

ARLINGTON PUBLIC SCHOOLS



Request for Proposal for Pre-Qualified Construction Manager “at Risk” Services

RFP Issue Date: November 9, 2017

Proposal Due Date: Prior to 2:00 PM on December 5, 2017, Local Prevailing Time

RFP Title: Construction Manager at Risk Services

Project Name: New Elementary School at the Reed Site (“Project”)

Project Number: 30FY18

Project Location: 1644 N. McKinley Road
Arlington, VA 22205

Owner Name: Arlington Public Schools

Owner Contact Information: David Webb, Purchasing Director
Purchasing Office, 4th Floor
1426 N. Quincy St
Arlington, VA 22207

This is Arlington County School Board, operating as Arlington Public Schools (APS or Owner) Request for Proposals (RFP) #30FY18, issued on November 9, 2017 for Construction Manager at Risk Services at the New Elementary School at the Reed Site (Project). Sealed Proposals must be received in hand by the APS Purchasing Office prior to the date and time stated above (collectively “Proposal Due Date”) and will only be accepted from those Construction Managers (Offerors) who have been pre-qualified under Request for Qualifications (RFQ) 19FY18. The time a Proposal is received in hand shall be determined by the time stamped on the Proposal receipt by the time clock in the APS Purchasing Office. The APS Purchasing Office is located on the fourth floor of the APS Education Center, 1426 N. Quincy Street, Arlington, VA 22207. Delivery to, or receipt by, any office other than the APS Purchasing Office shall not be deemed receipt by the APS Purchasing Office until actually received in the APS Purchasing Office. Offerors assume all risk of delivery to the correct office. Offerors are responsible for ensuring that the APS Purchasing Office receives their submission prior to the Proposal Due Date. In the event this time clock is not functioning, the time shall be determined by time displayed on the wall clock above Room 405. The time on the wall clock will be written on the Proposal receipt, by hand, by APS Purchasing Office personnel. **Proposals received at, or after, 2:00 P.M. (Local Prevailing Time) on December 5, 2017, shall not be considered.** If the APS Education Center is closed for any reason at the Proposal Due Date, the Proposal Due Date will be extended to the next business day the APS Education Center is open.

The APS Education Center is a secure facility and Offerors can only enter through Door # 1 on the 1st Floor near the David M. Brown Planetarium. Offerors will have to sign in with the receptionist before being allowed up to the 4th Floor. Offerors must allow sufficient time to clear the sign in process to reach the Purchasing Office prior to the Proposal Due Date.

PRE-PROPOSAL CONFERENCE:

A non-mandatory pre-Proposal conference will be held for this procurement on November 15, 2017 at 3:30pm (Local Prevailing Time). The conference will take place at the Facilities & Operations Conference Room located at 2770 S. Taylor Street, Arlington, Virginia 22206. Attendance at the conference is not mandatory, but highly recommended. Minutes of this pre-Proposal conference, including but not limited to questions and answers, will be prepared and answered in writing by the Purchasing Office.

QUESTIONS:

All questions and requests for information, other than those asked at the pre-Proposal conference, shall be submitted in writing to the APS Purchasing Office, Attention: David Webb, Purchasing Director, via email: david.webb@apsva.us with a copy to Ajibola Robinson, APS Project Manager, via email: Ajibola.robinson@apsva.us. To be assured consideration, **all questions must be received prior to Noon (Local Prevailing Time) November 17, 2017.** Any responses to questions or requests for information will be posted in the same manner as an Addendum as set forth below. After reviewing any questions submitted, the APS Purchasing Office will issue such Addenda to respond to questions as it deems necessary. Modifications or changes to this RFP will be made only by written Addendum issued by the APS Purchasing Office. A copy of the RFP and all Addenda will be posted on the APS Purchasing Office's website (www.apsva.us) and the bulletin board located on the 1st floor of 1426 N Quincy Street, Arlington, VA 22207; and on eVA, the Commonwealth of Virginia's on-line e-procurement system: (www.eva.virginia.gov).

SUBMITTAL:

Submit Proposals: **BY MAIL, HAND DELIVERY OR EXPRESS CARRIER TO:**

Arlington Public Schools Purchasing Office, 4th Floor, 1426 N. Quincy Street, Arlington, VA 22207

Three (3) original hard copies with all signatures in blue ink and three (3) copies of the entire original submission on separate Compact Disks or Thumb Drives, so marked, for a total of six (6) copies of the Proposal are required. Offerors are responsible for ensuring each copy of the Compact Disk or Thumb Drive is marked with the Offeror's name. **All Proposals must be submitted in a sealed package, with the RFP number, title, Proposal Due Date, and Class A Contractor's License, and its expiration date, on the outside of the package.** APS will not assume responsibility for reproduction where an insufficient number of copies have been supplied. In any such case, APS shall notify the Offeror of the deficiency and request that the appropriate number of copies are delivered by no later than the end of the second (2) business day following receipt of the request for additional copies. Failure to comply with this or other requirements of this RFP shall be grounds for APS to reject such Proposal as non-responsive. Email or facsimile submissions of Proposals are not acceptable and any such Proposal **shall not** be considered. Nothing herein is intended to exclude any pre-qualified Offeror or in any way restrain or restrict competition. All pre-qualified Offerors are encouraged to submit Proposals.

PRE-QUALIFIED OFFERORS:

APS has determined pursuant to RFQ #19FY18 that only the following Offerors are pre-qualified to submit Proposals in response to this RFP:

The Whiting Turner Contracting Co
14900 Conference Center Dr., Suite 550
Chantilly, VA 20151
Office: (703)817-0300
Randall Riesner

Hess Construction + Engineering Services, Inc.
804 West Diamond Avenue, Suite 300
Gaithersburg, MD 20878
Office: (301)670-9000
Andrew D. Hess, President & CEO

Gilbane Building Company
1100 Glebe Road, Suite 1000
Arlington, VA 22201
Emre Ozcan, Vice President
Office: (703)312-7262

MCN Build, LLC
1214 28TH St. NW
Washington, DC 20007
Joseph Khoury, Vice President (of Preconstruction)
Office: (202) 333-3424

Turner Construction Company
11413 Isaac Newton Square South
Reston VA 20190
Office: (703) 841-5200
Kevin Sharkey, Vice President and General Manager

ADDENDA:

Offerors shall ascertain prior to submitting a Proposal that all Addenda issued have been received and shall acknowledge receipt and inclusion of all Addenda here:

Addendum No. ___ Date: _____ Addendum No. ___ Date: _____ Addendum No. ___ Date: _____

Addendum No. ___ Date: _____ Addendum No. ___ Date: _____ Addendum No. ___ Date: _____

TRADE SECRETS OR PROPRIETARY INFORMATION:

Offerors shall confirm whether their Proposal contains any information the Offeror deems proprietary or a trade secret. Information considered to be proprietary or a Trade Secret is to be included in the Proposal at Tab 7, and shall include all information required by Va. Code Ann § 2.2-4342 in support of such designation. See Section IV Proposal Submission Requirements, D.

Please mark one:

- Yes, My Proposal contains information deemed to be proprietary or a trade secret. The information deemed to be proprietary or a trade secret can be located under Tab 7
- No, My Proposal does not contain information deemed to be proprietary or a trade secret.

ACCEPTANCE OF SCOPE OF SERVICES:

By submitting a Proposal, Offeror confirms that it can deliver all of the work contained in the Scope of Services

STATE CORPORATION COMMISSION (SCC) IDENTIFICATION NUMBER:

The Offeror agrees, if this Proposal is accepted by APS, for such services and/or items, that the Offeror has met the requirements of the Virginia Code Section 2.2-4311.2.

Please complete the following by checking the appropriate line that applies and providing the requested information. ***The SCC number is NOT your federal tax Identification number:***

1. Offeror is a Virginia business entity organized and authorized to transact business in Virginia by the SCC. The Offeror's identification number issued by the SCC is _____.
2. Offeror is an out-of-state (foreign) business entity that is authorized to transact business in Virginia by the SCC and such Offeror's identification number issued to it by the SCC is _____.
3. Offeror does not have an identification number issued to it by the SCC and such Offeror is not required to be authorized to transact business in Virginia by the SCC for the following reason(s):

Please attach additional sheets if you need to explain in further detail why such Offeror is not required to be authorized to transact business in Virginia.

DEBARMENT:

If you answer yes to any of the following, on a separate attachment, state the person or entity against whom the debarment was entered, give the location and date of the debarment, describe the project involved, and explain the circumstances relating to the debarment, including the names, addresses and phone numbers of persons who might be contacted for additional information

1. Is your organization or any officer, director, project manager, procurement manager, chief financial officer, partner or owner currently debarred from doing federal, state or local government work for any reason?
Yes ___ No ___
2. Has your organization or any current officer, director, project manager, procurement manager, chief financial officer, partner or owner ever been debarred from doing federal, state or local government work for any reason?
Yes ___ No ___

TYPE OF BUSINESS:

Please check the following information relevant to your firm:

- Minority Owned Business:** YES _____ NO _____
- Small Business:** YES _____ NO _____
- Woman Owned Business:** YES _____ NO _____
- Service Disabled Veteran Owned Business:** YES _____ NO _____
- Employment Service Organization:** YES _____ NO _____
- None of the Above:** YES _____ NO _____

ETHICS IN PUBLIC CONTRACTING/CERTIFICATION OF NON-COLLUSION:

The Contract(s) awarded as a result of this RFP, if any, will incorporate by reference Article 9 of the APS Purchasing Resolution, as well as any state or federal law related to ethics, conflicts of interest, or bribery, including by way of illustration and not limitation, the Virginia State and Local Government Conflict of Interests Act (Code of Virginia § 2.2-3100 et seq.), the Virginia Governmental Frauds Act (Code of Virginia § 18.2-498.1 et seq., and Articles 2 and 3 of Chapter 10 of Title 18.2 of the Code of Virginia, as amended (§ 18.2-438 et seq.). The undersigned certifies that its offer is made without collusion or fraud and that it has not offered or received any kickbacks or inducements from any other person(as defined in Code of Virginia Section 59.1-68.6 et seq.) and that it has not conferred on any public employee having official responsibility for this purchase any payment, loan, subscription, advance, deposit of money, services, or anything of more than nominal value, present or promised unless consideration of substantially equal or greater value was exchanged.

In compliance with this RFP and all the conditions imposed therein, the Offeror identified below offers and agrees to furnish the goods/services in accordance with the attached Proposal or as mutually agreed upon by subsequent negotiations. By my signature below, I certify that I am authorized to bind the Offeror in any and all negotiations and/or contractual matters relating to this RFP. Sign in blue ink and type or print requested information.

My signature certifies that this firm or individual has no business or personal relationships with any other companies or persons that could be considered as a conflict of interest or potential conflict of interest to APS, and that there are no principals, officers, agents, employees, or representatives of this firm that have any business or personal relationships with any other companies or person that could be considered as a conflict of interest or a potential conflict of interest to APS, pertaining to any and all work or services to be performed as a result of this request and any resulting contract with APS.

THIS PROPOSAL IS SUBMITTED BY:

Full Legal Name of Offeror: _____

Mailing Address:

Remittance Address (If Different):

Phone: () _____

Fax: () _____

Email Address: _____

Contact Person: _____

Tax Identification (FIN/SSN#): _____

Typed/Printed Name: _____

Signature: _____

Date: _____

(Person signing must be authorized to bind
the Offeror in contractual matters)

A W-9 Form should be attached showing correct Full Legal name for award of contract.

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INTRODUCTION AND GENERAL INFORMATION (PAGES 1 THROUGH 5)

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- VI. PROPOSAL EVALUATION PROCESS
- VII. INTERVIEW
- VIII. CRITERIA FOR PROPOSAL EVALUATION

ATTACHMENT A: The following forms are to be submitted by each Offeror as indicated in the RFP documents herein:

- 1. Conflict of Interest Statement
- 2. Form of Proposal for Pre-Qualified Construction Manager at Risk Services
- 3. Pre-Construction Phase Team Work Plan
- 4. Construction Phase Team Work Plan
- 5. General Conditions Non-Personnel Breakdown Form

ATTACHMENT B: The following forms are to be submitted and/or signed by the successful CMR:

- 1. Construction Manager at Risk Certification Regarding Criminal Convictions Form
- 2. Standard Labor and Material Payment Bond Form
- 3. Standard Performance Bond Form
- 4. CMR Contingency Use Request Form
- 5. Release and Request for Final Payment Form

ATTACHMENT C: Construction Manager at Risk Standard Scope of Services

ATTACHMENT D: Selected APS Division 01 General Requirements

I. DEFINITION OF TERMS IN RFP

The definition of terms provided in **Section 00 7000 Standard General Conditions for Construction Manager at Risk** shall apply for terms included in this Request for Proposal (RFP), including, but not limited to:

- Construction Manager at Risk (CMR)
- Construction Manager at Risk (CMR) Contingency
- Construction Manager at Risk's (CMR) Fee
- Cost of the Construction Work
- Guaranteed Maximum Price (GMP)
- General Conditions Fee
- Insurance and Taxes Fee

II. PURPOSE

APS seeks to retain the services of a CMR for the Project. This RFP sets forth the minimum performance criteria. By choosing the CMR construction delivery method, it is intended that the CMR and the Architect shall work in the spirit of teamwork to assure the Project goals and timeframes are met to support APS's program. The CMR will be responsible for providing CMR services as required for the Design Phase, Procurement Phase, and Construction Phase for the Project. The Design Phase and Procurement Phase services, referred to hereinafter as the Pre-Construction Phase Services, will include, but are not limited to, scheduling, cost estimating, constructability analysis, construction phasing, facilitating the value management process, reviewing documents, and assembling a team of qualified Subcontractor partners to work directly for the CMR. Construction Phase Services will include construction administration and full responsibility for the successful completion of all construction on an at risk basis. The scope of services is set forth in Attachment C: Construction Manager at Risk Standard Scope of Services.

APS is interested in demonstrated experience in construction management at similar facilities. Ability to coordinate construction activities around a fully functional occupied building in a safe and efficient manner is of critical importance in this Project. Examples of similar previous work including cost control and scheduling management are important. The submitting pre-qualified Offerors should have demonstrated experience with utilizing BIM files to improve construction processes, reduce Project delays, reduce Project costs, reduce change orders and rework and improve overall project coordination.

The successful Offeror will also play a key role in working with the A/E to identify cost effective building systems that may benefit the Project from both the first cost and operational cost perspective.

III. BACKGROUND

A. Introduction

APS requires a Contractor on a Construction Manager at-Risk (CMR) basis for the New Elementary School at the Reed Site (Project).

The School Board approved FY 2017-26 CIP includes an expansion project at the Reed Site for a maximum cost of \$49 million to create a new elementary school for completion in time for the start of the 2021-22 school year that provides at least seven hundred and twenty-five (725) seats.

The existing Reed-Westover Building, located at 1644 N McKinley Road, Arlington, VA 22205, houses both Arlington County and APS programs. The existing building is approximately 61,000 square feet (SF) of which the Arlington County Westover Library Branch comprises approximately 16,000 SF and the APS portion consisting of both The Children's School (TCS) and Integration Station (IS) comprises the remainder. TCS and IS will be relocated prior to construction. It is expected that the library will continue operations throughout construction.

It is expected that following the expansion the total building square footage for the new elementary school (excluding the public library branch) will be approximately 110,000 SF. The facility will be a heavily used

community asset. In addition to expected use during regular school hours it will be used to support the APS Extended Day program, used most evenings and weekends by community groups, and used throughout the summer for various camps and summer school/enrichment programs. It is likely that structured parking will be necessary to accommodate the required parking while retaining adequate field and open space. Site construction will be required to meet current stormwater regulations and APS instructional requirements.

The following list of performance criteria shall be considered APS's project requirements, though the list is by no means to be considered exhaustive. The performance criteria listed are APS standards for new construction facilities. Since a portion of the Project includes an existing structure certain performance compromises may be necessary and shall be investigated and resolved during the initial design phases. The design shall:

- Integrate learning, design, sustainable design, and environmental stewardship so that it supports and enhances student learning and student success
- Deliver a balanced design that achieves **Zero Energy** status as defined by the United States Department of Energy
- Meet these measurable high performance criteria
 - Maximum Energy Use Intensity (EUI): 21
 - On-site renewable energy generation that exceeds the EUI via a solar photovoltaic array
 - Overall minimum insulation R-values: 30-roof, 25-wall, 10-under-slab
 - Thermally broken windows with insulated glass
 - Glazing percentage: 35-40%
 - Airtightness: 0.15 cfm/sf
 - HVAC System: ground source heat pump with dedicated outdoor air system
 - Lighting System: all LED
- Provide building systems that are durable, straightforward to operate/control, and are easily maintained
- Consider Indoor Air Quality, Thermal/Acoustic/Visual Comfort, and Universal Design standards beyond the minimums required by building code

B. Goals and Objectives

The provisions of this section set out the goals and objectives of APS and do not impose obligations, duties or responsibilities upon the CMR in addition to, or independent of, those set out in the other provisions of this RFP and CMR Contract. The CMR will exercise its best professional judgment and perform the Work in a manner that will conform to the accomplishment of these goals and objectives:

- Ensuring the Project remains safe.
- Ensuring the Project remains within budget.
- Ensuring the specific scheduling needs of APS are met.
- Ensuring Owner's Project Manager and Owner's Representative are kept apprised of work in progress, unusual disruptions, changes in schedules, etc. Continuous open communications will be essential to providing the information that will allow APS to plan and adjust incrementally.
- Ensuring the Project supports APS Strategic Goals, specifically Goal 4: Provide Optimal Learning Environments.
- Ensuring that all Project submittals and construction are in compliance with the design intent.

C. Cost

The maximum total Project cost is \$49,000,000 (approximately \$32,000,000 to \$36,000,000 for the GMP and the remaining for Owner contingency and soft costs). At the concept design phase the A/E will develop a minimum of three (3) design concepts representing a range of construction costs, namely a minimum, mid-range, and maximum cost. At the conclusion of the concept design phase a single design concept will be selected.

D. Schedule

For purposes of this RFP, Offerors must use the schedule in this section as a basis of TAB 6: Fees for Services. Offerors have the opportunity to discuss schedule modifications as part of TAB 4: Management Capability / Project Plan, item 4.a.

January 2018	Phase 1 Pre-Construction Services Contract Award
October 2017 to February 2018	Concept Design / Ed Spec / Site Survey
March to June 2018	Schematic Design
July to November 2018	Use Permit / Design Development / 65% CD
December 2018 to May 2019	Building Permit / 95% CD / 100% CD
▪ April 2019	Draft GMP due to APS
▪ May to June 2019	Phase 2 Construction Services Contract Award
July 2019 to April 2021	Construction
▪ July 1, 2019	Construction Starts (Enabling Work & Sitework)
▪ September 9, 2019	Construction Starts (Building Renovation & Expansion)
▪ March 31, 2021	Substantial Completion
▪ April 30, 2021	Final Completion

IV. INSTRUCTIONS TO OFFERORS:

Offerors shall review all available Project documents as listed or referenced in this RFP, visit and become familiar with the Project site, identify any requirements of APS and Arlington County (whether affecting performance of the Work or the authorization to conduct business in Arlington County). The Work is for CMR services for which the Contracts are structured in two phases:

Phase 1 – Pre-Construction Phase Services: Phase 1, Pre-Construction Phase Services, will be subject to the Terms and Conditions included in the Contract Between the Owner and Construction Manager at Risk Phase 1 – Pre-Construction Phase Services and will be performed for a stipulated or fixed amount. The Phase 1 Contract is associated with the Work of the CMR prior to the start of Construction Phase Services and includes providing a GMP for the construction of the Project and is available at the following link:

<https://www.apsva.us/wp-content/uploads/2015/09/Contract-for-CMR-Pre-Construction-Phase-Services-and-Terms-and-Conditions.pdf>

Phase 1 services shall include the following:

1. Construction Manager at Risk Pre-Construction Phase Standard Scope of Services described in Attachment C.
2. All Work shall comply with the requirements of the Contract Between Owner and Construction Manager at Risk Phase 1 – Pre-Construction Phase Services, the Virginia Public Procurement Act, and the APS Purchasing Resolution.

Phase 2 – Construction Phase Services: Phase 2, Construction Phase Services, will be contingent upon the CMR providing an agreeable GMP to the Owner. The Contract Between Owner and Construction Manager Phase 2 – Construction Phase Services will be used for this portion of the Work. The Phase 2 Contract is associated with the Work of the CMR during the construction portion of the Project and is available at the following link:

<https://www.apsva.us/wp-content/uploads/2015/09/Contract-for-CMR-Construction-Phase-Services-and-Standard-General-Conditions.pdf>

Phase 2 services shall include the following:

1. Completion of the Construction portion of the Work in strict conformance with the Contract Documents and the Construction Phase Services Scope of Work described in Attachment C.
2. All Work shall comply with the requirements of the Contract Between Owner and Construction Manager at Risk Phase 2 - Construction Phase Services, the Virginia Public Procurement Act, and the APS Purchasing Resolution.

Format and Content

Proposals should address the items included in the Scope of Services and in the Criteria for Proposal Evaluation. Failure to do so will result in a lowered evaluation. Incomplete Proposals may be determined nonresponsive.

Proposals shall be bound and tabbed and shall include the following components and be organized as follows:

TAB 1: General Information:

Offerors shall provide the following information under Tab 1:

1. The headquarters location of the organization (including physical address, mailing address, telephone number, facsimile number and main e-mail address or web site address) and clear identification of the location of the organization's local or regional office (if different from the headquarters location, including physical address, mailing address, telephone number, facsimile number and main e-mail address or web site address) to be used in delivering the requested CMR services to be provided on the Project.
2. The legal status of the organization (privately held corporation, publicly held corporation, joint venture, etc.). If the Proposal is being made by a joint venture, the Proposal must include the information listed within this section of the CMR RFP for both organizations that constitute the joint venture and a copy of the joint venture agreement.
3. The names and contact information for the President, Vice President of Operations, Chief Executive Officer (CEO) and Chief Financial Officer (CFO) of the organization, as well as the Office Manager of the organization's local office that will have primary responsibility for delivering the Project.
4. The name and title, direct telephone number (including extension), cellular telephone number and direct e-mail address of the highest ranking individual within the organization that will have oversight responsibility for the organization's involvement with the Project.
5. The number of years that the organization has been providing services similar to those requested by this CMR RFP, including a delineation of this information for both the headquarters location and the local or regional office that will be used in delivering the requested CMR services on the Project. Proposers must clearly identify the staffing and experience of the office from which the Project will be managed.
6. A fully executed Request for Proposals Pages 1, 2, 3, & 4 of this solicitation and include them as the first four (4) pages of your Proposal. The name stated on page 4 must be the full legal names of the Offeror and the address must be that of the office which will have the responsibility for the services provided. The following forms should be completed and provided:
7. The Conflict of Interest Statement included at Attachment A.1

TAB 2: Executive Summary (1 page)

Offerors shall provide the following information under Tab 2:

Provide a no more than one (1) page executive summary of your Proposal that highlights the strengths of your firm, factors that differentiate your firm from the other Offerors, and key elements that will contribute to the success of the Project.

TAB 3: Key Personnel Experience and Qualifications (note that the requirements below request more information than was required for the RFQ)

Offerors shall provide the following information under Tab 3:

The professional expertise of the proposed personnel will be a major factor in awarding the Contract. It is critical that the proposed personnel be of the highest caliber and have experience as similar to this type of work as possible. The following information requested is a minimum requirement. The information provided should be such that it conveys the relevant expertise, experience and qualifications concerning overall categories such as: Professional Construction Management, General Contracting, Planning and Project Control, Inspection, Value Management, and Constructability Analysis, Procurement, Scheduling and Estimating Methods, Design Knowledge, Accounting or Cost Analysis, Specialized Experience and Knowledge, and other relevant categories. Evidence that the proposed personnel have previously worked together as a team should be submitted, if applicable. The importance of your proposed staff, including staff that provides home office support, cannot be over-emphasized.

Provide the following information on each of the proposed personnel, Subcontractors (if any), and consultants (if any). Quantity and qualifications of proposed personnel must be sufficient to complete the Pre-Construction

Services Phase and Construction Services Phase of the Project. **Specific personnel required include a Quality Control Superintendent and Close-out Engineer as described at Attachment C.**

1. Name, title, proposed position:
2. Education - Institution(s) attended, year of graduation, specialty/degree earned:
 - a. Post-graduate and specialized relevant training - dates, institutions, courses, seminars, etc.:
3. Licenses - list current licenses by type and state:
4. State how many years each proposed staff member has been employed by:
 - a. Your organization:
 - b. Your organization in the position proposed:
 - c. Previous organizations in the position proposed:
5. Identify all the projects of similar nature, scope, and duration performed by the proposed personnel during the past five years in the same position as being proposed. State for each project the following information:
 - a. Name of the firm the individual was employed by, the supervisor's name, and telephone number:
 - b. Project data:
 - (1) Name and location:
 - (2) Project size (dollar value, square footage etc.):
 - (3) State whether the project was completed on time and on budget and if not explain:
 - (4) Type of CMR contract
 - c. Project description narrative explaining how it is similar to this Project:
 - d. List name, title, address, and phone number of the contact person your proposed personnel directly dealt with on the referenced projects for the following:
 - (1) Architect/Engineer:
 - (2) Owner:
 - (3) Prime Contractors or Major Sub Contractors (list at least MEP):

TAB 4: Management Capability / Project Plan

Offerors shall provide the following information under Tab 4:

This section deals with the overall management strategy and proposed plan for this Project. It should cover all aspects and periods of the Project. It should include, but not be limited to, overall operational concept, identification of problem areas considered most critical and the CMR's strategy for resolution of each potential problem, organizational plan and how the CMR's plan facilitates the accomplishment of APS requirements, and the organizational chart showing all individuals with direct or indirect involvement.

The Offeror is encouraged to provide work samples from completed or ongoing projects to demonstrate and/or support the firm's capability in executing the activities listed in the scope of services. Such high quality and applicable examples will be reviewed favorably.

Provide the following:

1. Provide an organizational chart showing all direct and indirect personnel, showing lines of authority, responsibility, and communication. This team includes APS, the A/E, and the CMR. The CMR shall propose an organizational chart showing how the three parts of the Project team will work together. Explain the nature of services to be rendered in the field office versus the home office. Indicate what percentage of each individual's time will be committed to the Project (e. g., 100%, 80%, etc.) by Project phase and identify the individual and what activities they will perform.
2. Present for approval, if known at this time, a list of proposed consultants and Subcontractors your organization will employ to carry out its functions as CMR.

3. Provide a narrative overall work plan setting forth details for the recommended approach to the Project. Include all phases of the Project from Pre-Construction Services Phase Contract Award through construction completion and any post completion/occupancy services. The plan should include the following, broken down into phases:
 - a. Review and comment on the conceptual schedule. It is the desire of APS to achieve Project completion/delivery as quickly as possible at the lowest cost. Use this section to provide any suggestions for accelerating the project schedule.
 - b. Discuss quality control procedures (CMR’s inspection and internal approval process) to be applied to this project and list most recent project where these procedures were used. Describe the quality control organization reflecting authority and responsibility for key personnel.
 - c. Discuss local construction/labor market conditions and its impact on this Project.
 - d. Provide an explanation of how you plan to leverage BIM, as well as other progressive technologies, to improve project schedule, quality, and cost.

4. Provide project safety record and proposed plan that deals with the overall project safety record of the firm and proposed plan for this Project. The firm should present a current safety record and suggested safety plan that includes, but is not limited to:
 - a. Safety record including lost time accidents on recent projects (including Subcontractors, not just the firm);
 - b. Ability to ensure the safety of students, staff, construction workers, and visitors to APS property and their access to essential areas – identify personnel responsible; and
 - c. Description of how your organization will carry out its safety functions as Contractor. This entails planning for walkways and parking lots, barring entrance to construction areas, maintaining cleanliness within the surrounding facilities, and ensuring compliance with the Virginia Occupational Safety and Health Act (VOSHA) standards/regulations and the safety provisions of the Phase 2 - Standard General Conditions for Construction Manager at Risk Contract.

TAB 5: Cost Control and Value Management

Offerors shall provide the following information under Tab 5:

1. Explain methods for controlling costs and maintaining the Project Schedule, avoiding/minimizing material/labor/equipment shortages, labor problems, and other potential delays. Support your methods by providing deliverables from previously completed or ongoing projects such as Cost Models, Subcontractor Prequalification Forms, Subcontractor Scope Documents/Bid Evaluations, Cost Variance Logs, etc.
 - a. Discuss plans for marketing and generating interest in construction procurements to ensure adequate price competition and quality Subcontractors.
 - b. Provide a plan outlining how the Work will be divided into Subcontractor packages for procurement. Include information on proposed RFP / bid packages, pre-qualifying contractors and suppliers, timing, benefits of your plan, phasing and sequencing of the work, etc.

2. Discuss your approach to Value Management for this Project. Support your approach by providing deliverables from previously completed or ongoing projects such as Value Analysis Logs, Value Engineering Logs, Value Engineering Cost Estimate Backup, Wishlist Log, etc.

TAB 6: Fees for Services

Offerors shall provide the following information under Tab 6:

1. Provide a fully completed Form of Proposal for Pre-Qualified Construction Manager “at Risk” Services; form is included at Attachment A.2.

2. Provide a completed Pre-Construction Phase Team Work Plan included at Attachment A.3.
3. Provide a completed Construction Phase Team Work Plan included at Attachment A.4.
4. Provide a completed General Conditions Non-Personnel Breakdown Form included at Attachment A.5. The form grand total shall match the General Conditions Allowance provided on the Form of Proposal. The items listed are considered to be general conditions costs, not costs of the work. If an Offeror deems a cost to be included as cost of the work in a trade package an explanation must be provided.

A fully completed Form of Proposal will be considered in the rankings of Offerors for short listing firms for Interviews/discussions and the final rankings of Offerors for award of the Contract. Fees will be evaluated in conjunction with the contents of other tabs, specifically Tab 4.

The Owner will rely upon all Fee information set forth in the Form of Proposal in evaluating Proposals. All such Fee submissions shall remain binding upon the Offeror through the negotiation of an agreed GMP for the Phase 2 - Construction Phase Services, subject only to adjustment resulting directly from material changes to the design, Project Schedule, or Costs of the Construction Work as the product of the Phase 1 – Pre-Construction Phase Services.

TAB 7: Proprietary Information

Offerors shall provide the following information under Tab 7:

Trade secrets or proprietary information submitted by an Offeror in connection with this procurement transaction are subject to public disclosure restrictions and requirements of Va. Code Ann. § 2.2-4342. To the extent the Offeror seeks to exclude any document or information submitted as part of its Proposal from public disclosure the Offeror must comply with the requirements of Va. Code Ann § 2.2-4342. **Offerors shall submit, under Tab #7 of the Proposal, any information considered by the Offeror to be trade secrets or proprietary information, shall clearly identify the information as trade secrets or proprietary information and shall provide all information required by Va. Code Ann. § 2.2-4342 to establish why protection is necessary. Offerors may not declare the entire Proposal proprietary nor may they declare proposed pricing to be proprietary.** References may be made within the body of the Proposal to proprietary or trade secret information; however all information contained within the body of the Proposal not in the separate section labeled proprietary shall be public information to the extent so provided by Va. Code Ann. § 2.2-4342.

TAB 8: Other Relevant Information

Offerors shall provide the following information under Tab 8:

Proposals may include any other documentation deemed appropriate by the Offeror to convey to the Project CMR Evaluation Committee knowledge regarding the Offeror's organization. This may include brochures, photographs, letters of recommendation, awards, etc., that your organization believes will assist APS in evaluating its qualifications for this Project.

V. PROPOSAL SUBMISSION REQUIREMENTS

A. General Requirements

Three (3) original hard copies with all signatures in blue ink and three (3) copies of the entire original submission on separate Compact Disks or Thumb Drives, so marked, for a total of six (6) copies of the Proposal are required. Offerors are responsible for ensuring each copy of the Compact Disk or Thumb Drive is marked with the Offeror's name. The Offeror's Proposal shall address requirements of the RFP, not exceeding the stated page limitations. The Proposal shall be limited to a page size of 8 ½" x 11", single space and type size shall not be less than ten (10) point font for each response item. Note: for page-counting purposes, a page equals a one-sided sheet. If a page limit is not noted within the section below there is no page limit.

Proposals shall be submitted in sealed package, with the RFP number, title, Proposal Due Date, and Class A Contractor's License, and its expiration date, on the outside of the sealed package. Offerors are

responsible for having their Proposal received by Purchasing Office staff prior to the Proposal Due Date. APS will not assume responsibility for reproduction where an insufficient number of copies have been supplied. In any such case, APS will notify the Offerors of the deficiency and request that the appropriate number of copies are delivered by the end of the second business day following the request. Failure to comply with this or other requirements of this RFP shall be grounds for APS to reject such Proposals.

Emailed or facsimile submission of proposals are not acceptable and any such proposals will not be considered. Nothing herein is intended to exclude any responsible pre-qualified Offeror or in any way restrain or restrict competition. All pre-qualified Offerors are encouraged to submit proposals.

Modification of or additions to any portion or terms of the solicitation may be cause for rejection of the Proposal; however, APS reserves the right to decide, on a case by case basis, in its sole discretion, whether or not to reject such a Proposal as nonresponsive.

Mandatory provisions of this RFPs are indicated by the inclusion of the words "shall" or "must" to identify the Offeror's obligations. Failure to comply with these requirements or with any other requirements stated as mandatory either in this RFP or in the Instructions to Offerors shall result in rejection of the Offeror's Proposal as not responsive, except to the extent the failure or omission either is not a mandatory statutory requirement or does not affect price, quantity, quality or time.

APS proposed Contract Documents and this RFP contain terms and conditions APS favors and intends to use for the resultant Pre-Construction Services Phase Contract and the General Conditions APS favors and intends to use for the resultant Construction Services Phase Contract. Any Offeror receiving a Contract award shall be required to execute a Contract in substantial compliance with APS standard Contract and will be required to furnish all other required information and documentation including tax identification or social security number within ten (10) days after receipt of the earlier of Notice of Award or Notice of Intent to Award; otherwise, APS may award the Contract to another Offeror.

Any erasures or corrections in a Proposal must be initialed by the Offeror in blue ink.

The Owner's Project personnel reserve the right to visit the office(s) of an Offeror to verify any claim(s) made by an Offeror regarding staff, facilities, capabilities, qualifications and any other reasonable concerns that may arise on the part of the Owner. In such an event, the Offeror must make every reasonable attempt to clarify any concerns expressed by the Owner's personnel at that time.

The Owner will not be responsible for any costs incurred by an Offeror in the preparation and submittal of a Proposal.

An Offeror may request to withdraw a Proposal at any time. In the event an Offeror discovers an error in its Proposal and desires to make a correction after the RFP Due Date, the Offeror shall submit in writing the requested correction, along with a written explanation and justification for the change, no later than one (1) business day following the RFP Due Date. If the Owner is satisfied that the identified error was the result of a clerical or mathematical error, the Owner may permit the correction. The Owner shall issue its written decision to the requesting Offeror within three (3) business days of receipt of the correction request. If the request is approved, the Proposal shall be deemed modified by incorporation of the correction requested. If the requested correction is denied, the Proposal shall be considered as originally submitted. The Owner may request additional information or clarifications from an Offeror at any time after the review process has begun.

B. Unnecessarily Elaborate Responses

Unnecessarily elaborate brochures or other presentations beyond those sufficient to present a complete and effective Proposal to this RFP are not desired and may be construed as an indication of the Offeror's lack of cost consciousness. Elaborate or expensive art work, paper, bindings, and visual and other presentations are neither necessary at this time nor desired by APS.

C. Use of Information and Documents

APS and its officials, employees and agents will copy and use the Proposal of the Offeror and documents included with the Proposal, for various purposes related to analysis, evaluation, and decision to award a Contract. Proposals shall be the property of APS. Following award APS may be required to allow inspection and copying of documents, and may also use the Offeror's documents in connection with any resulting Contract with that

Offeror. The Offeror is responsible for obtaining any necessary authorizations for all such use of the documents and information, and for assuring that such copying and use is in conformance with laws related to trademarks and copyrights. Any documents or information for which the Offeror has not obtained such authorization, or for which such copying and use is not authorized, shall not be submitted. The undersigned Offeror agrees to indemnify, defend and hold APS, its officials, employees and agents harmless from any claims of any nature, including claims arising from trademark or copyright laws, related to use of information and documents submitted with the Offeror's Proposal.

D. Submission of Proprietary Information TAB #7

Trade secrets or proprietary information submitted by an Offeror in connection with this procurement transaction are subject to public disclosure restrictions and requirements of Va. Code Ann. § 2.2-4342. To the extent the Offeror seeks to exclude any document or information submitted as part of its Proposal from public disclosure the Offeror must comply with the requirements of Va. Code Ann. § 2.2-4342. **Offerors shall submit, under Tab #8 of the Proposal, any information considered by the Offeror to be trade secrets or proprietary information, shall clearly identify the information as trade secrets or proprietary information and shall provide all information required by Va. Code Ann. § 2.2-4342 to establish why protection is necessary. Offerors may not declare the entire Proposal proprietary nor may they declare proposed pricing to be proprietary.** References may be made within the body of the Proposal to proprietary or trade secret information; however, all information contained within the body of the Proposal not in the separate section labeled proprietary shall be public information.

E. Format and Content

The Proposal should address the items included in the Scope of Services and in the Criteria for Proposal Evaluation. The content of the Proposal copies submitted on CD-ROM or memory stick should mirror the content of the original hard copy and should be in pdf format. Failure to do so will result in a lowered evaluation. Incomplete Proposals may be determined nonresponsive.

F. Guaranty Bonds

1. The successful Offeror, at the time of the execution of the Construction Phase Services Contract, shall furnish a Performance Bond and a Payment Bond, each in an amount equal to one hundred percent (100%) of the Contract Price and the Contract shall not be deemed to have been fully executed until such Bonds are provided. Bonds shall be on the forms provided in Appendix A and shall be issued by a surety company licensed to conduct business in the state of Virginia and listed on the United States Treasury Department's latest Circular 570, and otherwise acceptable to APS. The Performance Bond and the Payment Bond shall be in effect as of the date the successful Offeror signs the Contract, and shall remain in effect through the later of the expiration of all applicable Warranty Periods or final conclusion of all third party claims against the Offeror, including all appeals. If executed prior to the date the successful Offeror signs the Contract the Bond shall include written certification from the surety that the bond is effective as of the date of the Contract. If the successful Offeror is a partnership or joint venture all partners or ventures shall execute the Bond as principal in a personal and not representative capacity, in addition to execution of the Bond by the Contractor as principal. Cost of said Bonds shall be included in the Contract Price.
2. APS reserves the right to request documentation from the surety company as to its financial capabilities, past experience, and other evidence of security's reliability. In the event that the CMR's surety company becomes insolvent, bankrupt or in any way is incapable of providing the services, the CMR shall, within ten (10) days' notice from APS, furnish new Payment and Performance Bonds to APS from a surety licensed to conduct business in Virginia, listed on the United States Treasury Department's latest Circular 570, and otherwise approved by APS Purchasing Agent. Any cost in securing new bonding will be the responsibility of the CMR.

VI. PROPOSAL EVALUATION PROCESS

The opening of the Proposals will not be conducted in public.

Offerors shall not include in their Proposal budget estimates of the Construction Phase Services. Offerors shall not include in their Proposal any exceptions to proposed contractual terms and conditions, unless such terms and

conditions are required by statute, regulation, or ordinance, until after the qualified Offerors are ranked for negotiations. Offerors providing a Proposal which contains exceptions will be deemed nonresponsive. Exceptions may be discussed in the negotiations stage. Any exceptions an Offeror may wish to submit shall be submitted during the negotiations stage, and any term or provision to which no exception is submitted at that time shall conclusively be deemed to have been accepted by the Offeror.

The Selection Advisory Committee shall evaluate each Proposal and select not less than two (2) Offerors and not more than five (5) Offerors deemed to be fully qualified and best suited among those submitting Proposals based on the criteria set forth in the RFP for further consideration, and giving consideration to the responses to the RFQ. The CMR Fee and the Pre-Construction Phase Services Fee shall be evaluated based upon the sum of those fees and not individually.

Negotiations shall then be conducted with not less than two (2) Offerors so selected, exercising care to discuss the same owner information with each Offeror. In addition, the Selection Advisory Committee shall not disclose any trade secret or proprietary information for which the Offeror has invoked protection pursuant to Article 4-110 of the APS Purchasing Resolution. Price shall be a critical basis for award of the contract, but need not be the sole determining factor. After negotiations have been conducted with each Offeror so selected, Arlington Public Schools shall select the Offeror which, in its opinion, has made the best Proposal, and shall award the contract to that Offeror. When the terms and conditions of multiple awards are so provided in the RFP, awards may be made to more than one (1) Offeror.

The contract for Pre-Construction Phase Services must be initiated no later than the schematic phase of design. The GMP for Construction Phase Services must be established by the completion of the working drawings.

If the parties are unable to agree on a GMP for the Construction Phase Services during the Pre-Construction Phase Services, the Phase 1 contract is concluded and Arlington Public Schools would not enter into a Phase 2 contract with the Phase 1 CMR. In such event, any incomplete Early Release Contracts may, at the discretion of Arlington Public Schools, be terminated for convenience as provided in the Early Release Contract or the Phase I CMR may be directed to complete the Early Release Contract on the terms and at the price set forth therein. If the construction drawings and specifications are substantially complete, the Purchasing Agent may elect to proceed with the project using Competitive Sealed Bidding procurement procedures limited to the CMR proposers which were short-listed for negotiation, including the CMR proposer with which a GMP could not be agreed.

Alternatively, if factors remain which sustain the benefit of continuing with the CMR process, the Purchasing Agent may direct the Selection Advisory Committee to notify the Offeror which was ranked by the Selection Advisory Committee as having made the second best Proposal to submit a proposed GMP and attempt to negotiate an acceptable GMP for the Construction Phase Services. If an acceptable GMP is not reached with the Offeror which was ranked as having made the second best Proposal, then the Offeror which was ranked as having made the third best Proposal shall be notified and an attempt made to negotiate an acceptable GMP, and so on until an acceptable GMP for the Construction Phase Services is achieved. Each unsuccessful negotiation removes that Offeror from further consideration. If Arlington Public Schools is unable to negotiate an acceptable GMP for the Construction Phase Services with any of the Offerors to which the RFP was issued, Arlington Public Schools may in its sole discretion cancel the procurement or proceed with procurement for the construction on a Competitive Sealed Bidding basis. Procurement on a Competitive Sealed Bidding basis shall be deemed a new procurement, and having been a CMR Offeror shall not exclude any person or entity from submitting a Bid.

Rejection of Proposals. APS can reject a Proposal as "technically unacceptable" without considering price.

VII. CRITERIA FOR PROPOSAL EVALUATION

The Selection Advisory Committee will use the following criteria to evaluate and judge the Proposals (weighted as indicated below):

General organization, thoroughness, and continuity of Proposal	10%
TAB 3: Key Personnel Experience and Qualifications	25%
TAB 4: Management Capability / Project Plan	30%
TAB 5: Cost Control and Value Management	15%

TAB 6: Fees for Services
TOTAL

20%
100%

The contents of TAB 1: General Information, TAB 2: Executive Summary, TAB 7: Proprietary Information, and TAB 8: Other Relevant Information.

VIII. INTERVIEW

APS shall require interviews with those pre-qualified Offerors deemed to be fully qualified and best suited among those submitting Proposals based on the criteria set forth in the RFP. APS has tentatively scheduled the interviews for **January 5, 2018 at the APS Facilities and Operations Conference Room, located at 2770 South Taylor Street, Arlington, VA 22206, between 8:00 AM to 5:00 PM.** At the time these interview(s) are scheduled, APS will confirm in writing with each Offeror the specifics of these sessions. The interview will be forty-five (45) to sixty (60) minutes in duration.

Each Offeror is required to have the following personnel attend the interview: Project Executive, Project Manager, Superintendent, Chief Estimator, Quality Control Superintendent, and Preconstruction Project Manager (if different from overall Project Manager).

Selection of the Offeror which, in the opinion of APS, has made the best Proposal, and shall be awarded the Contract, will be based only upon the interview evaluations criteria. The scores from the Proposal evaluation will not be considered during the interview stage. The interviews will be evaluated upon the following criteria:

1. Demonstrated success in meeting the interview requirements and understanding of the RFP requirements. (25%)
2. Demonstrated knowledge of project methodology, understanding the scope of work, and APS' objectives. (15%)
3. Team composition and demonstrated cohesion within the team. (25%)
4. Previous Project Experience Providing Comparable Scope of Services to APS or other local jurisdictions. (15%)
5. Fees for services (20%)

Information supplied by references on capability and past performance of Offeror. References will only be checked for the Offerors interviewed.

The Proposal evaluation scores will not be considered during the interview stage.

Attachment A.1

To be included in TAB 1

CONFLICT OF INTEREST STATEMENT

I, whose name is subscribed below, a duly authorized representative and agent of the entity submitting this Proposal to Arlington Public Schools in response to its Request for Proposal #30FY18, and on behalf of the Offeror:

Certify that neither the Offeror nor any affiliated firm, parent corporation or subsidiary has, within the past five (5) years, been employed by or represented a deliverer of services, which services reasonably could be expected to be considered for purchase by the Arlington Public Schools as a result of this solicitation.

Affirm that if the Offeror is awarded a contract under this solicitation, and during the term of that contract prepares an invitation to bid or request for proposal for or on behalf of the Arlington Public Schools, the Offeror agrees that it shall not (i) submit a bid or proposal for that procurement or any portion thereof or (ii) disclose to any bidder or Offeror information concerning the procurement which is not available to the public.

Affirm that the Offeror further agrees that it shall not solicit or accept any commissions or fees from vendors who ultimately furnish services to the Arlington Public Schools as a result of services furnished by the Offeror under any contract award made as a result of this solicitation.

FIRM NAME (Offeror): _____

SIGNED BY: _____ DATE: _____

NAME/TITLE: _____

ACKNOWLEDGMENT

COMMONWEALTH OF VIRGINIA/STATE OF _____) CITY/COUNTY OF _____) to wit:

personally appeared before me this ____ day of _____ 20 ____ the undersigned a Notary Public in and for the State and County of aforesaid, _____, known to me (or satisfactorily proven) to be the person whose name is subscribed to within the instrument as an agent of the Offeror and acknowledged that he/she has executed the same for the purposes therein contained.

(Seal)

Notary registration number: _____

My commission expires: _____, 20 ____

ARLINGTON PUBLIC SCHOOLS



**Form of Proposal for
Pre-Qualified Construction Manager “at Risk” Services**

Issue Date: November 9, 2017

RFP: 30FY18

Project: New Elementary School at the Reed Site (“Project”)

To: Arlington Public Schools
Purchasing Office
1426 N. Quincy St
Arlington, VA 22207
Attn: David J. Webb, C.P.M.

From: Offeror _____ Contact _____
Address _____ Phone _____
_____ Email _____

Proposal Due Date: **Prior to 2:00 PM on December 5, 2017, Local Prevailing Time**

In compliance with and subject to your Request for Proposal (RFP) and the documents therein specified, all of which are incorporated herein by reference, the undersigned proposes to furnish all labor, equipment, and materials and perform all Work necessary for Pre-Construction Phase Services for this Project as well as the associated CMR Fee, General Conditions Fee, General Conditions Allowance, Insurance and Taxes Fee, bonds, and other items listed below in accordance with the RFP inclusive of all Addenda, for the consideration of the following amounts:

1. Pre-Construction Phase Services Fee (lump sum) – Offeror shall also complete the **Pre-Construction Phase Team Work Plan** at Attachment A.3 and include in Tab 6. The staffing illustrated on the plan shall be the basis of the lump sum fee. Reference the RFP for instructions.

Pre-Construction Phase Services Fee (lump sum):

Phase	In writing	In figures
Concept Design	dollars	\$
Schematic Design	dollars	\$

Design Development	dollars	\$
Construction Documents	dollars	\$
GMP & Procurement	dollars	\$
Total	dollars	\$

2. Pre-Construction Phase Allowance (not to exceed) – Offeror shall include this specified not to exceed allowance for activities that may be required during the Pre-Construction Phase Services prior to an agreed GMP. These activities shall be for subcontractor pre-construction services and could include design assist and advanced buys for specialized/long-lead equipment.

Pre-Construction Phase Services Allowance (not to exceed):

Two hundred thousand dollars (\$200,000)

3. General Conditions Fee (lump sum) – Offeror shall provide a lump sum amount General Conditions Fee for CMR Project staff. Offeror shall also complete the **Construction Phase Team Work Plan** at Attachment A.4 and include in Tab 6. The staffing illustrated on the plan shall be the basis of the lump sum fee. It is essential that all anticipated staff General Conditions requirements are included in the lump sum entered below. If field staff are provided with a vehicle for use on site, costs associated with any such vehicle shall be included in this lump sum. No additional General Conditions Fee will be subsequently authorized unless there are compelling reasons for doing so.

Total General Conditions Fee (lump sum):

_____ dollars (\$_____)

The maximum amount per day that can be added or subtracted from the total General Conditions Fee for adjustment in the construction schedule when establishing the GMP or relative to change orders for adjustments in general conditions shall be the Total General Conditions Fee amount divided by the project duration: six hundred and forty (**640 days**) (time between start of construction and substantial completion as specified in the RFP).

Amount when Total General Conditions Fee is divided by Project duration:

_____ dollars (\$_____) / day

4. General Conditions Allowance (not to exceed) – provide a not to exceed amount for non-personnel General Conditions items. These items are to be reimbursed on an at-cost basis without any CMR mark-up. Offeror shall also complete the **General Conditions Non-Personnel Breakdown Form** at Attachment A.5 and included in Tab 6.

Total General Conditions Allowance (not to exceed):

_____ dollars (\$_____)

5. Insurance and Taxes Fee – stated as a percentage (%) of the cost of the Work, for general liability insurance, builders risk insurance, payment and performance bonds, local business licenses, and any local municipal taxes. (This is the amount that the Offeror will include in any estimates as full and complete payment for these items.)

_____ %

6. **CMR Fee (lump sum):**

dollars (\$ _____)

7. **Billable Hourly Rates for On-Site Staff:**

#	Position	Regular Rate	Overtime Rate	Second Shift Rate
1	Senior Project Manager	\$	\$ N/A	\$ N/A
2	Project Manager	\$	\$ N/A	\$ N/A
3	Assistant Project Manager	\$	\$	\$
4	Field Superintendent	\$	\$	\$
5	Assistant Superintendent	\$	\$	\$
6	Foreman	\$	\$	\$
7	Project Engineer (A/S/C)	\$	\$	\$
8	Project Engineer (M/E/P)	\$	\$	\$
9	Field Secretary/Clerk	\$	\$	\$
10	Clerk/Document Control Person	\$	\$	\$
11	BIM Manager	\$	\$	\$
12	Quality Control Manager	\$	\$	\$
13	Close Out Engineer	\$	\$	\$
14	Field Accountant	\$	\$	\$

Offeror: _____

Authorized Personnel Name Printed

Authorized Signature

Date Signed: _____

Attachment A.3
To be included in TAB 6

Pre-Construction Phase Team Work Plan

Project: New Elementary School at the Reed Site (“Project”)

Offeror: _____

Name, Title/Role	Hours					Total
	Concept Design	Schematic Design	Design Development	Construction Documents	GMP & Procurement	
Total Hours						

- Notes:
1. This attachment is to be included in TAB 6 of the Offeror’s Proposal.
 2. Provide estimated total hours (based on 2080 hours/year).

Attachment A.4
To be included in TAB 6

Construction Phase Team Work Plan

Project: New Elementary School at the Reed Site ("Project")

Offeror: _____

Name, Title/Role	2019					2020										2021					Total Hours								
	FY2020					FY2021					FY2022																		
	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F		M	A	M	J	J	A	S	
	Construction (Hours)															Closeout (Hours)													
Total Hours																													

- Notes:
1. Refer to the RFP for construction start, Substantial Completion, and Final Completion dates.
 2. This attachment is to be included in TAB 6 of the Offeror’s Proposal.
 3. Provide estimated hours for each staff member by month. Hours Total hours shall be based on 2080 hours/year.
 4. Specific personnel required include a Quality Control Superintendent and Close-out Engineer as described at RFP Attachment C.
 5. Include all Project staff.

Attachment A.5

To be included in TAB 6

GENERAL CONDITIONS NON-PERSONNEL BREAKDOWN FORM

Project: **New Elementary School at the Reed Site (“Project”)**

Offeror: _____

ITEM	ESTIMATED COST
Mobilization	
Temporary Facilities inclusive of office trailer(s), field office furniture, field office telephones and supplies, field office electrical power connections and heating/cooling costs, internet connection, temporary sanitary facilities on the job site, and job site elevator)	
Tools/Equipment – small power/hand tools and equipment as may be required by the CMR firm’s field staff only; establish and maintain an appropriate shipping/receiving system, and miscellaneous materials.	
Plans/survey/permits/testing – reproduction costs during construction, surveyors services for site surveys, building and site layouts, etc. as required, required permits, etc.	
Safety/Clean Up- on site safety program through construction inclusive of furnishing and maintain fire extinguishers, first aid station, safety lights, safety barriers and canopies, partition, door, and window closures, ladders, stairs, site fencing, signage. Roads and traffic control devices, daily site clean-up, trash collection, and removal inclusive of rubbish chutes, as applicable (excluding the final cleaning as this is part of demobilization), site security, snow removal and pest control, protection of adjacent property, utilities, etc. Include temporary water for dust control and truck washdown, including equipment for cleaning public right of way.	
General Items (i.e., weather and dust protection, photos, field office computers, office equipment, two way radios, temporary roads, parking and staging areas, offsite construction worker parking (if not accommodated onsite), temporary environmental protection and temporary conditioning (heating and cooling), mockups; and travel expenses for off-site surveys and inspections)	
Close out/De-mobilization – punch list clean-up inclusive of patching and repainting, as needed, final site/facility clean-up including, but not limited to, floors, walls, doors, windows, glass and hardware, restoration of the site, final lien releases, as-built drawings and project close out documents.	
TOTAL:	

Notes:

1. This attachment is to be included in TAB 6 of the Offeror’s Proposal.
2. These General Condition items are to be handled by the CMR on a reimburseable basis and include, but are not necessarily limited to the items described above.

Attachment B.1

CMR CERTIFICATION
REGARDING CRIMINAL CONVICTIONS

This form must be completed by an authorized official for any organization contracting to provide services under a contract with the Arlington Public Schools or any of its schools or departments, or any subcontractor under such CMR.

The completed form from the CMR is a condition precedent to the award of the Contract.

As the official authorized to enter into this Contract on behalf of my organization, I certify that:

1. No employee of the organization who will be in the presence of students on school property during regular school hours or during school-sponsored activities during the performance of this Contract has been convicted of a felony or of any offense involving the sexual molestation, physical or sexual abuse or rape of a child; and
2. As more particularly set forth in Va. Code Ann. Section 18.2-370.4, no employee who has been convicted of rape, forcible sodomy or object sexual penetration, all of a child under 13, during the commission of abduction, in the course of entering a dwelling with intent to commit murder, rape, robbery, arson, larceny, assault and battery, or any felony, or of aggravated malicious wounding will enter upon the property of an existing elementary or secondary school in the performance of the Work; and
3. As more particularly set forth in Va. Code Ann. Section 18.2-370.5, no employee who has been convicted of a sexually violent crime shall enter upon the property of any existing elementary or secondary school during school hours or during school-related or school sponsored activities in the performance of the Work.

I understand that a materially false statement regarding this certification is a Class 1 misdemeanor and that conviction of such misdemeanor shall result in the revocation of this Contract and of any related license that I may hold. I declare under penalty of perjury that the foregoing statements are true and correct.

Name of CMR	Signature
	Name and Title (please type or print)
Address of Firm	
Telephone	Date

Attachment B.2

STANDARD LABOR AND MATERIAL PAYMENT BOND

THIS BOND IS ISSUED SIMULTANEOUSLY WITH STANDARD PERFORMANCE
BOND IN FAVOR OF THE OBLIGEE CONDITIONED ON THE
FULL AND FAITHFUL PERFORMANCE OF THE CONTRACT

BOND #: _____
AMOUNT: _____

KNOW ALL MEN BY THESE PRESENTS: That

(insert full name or legal title of Contractor and address)

as Principal, and _____

(insert full legal title of the Surety)

a corporation duly organized under the laws of the State of _____ and qualified to do business in
Virginia, having its principal place of business at

as Surety, are held and firmly bound unto the Arlington Public Schools and

(name of the Agency or Institution of the Commonwealth)

as Obligee, in the amount of _____ Dollars (\$_____), for the
payment whereof Principal and Surety bind themselves, their heirs, executors, administrators, successors and
assigns, jointly and severally, firmly by these presents.

WHEREAS,

Principal has by written agreement dated _____, 20____, entered into a contract
with _____ Obligee _____ for
_____ the

Construction Manager at Risk Services at New Elementary School at the Reed Site, Contract 30FY18, which
contract (the "Contract") is by reference expressly made a part hereof.

NOW THEREFORE, THE CONDITION OF THIS OBLIGATION is such that if Principal shall promptly
make payment to all claimants as hereinafter defined, for labor performed and material furnished in the prosecution
of the work provided for in the Contract, then this obligation shall be void; otherwise it shall remain in full force
and effect, subject however, to the following conditions.

The Principal and Surety hereby jointly and severally agree as follows:

1. A claimant is defined as one having a direct contract with the Principal or with a subcontractor of the Principal but who has no contractual relationship, express or implied, with the Principal, for labor, material, or both for use in the performance of the Contract. A "subcontractor" of the Principal, for the purposes of this bond only, is one who has a direct contract with the Principal, express or implied. "Labor" and "material" shall include, but not be limited to, public utility services and reasonable rentals of equipment, but only for periods when the equipment rented is actually used at the work site.
2. Subject to the provisions of paragraph 3, any claimant, who has performed labor or furnished material in accordance with the Contract Documents in the prosecution of the work provided in the Contract, who has not been paid in full therefor before the expiration of ninety (90) days after the day on which such claimant performed the last of such labor or furnished the last of such materials for which he claims payment, may bring an action on this bond to recover any amount due him for such labor or material, and may prosecute such action to final judgment and have execution on the judgment. The Obligee need not be a party to such action and shall not be liable for the payment of any damages, costs or expenses of any such suit.
3. Any claimant who has a direct contractual relationship with any subcontractor of the Principal, but who has no contractual relationship, express or implied, with the Principal, may bring an action on this bond only if he has given written notice to the Principal within ninety (90) days from the day on which the claimant performed the last of the labor or furnished the last of the materials for which he claims payment, stating with substantial accuracy the amount claimed and the name of the person for whom the work was performed or to whom the material was furnished. Notice to the Principal shall be served by registered or certified mail, postage prepaid, in an envelope addressed to the Principal at any place where his office is regularly maintained for the transaction of business. Claims for sums withheld as retainages with respect to labor performed or materials furnished shall not be subject to the time limitations stated in this paragraph.
4. No suit or action shall be commenced hereunder by any claimant:
 - a. Unless brought within one year after the day on which the person bringing such action last performed labor or last furnished or supplied materials.
 - b. Other than in a Virginia court of competent jurisdiction, with venue as provided by statute, or in the United States District Court for the district in which the project, or any part thereof is situated.

Signed and sealed this _____ day of _____, 20_____.

Principal

Witness

By: _____
Title

Surety

(SEAL)

Resident Virginia Agent
By: _____
Title

AFFIDAVIT AND ACKNOWLEDGMENT OF SURETY

COMMONWEALTH OF VIRGINIA
CITY/COUNTY OF _____, To-wit:

I, the undersigned notary public, do certify that _____ personally appeared before me in the jurisdiction aforesaid and made oath that he/she is attorney-in-fact of the _____ (Name of Surety), that he/she is duly authorized thereby to execute in its behalf a certain (payment) bond in the sum of _____ Dollars (\$_____), dated the _____ day of _____, 20____, wherein Arlington Public Schools is the Obligee, _____ is the Principal and _____ is Surety, by virtue of a certain power of attorney made by said Surety, dated _____ and _____ RECORDED in the Clerk's Office of the Circuit Court of _____, Virginia, in Deed Book _____, Page _____, or Instrument # _____ / NOT RECORDED (check applicable box); that the said power of attorney has not been revoked; that the said Surety is legally qualified to do business in Virginia; and, that the said _____ thereupon, in the name and on behalf of the said Surety, acknowledged the aforesaid bond as its act and deed.

Given under my hand this _____ day of _____, 20_____ .

Notary Public

My Commission expires: _____

END OF SECTION

Attachment B.3

STANDARD PERFORMANCE BOND

BOND #: _____

AMOUNT: _____

KNOW ALL MEN BY THESE PRESENTS: That _____

(insert full name or legal title of Contractor and address)

as Principal, and _____,

(insert full legal title of the Surety)

a corporation duly organized under the laws of the State of _____ and qualified to do business in Virginia, having its principal place of business at _____,

as Surety, are held and firmly bound unto the Arlington Public Schools and _____,

(name of the Agency or Institution of the Commonwealth)

as Obligee, in the amount of _____ Dollars (\$ _____), for the payment whereof Principal and Surety bind themselves, their heirs, executors, administrators, successors and assigns, jointly and severally, firmly by these presents.

WHEREAS,

Principal has by written agreement dated _____, 20_____, entered into a contract with Obligee for the **Construction Manager at Risk Services at New Elementary School at the Reed Site, Contract 30FY18**, which contract (the "Contract") is by reference expressly made a part hereof.

NOW, THEREFORE, THE CONDITION OF THIS OBLIGATION is such that, if the Principal shall promptly and faithfully perform said Contract in strict conformity with the plans, specifications and conditions of the Contract, then this obligation shall be null and void; otherwise it shall remain in full force and effect.

Provided, that any alterations which may be made in the terms of the Contract, or in the work to be done under it, or the giving by the Obligee, or either of them of any extension of time for the performance of the Contract, or any other forbearance on the part of either or both of the Obligee or the Principal to the other shall not in any way release the Principal and the Surety, or either of them, their heirs, executors, administrators, successors or assigns from their liability hereunder, to all of which this Obligation shall be fully applicable, notice to the Surety of any such alterations, extension, or forbearance being hereby waived.

No action shall be brought on this bond unless brought within one (1) year after: (a) completion of the Contract, including expiration of all warranties and guarantees, or (b) discovery of the defect or breach of warranty or guarantee if the action be for such.

The Surety hereby certifies that this Performance Bond shall be effective as of the date the Contractor signs the Contract.

The Surety represents to the Principal and to the Obligee that it is legally authorized to do business in the Commonwealth of Virginia.

Signed and sealed this _____ day of _____, 20_____.

Principal

Witness

By: _____
Title

(SEAL)

Surety

Resident Virginia Agent

By: _____
Title

AFFIDAVIT AND ACKNOWLEDGMENT OF SURETY

COMMONWEALTH OF VIRGINIA
CITY/COUNTY OF _____, To-wit:

I, the undersigned notary public, do certify that _____ personally appeared before me in the jurisdiction aforesaid and made oath that he/she is attorney-in-fact of the _____ (Name of Surety), that he/she is duly authorized thereby to execute in its behalf a certain (performance) bond in the sum of _____ Dollars (\$ _____), dated the _____ day of _____, 20____, wherein Arlington Public Schools is the Obligee, _____ is the Principal and _____ is Surety, by virtue of a certain power of attorney made by said Surety, dated _____ and _____ RECORDED in the Clerk's Office of the Circuit Court of _____, Virginia, in Deed Book _____, Page _____, or Instrument # _____ / NOT RECORDED (check applicable box); that the said power of attorney has not been revoked; that the said Surety is legally qualified to do business in Virginia; and, that the said _____ thereupon, in the name and on behalf of the said Surety, acknowledged the aforesaid bond as its act and deed.

Given under my hand this _____ day of _____, 20_____.

Notary Public

My Commission expires: _____

Contractor: _____

Name of Surety: _____

Address: _____

Suite: _____

City, State, Zip: _____

Telephone Number: _____

Fax Number: _____

Agent Information:

Contact Person: _____

Firm Name: _____

Address: _____

Suite: _____

City, State, Zip: _____

Telephone Number: _____

Fax Number: _____

END OF SECTION

Attachment B.4

CMR CONTINGENCY USE REQUEST FORM

DATE: _____

PROJECT NAME AND #: _____

CONSTRUCTION MANAGER AT RISK NAME: _____

REQUESTED USE: _____

ORIGINAL AMOUNT OF CMR CONTINGENCY: \$ _____

CMR CONTINGENCY AMOUNT USED TO DATE: \$ _____

AMOUNT OF THIS CONTINGENCY USE REQUEST: \$ _____

REMAINING CMR CONTINGENCY BALANCE: \$ _____

CMR Project Manager's Signature: _____

I hereby authorize this request for use of CMR Contingency.

Authorized Signature: _____

Title: _____

Date: _____

Attachment B.5

RELEASE AND REQUEST FOR FINAL PAYMENT

PROJECT NAME: _____

CONTRACT NUMBER: _____

CONSTRUCTION MANAGER AT RISK NAME: _____

FINAL PAYMENT AMOUNT: _____

TOTAL PAYMENTS TO DATE: _____

FINAL CONTRACT AMOUNT: _____

The CMR hereby requests final payment in the amount indicated on the above referenced Contract. The CMR agrees that its acceptance of final payment releases and forever discharges Arlington County School Board, operating as Arlington Public Schools, and its officers, employees, servants and agents from any and all actions, claims, demands and liability of whatever nature now existing or which may hereafter arise as a result of or in connection with the above referenced Contract, with the exception of those claims previously submitted in strict compliance with the claims submission requirements of the Contract Documents and not finally resolved.

The CMR certifies that all of the debts for labor, materials, and equipment incurred in connection with the above referenced Contract have been paid as required by the Contract.

AUTHORIZED SIGNATURE

DATE

Attachment C

Project Name: New Elementary School at the Reed Site (“Project”)

CONSTRUCTION MANAGER AT RISK STANDARD SCOPE OF SERVICES

This document contains the standard services for the Construction Manager at Risk (CMR). It is divided into three sections: (I.) CMR Responsibilities, (II.) Pre-Construction Phase Services, and (III.) Construction Phase Services. Section I. CMR Responsibilities include general responsibilities applicable to both sections II, Pre-Construction Phase Services, and III. Construction Phase Services.

I. CMR RESPONSIBILITIES.

- A. General Responsibilities.** The CMR shall perform all the services required under the CMR Contract(s) as directed in writing by APS and as specified in Change Orders. The CMR is responsible for providing the management, quality control, budget control, schedule control, and administrative tasks needed to perform the services in an expeditious and economical manner consistent with the CMR Contract and the best interests of APS.
- B. Services to be provided.** The CMR will provide Pre-Construction Phase Services and, if a Guaranteed Maximum Price (GMP) is agreed, Construction Phase Services, and also professional, technical, administrative, and clerical personnel as needed to complete the Construction Phase Services including, but not limited to, those described in this RFP. The services described or specified shall not constitute a comprehensive specification having the effect of excluding services not specifically mentioned. The lump sum prices offered in the attached Proposal shall include all services described in this RFP, except those specifically designated as additional services. The CMR shall provide additional services on the basis of priced Change Orders.

C. CMR Staff.

1. **Core CMR Staff.** The CMR shall assign and dedicate personnel to this Project sufficient in number, and with the requisite expertise and experience, to perform the duties described in the CMR Contract. APS anticipates that the CMR will supplement the core staff as needed throughout all phases with other employees, and/or Subcontractors who will support the core staff on a daily basis and/or bring special skills and expertise to the Project.

Such supplemental staff will be provided at no additional cost to APS. Having adequate CMR staff at all phases of the Project is a requirement of the Contract and is the responsibility of the CMR. APS has the right to request additional staff with requisite experience be added to the Work at any time at no cost to APS if, in its sole discretion, it feels the Project is under or incorrectly staffed.

2. **Removal of CMR Employees.** APS shall have the right to remove immediately any CMR employee at any time during the duration of the Pre-Construction Phase Services Contract and, if awarded, the Construction Phase Services Contract if it determines, in its sole discretion, that the employee is not of the level of competence or ability required under the Contract, or if the employee is for any other reason found to be unsuitable for the Work.
3. **Personnel Replacements.** In the event that any personnel named in the Proposal is unable to perform their duties due to death, illness, resignation from the CMR's employ, APS request for

removal, or any other reason, the CMR shall promptly submit to APS, in writing, the name and qualifications of a proposed replacement according to the approved succession plan. The CMR shall make any approved substitutions at no increase in the Contract Price and the first 30 days of any replacement personnel shall be at no cost to APS to allow for a transition period.

4. **Failure to Provide Qualified Personnel.** CMR personnel must meet the stated requirements in the Request for Qualifications and Request for Proposal documents and be acceptable to APS to perform the contracted services. APS may deem repeated failure or excessive delay by the CMR to provide qualified personnel, or qualified replacement personnel, sufficient reason to terminate the Contract in whole or in part.
5. **Subcontractors.** APS shall approve in writing any proposed Subcontractor required by the CMR for services covered by the CMR Contract before the CMR awards the Subcontract or agreement. APS has the right to remove any Subcontractor's employee APS deems to be incompetent, careless, not working in harmony with others on the Project, or otherwise objectionable. Any substitution of approved Subcontractors shall likewise be subject to prior approval of APS.

D. Record Keeping and Progress Reports

1. **Record Keeping.** A primary responsibility of the CMR is to prepare correspondence and other documentation and to maintain accurate and detailed records of the Project's progress during each Phase. The CMR will research and prepare draft submittals for APS and the A/E in connection with APS's responsibility for filing documents required for the approvals of governmental authorities having jurisdiction over the Project.
2. **Progress Reports.** The CMR shall prepare periodic reports for APS to document Project actions and to keep APS's Project Manager apprised of progress. The reports shall cover all relevant topics, including Project Schedule, budget, submittals, Change Orders, clarifications, meetings, and other topics conducive to the success of the Project. The CMR shall maintain frequent contact by email, telephone, site visits, meetings, etc., with all parties involved with the Project and submit prepared progress reports to APS no less than monthly.

E. Project Schedule. (See Specification Section 01 32 00 Construction Progress Documentation).

F. Meetings. The CMR will schedule and conduct meetings as necessary for the successful completion of the Project and as directed by APS. In conjunction with meetings, the CMR will schedule and arrange for meeting places; provide advance notice of meetings to attendees; prepare and distribute agenda to all attendees before meetings; and chair meetings, addressing all old and new business, recording minutes, and controlling discussions to focus on results and the resolution of problems.

G. Office Facilities. Prior to the commencement of construction, the CMR is required to set up and maintain any required IT services for the Site offices.

1. **CMR Staff.** (See Specification Section 01 50 00 Temporary Facilities and Controls).
2. **APS Staff.** The CMR is to include on Site equivalent connected work space for two (2) APS staff located within temporary facilities separate from the CMR staff. APS staff will provide their own computer-related equipment.

3. **A/E Staff.** A/E staff will be on Site and require space for one (1) staff personnel in the shared workspace area.

H. Subcontractors. The CMR shall hold Project marketing conferences with the trade community. The CMR shall be responsible for completing a trade packages procurement plan.

I. Limitations on Authority. APS reserves for itself certain duties and authority, and the CMR shall not perform them. The CMR shall provide recommendations on the following items on its own initiative for APS approval and authorization:

- Deviations from the Construction Contract Documents.
- Substitutions of materials or equipment.
- Obligation of expenditure of APS funds.
- Initiation of any action unilaterally which will create a financial obligation, time delay or extension, or reduce the Project quality.

J. Disposition of Materials. Upon termination or completion of all Work under the Contract, the CMR shall dispose of all excess materials and debris produced during the performance of the Contract as directed by APS, or as specified in other provisions of the Contract Documents. All materials produced, or required to be delivered under the Contract become and remain the property of APS at the time of their creation or delivery.

K. Additional Services. APS may issue individual Change Orders for Additional Services as required. Such Change Orders will specify work for the CMR to perform and APS and CMR will agree to a total price according to the unit prices offered for the effective Project Phase in the Proposal, and the direct Subcontractor cost. The CMR will price each Change Order and will provide a time of performance determination for APS review and approval. The CMR shall perform the Additional Services upon the direction of APS by Change Order. The Terms and Conditions and General Conditions as applicable of the CMR Contracts apply to Additional Services performed. See Specification Section 01 26 00 Contract Modification Procedures.

L. Outreach. The CMR shall participate in outreach efforts as necessary in order to communicate Project issues with school staff, county staff, and/or general public.

M. Building Information Modeling. The CMR will provide all necessary technical resources to support the creation, use and maintenance of the BIM model in Revit from the completion of the Schematic Design Phase through Project Closeout.

II. PHASE 1 - PRE-CONSTRUCTION PHASE SERVICES

A. General CMR Responsibilities. During the Pre-Construction Phase, the CMR shall expeditiously review the design documents. Design submissions within the Pre-Construction Phase include concept design, schematic design, design development, 65% Construction Documents, and 95% Construction Documents. At the concept design phase the A/E will develop a minimum of three (3) design concepts representing a range of construction costs, namely a minimum, mid-range, and maximum cost. The CMR shall provide Pre-Construction Phase Services described herein for each of the concept options. At the conclusion of the concept design phase a single design concept will be selected. The CMR shall work with the A/E, APS, and APS consultants in a cooperative team effort to thoroughly review the documents and provide a complete bid package(s). As part of the A/E's planning effort, the CMR shall participate with APS and the A/E in advising a potential "Early Start"

for construction packages and phasing of the multiple Project components. The CMR's principal tasks during the Pre-Construction Phase are as follows:

- Reviewing Documents
- Reviewing and preparing cost estimates
- Preparing and updating proposed construction schedules
- Participating in Value Engineering exercises
- Developing construction Subcontractor trade packages and contracts
- Performing administrative and other services
- Providing Construction Phase safety plan
- Providing Construction Phase QA/QC plan
- Providing a GMP for the construction of the Project

B. Project Procedures Manual. The CMR shall meet with both APS and the A/E immediately upon notification of selection to develop a Project Procedures Manual. The purpose of the Project Procedures Manual is to establish administrative procedures for guidance to the CMR in the performance of CMR services. This document is not a Contract Document and shall not modify in any way any requirement, provision, term, right or obligation set forth in the Contract Documents. Unless directed otherwise by APS, the CMR shall submit the manual to APS for approval within twenty-one (21) days of issuance of the Pre-Construction Phase notice to proceed (NTP).

The CMR shall be responsible for creating and maintaining any revisions to the Project Procedures Manual which will contain, but is not limited to, the following:

1. **PURPOSE:** statement of purpose of the manual
2. **KEY PROJECT PERSONNEL:** list of all key personnel, titles, addresses, telephone numbers, brief Project job description – includes CMR, APS, A/E, etc.
3. **CORRESPONDENCE:** list types of written communications, identifying the key personnel responsible for each type of communication, who must be informed and copied, how to document meetings and record telephone conversations or instruction and confirm such, etc.
4. **REPORTS TO APS:** list the reports, due dates, contents of each, and distribution
5. **RELATIONSHIP WITH A/E, APS, and APS CONSULTANTS:** the following minimum items are to be covered in order to clarify relationships and responsibilities: Special Conditions, General Conditions, and Supplemental General Conditions, Drawings and Specifications, Substitution Policy, Shop Drawings, Modifications and Changes, Surveys and Testing Laboratories, Proposed Bid Packages, Approved Procurement Documents, Subcontractor Pre-Qualifications, On-Site Inspection, Plan Interpretations, etc.
6. **HOME OFFICE RESPONSIBILITIES:** List responsibilities to be directed and coordinated by the CMR Construction Executive such as Resource Allocation, Overall Project Schedule and Cost Control, General Home Office Supervision, and what is included.
7. **FIELD RESPONSIBILITIES:** Responsibility for performance of all work at the job site will be delegated to the CMR Project Manager. List all duties and responsibilities, and supplementary reporting and record requirements.

8. **REPORTS AND CORRESPONDENCE SUMMARY:** Summarize all the above reference reporting and correspondence procedures, providing index and copy of forms.

C. Document Review. The CMR will participate in all A/E document reviews including, but not limited to, APS, Regulatory, ADA, and Constructability reviews. The CMR shall advise APS of any defects, conflicts, ambiguities, discrepancies, or lack of clarity in contract documents, and/or the applicability of proprietary materials or processes. Unless directed otherwise by APS, complete document review comments shall be provided to APS within twenty-one (21) days after submission of the A/E documents and shall be in a format compatible with the design phase quality control software described in section II.C.3.

1. **Submissions.** The CMR shall expeditiously conduct reviews appropriate to the level of document development. The CMR will perform document reviews on all A/E submissions. Traditional design is divided into Concept, Schematic, Design Development, and Construction Document Phases. Each submission may require multiple revisions and reviews as a Basic Service before approval by APS. The CMR reviews shall be for the purpose of advising on all design, constructability, and maintainability issues including but not limited to Site use and improvements, selection of materials, availability of long-lead items, building systems and equipment, and construction phasing. The CMR shall perform detailed design reviews of all building systems, including but not limited to, sprinkler systems, fire alarm systems, egress (safety) requirements, security systems, and assure that designs of these systems and elements comply with APS project requirements. The CMR shall also perform detailed technical and code review of all drawings.
2. **Types of Document Reviews.** APS requires that A/E document submissions undergo the following general types of document review.

APS Review. APS's Design & Construction office and other various APS Departments perform a review to ensure that the Design Documents satisfy established functional and space requirements of the Project. The CMR will assist APS in conducting these reviews. This review will include, but is not limited to erosion and sediment controls, stormwater management, LEED/sustainability, construction phasing, and occupied construction, as applicable.

Constructability Review. The CMR is responsible for expeditiously conducting the constructability review. The required primary elements of the CMR's constructability review are:

- Drawings are complete and coordinated among disciplines.
- Materials, processes, equipment, and labor are available, non-proprietary, and appropriate according to best industry practice and LEED requirements.
- Defects, conflicts, overlaps, ambiguities, or lack of clarity in documents are identified for correction.
- Planning for use of the Site accommodates access, logistics, and storage.
- Existing conditions are shown correctly and adequately.
- Protection of historic features to be preserved is adequate.
- Incorporation of new systems preserves without damage designated historic fabric and features.
- Requirements of APS design requirements.
- All required construction work is included in the Contract Documents.
- Construction details are workable.
- General Conditions Items are properly addressed.

Building Envelope & Commissioning Review. APS will use term contract consultants to conduct Design Document reviews and provide comments. The CMR will assist APS in coordinating these reviews and tracking action items.

3. **Document Review Reports and Design Review.** For all document submissions from the A/E, the CMR shall administer and maintain a design phase quality control software, such as Dr. Checks (supplied by APS), in order to document, track, and manage all design comments/input to ensure they are resolved, responded to, and incorporated into the documents as required. The CMR shall be responsible for entering all issues in the software at each Design Phase, ensuring the A/E team provides a sufficient response to each issue in the software, and back checking to ensure all relevant responses are included in the Construction Phase bid documents. The CMR shall consolidate review comments into a single document review report, including the CMR's cost estimate review comments and APS review comments. At the completion of each Design Phase, the CMR shall attend and participate in a focused design review.

D. Progress Document Reviews. During the entire design process, the CMR shall make periodic reviews of the Drawings to advise the designer on design decisions that do not fit within the Project budget or Project Schedule. These reviews should be performed as required by the Project demands but no less than monthly.

E. Cost Management.

1. **Cost Model.** The CMR shall lead the Project team in collaboratively creating a cost model for the Project based on the approved Project construction costs and submit to APS for approval within fourteen (14) days of issuance of the NTP. The model is to identify the cost of each of the areas of the work based on the building component format, or other format as agreed by APS, and the specific assumptions used to develop the cost. The CMR costs (general conditions, fee, and CMR contingency) are shall NOT be subject to escalation and/or design contingency. The cost model will provide the base from which the subsequent cost estimates can be evaluated to identify areas of cost concern.
2. **Cost Studies/Estimates.** The CMR will prepare a complete Cost Study at the end of each phase of the design; this includes the concept, schematic, design development, 65% Construction Documents, and 95% Construction Document phases. Unless directed otherwise by APS, the Cost Study shall be provided to APS within twenty-one (21) days after submission of the A/E documents. Due to the changing economic climate, all cost estimates are to be construction-based not data-based, that is, the CMR is to develop its estimates with its in-house capabilities and test its estimates from pricing of trade work directly from the market place rather than exclusively based on the data retained in the CMR's files. During development of the Cost Study, the CMR shall work closely with the A/E to understand the various aspects of the design and components of the Project.

Cost Studies shall include the following:

- Detailed Estimate – showing work items and the methodology for establishing the value for each item. Estimates shall be in a format acceptable to APS and shall include a complete detailed take-off reflective of the level of development provided in the drawings and specifications.
- Contingency – contingency shall be included in every cost study and finalized in the GMP.
- Escalation – escalation costs/factors shall be considered and identified

- Pricing of alternative design options
- Clarifications and Qualifications indicating any specific assumptions made in the development of the estimate
- Identification of all documents used in the development of the Cost Study
- Value analysis options including the associated cost savings or added costs and any benefits/disadvantages related to each option
- Identification of Project Schedule demands that significantly affect Project cost
- Comparison to previous estimates and the reasons for any differences

The A/E is also required to provide a cost estimate at the end of each design phase. The CMR will work with the A/E to reconcile the cost estimates and ensure that both estimates are based on the same scope and assumptions. The result of the reconciliation process shall be a single estimate to which both the CMR and A/E agree reflects the estimated cost of the Project. The reconciled cost estimate will be used to determine whether the A/E has met their contractual obligation to design the Project within the budget. Following APS approval of the reconciled cost estimate the CMR shall prepare an expenditure-forecast schedule (Project cash flow) based on the cost estimates.

In the event that the cost estimate exceeds the approved Project funding available APS reserves the right to direct the CMR to (and the CMR shall) work in conjunction with the A/E to redesign the Project as necessary to maintain the Project requirements and meet the approved funding available without any additional compensation to the CMR. The CMR shall provide timely advice to APS on cost reducing alternatives which can be employed without impairing the overall quality level of the Project, and participate in all cost reduction work sessions conducted by APS. The CMR, at no extra cost, is also required to provide cost estimates on an ad hoc basis in the early design phases to respond to reviews of different design options as well as cost comparisons of different building systems.

After the CMR develops the first Project cost estimate based on its review of the A/E drawings and commentary, and after each successive design phase Project cost estimate and cost reconciliation, the CMR will produce and maintain a Trending Log to track and show the cost impact to the estimate of Project decisions made during the design phase. The CMR will update the Trending Log and distribute it to the Project team (APS, A/E, CMR) at least every month until the Construction Documents are approved for construction.

F. Schedule Control. Immediately following CMR selection, a Project Schedule, inclusive of both Phase 1 (Pre-Construction) and Phase 2 (Construction) Work, shall be developed by the CMR and unless directed otherwise, submitted to APS for approval within fourteen (14) days of NTP. The CMR shall consult APS, the A/E, governing entities, and other Project stakeholders to understand all Project activities and projected timelines. At minimum, the Project Schedule shall be updated monthly thereafter. This Project Schedule shall include, at a minimum, activities for: developing Drawings and Specifications for the various stages of design, CMR estimating activities, preliminary Project construction activities, permitting and other regulatory reviews, various V/E and systems analysis activities, key APS and Project team decisions, and Project milestones. The CMR may also be asked to develop schedules related to construction sequencing options. The CMR is responsible to monitor the schedule during the Pre-Construction Phase to ensure that the schedule is maintained, advising APS of any deficiencies in adhering to the schedule by any party.

G. Staging, Logistics, and Phasing Review. The CMR shall work with APS and the A/E to establish the limits of construction, routes for deliveries, staging areas, parking areas for construction personnel, working hours, pedestrian/vehicular access and egress, erosion and sediment controls, stormwater management, tree protection/preservation, construction sequencing/phasing, and any other

items that affect the areas adjacent to the Project site so as to limit the impact of construction activities to adjacent areas or operations while minimizing Project costs given the Site constraints, including all conditions of the Use Permit. The CMR shall produce illustrations showing recommendations for staging, logistics, and phasing elements.

- H. Cash Flow Forecasts.** The CMR shall provide, at APS's request, forecasts on anticipated billings for the Project. Such forecasts are for planning purposes only and shall not in any way dictate the actual billings or payments made during construction.
- I. Record Keeping.** The CMR shall maintain file copies for APS and the A/E's in connection with APS's responsibility for filing documents required for the approvals of governmental authorities having jurisdiction over the Project. The CMR shall maintain file copies of all Design Document submissions and review comments. The CMR will organize, index, and maintain the hard copy paper and computer records so they are easily accessible and retrievable. The CMR shall use the contract and document management software specified by APS.
- J. Value Engineering (VE).** The CMR shall, after a complete review of the Project program and understanding of the intent of APS and the A/E, provide VE services as described below and offer cost savings suggestions and best value recommendations to APS. All recommendations must be fully reviewed with APS and approved prior to implementation. APS views VE as an ongoing process. The CMR is expected, therefore, to be pro-active and participate on an ongoing basis relative to VE ideas.

VE efforts shall result in a design that is most effective in first costs as well as long term operational costs relative to issues of energy use and facility maintainability. VE studies shall include life cycle cost analysis as may be required to achieve an appropriate balance between costs, aesthetics and function particularly where VE affects the Project's energy or acoustical performance. VE efforts shall also take into consideration applicable constructability issues. The CMR shall notify, in writing, APS upon observing any features in the design that appear to be ambiguous, confusing, conflicting or erroneous. All VE studies must be provided on a timely basis within the design schedule. VE studies shall be continuous as the design is being developed. The CMR shall maintain a VE log inclusive of VE item description, cost, and Project team's recommendation (accepted, pending, rejected).

There shall be a major **VE Study Report** at the Design Development (DD) submission (utilizing the DD documents) which shall include, but not be limited to, the items noted below, conducted and/or provided by the CMR. Although the major VE session is expected at DD, it is not intended to be the only VE discussion; rather it is anticipated that most of the potential VE savings be identified prior to the DD documents:

1. Develop VE concepts for consideration at the session noted in (2) below (it is anticipated that the A/E will be concurrently conducting a similar activity);
2. Brainstorming session(s) with design team;
3. Written cost studies shall be produced and submitted to APS within one (1) week of the final brainstorming session and shall include the original cost of the VE item based on the original design and the cost of the VE item to identify the cost savings or add for each item;
4. Formal presentation of the study to be conducted by the CMR with the Project Team at which time APS will make its VE decisions; it is anticipated that this presentation will be a 1-day effort; and,
5. Formal submission of the VE study document inclusive of a summary of VE items, applicable cost savings, selected items and their corresponding cost savings.

The CMR shall also conduct VE studies during the remainder of the Pre-Construction Phase Services to evaluate specific items as requested by APS.

The CMR takes the lead on this VE effort inclusive of compiling all VE ideas from all Project Team members (AE, CM and APS), determining the applicable dollar value of each and conducting the VE session with the Project Team at which time the team makes its recommendations to APS. When the CMR documents the VE ideas, the CMR is to show how the dollar values were derived for each VE item; that is, documentation of the detailed cost of the Work as originally designed per the current estimate and the detailed estimate of the VE item to determine what cost savings, if any, is projected.

The CMR is to anticipate the need for VE as part of the design schedule; that is, at the commencement of each design phase and the determination of the due dates for the design submittal and associated cost estimate and reconciliation.

Note: As noted above, VE relates to the achievement of an appropriate balance between costs, aesthetics and function. Based on this, VE should be conducted at each design submittal regardless of whether the Project costs are within the designated Project budget; that is, the Project Team needs to confirm that APS is getting the best “value.”

K. High-Performance Building, Net-Zero Energy, Water Reclamation and Sustainability. The CMR shall implement practices and procedures to meet APS’s high performance building goals, which may include, but is not limited to, achieving net-zero energy, water reclamation and reuse, WELL Building Standard certification & LEED Platinum certification. Specific Project goals that impact the CMR include:

- Coordination of all trades and Work required to meet or exceed the building performance model(s).
- Oversight and verification of the data required to be captured from all building systems specified and controlled and relayed to the Building Automation System and Building Dashboard system.
- Coordination and oversight of the building envelope construction and testing
- Coordination of Subcontractors (waste haulers) related to Construction and Demolition Waste Management.
- Coordination of Subcontractors related to compliance with a Construction Indoor Air Quality Management Plan.
- Special Substitution Requests for WELL and LEED Initiatives.
- Compliance with Specified Material and Documentation Requirements Related to the Use of Recycled-Content Materials; Use of Locally/Regionally-Manufactured Materials; Use of Low-Emitting Materials; and Use of Certified Wood Products.

Note that Commissioning will be performed by an independent 3rd party commissioning agent, in accordance with net-zero energy, WELL & LEED requirements.

The CMR shall help ensure that the requirements related to these goals, as defined in the Project Specifications, are implemented to the fullest extent. Substitutions or other changes to the Work shall not be allowed if such changes substantially compromise the specified Building Performance Criteria.

- L. Quality Control Program.** The CMR shall develop a quality control program to be incorporated into the Project Specifications.
- M. Safety Program.** The CMR shall develop a safety program to be incorporated into the Project Specifications.
- N. Extended Transition to Operations Protocol (eTOP).** The CMR shall assist with implementing eTOP into the Construction Documents.
- O. Use and Building Permits.** The CMR shall assist in preparing documents for Use Permit and Building Permit submission and in obtaining Use Permit and Building Permit approval from the Arlington County Government.
- P. Design-Assist Subcontracting.** The CMR shall provide recommendations on potential Design-Assist (D-A) subcontracting and provide an explanation on why it is expected to be in the best interests of APS. If approved by APS, the CMR shall issue the Design Development documents to solicit D-A subcontractors to include, but not be limited to, MEP, exterior skin, and structural trades as recommended by the Project team.

The CMR's award to the selected D-A subcontractor shall be based on technical qualifications and an initial guaranteed maximum price (iGMP). The iGMP shall consist of a complete take-off broken down into material and labor (including productivity factors), itemized general conditions, overhead and profit, contingencies, escalation, assumptions, and any supporting documentation prepared in the take-off of the work. The AE will review and comment in the iGMP. The CMR shall recommend D-A subcontractor award for APS approval. If approved by APS, a target design value (TDV) shall be assigned.

The CMR, A/E, and D-A subcontractors shall prepare independent estimates at the subsequent A/E document milestones. The estimates shall be reconciled with that participation of the A/E. Final GMP shall be awarded on the basis of 95% Construction Documents, including all applicable Addenda, with a complete take-off and wage rates. Discrepancies with the TDV must be justified and itemized scope changes quantified with a complete breakdown of costs.

Any D-A subcontractor shall be an active participant in the design process, suggesting alternatives, testing the market, and providing constructability comments and ad hoc estimating services. The CMR shall be responsible for overseeing and managing D-A subcontractors and ensuring that they are performing the appropriate services.

At any point prior to the CMR's award for construction to a D-A subcontractor, APS may, at its sole discretion and without penalty, have the CMR discontinue with the applicable D-A subcontractor and direct the CMR to bid the applicable trade package based on the 95% Construction Documents.

- Q. GMP and Procurement Services.** At the point of 95% completion of the Construction Documents for the Project, or as otherwise directed by APS, the CMR shall develop and provide to APS a GMP that will include all construction costs, and all other projected costs inclusive of the CMR's quoted Construction Phase and General Conditions fees and CMR Contingency but excluding the Owner's Construction Contingency. The GMP shall display each proposed trade contract amount; the CMR's fixed fee; and all Project related costs, i.e. bonds, personnel, payroll benefits, etc. **Unless directed otherwise by APS, the CMR shall provide the GMP to APS within 6-8 weeks of issuance of the 95% Construction Documents.** The CMR shall hold all construction Subcontractor, equipment, and materials contracts directly, and have full responsibility. The CMR may only self-perform 10% of the

Work, by value, and, for the remaining 90% of the Work, by value, the CMR must procure it by publicly advertised, competitive sealed bidding to the maximum extent practicable.

The GMP must not exceed the approved Project funding available. In the event that the cost estimate exceeds the approved Project funding available APS reserves the right to direct the CMR to (and the CMR shall) work in conjunction with the A/E to redesign the Project as necessary to maintain the Project requirements and meet the approved funding available without any additional compensation to the CMR.

Unless directed otherwise by APS, the CMR shall utilize the 95% Construction Documents as prepared by the A/E to invite and receive competitive bids on all trade packages and/or materials as a basis for each GMP submission.

APS expects to be a full participant in the qualification, evaluation, and selection of trade package Subcontractors. The CMR shall make available at any time prequalification forms, trade package scope of work documents, trade package bid forms, etc. such that the GMP development remains open and transparent.

The CMR shall provide the services described here including, but not limited to, the following:

1. **Procurement Plan.** The CMR shall expeditiously prepare a Procurement Phase plan and estimated procurement schedule, to include all planned Subcontractor packages, any anticipated groupings of packages, all potential Offerors and/or Bidders listed by package, and all activities necessary to award all construction Subcontractor, equipment, and material contracts including Pre-Proposal and Pre-Bid Conferences. The Procurement Plan shall be submitted to APS for review and approval.
2. **Long Lead Items.** The CMR shall identify, expedite, and coordinate with all Subcontractors and/or suppliers the ordering and delivery of any materials requiring a long lead time and/or mock-ups to review technical and aesthetic criteria. Long lead items are defined as items which may affect the orderly and timely completion of the Project or any component thereof.
3. **Prequalification.** The CMR will administer the prequalification of prospective Subcontractors for certain critical construction packages, subject to final approval by APS. Prequalification criteria shall include experience, past performance, financial capability, technical capability, and quality capability.
4. **Scope of Work for Trade Packages.** The CMR will develop draft scopes of work based on the 65% Construction Documents; in addition, each scope of work shall include but not be limited to, anticipated working hours to address APS's concerns with noise and vibration, coordination between or among trades, outages, temporary facilities, (if required), temporary heat and electric (if required), hoisting, etc. and identification of Work to be performed that is not specifically noted in the primary specifications sections for the specific trade. The CMR shall base the final scopes of work on the 95% Construction Documents.
5. **Marketing.** The CMR shall procure Subcontractor packages by publicly advertised, competitive sealed bidding to the maximum extent practicable. In addition, the CMR will canvas the market to evaluate contractor interest, and prepare a source list of potential equipment and material vendors and construction Subcontractors for APS. The CMR shall document all contacts made as part of this process. At the request of APS, the CMR will suggest strategies for expanding competition by stimulating more contractor interest.

6. **Pre-proposal and/or Pre-bid Conference(s).** The CMR shall conduct Pre-proposal and/or Pre-bid Conference(s) for the benefit of potential construction Subcontractors. The CMR shall schedule the meeting(s), publicize the meeting(s), prepare agendas, and record minutes. The CMR shall invite APS to attend.
7. **Site Visits.** The CMR shall conduct Site visit(s) for the benefit of potential construction Subcontractors. The CMR will be responsible for scheduling and/or publicizing the visit(s).
8. **Addenda /Amendments.** The A/E will prepare Construction Document addenda/amendments, with the assistance of the CMR and APS, for the construction Subcontractors as necessary and in response to the CMR's request for information and/or clarification.
9. **Bid/Proposal Evaluation.** The CMR will prepare technical analyses of Subcontractor bids and proposals, compare and evaluate the bids and proposals, and make recommendations to APS regarding award by the CMR of the equipment and material contracts, Construction Subcontracts, and any additive bid items.
10. **Negotiation.** The CMR will provide all support and conduct equipment, material, and construction Subcontractor negotiations, if necessary, before finalizing the corresponding Subcontract(s).
11. **Distributing Information.** The CMR will distribute all information to potential Subcontractors as required for marketing.
12. **GMP Proposal Submission.** Based on the trade bids received, the CMR shall develop a GMP Proposal Submission and shall include the following elements:
 - A list of Drawings, Specifications, and Addenda on which the GMP is based.
 - A list of Unit Prices and Allowance items as well as a statement of their basis.
 - A list of assumptions and clarifications made in preparing the GMP, noting in particular any exclusions. The CMR shall document any differences between the Drawings and Specifications and the modifications made in the assumptions and clarifications; specifically addressing any changes in the Project's aesthetics, functionality, or performance.
 - Proposed GMP, including a statement of the detailed cost estimate organized by trade categories, Allowances, CMR Contingency, CMR fee, and other items that comprise the GMP.
 - An update to the Project's Schedule to which the CMR shall agree to be bound.

R. Services Covered in Lump Sum Price. The list of services described in Pre-Construction Phase Services, is not a complete list of the Basic Services APS will require the CMR to perform during the Pre-Construction Phase. During the Pre-Construction Review Phase, the CMR may be required to perform other various tasks for APS within the scope of the Pre-Construction Phase Contract. The CMR is responsible for performing all such services as required by APS, within the Contract Price, to achieve the Project goals, including, but not limited to, the services described in this Pre-Construction Phase Services and Standard CMR Services.

S. Key Deliverables. The table below outline key CMR Pre-Construction deliverables. This list is not intended to be exhaustive.

	SOW Ref.	At NTP	Concept	SD	DD	65CD	95CD	GMP
Project Procedures Manual*	II.B	X						
Cost Model	II.E.1	X						
Submission Package								
• Cost Study	II.E.2		X	X	X	X	X	
• Trending Log**	II.E.2		X	X	X	X	X	
• Value Engineering (VE) Log	II.J		X	X	X	X	X	
• Project Schedule**	II.F	X	X	X	X	X	X	
• Staging/Logistics/Phasing Review	II.G		X	X	X	X	X	
• Cash Flow Forecast	II.H		X	X	X	X	X	
• Document Review Comments	II.C		X	X	X	X	X	
Administer Design Review QA/QC	II.C.3		X	X	X	X	X	
VE Study Report	II.J				X			
Quality Control Plan	II.L					X		
Safety Plan	II.M					X		
ETOP into CDs	II.N					X		
Procurement Plan	II.Q.1					X		
Pre-qualified Subcontractor List	II.Q.3						X	
Scope of Work for Trade Packages	II.Q.4					X	X	
GMP Submission	II.Q.12							X

*Updated throughout pre-construction as information becomes available/developed.

**Updated monthly throughout pre-construction.

III. PHASE 2 - CONSTRUCTION PHASE SERVICES.

A. General CMR Services. The performance period for the CMR's Construction Phase Services, if awarded, extends beyond the date of Substantial Completion. The CMR shall coordinate and manage the Work to be performed by all of the Subcontractors through to Final Completion. The CMR shall be responsible for keeping the Project on schedule, and ensuring that the Subcontractors furnish materials and perform the Work in strict compliance with the Contract Documents.

The CMR shall have the authority to require the prompt execution of the Work and to give instructions to require corrective work, whenever such action may be necessary in its opinion to ensure the proper execution of the Contract Documents and/or to protect the interests of APS. The CMR shall coordinate trade contractors and other construction personnel to ensure that the amount, quality, acceptability, fitness, and progress of the Work is in compliance with the Contract Documents. All Work is subject to the final review of APS and A/E. APS will not routinely require prior approval of these actions but reserves the right of review and approval at the discretion of the APS Project Manager.

The following is a partial list of Construction Phase Contract administration activities that the CMR shall perform in cooperation with the A/E and Commissioning Agent for all Subcontracts:

- Keeping records

- Reporting progress monthly
- Controlling schedules to ensure compliance with the Project Schedule
- Conducting meetings
- Processing submittals
- Processing progress payments
- Coordinating/scheduling/monitoring safety
- Inspecting
- Monitoring testing
- Confirm existing conditions
- Reviewing and managing Subcontractor requests for information (RFIs)
- Reviewing, managing and negotiating Subcontractor change orders
- Processing Subcontractor contract change orders
- Maintaining as-built Drawings
- Performing photographic services
- Coordination of construction sequences and phases
- Generation and presentation to APS of construction phasing
- Use Permit responses
- LEED documentation
- Coordination Drawings
- Community liaison activities
- Procurement of trade permits
- Schedule and coordinate AHJ inspections
- Procurement of inspection and certificate of occupancy approvals
- Ensure compliance with Arlington County erosion and sediment controls and stormwater management
- Ensure compliance with safety and quality control plans
- Coordination with APS forces, vendors, contractors, and consultants
- Extended Transition to Operations Protocol (eTOP) integration

B. Record Keeping. The CMR will maintain at the Project Site, on a current basis, one record copy of all Contract Documents and records, including copies of all correspondence, submittals, progress reports, inspection reports, and related documentation throughout the duration of construction. The CMR will maintain the hard copy paper and computer files according to a filing system provided by or agreeable to APS. The CMR will turn these documents and files over to APS for record purposes as a condition precedent to close out of the Construction Phase Contract. The CMR must use APS contract and document management software for record keeping. Examples of documents and files to be maintained (but not limited to) are:

- Correspondence
- Annotated submittals, including approved shop drawings, product data, and samples
- Formal and pending Subcontract and Construction Phase Contract Change Orders and directives with documentation
- Value engineering change proposals
- Claims and supporting documentation
- Minutes from progress meetings
- Budget records to include invoices and supporting documentation
- Documentation of all clarifications and decisions
- Documentation of all dust, noise, fumes or vibrations complaints and their resolution
- Inspection and progress reports
- CMR's monthly status reports
- Construction Trade, material, and equipment contracts/purchase orders
- Drawings and Specifications updated on a current basis to record changes and selections made

- Addenda and Modifications
- Permits, certificates, and governmental approvals
- Phone logs and memos
- Expense records
- Warranties and guarantees
- Project photographs
- Commissioning paperwork and certifications
- Stormwater Pollution Prevention Plans (SWPPP) documentation
- Subcontractor criminal certifications
- Safety log
- Security badge log
- Project Schedule update
- Additional MS4 documentation
- Project closeout implementation

The CMR shall also maintain records, in duplicate, of principal building layout lines, elevations of the bottom of footings, floor levels, and key site elevations to include utility layouts (complete with depth of burial) certified by a licensed surveyor or engineer. The CMR will review any surveys and make recommendations to APS for approval or rejection.

C. Progress Reporting. The CMR shall keep accurate and detailed written records of Project progress during all stages of construction. The CMR will prepare progress reports in the format and frequency required by APS, which shall include information on each Subcontractor and its work, as well as the entire Project. APS will provide or approve formats for periodic status reports, including daily diaries, weekly reports, monthly status reports, etc. The CMR will maintain a detailed daily diary of all events that occur at the Site or elsewhere, which affect, or may be expected to affect, Project cost, quality, scope, or progress. The CMR's daily diary shall contain at a minimum a record of the weather, each Subcontractor's work on the site, number of workers, identification of equipment and deliveries, work accomplished, problems encountered, and other similar relevant data as APS may require. The CMR will submit weekly reports to APS and A/E on the status of construction, including updated copies of all logs maintained at the Site for Subcontractor and Construction Phase Contract Change Orders, claims, submittals, etc. The CMR will submit monthly reports by the 5th Working Day of each month in 8 1/2" x 11" format including the following information:

- Update of the Project Schedule with analysis
- Percentage of construction in place, planned and actual, for each Subcontractor and the total Project
- Inspection report, list of inspections that the Contract Documents require, and deficiencies, delays, and omissions
- Summary of outstanding and potential problems and issues, including notices of intent to file claims; this monthly report shall not modify any notice of claim or claim submission requirements set forth in the Contract Documents.
- Summary of issues resolved, decisions reached, clarifications, instruction, commissioning etc.
- Summary report on submittals
- Progress Photos documenting ongoing work during the reporting period
- Minutes from meetings held during the month
- CMR Contingency log
- Change Order log
- Request for Information log
- Deficiency log
- MS4 certification/compliance

APS will identify other required reports such as on-Site logs and will furnish or approve formats. Progress reports will always be available to APS and A/E, and the CMR shall turn them over to APS upon request and at completion of the Contract.

- D. Construction Cost Control.** The CMR shall recognize that it is responsible to maintain cost control based on the final approved GMP and advocate accordingly in APS' best interest. The CMR shall develop and maintain an effective system of Project cost control. The CMR shall refine and update the approved GMP, incorporate changes as they occur, and develop reports and forecasts as needed, or as directed by APS. The CMR shall identify variances between actual and estimated costs and advise APS whenever projected cost exceed allowances or estimates.

The CMR shall check and supervise all material deliveries, equipment, and labor entering the site. The CMR shall maintain cost accounting records on authorized work performed under unit costs, actual costs for labor and material, or other bases requirement accounting records, and afford APS access to these records.

- E. Schedule Control.** The CMR will provide administrative, management, and related services to coordinate the sequence of construction and all related activities, with those of APS and the A/E to manage the Project according to the latest approved Project Schedule. The CMR shall coordinate the sequence of construction and assignment of space in areas where the Subcontractors are performing and will perform Work.

The CMR will generate, at Project's beginning, a Project Schedule. This Project Schedule will break down, by months, all CMR and Subcontractor Project activities through Substantial Completion. In addition to the requirements of Specification 01 32 00 it shall also include APS activities which impact the Project Schedule and the APS occupancy requirements. It shall be kept up to date to reflect construction phasing and commissioning activities.

The CMR will continuously monitor actual progress against the Project Schedule and identify any delays or potential delays. If the CMR encounters or anticipates delays, it will recommend recovery actions to APS's Project Manager to mitigate the delays and implement approved, remedial measures.

- F. Meetings.** The CMR will coordinate, schedule, and conduct: 1) weekly progress meetings; and 2) other meetings that APS deems necessary to discuss such matters as procedures and scheduling. The CMR shall prepare and promptly distribute minutes from each meeting to APS

1. **Progress Meetings.** The CMR will conduct and chair weekly progress meetings held at or near the Site to discuss such matters as procedures, progress, problems, and scheduling.

- G. Safety.** See Part 12 of Specification Section 00 70 00 General Conditions.

- H. Quality Assurances/Inspection.** The CMR shall have the overall responsibility for scheduling, coordinating, and inspecting all of the Subcontractors' workmanship, materials, and equipment to ensure strict compliance with requirements of the Contract Documents (including the Drawings and Specifications, subsequent Contract Change Orders, and approved submittals). The CMR shall coordinate with APS third party inspectors and Arlington County inspectors.

The CMR shall provide a Quality Control Superintendent (QCS) with the following duties:

- Manage the approved Quality Control (QC) Plan
- Conduct QC meetings for each definable feature of work

- Ensure that the process for quality control is occurring, including testing, inspections, mock-ups, and the identification and correction of deficiencies
- Manage the process for identifying and documenting deficiencies on a QC log, and facilitate the process for correction and documentation that the corrections have been properly completed, and
- Ensure the overall compliance of the work with the Contract Documents

The QCS shall have experiencing managing and executing quality-assurance and quality-control procedures similar in nature and extent to those required for the Project. The QCS shall have experiencing in areas of hazard identification and safety compliance. The QCS shall NOT also serve as the Senior Project Manager, Project Manager, or Field Superintendent.

The QCS will make quality determinations based on the records and inspections, to protect APS against defects, deficiencies, omissions, and delays. The CMR shall advise APS and the AE of any apparent variation and deviation from the intent of the Contract Documents and shall take the necessary action to correct such variations and deviations within the terms of the Contract Documents. Throughout construction the CMR will maintain an up-to-date list of defects, deficiencies, delays, and omissions as well as corrective actions taken.

1. **Substantial Completion Inspection.** See Part 11 of Specification Section 00 70 00 General Conditions
2. **Final Punchlist Inspection.** See Part 11 of Specification Section 00 70 00 General Conditions.
3. **Warranty Inspection.** The CMR shall administer the correction of all warranty claims that originate during the period of the Contract and resolve all claims during the full Warranty Period. The CMR shall participate in a warranty inspection with APS, Commissioning Agent and A/E approximately 9 months into the 1 year Warranty Period and provide a plan for all necessary repairs, replacements, and/or corrective work.

I. Monitor Testing. Under direct contract to APS, third party structural testing and commissioning will be responsible for conducting the required verification tests, retaining all samples, and for submitting test results to APS, A/E, and CMR. The CMR will identify all tests required by the Contract Documents to be performed by the APS contractors, prepare a complete testing schedule, and include such testing schedule in the Project Schedule. The Commissioning Agent will be integral to the generation/verification of this testing schedule. The CMR's responsibilities with regard to testing shall include:

- Verifying that tests are conducted as scheduled
- Coordination with testing agency for scheduling of test
- Witnessing tests selected by the CMR, A/E, Commissioning Agent, and APS Project Manager
- Reviewing test and retesting results and documenting with Contract Documents
- Retaining test and retesting records
- Summarizing significant test results in progress reports
- Notifying immediately APS of test failures and, with A/E, planning corrective actions
- Overseeing corrective actions and retesting until issue resolution

J. Requests for Information (RFI). The CMR shall coordinate responses from the CMR, A/E, and APS to the Subcontractors' requests for information. The CMR will consult with the A/E and APS on technical matters, including requests for interpretations of the meaning and intent of the Drawings and Specifications, or with APS on administrative matters. The CMR is responsible for facilitating

information requests to keep response times to a minimum. The CMR will maintain copies of the final answers to information requests as part of the Project records.

- K. APS Furnished Materials and Equipment.** The CMR shall arrange for the delivery, storage, and security for APS furnished materials and equipment.
- L. SWM Certification.** An onsite CMR team member shall hold and maintain for the duration of the Project the Virginia Department of Environmental Quality (VDEQ) Erosion and Sediment Control (E&SC) and Storm Water Management (SWM) inspector certification. Per the certification, this member shall ensure proper record keeping of the Stormwater Pollution Prevention Plan (SWPPP) by the CMR, conduct self-inspections of the Site at least every four (4) days, and ensure compliance with APS' Municipal Separate Storm Sewer System (MS4) Permit as it relates to Site storm water runoff control and proper E&SC. The CMR shall also provide on-Site personnel certified for and designated as the Registered Land Disturber (RLD).
- M. Contract Change Orders.** See Specification Section 01 26 00 Contract Modification Procedures.
- N. Photography.** The CMR is responsible for procuring at its expense; construction photographs of items that may be the subject of Subcontractor claims, or that require documentation. The CMR shall also provide preconstruction photographs, periodic construction photographs, and other Owner-directed construction photographs. Before commencement of demolition, the CMR shall take preconstruction photographs of the Project site and surrounding properties, including existing items to remain during construction, from different vantage points, as directed by the Owner and as required by the Use Permit. The CMR shall provide periodic construction photographs showing the full scope of ongoing Work; these shall be no less than twenty (20) photographs monthly. From time to time, the Owner or Owner's Representative will instruct the CMR about number and frequency of photographs and general directions on vantage points. Photographs shall be in electronic format, organized and identified by location and/or trade, and date. Photographs in electronic format shall be turned over for record purposes at Project close-out.
- O. Project Commissioning.** APS will engage third-party commissioning agents ("Commissioning Agent") to conduct enhanced commissioning of building systems. Prior to this, the CMR shall coordinate a systematic process to ensure that the mechanical, electrical and plumbing (MEP), audio-visual, security, communications, and all other systems are fully functional in accordance with the design intent generated by the Contract Documents and APS's operational needs, and the personnel charged with maintaining and operating them are trained (not merely familiarized) to perform operation and maintenance. The CMR will ensure all necessary approvals exist prior to equipment procurement and subsequent installation. The CMR will coordinate and chair pre-installation meetings for major MEP, structural and building envelope as well as other systems and equipment. The CMR will coordinate and participate, along with the A/E, in each Subcontractor's initial equipment testing and final systems testing, start-up demonstrations, and training for utilities, operational systems, and equipment with the A/E, Construction Manager Advisor and the Owner's operations and maintenance personnel. The CMR shall prepare all minutes of these items and prepare documentation of the actions, activities, and results obtained. All training will be video-taped, and tapes will be provided to the Owner as a component of the Operations and Maintenance Manuals.

The CMR will ensure that the Subcontractors have a complete understanding of the systems testing and commissioning requirements placed on them by the Contract. This includes, but is not limited to, providing single-line diagrams and sequences of operations as required. The CMR will also ensure that the Subcontractors have a complete understanding of all associated trades' work that

integrates/interacts or is dependent upon their own.

P. Extended Transition to Operations Protocol (eTOP). The CMR shall input all required Operations & Maintenance (O&M) information from submittals into APS' maintenance software.

Q. Project Closeout. As a condition precedent to Final Completion and final payment, the CMR shall comply with all of the following requirements. The CMR shall secure and transmit to the A/E all warranties, operations and maintenance manuals, and similar submittals required by the Contract Documents, for approval by the A/E, before delivery to APS. The CMR shall also deliver all keys, record documents, and maintenance stocks to APS. The CMR shall be evaluated on future projects, to the extent possible, on the performance during the Project closeout and the duration of Final Completion (including all closeout requirements).

1. The CMR is required to bring on staff a Project Close Out Engineer, at the appropriate time but no later than two (2) months prior to the Substantial Completion date, to solely handle Project close out activities, which include punch list, completion and verification of the Building Automation System, scheduling of the required demonstrations and testing, and reviewing and submission of the O&M manuals. Note: This position cannot be done by someone who has been assigned to other positions during the Construction Phase.
2. The CMR is responsible for compliance with all Contract Close Out items per the Contract Documents. The CMR shall obtain data from Subcontractors and maintain a current set of record Drawings, Specifications and operating manuals.
3. With mechanical and electrical equipment, the CMR is to obtain the Operating & Maintenance (O&M) manuals at least two (2) months prior to the demonstration for such equipment. These O&M manuals are to be sent to APS Project Manager who is to forward one (1) set to APS's Department of Facilities and Operations for review prior to the equipment demonstration.
4. At the completion of the Project, and before final payment, the CMR shall deliver all such records to APS along with completion set of as-built Drawings and a complete and verified Building Automation System for approval by the A/E.
5. Provide final Project construction costs in a format(s) acceptable to the Owner for its historical cost data base.

Attachment D

APS DIVISION 01 GENERAL REQUIREMENTS

The following sections do not represent the entire final Division 01 General Requirements for the Project, but will be included in the final version of the Project Specification and shall be considered requirements of the Project.

SECTION 01 1000 SUMMARY

1.1. ACCESS TO SITE

- A. General: Contractor shall have limited use of Project Site for construction operations as indicated on Drawings by the Contract limits and as indicated by requirements of this Section.
- B. Use of Site: Limit use of Project Site to areas within the Contract limits indicated. Do not disturb portions of Project Site beyond areas in which the Work is indicated.
 - 1. Limits: Confine construction operations to areas permitted by the Use Permit and approved by the Owner.
 - 2. Driveways, Walkways and Entrances: Keep driveways, loading areas, and entrances serving premises clear and available to Owner, Owner's employees, and emergency vehicles at all times. Do not use these areas for parking or storage of materials.
 - a. Schedule deliveries to minimize use of driveways and entrances by construction operations.
 - b. Schedule deliveries to minimize space and time requirements for storage of materials and equipment on-site.

1.2. WORK RESTRICTIONS

- A. Work Restrictions, General: Comply with restrictions on construction operations.
 - 1. Comply with limitations on use of public streets and with other requirements of authorities having jurisdiction. Conditions of the Use Permit must be met.
 - a. Work within the public way may occur between 9:00 a.m. and 3:30 p.m. Monday through Friday and/or between 10:00 a.m. and 6:00 p.m. on weekends and holidays.
 - b. Work within the public way shall not occur between 6:00 a.m. and 9:00 a.m. or between 3:30 p.m. and 6:30 p.m. Monday through Friday.
- B. On-Site Work Hours: Limit work in the existing building to normal business working hours of 7:00 a.m. to 6:30 p.m., Monday through Friday, unless otherwise indicated.
 - 1. Weekend and Holiday Hours: 10:00 a.m. to 6:30 p.m.
 - 2. Hours for Utility Shutdowns: As permitted by the Owner.

- C. Maintenance of Street Surfaces During Construction: Clean, smooth and devoid of potholes at all times during construction.
- D. Existing Utility Interruptions: Do not interrupt utilities serving facilities occupied by Owner or others unless permitted under the following conditions and then only after providing temporary utility services according to requirements indicated:
 - 1. Notify Owner not less than two (2) days in advance of proposed utility interruptions.
 - 2. Obtain Owner's written permission before proceeding with utility interruptions.
- E. Noise, Vibration, and Odors: Coordinate operations that may result in high levels of noise and vibration, odors, or other disruption to Owner occupancy with Owner.
 - 1. Notify Owner not less than two (2) days in advance of proposed disruptive operations.
 - 2. Obtain Owner's written permission before proceeding with disruptive operations.
- F. Nonsmoking Campus: Smoking on the Owner's property is not permitted.
- G. Controlled Substances: Use of tobacco products and other controlled substances on Project Site is not permitted.
- H. Employee Identification: Provide identification tags for Contractor personnel working on Project Site. Require personnel to use hard hat identification stickers at all times.
- I. Employee Screening: Comply with Owner's requirements for drug and background screening of Contractor personnel working on Project Site.
 - 1. Maintain list of approved screened personnel with Owner's Representative.

END OF SECTION

SECTION 012600 CONTRACT MODIFICATION PROCEDURES

PART 1 GENERAL

1.1 SUMMARY

- A. Section includes administrative and procedural requirements for handling and processing Contract Modifications.
- B. Related Requirements:
 - 1. Section 01 2100 "Allowances" for procedural requirements for handling and processing allowances.
 - 2. Section 01 2200 "Unit Prices" for administrative requirements for using unit prices.
 - 3. Section 01 2500 "Substitution Procedures" for administrative procedures for handling requests for substitutions made after the Contract award.

1.2 MINOR CHANGES IN THE WORK

- A. Owner's Representative will issue supplemental instructions directing Minor Changes in the Work, not involving adjustment to the Contract Sum or the Contract Period, as a Proposed Modification document generated by the Owner's software.

1.3 PROPOSAL REQUESTS

- A. Proposed Modifications: Owner's Representative will issue a detailed description of proposed changes in the Work prepared by the Architect that may require adjustment to the Contract Sum or the Contract Period. If necessary, the description will include supplemental or revised Drawings and Specifications.
 - 1. A Proposed Modification is not an instruction either to stop Work in progress or to execute the proposed change.
 - 2. Within time specified in Proposed Modification or, if time not specified, in twenty (20) Days after receipt of the Proposed Modification, Contractor shall submit a Proposed Change Order (PCO) indicating adjustments to the Contract Sum and/or the Contract Period, if any, the Contractor deems necessary to execute or resulting from the proposed change.
 - a. Include a list of quantities of products required or eliminated and unit costs, with total amount of purchases and credits to be made. If requested, furnish survey data to substantiate quantities
 - b. Indicate applicable taxes, delivery charges, equipment rental, and amounts of trade discounts.
 - c. Include costs of labor and supervision directly attributable to the change.

- d. Include an updated Project Schedule that indicates the effect of the change, including, but not limited to, changes in activity duration, start and finish times, and activity relationship. Use available total float before requesting an extension of the Contract Period.
 - e. Quotation Form: Use cover sheet generated by the Owner's software.
- B. Contractor-Initiated modifications: If in the opinion of Contractor latent or changed conditions require modifications to the Contract, Contractor may initiate a claim by submitting a PCO designated on the face thereof as a Notice of claim.
- 1. Include a statement outlining reasons for the proposed change and the effect of the proposed change on the Work. Provide a complete description of the proposed change. Indicate the effect of the PCO on the Contract Sum and/or the Contract Period, if any.
 - 2. Include a list of quantities of products required or eliminated and unit costs, with total amount of purchases and credits to be made. If requested, furnish survey data to substantiate quantities.
 - 3. Indicate applicable taxes, delivery charges, equipment rental, and amounts of trade discounts.
 - 4. Include costs of labor and supervision directly attributable to the proposed change.
 - 5. Include an updated Project Schedule that indicates the effect of the proposed change, including, but not limited to, changes in activity duration, start and finish times, and activity relationship. Use available total float before requesting an extension of the Contract Period.
 - 6. Comply with requirements in Section 01 2500 "Substitution Procedures" if the proposed change requires substitution of one product or system for product or system specified.
 - 7. PCO Form: Use cover sheet generated by the Owner's software.

1.4 ADMINISTRATIVE CHANGE ORDERS

- A. Allowance Adjustment: See Section 01 2100 " Allowances" for administrative procedures for preparation of PCO for adjusting the Contract Sum to reflect actual costs of allowances.
- B. Unit-Price Adjustment: See Section 01 2200 "Unit Prices" for administrative procedures for preparation of PCO for adjusting the Contract Sum to reflect measured scope of unit-price work.

1.5 CHANGE ORDER PROCEDURES

- A. If Owner approves a PCO, Owner's Representative will issue a Change Order, for signatures of Owner and Contractor on document generated by the Owner's software.
- B. The Contractor may not include costs for Change Order work on applications for payment until the Contractor is in receipt of a fully executed Change Order from the Owner's Purchasing Agent.

1.6 WORK ORDER

- A. Work Order: the Owner or Owner's Representative may issue a Work Order generated by the Owner's software. Work Order instructs Contractor to proceed with a change in the Work, for subsequent inclusion in a Change Order.
1. Work Order contains a complete description of change in the Work. It also designates method to be followed to determine change in the Contract Sum or the Contract Period, if any.
 2. A Work Order shall be used in the absence of total agreement on the terms of a Change Order or when, in the Opinion of the Owner, the time needed to process a Change Order would adversely affect progress on the job.
 3. Upon receipt of a Work Order the Contractor shall promptly proceed with the change in the Work involved and within 10 days from receipt of the Work Order, unless stated otherwise in the Work Order, and advise the Owner's Representative of the Contractor's agreement or disagreement with the method, if any, provided in the Work Order for determining the proposed adjustment in the Contract Sum and/or Contract Period. Within 30 days after notifying the Owner's Representative of the Contractor's position regarding the proposed adjustment of the Contract Sum and/or Contract Period, the Contractor shall provide a PCO to the Owner's Representative for Work required by the Work Order. The PCO shall be supported by all documentation and information required by subsection 1.3.B above.
 4. Should the Contractor fail to submit the PCO within twenty-eight (28) days after the Work which is the subject thereof has been completed by the Contractor, any adjustment to the Contract Sum shall be established in one of the following methods in the sole discretion of the Owner:
 - a. The additional compensation to the Contractor shall be the sum of the direct costs of the Contractor approved by the Owner. These direct costs may include all subcontractor costs but shall not include any Contractor Overhead and Profit.
 - b. Costs of the Contractor established by using RS Means or a similar industry standard generated estimate
 - c. Regardless of which of the foregoing alternatives is selected by Owner, Owner shall issue a Unilateral Change Order which shall be deemed full and final compensation to the Contractor for the changed Work.
 - d. Owner may reject the PCO in its entirety if for any reason it determines that the subject Work has no impact on Contract Sum or Contract Period.
 5. If the Contractor disagrees with the terms of a Work Order, Unilateral Change Order, or other written directive of the Owner regarding the Contractor's PCO, the Contractor shall continue with the disputed Work pursuant to the requirements of General Conditions, and such other provisions of the Contract Documents as may be applicable

- B. Documentation: Maintain detailed records on a time and material basis of work required by the Work Order.
 - 1. After completion of changed Work, submit an itemized account and supporting data necessary to substantiate cost and time adjustments to the Contract, if any. Include the following information:
 - a. Name of Owner's authorized agent who ordered the Work, and date of the order. Include copies of written authorization, when applicable.
 - b. Dates and times that Work was performed, and by whom, verified and signed by Owner's Representative.
 - c. Time record, summary of hours worked and hourly rates paid.
 - d. Receipts and invoices for the following:
 - 1) Equipment used, listing dates and times of use.
 - 2) Products used, including listing of quantities.
 - 3) Subcontracts

1.7 OVERHEAD AND MARKUP FOR CONTRACT MODIFICATIONS

- A. The combined overhead and profit shall not exceed the maximums indicated below. Not more than two percentages, not to exceed the maximum percentages shown below, will be allowed regardless of the number of tiers of Subcontractors; that is, the markup on Work subcontracted by a Subcontractor will be limited to one overhead and profit percentage in addition to the Contractor's commission percentage.
 - 1. Commission: 10 percent to Contractor on Work performed by other than Contractor's own forces. This 10 percent shall apply to Subcontractor direct costs only, not to the allowed Subcontractor markup.
 - 2. Overhead and Profit: 15 percent to Contractor or the Subcontractors for that portion of Work performed by their own respective forces.
- B. Overhead, as employed herein, is defined as and limited to the cost of the administration, field office, and home office costs, other required insurance, materials used in temporary structures (not including formwork), additional premiums on the performance bond of the Contractor, the use of small tools, scheduling costs, and all other costs incidental and non-direct to the performance of the change or the cost of doing business. The costs of additional Contractor supervision, layout, coordination, or other related tasks are considered part of the commission percentage and no compensation will be given for those tasks. Small tools are defined as any tool with a replacement value of less than One Thousand Dollars (\$1,000.00).

1.8 ESCALATION

- A. There will be NO Change Order requests permitted or approved for cost increases caused by escalation of materials and/or labor over the duration of the Project.

PART 2 PRODUCTS

1.1 Not Used

PART 3 EXECUTION

1.1 Not Used

END OF SECTION

SECTION 01 32 00 CONSTRUCTION PROGRESS DOCUMENTATION

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. Section includes administrative and procedural requirements for documenting the progress of construction during performance of the Work, including the following:
 - 1. Startup construction schedule.
 - 2. Contractor's Project Schedule.
 - 3. Project Schedule updating reports.
 - 4. Daily construction reports.
 - 5. Material location reports.
 - 6. Site condition reports.
 - 7. Special reports.
- B. Related Requirements:
 - 1. Section 01 33 00 "Submittal Procedures" for submitting schedules and reports.
 - 2. Section 01 40 00 "Quality Requirements" for submitting a schedule of tests and inspections.

1.3 DEFINITIONS

- A. Activity: A discrete part of a project that can be identified for planning, scheduling, monitoring, and controlling the construction project. Activities included in a construction schedule consume time and resources.
 - 1. Critical Activity: An activity on the critical path that must start and finish on the planned early start and finish times.
 - 2. Predecessor Activity: An activity that precedes another activity in the network.
 - 3. Successor Activity: An activity that follows another activity in the network.
- B. CPM: Critical path method, which is a method of planning and scheduling a construction project where activities are arranged based on activity relationships. Network calculations determine when activities can be performed and the critical path of Project.
- C. Critical Path: The longest connected chain of interdependent activities through the network schedule that establishes the minimum overall Project duration and contains no float.
- D. Event: The starting or ending point of an activity.
- E. Float: The measure of leeway in starting and completing an activity.
 - 1. Except as otherwise provided, Float time is not for the exclusive use or benefit of either Owner or Contractor, but is a jointly owned, expiring Project resource available to both parties as needed to meet schedule milestones and Contract completion date.
 - 2. Free Float is the amount of time an activity can be delayed without adversely affecting the early start of the successor activity.

3. Total Float is the measure of leeway in starting or completing an activity without adversely affecting the planned Project completion date.

F. Resource Loading: The allocation of manpower and equipment necessary for the completion of an activity as scheduled.

1.4 INFORMATIONAL SUBMITTALS

A. Format for Submittals: Submit required submittals in the following format:

1. PDF electronic file.

B. Startup construction schedule. Shall be submitted with seven (7) days of receipt of Notice to Proceed with Administrative and procurement.

C. Startup Network Diagram: Of size required to display entire network for entire construction period. Show logic ties for activities.

D. Contractor's Project Schedule: Initial schedule, of size required to display entire schedule for entire construction period. Schedule shall be submitted within fourteen (14) days of receipt of Notice to Proceed with administrative and procurement.

E. CPM Reports: Concurrent with Project schedule, submit each of the following reports. Format for each activity in reports shall contain activity number, activity description, cost and resource loading, original duration, remaining duration, early start date, early finish date, late start date, late finish date, and total float in calendar days.

1. Activity Report: List of all activities sorted by activity number and then early start date, or actual start date if known.

2. Logic Report: List of preceding and succeeding activities for all activities, sorted in ascending order by activity number and then early start date, or actual start date if known.

3. Total Float Report: List of all activities sorted in ascending order of Total Float.

4. Earnings Report: Compilation of Contractor's total earnings from the Notice to Proceed until most recent Application for Payment.

5. Schedule shall be resource loaded. Provide report detailing all resources for the Project. Specifically labor hours per activity.

6. Report shall clearly show critical path.

F. Construction Schedule Updating Reports: Submit with Applications for Payment.

G. Daily Construction Reports: Submit at weekly intervals.

H. Material Location Reports: Submit at weekly intervals.

I. Site Condition Reports: Submit at time of discovery of differing conditions.

J. Special Reports: Submit at time of unusual event.

1.5 QUALITY ASSURANCE

A. Prescheduling Conference: Conduct conference at Project Site to comply with requirements in Section 01 31 00 "Project Management and Coordination." Review methods and procedures

related to the preliminary construction schedule and Project Schedule, including, but not limited to, the following:

1. Review software limitations and content and format for reports.
2. Verify availability of qualified personnel needed to develop and update schedule.
3. Discuss constraints, including phasing, work stages, area separations, interim milestones and partial Owner occupancy.
4. Review delivery dates for Owner-furnished products.
5. Review schedule for work of Owner's separate contracts.
6. Review submittal requirements and procedures.
7. Review time required for review of submittals and resubmittals.
8. Review requirements for tests and inspections by independent testing and inspecting agencies.
9. Review time required for Project closeout and Owner startup procedures..
10. Review and finalize list of construction activities to be included in schedule.
11. Review procedures for updating schedule.

1.6 COORDINATION

- A. Coordinate preparation and processing of schedules and reports with performance of construction activities and with scheduling and reporting of separate contractors.
- B. Coordinate Project Schedule with the schedule of values, submittal schedule, progress reports, payment requests, and other required schedules and reports.
 1. Secure time commitments for performing critical elements of the Work from entities involved.
 2. Coordinate each construction activity in the network with other activities and schedule them in proper sequence.

PART 2 - PRODUCTS

2.1 PROJECT SCHEDULE, GENERAL

- A. Time Frame: Extend schedule from date established for the Notice to Proceed to date of final completion.
 1. Contract completion date shall not be changed by submission of a schedule that shows an early completion date, unless specifically authorized by Change Order.
 2. Schedule shall include Work Breakdown Structures by phase.
- B. Activities: Treat each story or separate area as a separate numbered activity for each main element of the Work. Comply with the following:
 1. Activity Duration: Define activities so no activity is longer than twenty (20) days, unless specifically allowed by Architect.
 2. Procurement Activities: Include procurement process activities for the following long lead items and major items, requiring a cycle of more than thirty (30) days, as separate activities in schedule. Procurement cycle activities include, but are not limited to, submittals, approvals, purchasing, fabrication, and delivery.
 3. Submittal Review Time: Include review and resubmittal times indicated in Section 01 3300 "Submittal Procedures" in schedule. Coordinate submittal review times in Contractor's construction schedule with submittal schedule.
 4. Startup and Testing Time: Include no fewer than fifteen (15) days for startup and testing.

5. Substantial Completion and Final Completion: Indicate completion in advance of date established for Substantial and Final Completion, and allow time for Architect's and Owner's Representative's administrative procedures necessary for certification of Substantial Completion.
 6. Punch List and Final Completion: Include not more than thirty (30) days for completion of punch list items and Final Completion.
- C. Constraints: Include constraints and work restrictions indicated in the Contract Documents and as follows in Project Schedule, and show how the sequence of the Work is affected.
1. Phasing: Arrange list of activities on schedule by phase. Use Work Breakdown Structure (WBS) format.
 2. Owner-Furnished Products: Include a separate activity for each product. Include delivery date indicated in Section 01 10 00 "Summary." Delivery dates indicated stipulate the earliest possible delivery date.
 3. Work Restrictions: Show the effect of the following items on the Project Schedule:
 - a. Coordination with existing construction.
 - b. Limitations of continued occupancies.
 - c. Uninterruptible services.
 - d. Partial occupancy before Substantial Completion.
 - e. Use of premises restrictions.
 - f. Provisions for future construction.
 - g. Seasonal variations.
 - h. Environmental control.
 4. Work Stages: Indicate important stages of construction for each major portion of the Work, including, but not limited to, the following:
 - a. Submittals.
 - b. Purchases.
 - c. Mockups.
 - d. Fabrication.
 - e. Sample testing.
 - f. Deliveries.
 - g. Installation.
 - h. Tests and inspections.
 - i. Adjusting.
 - j. Curing.
 - k. Startup and placement into final use and operation.
 - l. Owner furnished materials and equipment
 - m. Owner contractors
 - n. All State, local, Federal inspections
- D. Milestones: Include milestones indicated in the Contract Documents in Project Schedule, including, but not limited to, Weather Tight (roof complete, building enclosure weather tight, temporary or permanent windows installed), Installation of Ceiling Grid, Above Ceiling Inspections, the Notice to Proceed, Substantial Completion, and Final Completion.
- E. Upcoming Work Summary: Prepare summary report indicating activities scheduled to occur or commence prior to submittal of next Project Schedule update. Summarize the following issues:
1. Unresolved issues.
 2. Unanswered Requests for Interpretation.
 3. Rejected or unreturned submittals.
 4. Notations on returned submittals.

5. Pending modifications affecting the Work and Contract Time.

- F. Recovery Schedule: When periodic update indicates the Work is fourteen (14) or more calendar days behind the current approved Project Schedule, submit a separate Recovery Schedule indicating means by which Contractor intends to regain compliance with the Project Schedule. Indicate changes to working hours, working days, crew sizes, and equipment required to achieve compliance, and date by which recovery will be accomplished.
- G. Computer Scheduling Software: Prepare schedules using current version of a program that has been developed specifically to manage construction schedules.

2.2 STARTUP CONSTRUCTION SCHEDULE

- A. Bar-Chart Schedule: Using Primavera P6 v 6.2 or later, Submit startup, horizontal, bar-chart-type startup construction schedule within seven (7) days of date established for the Notice to Proceed.
- B. Preparation: Indicate each significant construction activity separately. Identify first workday of each week with a continuous vertical line. Outline significant construction activities for first one hundred twenty (120) days of construction. Include skeleton diagram for the remainder of the Work and a cash requirement prediction based on indicated activities.

2.3 PROJECT SCHEDULE (CPM SCHEDULE)

- A. General:
 - 1. Primavera P6 v. 6.2 or later software shall be used.
 - 2. Prepare network diagrams using AON (activity-on-node) format.
- B. Startup Network Diagram: Submit diagram within fourteen (14) days of date established for the Notice to Proceed. Outline significant construction activities for the first two hundred forty (240) days of construction. Include skeleton diagram for the remainder of the Work and a cash requirement prediction based on indicated activities.
- C. CPM Schedule: Prepare Contractor's construction schedule using a resource-loaded, time-scaled CPM network analysis diagram for the Work.
 - 1. Develop network diagram in sufficient time to submit CPM schedule so it can be accepted for use no later than thirty (30) days after date established for the Notice to Proceed.
 - a. Failure to include any work item required for performance of this Contract shall not excuse Contractor from completing all work within applicable completion dates, regardless of Architect's approval of the schedule.
 - 2. Conduct educational workshops to train and inform key Project personnel, including Subcontractors' personnel, in proper methods of providing data and using Project Schedule information.
 - 3. Establish procedures for monitoring and updating Project Schedule and for reporting progress. Coordinate procedures with progress meeting and payment request dates.
 - 4. Use "one workday" as the unit of time for individual activities. Indicate nonworking days and holidays incorporated into the Project Schedule in order to coordinate with the Contract Time.

- D. Project Schedule Preparation: Prepare a list of all activities required to complete the Work. Using the startup network diagram, prepare a skeleton network to identify probable critical paths.
1. Activities: Indicate the estimated time duration, sequence requirements, and relationship of each activity in relation to other activities. Include estimated time frames for the following activities:
 - a. Preparation and processing of submittals.
 - b. Mobilization and demobilization.
 - c. Purchase of materials.
 - d. Delivery.
 - e. Fabrication.
 - f. Utility interruptions.
 - g. Installation.
 - h. Work by Owner that may affect or be affected by Contractor's activities.
 - i. Testing.
 - j. Punch list and final completion.
 - k. Activities occurring following final completion.
 2. Critical Path Activities: Identify critical path activities, including those for interim completion dates. Scheduled start and completion dates shall be consistent with Contract milestone dates.
 3. Processing: Process data to produce output data on a computer-drawn, time-scaled network. Revise data, reorganize activity sequences, and reproduce as often as necessary to produce the Project Schedule within the limitations of the Contract Time.
 4. Format: Mark the critical path. Locate the critical path near center of network; locate paths with most float near the edges.
 - a. Subnetworks on separate sheets are permissible for activities clearly off the critical path.
- E. Contract Modifications: For each proposed contract modification and concurrent with its submission, prepare a time-impact analysis using a network fragment to demonstrate the effect of the proposed change on the Project Schedule.
- F. Initial Issue of Project Schedule: Prepare initial network diagram from a sorted activity list indicating straight "early start-total float." Identify critical activities. Prepare tabulated reports showing the following:
1. Contractor or Subcontractor and the Work or activity.
 2. Description of activity
 3. Main events of activity.
 4. Immediate preceding and succeeding activities.
 5. Early and late start dates.
 6. Early and late finish dates.
 7. Activity duration in workdays.
 8. Total float or slack time.
 9. Average size of workforce.
- G. Schedule Updating-monthly: Concurrent with making revisions to Project Schedule, prepare tabulated reports showing the following:
1. Identification of activities that have changed.
 2. Changes in early and late start dates.
 3. Changes in early and late finish dates.
 4. Changes in activity durations in workdays.

5. Changes in the critical path.
6. Changes in total float or slack time.
7. Changes in the Contract Time.

- H. Value Summaries: Prepare two cumulative value lists, sorted by finish dates.
1. In first list, tabulate activity number, early finish date, and cumulative dollar value.
 2. In second list, tabulate activity number, late finish date, and cumulative dollar value.
 3. In subsequent issues of both lists, substitute actual finish dates for activities completed as of list date.
 4. Prepare list for ease of comparison with payment requests; coordinate timing with progress meetings.

2.4 REPORTS

- A. Daily Construction Reports: Prepare a daily construction report recording the following information concerning events at Project site:
1. List of Subcontractors at Project site.
 2. List of separate contractors at Project site.
 3. Approximate count of personnel at Project site.
 4. Equipment at Project site.
 5. Material deliveries.
 6. High and low temperatures and general weather conditions, including presence of rain or snow.
 7. Accidents.
 8. Meetings and significant decisions.
 9. Unusual events.
 10. Stoppages, delays, shortages, and losses.
 11. Meter readings and similar recordings.
 12. Emergency procedures.
 13. Orders and requests of authorities having jurisdiction.
 14. Change Orders received and implemented.
 15. Work Orders received and implemented.
 16. Services connected and disconnected.
 17. Equipment or system tests and startups.
 18. Partial completions and occupancies.
 19. Substantial Completions authorized.
- B. Material Location Reports: At weekly intervals, prepare and submit a comprehensive list of materials delivered to and stored at Project Site. List shall be cumulative, showing materials previously reported plus items recently delivered. Include with list a statement of progress on and delivery dates for materials or items of equipment fabricated or stored away from Project Site. Indicate the following categories for stored materials:
1. Material stored prior to previous report and remaining in storage.
 2. Material stored prior to previous report and since removed from storage and installed.
 3. Material stored following previous report and remaining in storage.
- C. Site Condition Reports: Immediately on discovery of a difference between Site conditions and the Contract Documents, prepare and submit a detailed report. Submit with a Request for

Information. Include a detailed description of the differing conditions, together with recommendations for changing the Contract Documents.

2.5 SPECIAL REPORTS

- A. General: Submit special reports directly to Owner within one (1) day of an occurrence. Distribute copies of report to parties affected by the occurrence.
- B. Reporting Unusual Events: When an event of an unusual and significant nature occurs at Project Site, whether or not related directly to the Work, prepare and submit a special report. List chain of events, persons participating, response by Contractor's personnel, evaluation of results or effects, and similar pertinent information. Advise Owner in advance when these events are known or predictable.

PART 3 - EXECUTION

3.1 PROJECT SCHEDULE

- A. The Contract Documents shall form the basis of the Project Schedule (CPM Schedule)
 - 1. It is the Contractor's sole responsibility to understand the Arlington County codes and inspection requirements and process. Any meetings, additional permit or inspection fees the County deems for successful completion of the Work are not the cost of the Owner. If the Owner is charged for additional fees from Arlington County as a result of the Contractor's failure to be informed of this process, re-inspection fees, overtime fees from Arlington County etc., the Owner then has the right to issue a Change Order deducting the cost of the special inspections and/or additional tests, from the balance due to the Contractor. If the balance due to the Contractor is not sufficient to cover the costs, then the Contractor shall pay to the Owner the difference in cost within thirty (30) Days following receipt of billing from Owner.
 - 2. Any and all violations or fines assessed against the Owner or Contractor, due to Contractor's negligence, will be paid by the Contractor within three (3) days. Should the Contractor fail to pay these costs, the Owner has the right to issue a Change Order deducting the cost of the special inspections and/or additional tests, from the balance due to the Contractor. If the balance due to the Contractor is not sufficient to cover the costs, then the Contractor shall pay to the Owner the difference in cost within thirty (30) Days following receipt of billing from Owner.
 - 3. Substantial and Final Completion dates are established in the Project Schedule, are of the essence, and liquidated damages will apply for failure to complete by these dates. Where more than one ground for assessment of liquidated damages exists, Contractor's liability shall be cumulative.
 - 4. All HAZMAT remediation and removal identified in the Contract Documents including but not limited to section 13 2810, 13 2820 and 13 2830 shall be executed and completed prior to work being performed in areas identified. HAZMAT remediation and removal shall occur at the commencement of each phase requiring abatement and not prior to unless otherwise approved by the Owner or Owner's Representative. Contractor shall obtain all necessary permits and notifications for abatement procedures as not to impact the Contractor's Construction Schedule or project milestones.

- B. Contractor's Project Schedule Updating: At monthly intervals, update Project Schedule to reflect actual construction progress and activities. Issue draft updated Project Schedule one (1) week before each regularly scheduled progress meeting.
1. Revise Project Schedule immediately after each meeting or other activity where revisions have been recognized or made. Issue updated Project Schedule concurrently with the report of each such meeting.
 2. Include a report with updated Project Schedule that indicates every change, including, but not limited to, changes in logic, durations, actual starts and finishes, and activity durations.
 3. As the Work progresses, indicate Final Completion percentage for each activity.
- C. Distribution: Distribute copies of approved Project Schedule to the Owner, Owner's Representative, Architect, separate contractors, testing and inspecting agencies, and other parties identified by Contractor with a need-to-know schedule responsibility.
1. Post copies in Project meeting rooms and temporary field offices.
 2. When revisions are made, distribute updated Project Schedules to the same parties and post in the same locations. Delete parties from distribution when they have completed their assigned portion of the Work and are no longer involved in performance of construction activities.

END OF SECTION

SECTION 01 50 00

TEMPORARY FACILITIES AND CONTROLS

PART 1 - GENERAL

1.1. RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.

1.2. SUMMARY

- A. Section includes requirements for temporary utilities, support facilities, and security and protection facilities.
- B. Related Requirements:
 - 1. Section 01 10 00 "Summary" for work restrictions and limitations on utility interruptions.
 - 2. Section 31 23 19 "Dewatering" for disposal of ground water at Project site.
 - 3. Section 32 12 16 "Asphalt Paving" for construction and maintenance of asphalt pavement for temporary roads and paved areas.
 - 4. Section 32 13 13 "Concrete Paving" for construction and maintenance of cement concrete pavement for temporary roads and paved areas.

1.3. USE CHARGES

- A. General: Installation and removal of and use charges for temporary facilities shall be included in the Contract Sum unless otherwise indicated. Allow other entities to use temporary services and facilities without cost, including, but not limited to, Architect, occupants of Project, testing agencies, and authorities having jurisdiction.
- B. Water Service from Existing System: Water from Owner's existing water system is available for use with metering and Contractor to pay use charges and all costs for material, permits, and inspections, for connections and disconnections,. Provide connections and extensions of services as required for construction operations at no cost to the Owner. Meter readings must be confirmed with Contractor and Owner's Representative monthly and before disconnection to retrieve final readings.
- C. Electric Power Service from Existing System: Electric power from Owner's existing system is available for use with metering and Contractor to pay use charges and all costs for material, permits and inspections for connections and disconnections. Provide connections and extensions of services as required for construction operations at no cost to the Owner. Meter readings must be confirmed with Contractor and Owner's Representative monthly and before disconnection to retrieve final readings.

1.4. INFORMATIONAL SUBMITTALS

- A. Site Plan: Show temporary facilities, utility hookups, staging areas, and parking areas for construction personnel.
- B. Fire-Safety Program: Show compliance with requirements of NFPA 241 and authorities having jurisdiction. Indicate Contractor personnel responsible for management of fire-prevention program.
- C. Moisture-Protection Plan: Describe procedures and controls for protecting materials and construction from water absorption and damage.
 - 1. Describe delivery, handling, and storage provisions for materials subject to water absorption or water damage.
 - 2. Indicate procedures for discarding water-damaged materials, protocols for mitigating water intrusion into completed Work, and replacing water-damaged Work.
 - 3. Indicate sequencing of work that requires water, such as sprayed fire-resistive materials, plastering, and terrazzo grinding, and describe plans for dealing with water from these operations. Show procedures for verifying that wet construction has dried sufficiently to permit installation of finish materials.
- D. Dust- and HVAC-Control Plan: Submit coordination drawing and narrative that indicates the dust- and HVAC-control measures proposed for use, proposed locations, and proposed time frame for their operation. Identify further options if proposed measures are later determined to be inadequate. Include the following:
 - 1. Locations of dust-control partitions at each phase of Work.
 - 2. HVAC system isolation schematic drawing.
 - 3. Location of proposed air-filtration system discharge.
 - 4. Waste handling procedures.
 - 5. Other dust-control measures.

1.5. QUALITY ASSURANCE

- A. Electric Service: Comply with NECA, NEMA, and UL standards and regulations for temporary electric service. Install service to comply with NFPA 70.
- B. Tests and Inspections: Arrange for authorities having jurisdiction to test and inspect each temporary utility before use. Obtain required certifications and permits.
- C. Accessible Temporary Egress: Comply with applicable provisions in the U.S. Architectural & Transportation Barriers Compliance Board's ADA-ABA Accessibility Guidelines and ICC/ANSI A117.1.

1.6. PROJECT CONDITIONS

- A. Temporary Use of Permanent Facilities: Engage Installer of each permanent service to assume responsibility for operation, maintenance, and protection of each permanent service during its use

as a construction facility before Owner's acceptance, regardless of previously assigned responsibilities.

PART 2 - PRODUCTS

2.1 MATERIALS

- A. Portable Chain-Link Fencing: Minimum 2-inch, 0.148-inch- thick, galvanized-steel, chain-link fabric fencing; minimum 6 feet high with galvanized-steel pipe posts; minimum 2-3/8-inch- OD line posts and 2-7/8-inch- OD corner and pull posts, with 1-5/8-inch- OD top and bottom rails. Provide concrete bases for supporting posts.
- B. Polyethylene Sheet: Reinforced, fire-resistive sheet, 10-mil minimum thickness, with flame-spread rating of 15 or less per ASTM E 84 and passing NFPA 701 Test Method 2.
- C. Dust-Control Adhesive-Surface Walk-off Mats: Provide mats minimum 36 by 60 inches.
- D. Insulation: Unfaced mineral-fiber blanket, manufactured from glass, slag wool, or rock wool; with maximum flame-spread and smoke-developed indexes of 25 and 50, respectively.

2.2 TEMPORARY FACILITIES

- E. Field Offices, General: Prefabricated or mobile units with serviceable finishes, temperature controls, and foundations adequate for normal loading.
- F. Field Offices, Storage and Fabrication Sheds locations shall be in accordance with the Use Permit. A plan shall be submitted demonstrating that the trailers are not located in a public right-of-way or within Tree Protection Fence areas. Proposed locations plan must be approved by the County Manager prior to placing any trailers on site.
- G. Provide a Common Use Field Office to accommodate needs of Owner, Architect, Owner's Representative(s), construction personnel office activities, and to accommodate Project meetings specified in other Division 01 Sections. Keep office clean and orderly. The field office shall include one (1) workspace equipped with power and data access for the Owner's exclusive use and one (1) workspace equipped with power and data access for the Architect's exclusive use. Furnish and equip offices as follows:
 - 1. Furniture required for Project-site documents including file cabinets, plan tables, plan racks, and bookcases.
 - 2. Conference room of sufficient size to accommodate meetings of fifteen (15) individuals. Provide electrical power service and 120-V ac duplex receptacles, with no fewer than one receptacle on each wall. Furnish room with conference table, chairs, and 4-foot- (1.2-m-) square tack and marker boards.
 - 3. Drinking water and private toilet.
 - 4. Coffee machine and supplies.

5. Heating and cooling equipment necessary to maintain a uniform indoor temperature of 68 to 72 deg F (20 to 22 deg C).
 6. Lighting fixtures capable of maintaining average illumination of 20 fc (215 lx) at desk height.
 7. Furniture required for Project site documents including file cabinets, plan tables, plan racks, and bookcases
- H. Storage and Fabrication Sheds: Provide sheds sized, furnished, and equipped to accommodate materials and equipment for construction operations.
1. Store combustible materials apart from building.

2.3 EQUIPMENT

- I. Fire Extinguishers: Portable, UL rated; with class and extinguishing agent as required by locations and classes of fire exposures.
- J. HVAC Equipment: Unless Owner authorizes use of permanent HVAC system, provide vented, self-contained, liquid-propane-gas or fuel-oil heaters with individual space thermostatic control.
1. Use of gasoline-burning space heaters, open-flame heaters, or salamander-type heating units is prohibited.
 2. Heating Units: Listed and labeled for type of fuel being consumed, by a qualified testing agency acceptable to authorities having jurisdiction, and marked for intended location and application.
 3. Permanent HVAC System: If Owner authorizes use of permanent HVAC system for temporary use during construction, provide filter with MERV of 8 at each return-air grille in system and remove at end of construction and clean ducts, blowers, and coils as required in Section 01 77 00 "Closeout Procedures".
- K. Air-Filtration Units: Primary and secondary HEPA-filter-equipped portable units with four-stage filtration. Provide single switch for emergency shutoff. Configure to run continuously.

PART 3 - EXECUTION

3.1. INSTALLATION, GENERAL

- A. Locate facilities where they will serve Project adequately and result in minimum interference with performance of the Work. Relocate and modify facilities as required by progress of the Work.
- B. Provide each facility ready for use when needed to avoid delay. Do not remove until facilities are no longer needed or are replaced by authorized use of completed permanent facilities.

3.2 TEMPORARY UTILITY INSTALLATION

- A. General: Install temporary service or connect to existing service.
 1. Arrange with utility company, Owner, and existing users for time when service can be interrupted, if necessary, to make connections and disconnections for temporary services.

- B. Water Service: Connect to Owner's existing water service facilities. Clean and maintain water service facilities in a condition acceptable to Owner. At Substantial Completion, restore these facilities to condition existing before initial use.
- C. Sanitary Facilities: Provide temporary toilets, wash facilities, and drinking water for use of construction personnel. Comply with requirements of authorities having jurisdiction for type, number, location, operation, and maintenance of fixtures and facilities.
- D. Heating: Provide temporary heating required by construction activities for curing or drying of completed installations or for protecting installed construction from adverse effects of low temperatures or high humidity. Select equipment that will not have a harmful effect on completed installations or elements being installed.
- E. Isolation of Work Areas in Occupied Facilities: Prevent dust, fumes, and odors from entering occupied areas.
 - 1. Prior to commencing work, isolate the HVAC system in area where work is to be performed according to coordination drawings.
 - a. Disconnect supply and return ductwork in work area from HVAC systems servicing occupied areas.
 - b. Maintain negative air pressure within work area using HEPA-equipped air-filtration units, starting with commencement of temporary partition construction, and continuing until removal of temporary partitions is complete.
 - 2. Maintain dust partitions during the Work. Use vacuum collection attachments on dust-producing equipment. Isolate limited work within occupied areas using portable dust-containment devices.
 - 3. Perform daily construction cleanup and final cleanup using approved, HEPA-filter-equipped vacuum equipment.
- F. Ventilation and Humidity Control: Provide temporary ventilation required by construction activities for curing or drying of completed installations or for protecting installed construction from adverse effects of high humidity. Select equipment that will not have a harmful effect on completed installations or elements being installed. Coordinate ventilation requirements to produce ambient condition required and minimize energy consumption.
 - 1. Provide dehumidification systems when required to reduce substrate moisture levels to level required to allow installation or application of finishes.
- G. Electric Power Service: Connect to Owner's existing electric power service. Maintain equipment in a condition acceptable to Owner.
- H. Lighting: Provide temporary lighting with local switching that provides adequate illumination for construction operations, observations, inspections, and traffic conditions.
 - 1. Install and operate temporary lighting that fulfills security and protection requirements without operating entire system.

I. Telephone Service: Provide temporary telephone service in common-use facilities for use by all construction personnel. Install one (1) telephone line(s) for each field office unless indicated otherwise.

1. At each telephone, post a list of important telephone numbers.
 - a. Police and fire departments.
 - b. Ambulance service.
 - c. Contractor's home office.
 - d. Contractor's emergency after-hours telephone number.
 - e. Architect's office.
 - f. Owner's Representative's office.
 - g. Engineers' offices.
 - h. Owner's office.
 - i. Principal subcontractors' field and home offices.
2. Provide superintendent with cellular telephone or portable two-way radio for use when away from field office.

J. Electronic Communication Service: Provide a desktop computer in the primary field office adequate for use by Architect and Owner to access Project electronic documents and maintain electronic communications. Equip computer with not less than the following:

1. Processor: Intel Pentium D or Intel CoreDuo, 3.0 GHz processing speed.
2. Memory: 4 gigabyte.
3. Disk Storage: 300 gigabyte hard-disk drive and combination DVD-RW/CD-RW drive.
4. Display: 22-inch LCD monitor with 256-Mb dedicated video RAM.
5. Full-size keyboard and mouse.
6. Network Connectivity: 10/100BaseT Ethernet.
7. Operating System: Microsoft Windows XP Professional or Microsoft Windows Vista Business.
8. Productivity Software:
 - a. Microsoft Office Professional, XP or higher, including Word, Excel, and Outlook.
 - b. Adobe Reader 7.0 or higher.
 - c. WinZip 7.0 or higher.
9. Printer: "All-in-one" unit equipped with printer server, combining color printing, photocopying, scanning, and faxing, or separate units for each of these three functions.
10. Internet Service: Broadband modem, router and ISP, equipped with hardware firewall, providing minimum 384 Kbps upload and 1 Mbps download speeds at each computer.
11. Internet Security: Integrated software, providing software firewall, virus, spyware, phishing, and spam protection in a combined application.
12. Backup: External hard drive, minimum 40 gigabyte, with automated backup software providing daily backups.

3.3 SUPPORT FACILITIES INSTALLATION

A. General: Comply with the following:

1. Provide construction for temporary offices, shops, and sheds located within construction area or within 30 feet of building lines that is noncombustible according to ASTM E 136. Comply with NFPA 241.
 2. Maintain support facilities until Architect schedules Substantial Completion inspection. Remove before Substantial Completion. Personnel remaining after Substantial Completion will be permitted to use permanent facilities, under conditions acceptable to Owner.
- B. Temporary Use of Permanent Roads and Paved Areas: Locate temporary roads and paved areas in same location as permanent roads and paved areas. Construct and maintain temporary roads and paved areas adequate for construction operations. Extend temporary roads and paved areas, within construction limits indicated, as necessary for construction operations.
1. Coordinate elevations of temporary roads and paved areas with permanent roads and paved areas.
 2. Prepare subgrade and install subbase and base for temporary roads and paved areas according to Section 31 20 00 "Earth Moving."
 3. Recondition base after temporary use, including removing contaminated material, regrading, proofrolling, compacting, and testing.
 4. Delay installation of final course of permanent hot-mix asphalt pavement until immediately before Substantial Completion. Repair hot-mix asphalt base-course pavement before installation of final course according to Section 32 12 16 "Asphalt Paving."
- C. Traffic Controls: Comply with requirements of authorities having jurisdiction.
1. Protect existing site improvements to remain including curbs, pavement, and utilities.
 2. Maintain access for fire-fighting equipment and access to fire hydrants.
- D. Parking: Provide temporary parking areas for key construction and Owner personnel.
- E. Dewatering Facilities and Drains: Comply with requirements of authorities having jurisdiction. Maintain Project site, excavations, and construction free of water.
1. Dispose of rainwater in a lawful manner that will not result in flooding Project or adjoining properties or endanger permanent Work or temporary facilities.
 2. Remove snow and ice as required to minimize accumulations.
- F. Project Signs: Provide Project signs as indicated. Unauthorized signs are not permitted.
1. Identification Signs: Provide Project identification signs as indicated on Drawings.
 2. Temporary Signs: Provide other signs as indicated and as required to inform public and individuals seeking entrance to Project.
 - a. Provide temporary, directional signs for construction personnel and visitors.
 3. Maintain and touchup signs so they are legible at all times.
- G. Construction Waste Management: Comply with requirements specified in Section 01 74 19 "Construction Waste Management and Disposal."
- H. Lifts and Hoists: Provide facilities necessary for hoisting materials and personnel.

1. Truck cranes and similar devices used for hoisting materials are considered "tools and equipment" and not temporary facilities.

I. Temporary Elevator Use: Refer to Division 14 Conveying Equipment.

J. Temporary Stairs: Until permanent stairs are available, provide temporary stairs where ladders are not adequate.

K. Temporary Use of Permanent Stairs: Use of new stairs for construction traffic will be permitted, provided stairs are protected and finishes restored to new condition at time of Substantial Completion.

3.4 CONSTRUCTION AIDS

A. Provide, erect, and maintain construction aids necessary for expeditious and proper completion of the Work.

B. Modifications and alterations to the Project design to accommodate construction aids are not permitted unless authorized by Owner and Architect. Contractor shall reimburse Owner for any structural evaluation, redesign, and supplemental design of the Work by Architect and their consultants, to accommodate construction aids.

C. Repair and pay for damage, including attachment and support to structure, subgrades, or other portions of the Project, as a result of construction aids.

D. Do not use construction aids which could stress, strain, or damage any portion of the Project and existing structures.

E. Contribute to keep temporary work from obstructing Work and access. If, however, conflict with normal access occurs, provide temporary bypass routing until such temporary work is completed.

F. Remove all temporary work from premises after it is no longer needed and before completion of Contract and repair area to original condition.

3.5 SECURITY AND PROTECTION FACILITIES INSTALLATION

A. Protection of Existing Facilities: Protect existing vegetation, equipment, structures, utilities, and other improvements at Project site and on adjacent properties, except those indicated to be removed or altered. Repair damage to existing facilities.

B. Environmental Protection: Provide protection, operate temporary facilities, and conduct construction as required to comply with environmental regulations and that minimize possible air, waterway, and subsoil contamination or pollution or other undesirable effects.

1. Comply with work restrictions specified in Section 01 10 00 "Summary."

C. Temporary Erosion and Sedimentation Control: Comply with requirements of 2003 EPA Construction General Permit or authorities having jurisdiction, whichever is more stringent and requirements specified in Section 31 10 00 "Site Clearing."

- D. Stormwater Control: Comply with requirements of authorities having jurisdiction. Provide barriers in and around excavations and subgrade construction to prevent flooding by runoff of stormwater from heavy rains.
- E. Tree and Plant Protection: Install temporary fencing located as indicated or outside the drip line of trees to protect vegetation from damage from construction operations. Protect tree root systems from damage, flooding, and erosion.
- F. Pest Control: Engage pest-control service to recommend practices to minimize attraction and harboring of rodents, roaches, and other pests and to perform extermination and control procedures at regular intervals so Project will be free of pests and their residues at Substantial Completion. Perform control operations lawfully, using environmentally safe materials.
- G. Site Enclosure Fence: Prior to commencing earthwork, furnish and install site enclosure fence in a manner that will prevent people and animals from easily entering site except by entrance gates.
 - 1. Extent of Fence: As indicated on Drawings.
 - 2. Maintain security by limiting number of keys and restricting distribution to authorized personnel. Furnish one set of keys to Owner.
- H. Security Enclosure and Lockup: Install temporary enclosure around partially completed areas of construction. Provide lockable entrances to prevent unauthorized entrance, vandalism, theft, and similar violations of security. Lock entrances at end of each work day.
- I. Barricades, Warning Signs, and Lights: Comply with requirements of authorities having jurisdiction for erecting structurally adequate barricades, including warning signs and lighting.
- J. Temporary Egress: Maintain temporary egress from existing occupied facilities as indicated and as required by authorities having jurisdiction.
- K. Temporary Enclosures: Provide temporary enclosures for protection of construction, in progress and completed, from exposure, foul weather, other construction operations, and similar activities. Provide temporary weathertight enclosure for building exterior.
 - 1. Where heating or cooling is needed and permanent enclosure is incomplete, insulate temporary enclosures.
- L. Temporary Partitions: Provide floor-to-ceiling dustproof partitions to limit dust and dirt migration and to separate areas occupied by Owner from fumes and noise.
 - 1. Construct dustproof partitions with gypsum wallboard with joints taped on occupied side, and fire-retardant-treated plywood on construction operations side.
 - 2. Where fire-resistance-rated temporary partitions are indicated or are required by authorities having jurisdiction, construct partitions according to the rated assemblies.
 - 3. Insulate partitions to control noise transmission to occupied areas.
 - 4. Seal joints and perimeter. Equip partitions with gasketed dustproof doors and security locks where openings are required.
 - 5. Protect air-handling equipment.
 - 6. Provide walk-off mats at each entrance through temporary partition.

- M. Temporary Fire Protection: Install and maintain temporary fire-protection facilities of types needed to protect against reasonably predictable and controllable fire losses. Comply with NFPA 241; manage fire-prevention program.
1. Prohibit smoking in construction areas.
 2. Supervise welding operations, combustion-type temporary heating units, and similar sources of fire ignition according to requirements of authorities having jurisdiction.
 3. Develop and supervise an overall fire-prevention and -protection program for personnel at Project site. Review needs with local fire department and establish procedures to be followed. Instruct personnel in methods and procedures. Post warnings and information.
 4. Provide temporary standpipes and hoses for fire protection. Hang hoses with a warning sign stating that hoses are for fire-protection purposes only and are not to be removed. Match hose size with outlet size and equip with suitable nozzles.

3.6 MOISTURE AND MOLD CONTROL

- A. Contractor's Moisture-Protection Plan: Avoid trapping water in finished work. Document visible signs of mold that may appear during construction.
- B. Exposed Construction Phase: Before installation of weather barriers, when materials are subject to wetting and exposure and to airborne mold spores, protect as follows:
1. Protect porous materials from water damage.
 2. Protect stored and installed material from flowing or standing water.
 3. Keep porous and organic materials from coming into prolonged contact with concrete.
 4. Remove standing water from decks.
 5. Keep deck openings covered or dammed.
- C. Partially Enclosed Construction Phase: After installation of weather barriers but before full enclosure and conditioning of building, when installed materials are still subject to infiltration of moisture and ambient mold spores, protect as follows:
1. Do not load or install drywall or other porous materials or components, or items with high organic content, into partially enclosed building.
 2. Keep interior spaces reasonably clean and protected from water damage.
 3. Periodically collect and remove waste containing cellulose or other organic matter.
 4. Discard or replace water-damaged material.
 5. Do not install material that is wet.
 6. Discard, replace, or clean stored or installed material that begins to grow mold.
 7. Perform work in a sequence that allows any wet materials adequate time to dry before enclosing the material in drywall or other interior finishes.
- D. Controlled Construction Phase of Construction: After completing and sealing of the building enclosure but prior to the full operation of permanent HVAC systems, maintain as follows:
1. Control moisture and humidity inside building by maintaining effective dry-in conditions.
 2. Use permanent HVAC system to control humidity.
 3. Comply with manufacturer's written instructions for temperature, relative humidity, and exposure to water limits.

- a. Hygroscopic materials that may support mold growth, including wood and gypsum-based products, that become wet during the course of construction and remain wet for forty-eight (48) hours are considered defective.
- b. Measure moisture content of materials that have been exposed to moisture during construction operations or after installation. Record readings beginning at time of exposure and continuing daily for forty-eight (48) hours. Identify materials containing moisture levels higher than allowed. Report findings in writing to Architect.
- c. Remove materials that cannot be completely restored to their manufactured moisture level within forty-eight (48) hours.

3.7 OPERATION, TERMINATION, AND REMOVAL

- A. Supervision: Enforce strict discipline in use of temporary facilities. To minimize waste and abuse, limit availability of temporary facilities to essential and intended uses.
- B. Maintenance: Maintain facilities in good operating condition until removal.
 - 1. Maintain operation of temporary enclosures, heating, cooling, humidity control, ventilation, and similar facilities on a 24-hour basis where required to achieve indicated results and to avoid possibility of damage.
- C. Temporary Facility Changeover: Do not change over from using temporary security and protection facilities to permanent facilities until Substantial Completion.
- D. Termination and Removal: Remove each temporary facility when need for its service has ended, when it has been replaced by authorized use of a permanent facility, or no later than Substantial Completion. Complete or, if necessary, restore permanent construction that may have been delayed because of interference with temporary facility. Repair damaged Work, clean exposed surfaces, and replace construction that cannot be satisfactorily repaired.
 - 1. Materials and facilities that constitute temporary facilities are property of Contractor. Owner reserves right to take possession of Project identification signs.
 - 2. Remove temporary roads and paved areas not intended for or acceptable for integration into permanent construction. Where area is intended for landscape development, remove soil and aggregate fill that do not comply with requirements for fill or subsoil. Remove materials contaminated with road oil, asphalt and other petrochemical compounds, and other substances that might impair growth of plant materials or lawns. Repair or replace street paving, curbs, and sidewalks at temporary entrances, as required by authorities having jurisdiction.
 - 3. At Substantial Completion, repair, renovate, and clean permanent facilities used during construction period. Comply with final cleaning requirements specified in Section 01 77 00 "Closeout Procedures."

END OF SECTION