green Building team member. The project is expected to comply with Fairfax County's sustainable design policy.



**COMMISSIONING OF HEATING, VENTILATION  
AND AIR CONDITIONING (HVAC) SYSTEM**

**GENERAL SCOPE OF WORK**

**PART 1 - GENERAL**

- 1.01 **INTENT:** The intended result of the HVAC Commissioning process is to assure Fairfax County Department of Public Works and Environmental Services (DPWES) that the HVAC systems and equipment are installed and operate in accordance with contract drawings and specifications.
- 1.02 **SCOPE:**
- A. **Work Included:** The HVAC commissioning shall provide substantial verification that systems and equipment are installed and performing in accordance with the contract documents and design intent. This independent commissioning shall be complementary to the construction period services performed by the Architect and Mechanical Engineer of Record, and to the testing and balancing requirements of the construction contract. Systems installed and performing in accordance with drawings and specifications which do not achieve and/or maintain spatial conditions in accordance with applicable codes and standards shall be so noted when observed. The Commissioning work is to be performed for both the heating and cooling modes. The Commissioning work related to the BAS trend logs is to be initiated immediately after the Substantial Completion and approval of the Test and Balance report.
  - B. **Work Not Included:** Commissioning of plumbing, fire protection sprinkler, and electrical systems are excluded from the HVAC commissioning process except as may be incidental to the operations of the HVAC system; i.e. note would be made if condensate drainage was observed to be inadequate, if a fan turned backwards due to improper power connections, etc.
- 1.03 **ROLE OF THE COMMISSIONING AUTHORITY:** Throughout the commissioning process, the Commissioning Authority's role is primarily one of an observer/witness; periodically monitoring, the design, installation, start-up, and operation of the mechanical heating, ventilating, and air conditioning (HVAC) systems as defined in 3.03. The Commissioning Authority shall have no authority to alter design, installation procedures or direct corrective action procedures to the Contractor. If acceptable performance cannot be achieved, it will be the Commissioning Authority's responsibility to apprise the Owner and Design Engineer. Corrective actions shall be the responsibility of the Owner, Design Engineer, and/or Contractor; and not that of the Commissioning Authority.

The Commissioning Authority shall advise the Owner of tests and demonstrations required to verify proper performance. All tests and demonstrations will be coordinated with the Engineer and Contractor.

1.04 **ARCHITECT/ENGINEER RESPONSIBILITY:** In addition to their normal performance of Construction Period Services, the Architect/Engineer will place the Commissioning Authority on the mailing list for all communications regarding the HVAC systems. The Architect/Engineer shall cooperate fully with the Commissioning Authority, and will provide information and documentation related to system design and intent, as requested by the Commissioning Authority. The Architect/Engineer will include the appropriate Commissioning requirements for the contractor in the Project Specifications.

1.05 **CONTRACTOR'S RESPONSIBILITY:**

- A. The Contractor shall be responsible for assuring that the Commissioning Authority is provided with assistance as may be required to satisfactorily complete the commissioning process using whatever personnel, time and resources that are required. The Contractor shall provide written notice to the Mechanical Engineer and the Commissioning Authority a minimum of at least 14 calendar days prior to any equipment start-up, system operation, testing or demonstrations.
- B. The Contractor shall provide the material requested and manpower necessary for the verification of proper HVAC system installation and operation, and as required by the Commissioning Authority.

1.06 **OWNER'S RESPONSIBILITY:**

- A. The Owner's Representative shall assist in coordinating the work of the Commissioning Authority with the Architect/Engineer and the Contractor.
- B. The Owner's Representative shall make all required shop drawings, equipment cut sheets and other pertinent system submittals available for use by the Commissioning Authority, as required.

1.07 **QUALITY ASSURANCE:**

ASHRAE Guideline for Commissioning of HVAC Systems, ASHRAE Guideline 1-1989.

## **PART 2 - PRODUCTS**

2.01 **NOT APPLICABLE TO THIS SPECIFICATION**

## **PART 3 - EXECUTION**



- 3.01 **COMMISSIONING TEAM:** At a minimum, the following are members of the Commissioning Team:
- A. The Owner's Authorized Representative(s) – (BDCD and FMD)
  - B. The Architect/Engineer
  - C. The Mechanical Engineer of Record
  - D. The General Contractor
  - E. The Electrical Subcontractor
  - F. The Mechanical Subcontractor
  - G. The Testing, Adjusting, and Balancing (TAB) and Building Automation System (BAS) Subcontractor(s)
  - H. The Building Automation Controls Subcontractor
  - I. The Commissioning Authority
- 3.02 **RESPONSIBILITIES:** Each member of the Commissioning Team has responsibilities to the successful completion of the commissioning process as follows:
- A. The Owner's Representatives from the Construction Management Division shall perform their normal construction contract administration functions, facilitate coordination between members of the Commissioning Team, and make all required submittals and equipment information available for use by the Commissioning Authority.
  - B. The Architect/Engineer shall provide adequate support to the Mechanical Engineer of Record as related to their duties in the commissioning process. It shall also be the Architect/Engineer's responsibility to assure that the Commissioning Authority is:
    - 1. Provided copies of design documents for review and comment during the design phase.
    - 2. Provided access to copies of approved shop drawings and submittals associated with the mechanical systems.
    - 3. Copied on all correspondence pertinent to the HVAC systems including but not limited to minutes of progress meetings and field inspections, responses to Contractor requests for information, and documentation related to changes to the HVAC system.

4. Provide written notice to all Commissioning Team members a minimum of 12 calendar days prior to any scheduled milestones, testing or demonstrations which are scheduled by or for the A/E.
  5. Provided all pertinent documentation and information related to the design and design intent of the HVAC system, as required by the Commissioning Agent.
- C. The Mechanical Engineer of Record shall perform his normal construction contract administration and inspection functions.
- D. The Contractor shall, in addition to his normal responsibilities for construction of the project, assure that his subcontractors recognize the authority of the Commissioning Authority and be responsive to the requirements of the commissioning process. He shall assure that written notification, at least 14 calendar days in advance, is provided to the Architect/Engineer of the milestones of the mechanical systems installation as follows:
1. Pressure testing of piping systems
  2. Flushing and cleaning of piping systems
  3. Factory start-up of central plant equipment
  4. Factory start-up of rooftop equipment
  5. Calibration of Automatic Temperature Controls
  6. Start date of Air and Water Balancing
  7. Date of training to Fairfax County operating personnel regarding operations of the HVAC system
  8. HVAC systems inspections by Architect/Engineer
- E. The Electrical Subcontractor shall perform his normal contract obligations and be responsive to requirements of the commissioning process.
- F. The Mechanical Subcontractor shall, in addition to his normal responsibilities for construction of the project, assure that proper notification of the milestones of the mechanical systems installation are provided to the Contractor. The Mechanical Subcontractor shall assure that their subcontractors are responsive to the requirements of the commissioning process, particularly the Testing and Balancing (TAB) and Automatic Temperature Controls (ATC) subcontractors. The Mechanical subcontractor shall submit the Testing and Balancing Report prior to Substantial Completion.
- G. The Building Automation System (BAS) Subcontractor shall perform his normal contract obligations and be responsive, particularly by furnishing printed histories



of trended points. The BAS Subcontractor shall submit trend logs for the first Commissioning mode as soon as possible after Substantial Completion and approval of the Testing and Balancing Report.

- H. The Commissioning Authority will follow the procedures as set forth in Paragraph 3.03 to execute his responsibility for:
  - Verifying that the mechanical systems are operating in accordance with contract documents and specifications.
  - Notify the Owner in writing of all deficiencies that were observed within three working days of the observation.
- I. A pre-commissioning meeting shall be scheduled prior to factory start-up of any central plant equipment. All members of the Commissioning Team are to attend. A meeting agenda shall be presented by the Commissioning Authority to review the commissioning plan(s) in detail.

3.03 **COMMISSION AUTHORITY PROCEDURES:** The Commissioning Authority will establish and monitor systems commissioning following the procedures listed herein, and all members of the Commissioning Team shall cooperate fully with the execution of these procedures. Initial HVAC commissioning shall be performed while the central plant is in operation within the heating or mechanical cooling mode. Initial commissioning will not take place during "swing" seasons when neither the heating or cooling equipment is fully loaded. If commissioning occurs during the mechanical cooling operation, subsequent commissioning shall be performed during the next "swing" season and at the changeover to the heating season; and similarly, if commissioning occurs in the heating season, subsequent commissioning shall be performed during next "swing" season and during the next cooling season. The subsequent seasonal systems commissioning shall consist of observing the central plant equipment start-up, reviewing complete sets of BAS operational histories, and follow-up site visits to spot check automatic temperature controls systems. To achieve HVAC systems commissioning, the Commissioning Agent shall:

- A. Review the design documents, including the sequences of operations, during the design phase, and provide written comments to the Owner.
- B. Prepare a Commissioning Plan for the commissioning work that identifies all equipment, system and controls to be tested/inspected; the approximate timeframe and sequence for each stage of testing; all EMCS system information to be provided by the BAS subcontractor; and all forms to be used for the commissioning work and reports. Submit a copy of the final Commissioning Plan to all members of the Commissioning Team.
- C. Review construction documents and become familiar with the HVAC design and operational requirements.
- D. Perform at least **two** unscheduled walks through the building to observe and keep abreast of mechanical systems installation progress. Commissioning Authority's

presence in the building will be for his benefit in preparing to commission the building and shall in no way be construed as superseding the authority of the project Architect/Engineers. Provide a written report of walk-thru observations including any deficiencies noted, within seven calendar days.

- E. Perform a review of HVAC Shop Drawings after approval by the Project Mechanical Engineer of Record. The purpose of this review is for familiarization with equipment to be furnished on the project and for on-site use by the Commissioning Agent. This review in no way relieves the Consulting Mechanical Engineer of his duties for shop drawing review and inspection.
- F. Develop and issue Commissioning Data Sheets relevant to the project (See Sample Data Sheet) for all appropriate equipment, controls and systems. The Owner will provide the Contractor copies of all Data Sheets developed by the Commissioning Authority. The Owner reserves the right to have modifications incorporated to the Data Sheets at no extra cost to the Owner.
- G. Observe representative sampling of duct systems, plenums, coils, and filters for cleanliness, damage, or leakage, and provide written documentation of deficiencies noted, to the owner.
- H. Be present to observe the start-up of central plant equipment; i.e. the chiller, boilers and cooling tower. This shall be the start-up which is supervised and certified by the equipment manufacturer's authorized agent. Commissioning Authority will observe the start-up of self-contained refrigeration units (rooftops, split-systems) and verify that the operations have been certified by manufacturers' representatives.
- I. Review the certified reports submitted by the TAB agency.
- J. Periodically observe the installation of the automatic temperature controls system (ATC); observe the operation of the main air compressor (running time, pressure, moisture), verify calibration of a representative sampling of sensing devices, observe the operation of all air handling units and exercise their respective control sequences including safeties, exercise the controls and observe operation of a representative sampling of incremental units, observe the operation and controlling sequence of all central system piping isolation, changeover, and modulating control valves.
- K. Prior to recommendation for issuance of Substantial Completion, the Commissioning Agent shall review and verify the BAS graphics interface, as installed on the Owner's Remote monitoring and control station, to ensure functionality, accuracy, and general conformance with the contract documents.
- L. Prior to recommendation for issuance of Substantial Completion, the Commissioning Agent shall issue a certification that the building mechanical systems and BAS controls system are fully functional and operating in general conformance with the construction documents.



- M. Verify the performance of each piece of equipment and each system.
- N. Verify the input and output of the temperature control system.
- O. Verify the commissioning of the BAS by reviewing point histories. The operational and monitoring capabilities of the BAS will be employed in the commissioning of the mechanical systems.
- P. The Commissioning Authority will be given a copy of all approved As-Built drawings and Operations and Maintenance Manuals pertaining to HVAC systems and controls by the Engineer.
- Q. The Commissioning Authority shall prepare eight copies of both draft and final commissioning reports to the Owner. The reports will include a narrative in the form of an Executive Summary of the results of commissioning process, recommendations and a certification that the verification of each item is complete and all systems are operating as intended. Recommendations may be used by the Architect/Engineer for inclusion in their final submission of project close out documentation to the Owner. The document shall be distributed by the Owner to Commissioning Team members.

3.04 **CONTRACTOR COMMISSIONING PROCEDURES:** The Contractor and all relevant Subcontractors shall, in addition to being responsive to the procedures cited for execution by the Commissioning Authority, perform as follows to achieve satisfactory HVAC systems commissioning. The Contractor shall:

- A. Demonstrate the performance of each piece of equipment to the Commissioning Agent and Owner's Representative after completion of construction. Schedule the TAB, HVAC controls, BAS and other sub-trade representatives as may apply to demonstrate the performance of the equipment and systems, as required by Specifications.
- B. At a minimum, the performance and operation demonstrations of the following equipment and/or systems will be required:
  - 1. Incremental equipment (Fan Coil Units, Cabinet Heaters, Unit Ventilators, etc.); approximately 50% of units installed.
  - 2. Major duct flow and pressure checks, air terminals. The TAB Trade Representative shall identify all places where temperature, pressure and/or velocity readings were taken in major duct systems; and performance shall be demonstrated on 25% of the locations. Up to 25% of air terminals shall have performance demonstrated.
  - 3. Fire and smoke damper installation and operation, up to 30%, if applicable.
  - 4. AHU Coil performance; all coils during both cooling and heating.

5. Fan and motor performance; all major air handling units and up to 30% of exhaust fans.
  6. Pump performance.
  7. Chiller system performance.
  8. Boiler performance.
  9. HVAC Controls Systems; complete control sequence of central plant equipment and air handling units, and up to 50% of incremental equipment.
- C. In addition to the foregoing, the Contractor shall repeat any other measurement contained in the TAB report where required by the Commissioning Authority for verification or diagnostic purposes. Should any verification test reveal that the equipment is not performing as specified or control operation is not acceptable, the Contractor shall be responsible for all cost associated with re-inspection of any failed item. Should the verification test determine that the equipment is still not performing as specified or control operation is not acceptable in the second inspection, the time and expenses of the Commissioning Authority to make further verification shall be considered an additional cost to the Contractor. The total sum of such costs shall be paid by the Contractor.

3.05 **DEFICIENCY RESOLUTION:** Deficiencies identified during the commissioning process shall be corrected in a timely fashion. The Commissioning Authority has no authority to dictate ways and means of deficiency resolution. Resolution of deficiencies that require interpretations or modifications to the contract documents shall be the responsibility of the Architect and Engineers.



### HVAC Peer Review – Scope of Services

Complete quality assurance review of project documents at Design Development and 95% Construction Document phases for code compliances, applicable standards and guidelines, appropriateness of assumptions and systems/equipment, engineering methods and input data used to support the design to ensure that the system design is complete and appropriate to meet temperature, humidity and energy performance expectations. The scope includes but is not limited to:

- Review Owner furnished guidelines to A/E's, ensure compliance with guidelines
- Review the design load calculations and the design assumptions/criteria and verify that they are correct.
- Verify design load calculations incorporate ventilation load reduction based on pattern of occupancy, and cooling loads and are based upon actual occupant loading expectations to minimize energy consumption, equipment sizes, and potential humidity problems, as appropriate.
- Verify that the mechanical equipment is sized correctly per code, per loads and per the actual facility occupancy and loading conditions.
- Comment on the appropriateness of the system selected to be energy efficient and to provide comfortable space temperature and humidity control.
- Review sequences of operation for each piece of equipment including the sensors/stats and flow measuring station locations and operation.
- Verify that sufficient plans, sections, and elevations are shown to demonstrate adequate space for equipment, ductwork and piping at equipment rooms, and to verify that the equipment is serviceable.
- Quality control check of the plans and appropriate specifications to ensure that there is no missing or conflicting information.
- Meetings with Owner's project team (design, construction and maintenance) to review project design and Peer Review comments/recommendations.
- Back check that all comments at each review stage were satisfactorily addressed.

## CRIME PREVENTION THROUGH ENVIRONMENTAL DESIGN (CPTED) SCOPE OF SERVICES

### SCHEMATIC DESIGN PHASE

**Project Research** - review any existing threat/risk assessments and/or studies prepared for this facility or similar facilities to identify specific considerations, which the CPTED review should address. Services include the compilation of crime statistics, trends and pattern analysis for the proposed site identifying historical criminal activity in the area.

**CPTED/Security Assessment** - services to include a detailed evaluation to assess the site and adjacent property conditions in order to determine potential vulnerabilities that may affect the safety and security of patrons. Assessment should include both working hours and off-hours. Assessment will also consider the potential for future land use changes in the vicinity. Apply Crime Prevention through Environmental Design (CPTED) principles to the information obtained.

- Provide a narrative describing the findings above, highlighting areas of concerns and recommendations.

**Schematic Design Analysis** - analyze the site and architectural plans to ensure that they address the concerns identified in the project research as well as CPTED opportunities noted in the security assessment. The schematic design analysis will review, as applicable, the following areas:

- 1) Site access control via site entrances and exits
- 2) Vehicular and pedestrian circulation
- 3) Way finding (signage and/or markings)
- 4) Facility and site surveillance (natural and electronic)
- 5) Site lighting and landscaping
- 6) Security management system/access control sub-system
  - a. Exterior/perimeter doors access control
  - b. Cameras
- 7) Building access control between public and non-public areas including stairwells and elevators
- 8) Deliveries
- 9) Intrusion detection
- 10) Infrastructure (Power, Ventilation)
- 11) Emergency response, policing, and evacuation

- Provide a narrative or checklist describing issues to be considered during future design phases.



## **DESIGN DEVELOPMENT PHASE**

**Design Development CPTED Review** - review the site and architectural design development documents to evaluate whether the CPTED principles proposed have addressed the design criteria and objectives identified in the schematic design analysis.

- Submit comments as part of a comment review form.

## **CONSTRUCTION DOCUMENT PHASE**

**Construction Document CPTED Review** – back check the site and architectural Construction Documents to evaluate whether the CPTED principles previously proposed are implemented.

- Submit comments as part of a comment review form.

ATTACHEMENT G

SCHEDULE



**Certification Regarding Ethics in Public Contracting Form**

Project/Contract Name: \_\_\_\_\_

By submitting this form, the Architect acknowledges that they have given a payment, loan, subscription, advance, deposit of money, services or anything of more than nominal or minimal value to a public employee or official having official responsibility for a procurement transaction, and received consideration in substantially equal or greater value in exchange.

This form is to be submitted prior to execution of the Agreement.

Please complete the following:

Recipient: \_\_\_\_\_

Date of Gift: \_\_\_\_\_

Description of the gift and its value:

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Description of the consideration received in exchange and its value:

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Printed Name of Architect/Consultant/Bidder/Offeror Representative:

\_\_\_\_\_

Signature/Date: \_\_\_\_\_

Company Name: \_\_\_\_\_

Company Address: \_\_\_\_\_

City/State/Zip: \_\_\_\_\_

### Third Party Exterior Envelope Peer Review Scope of Services

Complete quality assurance review of project drawings and specifications for all exterior building envelope, roofing, and waterproofing systems. Responsibility for the design remains with the A/E of record.

The goal of the third-party peer review is to ensure a successful detailed set of documents to:

- Ensure the overall performance of the building envelope with regard to air and water penetration resistance, energy efficiency, occupant comfort, durability, and future maintenance requirements;
- Avoid potential installation or coordination issues of the roofing, floor/slab systems, wall systems, insulation, and vapor barriers; and
- **Provide reviews based on established guidelines, industry standards, and technical notes; e.g. Sheet Metal and Air Conditioning Contractors' National Association (SMACNA), Brick Institute of America (BIA), Fairfax County Guidelines for Architects and Engineers, etc.**

#### Scope:

- Review and comment on the A/E's details of the exterior building envelope system for continuity of air, water, and thermal properties, particularly at the interface of discrete building envelope systems, i.e. corners, parapets, intersections, and joints. Reviews are to include, but are not limited to:
  - Roof
    - Roof details
    - Drain locations
    - Location and shape of rooftop penetrations
    - Location, extent and interface of vegetated roof systems and leak detection technology as may be applicable
  - Facade
    - Exterior wall system including windows, storefront, and curtainwall systems
    - Location of vapor retarder and air barrier
    - Flashing details at openings including sealants
  - Subgrade
    - Subgrade waterproofing, if applicable
- **Review typical details as provided by the A/E for thermal performance including the review of the A/E's R and U values and dew point calculations of the wall assembly.**
- Review technical specifications provided by the A/E for appropriate performance criteria for building enclosure system tolerances, including expansion joint details.
- Review technical specifications provided by A/E for scope of air and water penetration testing for storefront systems.



#### Construction Document (CD) Phase:

- At the start of the CD Phase, meet with the Owner and A/E to review proposed systems. A/E is to provide meeting minutes with a summary of the decisions.
- Review the 100% CD documents.
  - Review for design performance and constructability of details and compatibility of materials as outlined in the *Scope* section above.
  - Review that complete and concise details are provided at transitions between building components.
- The reviewer is to submit written and/or graphic comments on the drawings and specifications to the Owner. The Owner reviews the comments and submits the peer review comments to the A/E with the 100% CD review comments.
- **Attend the 100% CD Comment Review meeting with the Owner's project team and the A/E to address building envelope review comments.**

#### Construction Phase:

- A/E to provide the appropriate product submittals and testing data/reports on all building envelope systems required for field observations.
- Participate in pre-installation meetings of the exterior wall system mockups that are required in the project specifications.
- Observe field mock-ups and performance testing, such as but not limited to, water testing of window assemblies.
- Observe the installation and provide field reports to the A/E of the *Roof, Facade, and Subgrade* products and systems as outlined in the *Scope* section above. Provide for a minimum of three site visits, or as applicable to the project.