

Exhibit B - ~~Architect/Engineer's~~ A/E Scope of Services (Multiple-Prime Project)

State of Ohio Professional Services Agreements for Public Facility Construction

~~Architect/Engineer's~~ TABLE OF CONTENTS

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~~Article 1~~ ARTICLE 1 - BASIC SERVICES

1.1 General

1.1.1 Basic Services to be provided by the ~~Architect/Engineer~~ (“A/E”) shall consist of the activities and stages set forth in **Article 2** through **Article 8**, inclusive, and include, ~~but are not limited to~~, normal architectural, civil, structural, mechanical, electrical, and landscape design and engineering services for the Project, any necessary signage and graphics, and any services necessary to comply with the ORC Section 3379.10 Percent for Arts Program.

1.2 Sustainability Requirements

1.2.1 This Project shall be designed and constructed in accordance with the requirements of Am. Sub. H.B. 251 of the 126th General Assembly and ~~the~~ resulting rules, policy, and procedures adopted by the Ohio Facilities Construction Commission establishing Sustainability Requirements for Capital Improvements Projects, including ~~but not limited to~~ ~~the~~ applicable provisions of OAC ~~123:4-1-3318-3~~.

1.2.2 The A/E shall incorporate cost-effective, energy-efficient, green building practices to the maximum extent possible into the Project.

1.3 Consultation

1.3.1 The A/E shall schedule and attend regular meetings with the Contracting Authority and ~~the~~ Owner. The A/E shall consult with the Contracting Authority and ~~the~~ Owner regarding Site use and improvements and the selection of materials, building systems, and equipment. The A/E shall give recommendations to the Contracting Authority, ~~the~~ Owner, and A/E on construction feasibility; actions designed to minimize adverse effects of labor or material shortages; time requirements for procurement, installation and construction completion; and factors related to construction cost, including estimates of alternative designs or materials, budgets and possible economies.

1.3.2 At all appropriate times throughout ~~the~~ performance of the Work, the A/E shall contact, meet, consult, and otherwise coordinate with the Contracting Authority, ~~the~~ Owner, governmental authorities with jurisdiction over the Project, and others for the purpose of facilitating the Project’s design and construction.

1.4 Design Schedule

1.4.1 Within 10 days after ~~the~~ execution of this Agreement, or other period agreed with the Contracting Authority, the A/E shall submit, for approval by the Contracting Authority and ~~the~~ Owner, a Design Schedule for the performance of the A/E’s Services.

1.4.2 The Design Schedule shall include allowances for reasonable periods required for ~~the~~ review and approval of items by the Contracting Authority and ~~the~~ Owner, and for approvals of governmental authorities having jurisdiction over the Project.

1.4.3 Unless the Contracting Authority or ~~the~~ Owner notify the A/E of objections to the Design Schedule within 30 days of receipt thereof, the Contracting Authority and ~~the~~ Owner shall be deemed to have approved the Design Schedule.

1.4.4 The A/E shall coordinate the Design Schedule with the Project Schedule.

1.4.5 The A/E shall not exceed or adjust the Design Schedule after its initial approval without the prior written consent of the Contracting Authority and ~~the~~ Owner.

1.4.6 The A/E shall perform its Services in a timely manner consistent with the Project Schedule.

Article 2ARTICLE 2 - PROGRAM VERIFICATION STAGE

2.1.12.1 Commencement-

2.1.12.1.1 The A/E's Services will begin on the date set forth in a notice that the Contracting Authority will issue to the A/E: ("Notice to Commence Services").

2.2 Organizational Meeting

2.1.12.2.1 Unless the Contracting Authority agrees otherwise in writing, the A/E's Services will begin with an organizational meeting between the Contracting Authority, ~~the~~ Owner, and ~~the~~ A/E. All of the A/E's key personnel involved in the Project shall attend the organizational meeting.

2.1.22.2.2 During the organizational meeting, the attendees will:

2.1.2.42.2.2.1 review the responsibilities of each of the Contracting ~~Authority's~~ Authority and ~~the~~ Owner's key personnel involved in the Project;

2.1.2.22.2.2.2 review the scope of the A/E's Services and the responsibilities of each of the A/E's key personnel involved in the Project;

2.1.2.32.2.2.3 review and establish lines of communication between the Contracting Authority, ~~the~~ Owner, and ~~the~~ A/E;

2.1.2.42.2.2.4 develop a list of the Owner's Project-stakeholder representatives to be involved in the Program Verification Stage to inform ~~the~~ development of the Program ~~Documents of Requirements~~; and

2.1.2.52.2.2.5 review ~~the~~ then-available information and documents which reflect the Owner's requirements and objectives for the Project including Project Schedule and Construction Budget requirements and objectives.

2.1.32.2.3 Within 5 days after the organizational meeting is adjourned, the A/E shall prepare and submit to the Contracting Authority and ~~the~~ Owner:

2.1.3.42.2.3.1 detailed minutes of the organizational meeting; and

2.1.3.22.2.3.2 a proposed Project Schedule reflecting ~~the~~ performance of the A/E's Services and ~~the~~ progression of the Project through award of the Contract to the Contractor.

- .1 The Contracting Authority, ~~the~~ Owner, and ~~the~~ A/E will promptly thereafter consult with one another as necessary to reach agreement on the initial Project Schedule, which shall be used as the basis for moving forward with the Project subject to revision.

2.1.3.32.2.3.3 If the Project is administered using ~~OAKS-CI~~ the State's web-based project management software, the A/E shall distribute the minutes of the organizational meeting through the "Meeting Minutes" business process.

2.22.3 General Requirements

2.2.12.3.1 In addition to performing those Services required to comply with **Sections 2.3 and 2.4 and 2.5**, during the Program Verification Stage, the A/E shall:

2.2.1.42.3.1.1 identify the building type and research, analyze, and document relevant information specific to that type;

2.2.1.22.3.1.2 meet and otherwise work with the Contracting Authority, ~~the~~ Owner, ~~the~~ Owner's Project-stakeholder representatives, and others with an interest in the Project to establish goals and objectives for the Project;

2.2.1.32.3.1.3 gather, analyze, and document information relevant to the identified Project goals and objectives;

2.2.1.42.3.1.4 identify and evaluate strategies to achieve the identified Project goals and objectives;

~~2.2.1.5~~2.3.1.5 advise the Contracting Authority and ~~the~~ Owner in writing if at any time it appears that the Project Schedule or Construction Budget may be exceeded and make recommendations for corrective action;

~~2.2.1.6~~2.3.1.6 meet with the Contracting Authority and ~~the~~ Owner at intervals acceptable to the Contracting Authority and ~~the~~ Owner, to review drawings and other documents which depict the current status of the Program Verification Stage of the Project;

~~2.2.1.7~~2.3.1.7 identify and analyze issues related to compliance with Applicable Law and participate in related meetings with government authorities that have jurisdiction over the Project;

~~2.2.1.8~~2.3.1.8 investigate existing conditions and verify the accuracy of Owner-provided information about existing conditions, as appropriate;

~~2.2.1.9~~2.3.1.9 notify the Owner of the need for ~~the~~ professional services of any Separate Consultants required for the Project; and

~~2.2.1.10~~2.3.1.10 review and provide recommendations concerning Site use and improvements and alternative approaches to selection of materials, building systems, and equipment.

2.3.2.4 A/E's Program Verification Submission

~~2.3.12.4.1~~ Based upon a mutual understanding of the Project's preliminary requirements, the A/E shall prepare the Program Documents. ~~At the completion of the Program Verification Stage, the~~ The A/E shall submit the provisional Program Documents to the Contracting Authority and the Owner on or before the date identified in the Project Schedule for that submission.

~~2.3.22.4.2~~ The provisional Program Documents shall be in the form of a written report, ~~conceptual drawings, and conceptual specifications. At a minimum, the provisional Program Documents~~ which may include graphics, but shall include:

~~2.3.2.42.4.2.1~~ 2.3.2.42.4.2.1 an executive summary of the Program Documents;

~~2.3.2.22.4.2.2~~ 2.3.2.22.4.2.2 a narrative description of the Project and ~~the~~ design goals;

~~2.3.2.32.4.2.3~~ 2.3.2.32.4.2.3 a description of space requirements, including a listing of ~~the~~ desired spaces and ~~an~~ identification of each space's basic criteria such as dimensions, proportions, ceiling heights, and service, equipment, storage, utility, access, flexibility, configuration, security, adjacency, aesthetic, and other requirements;

~~2.3.2.42.4.2.4~~ 2.3.2.42.4.2.4 a description of planning and design criteria such as workstation, office/room standards; clustering and layout criteria; circulation criteria; applicable space-planning modules; dimensional criteria; building systems interface criteria; envelope criteria; accessibility requirements; and a description of performance criteria applicable to building components such as envelope, structure, interior construction, and mechanical, electrical, and plumbing systems;

~~2.3.2.52.4.2.5~~ 2.3.2.52.4.2.5 a preliminary estimate of Construction Cost ("Program Estimate") using area, volume or similar conceptual estimating techniques;

- 1 If the Program Estimate exceeds the Construction Budget ~~by more than 5 percent~~, the Contracting Authority may require the A/E to immediately develop viable proposals to reconcile the estimate with the Construction Budget. The A/E will present those proposals as an addendum to ~~its~~ the provisional Program ~~Verification Stage Submission~~ Documents.

~~2.3.2.62.4.2.6~~ 2.3.2.62.4.2.6 a preliminary evaluation of the Program, Project Schedule, and Construction Budget requirements, each in terms of the other including a description of the distribution of the Construction Budget between major Project components, contingencies, and other categories the Contracting Authority may designate;

~~2.3.2.72.4.2.7~~ 2.3.2.72.4.2.7 preliminary recommendations regarding selection of materials, building systems, and equipment;

~~2.3.2.82.4.2.8~~ 2.3.2.82.4.2.8 a review of feasible alternative approaches to ~~the~~ design and construction of the Project, if any, including the estimated budget and schedule impacts of those alternative approaches;

~~2.3.2.92.4.2.9~~ 2.3.2.92.4.2.9 an identification of Applicable Law; and

~~2.3.2.102.4.2.10~~ 2.3.2.102.4.2.10 all other documents and information required under the **Minimum Stage Submission Requirements** attached as an exhibit to the **Agreement Form**.

~~2.3.32.4.3~~ If the Project is administered using ~~OAKS C~~ the State's web-based project management software, the A/E shall submit ~~its~~ the provisional Program Documents; and any revisions; through the "Design Review Program of Requirements" business process.

2.4.2.5 Program Documents Review

~~2.4.12.5.1~~ ~~The~~ ~~After the~~ Contracting Authority, ~~the~~ ~~and~~ Owner, ~~and the A/E shall meet~~ have had a reasonable period to review the provisional Program Documents, the Contracting Authority, Owner, and A/E shall meet to discuss the provisional Program Documents and reach agreement on any Contracting Authority-authorized adjustments to the ~~Program Documents~~; Project Schedule, Construction Budget, or Project Budget and any necessary clarifications of the provisional Program Documents.

~~2.5.2~~ Unless the Contracting Authority agrees otherwise in writing, within 5 business days after the review meeting, the A/E shall revise the ~~provisional~~ Program Documents to reflect the adjustments and clarifications agreed upon in the review meeting, and resubmit those documents to the Owner and ~~the~~ Contracting Authority.

~~2.4.22.5.3~~ When the Contracting Authority and ~~the~~ Owner approve ~~of~~ the revised Program Documents and sign the related Design Review Acceptance form, the revised Program Documents shall become the Approved Program of Requirements.

Article 3 ARTICLE 3 - SCHEMATIC DESIGN STAGE

3.1 Commencement

3.1.1 Unless the Contracting Authority directs otherwise in writing, the Schematic Design Stage will begin upon completion of the activities described under ~~Section 2.4~~ **Article 2**.

3.2 General Requirements

3.2.1 In addition to performing those Services required to comply with ~~Sections 3.3.3 and~~ through **3.5**, during the Schematic Design Stage, the A/E shall:

3.2.1.1 advise the Contracting Authority and ~~the~~ Owner in writing if at any time it appears that the Project Schedule or Construction Budget may be exceeded and make recommendations for corrective action;

3.2.1.2 meet with the Contracting Authority and ~~the~~ Owner at intervals acceptable to the Contracting Authority and ~~the~~ Owner, to review drawings and other documents which depict the current status of the Schematic Design Stage of the Project;

3.2.1.3 further evaluate and refine the Approved Program of Requirements;

~~3.2.1.4 develop estimates of the Construction Costs in increasing detail;~~

~~3.2.1.5~~ **3.2.1.4** identify all issues related to compliance with Applicable Law and participate in related meetings with government authorities that have jurisdiction over the Project;

~~3.2.1.6~~ **3.2.1.5** investigate existing conditions and verify the accuracy of Owner-provided information about existing conditions, as appropriate;

~~3.2.1.7~~ **3.2.1.6** notify the Owner of the need for and assist the Owner in selecting, retaining, and coordinating the professional services of any Separate Consultants required for the Project; and

~~3.2.1.8~~ **3.2.1.7** assist the Owner with filing documents required for the approvals of governmental authorities with jurisdiction over the Project.

3.3 Preliminary Life Cycle Cost Analysis

3.3.1 At the time set forth in the Project Schedule, the A/E shall prepare and submit three design concepts for a preliminary Life Cycle Cost Analysis ("LCCA") and the preliminary LCCA for each concept to the Owner and Contracting Authority.

3.3.2 The alternative design concepts may include:

3.3.2.1 A baseline alternative, which complies in all aspects with the requirements of the current version of the Ohio Building Code ("OBC"), including the version of ASHRAE/IESNA 90.1 referenced in OBC Chapter 35;

3.3.2.2 A high-performance alternative, which demonstrates 20 percent improvement in energy efficiency over the version of ASHRAE/IESNA 90.1 referenced in OBC Chapter 35; and

3.3.2.3 A high-performance alternative, which demonstrates 30 percent improvement in energy efficiency over the version of ASHRAE/IESNA 90.1 referenced in OBC Chapter 35, and includes one or more renewable energy sources, such as waste heat recovery, solar energy, wind energy, biomass fuel energy, or geothermal energy.

3.3.3 The A/E shall base the Schematic Design Documents on the Owner's selected preliminary design concept.

3.4 A/E's Schematic Design Submission

3.4.1 At the completion of the Schematic Design Stage, the A/E shall submit the provisional Schematic Design Documents to the Contracting Authority and ~~the~~ Owner.

~~3.4.1.1 The A/E shall also submit 1 copy of the provisional Schematic Design Documents to the State Security Coordinator (Department of Public Safety, 1970 West Broad Street, Columbus, Ohio 43223) for review and written comment.~~

3.4.2 ~~The~~The provisional Schematic Design Documents shall include:

3.4.2.1 a conceptual site plan and preliminary building plans, sections, and elevations illustrating the Project's scale and the relationship of Project components to one another and the relationship of the Project to surrounding properties;

3.4.2.2 if not noted on the drawings, a written description of preliminary selections of major building systems and construction materials;

3.4.2.3 an estimate of Construction Cost ("Schematic Design Estimate") using area, volume or similar conceptual estimating techniques;

- .1 If the Schematic Design Estimate exceeds the Construction Budget ~~by more than 5 percent~~, the Contracting Authority may require the A/E to immediately develop viable proposals to reconcile the estimate with the Construction Budget. The A/E will present those proposals as an addendum to ~~its~~the provisional Schematic Design ~~Stage Submission Documents~~.

3.4.2.4 cost evaluations of alternative building systems and construction materials;

3.4.2.5 an identification of any unresolved issues related to compliance with Applicable Law;

3.4.2.6 a written description of all modifications of the Approved Program of Requirements;

3.4.2.7 if agreed in writing by the Contracting Authority, the A/E will develop study models, perspective sketches, electronic modeling, or combinations of those media; and

3.4.2.8 all other documents and information required under the **Minimum Stage Submission Requirements** attached as an exhibit to the **Agreement Form**.

3.4.3 If the Project is administered using ~~OAKS C~~the State's web-based project management software, the A/E shall submit ~~its~~the provisional Schematic Design ~~documents, Documents~~ and any revisions, ~~to the Contracting Authority and the Owner~~ through the "Design Review" business process.

3.5 Schematic Design Documents Review

3.5.1 ~~The~~After the Contracting Authority, ~~the and~~ Owner, ~~and the A/E shall meet~~ have had a reasonable period to review the provisional Schematic Design Documents, the Contracting Authority, Owner, and to A/E shall meet to discuss the provisional Schematic Design Documents and reach agreement on any Contracting Authority-authorized adjustments to the Approved Program of Requirements, Project Schedule, Construction Budget, or Project Budget and any necessary clarifications of the ~~provisional~~ Schematic Design Documents.

3.5.2 Unless the Contracting Authority agrees otherwise in writing, within 5 business days after the review meeting, the A/E shall revise ~~its~~the Schematic Design ~~Stage submission Documents~~ to reflect the adjustments and clarifications agreed upon in the review meeting ~~(including any comments from the State Security Coordinator, which have been reviewed and approved by the Owner),~~ and resubmit those documents to the Owner and ~~the~~ Contracting Authority.

~~3.5-23.5.3~~ When the Contracting Authority and ~~the~~ Owner approve of the revised Schematic Design ~~Stage submission Documents~~ and sign the related Design Review Acceptance form, the revised Schematic Design ~~Stage submission Documents~~ shall become the final Schematic Design Documents.

~~Article 4~~ARTICLE 4 - DESIGN DEVELOPMENT STAGE

4.1 Commencement

4.1.1 Unless the Contracting Authority directs otherwise in writing, the Design Development Stage will begin upon completion of the activities described under ~~Section 3.5~~Article 3.

4.2 General Requirements

4.2.1 In addition to performing those Services required to comply with **Sections 4.3.4.3 and through 1.1**, during the Design Development Stage, the A/E shall:

4.2.1.1 advise the Contracting Authority and ~~the~~ Owner in writing if at any time it appears that the Project Schedule or Construction Budget may be exceeded and make recommendations for corrective action;

4.2.1.2 meet with the Contracting Authority and ~~the~~ Owner at intervals acceptable to the Contracting Authority and ~~the~~ Owner, to review drawings and other documents which depict the current status of the Design Development Stage of the Project;

4.2.1.3 further evaluate and refine the Approved Program of Requirements;

~~4.2.1.4 develop estimates of the Construction Costs in increasing detail;~~

~~4.2.1.5~~ 4.2.1.4 prepare and submit a sole-source justification letter describing any materials, products, or systems included in the Work that are only available from a single manufacturer, supplier, or contractor to the Contracting Authority for its approval in writing;

~~4.2.1.6~~ 4.2.1.5 resolve all issues related to compliance with Applicable Law (except to the extent stated otherwise in writing by the A/E for necessary variances and waivers at the time of the A/E's provisional Design Development Document submission) and participate in related meetings with government authorities that have jurisdiction over the Project;

~~4.2.1.7~~ 4.2.1.6 investigate existing conditions and verify the accuracy of Owner-provided information about existing conditions, as appropriate;

~~4.2.1.8~~ 4.2.1.7 notify the Owner of the need for and assist the Owner in selecting, retaining, and coordinating the professional services of any Separate Consultants required for the Project;

~~4.2.1.9~~ 4.2.1.8 assist the Owner with filing documents required for the approvals of governmental authorities with jurisdiction over the Project; and

~~4.2.1.10~~ 4.2.1.9 review and provide recommendations concerning Site use and improvements and alternative approaches to selection of materials, building systems, and equipment.

4.3 Life Cycle Cost Analysis

4.3.1 The A/E shall prepare and submit 3 copies of the revised LCCA for the selected design concept to the Owner and Contracting Authority.

4.3.2 If the Project creates or renovates an area greater than 5,000 square feet, the A/E shall also submit the revised LCCA to the Ohio Facilities Construction Commission.

4.4 A/E's Design Development Submission

4.4.1 At the completion of the Design Development Stage, the A/E shall submit the provisional Design Development Documents to the Contracting Authority and ~~the~~ Owner.

4.4.2 The provisional Design Development Documents shall include:

4.4.2.1 plans, sections, elevations, typical construction details, and equipment layouts that illustrate and describe the refinement of the Project's design and the size and character of the Project in terms of architectural, structural, mechanical, plumbing, and electrical systems, materials, and other elements as may be appropriate;

4.4.2.2 specifications sufficient to identify the quality and other characteristics of the proposed or selected materials, equipment, finishes, fixtures, and systems;

4.4.2.3 a detailed estimate of Construction Cost ("Design Development Estimate");

- 1 If the Design Development Estimate exceeds the Construction Budget ~~by more than 5 percent~~, the Contracting Authority may require the A/E to immediately develop viable proposals to reconcile the estimate with the Construction Budget. The A/E will present those proposals as an addendum to ~~it~~ the provisional Design Development ~~Stage Submission~~ Documents.

4.4.2.4 a written description of all proposed or previously agreed upon Alternates, which description may be included in the specifications rather than as a separate document;

4.4.2.5 a written description of all proposed or previously agreed upon Allowances;

4.4.2.6 an identification of any unresolved issues related to compliance with Applicable Law;

~~4.4.2.7 the A/E's Design Intent Statement;~~~~4.4.2.8~~ **4.4.2.7** a written description of all modifications of the Approved Program of Requirements; and~~4.4.2.9~~ **4.4.2.8** all other documents and information required under the **Minimum Stage Submission Requirements** attached as an exhibit to the **Agreement Form**.

4.4.3 If the Project is administered using ~~OAKS-CI~~ the State's web-based project management software, the A/E shall submit ~~its~~ the provisional Design Development ~~documents~~ Documents and any ~~changes or~~ revisions to the Contracting Authority and the Owner through the "Design Review" business process.

~~4.5 Design Development Documents Review~~

~~4.4.4~~ **4.4.4** ~~The Contracting Authority, the Owner, and the A/E shall meet to review the provisional Design Development Documents and to~~ If the Owner is a cabinet agency of the state of Ohio and the Project consists of new construction, addition, or major renovation, the A/E shall also submit 1 copy of the following provisional Design Development Documents as PDF files to the Ohio Homeland Security Infrastructure Protection and Technology Unit (Department of Public Safety, Strategic Analysis and Information Center, 1970 West Broad Street, Second Floor, Columbus, Ohio 43223) through the Contracting Authority for review and written comment:

~~4.4.4.1~~ **4.4.4.1** site plan with walkways, roadways, and parking lots shown;~~4.4.4.2~~ **4.4.4.2** building egress plan showing emergency egress routes, exits, and entrances;~~4.4.4.3~~ **4.4.4.3** major elevations including fresh air intake locations;~~4.4.4.4~~ **4.4.4.4** security plan with camera locations and access control facilities; and~~4.4.4.5~~ **4.4.4.5** symbol legends for each type of drawing requested.~~4.5 Design Development Documents Review~~

~~4.5.1~~ **4.5.1** After the Contracting Authority and Owner have had a reasonable period to review the provisional Design Development Documents, the Contracting Authority, Owner, and A/E shall meet to discuss the provisional Design Development Documents and reach agreement on any Contracting Authority-authorized adjustments to the Approved Program of Requirements, Project Schedule, Construction Budget, or Project Budget and any necessary clarifications of the provisional Design Development Documents.

~~4.5.2~~ **4.5.2** Unless the Contracting Authority agrees otherwise in writing, within 5 business days after the review meeting, the Program A/E shall revise ~~its~~ the Design Development ~~Stage submission~~ Documents to reflect the adjustments and clarifications agreed upon in the review meeting; (including any comments from the Ohio Homeland Security Infrastructure Protection and Technology Unit, which have been reviewed and approved by the Owner), and resubmit those documents to the Owner and ~~the~~ Contracting Authority.

~~4.5.24.5.3~~ **4.5.24.5.3** When the Contracting Authority and ~~the~~ Owner approve ~~of~~ the revised Design Development ~~Stage submission~~ Documents and sign the related Design Review Acceptance form, the revised Design Development ~~Stage submission~~ Documents shall become the final Design Development Documents.

Article 5 ~~ARTICLE 5~~ - CONSTRUCTION DOCUMENTS STAGE**5.1 Commencement**

5.1.1 Unless the Contracting Authority agrees otherwise in writing, the Construction Documents Stage will begin upon the completion of the activities described in ~~Section 4.5~~ **Article 4**.

5.2 General Requirements

5.2.1 In addition to performing those services required to comply with ~~Sections 5.35.3 and~~ through 5.5, during the Construction Documents Stage, the A/E shall:

5.2.1.1 advise the Contracting Authority and ~~the~~ Owner in writing if at any time it appears that the Project Schedule or Construction Budget may be exceeded and make recommendations for corrective action;

5.2.1.2 meet with the Contracting Authority and ~~the~~ Owner at intervals acceptable to the Contracting Authority and ~~the~~ Owner, to review Drawings and other documents which depict the current status of the Construction Documents Stage of the Project;

- 5.2.1.3 update and re-issue the Project Schedule as necessary to keep the Contracting Authority and ~~the~~ Owner apprised of the schedule's current status;
- 5.2.1.4 develop, prepare, and compile all forms and information needed to properly bid and complete the Project;
- 5.2.1.5 ensure that the scopes of Work of the various Contractors is coordinated, all requirements for the Project have been assigned to the appropriate subcontract, the likelihood of jurisdictional disputes between trades has been minimized, and proper coordination has been provided for Phased construction (if any);
- 5.2.1.6 refine the analysis of the types and quantities of labor required for the Project and review the availability of appropriate categories of labor required for critical portions of the Work;
- 5.2.1.7 make recommendations to the Contracting Authority and ~~the~~ Owner, for actions designed to minimize adverse effects of labor shortages;
- 5.2.1.8 file documents required for ~~the~~ approvals of governmental authorities with jurisdiction over the Project; and
- 5.2.1.9 provide recommendations on value engineering, constructability, logistics, site use and improvements, availability and suitability of materials, equipment, labor and systems, long-lead items, safety and security plans, quality control, time requirements for construction, and factors related to the cost of the Project including costs of alternative designs or materials, preliminary budgets and possible economies.

5.2.2 During the A/E's completion of the Construction Documents:

- 5.2.2.1 The A/E shall verify that the Drawings and Specifications include requirements and assignment of responsibilities for safety precautions and programs and for temporary facilities for common use of the A/E and ~~the~~ Contractor.
- 5.2.2.2 The A/E shall prepare the Drawings and Specifications for each Bid package to minimize areas of conflict, gaps, and overlaps in the Work to be performed by the various Contractors.
- 5.2.2.3 The A/E shall prepare the Drawings and Specifications to encourage competition except where otherwise required to comply with the Approved Program of Requirements.
- 5.2.2.4 The A/E shall identify areas that the A/E recognizes as having incomplete documentation and uncoordinated multi-discipline Work.
- 5.2.2.5 With the prior written consent of the Owner, the A/E shall develop and include Alternates in the Construction Documents.

5.3 A/E's Construction Documents Submission

5.3.1 Upon completion of the Construction Documents Stage, the A/E shall ~~prepare the following documents and~~ submit ~~them~~ the provisional Construction Documents to the Contracting Authority and ~~the~~ Owner.

5.3.2 The provisional Construction Documents shall include:

- ~~5.3.1.45.3.2.1~~ Drawings setting forth in detail the requirements for ~~the~~ construction of the Project;
- ~~5.3.1.25.3.2.2~~ Specifications prepared in accordance with the most-current CSI *MasterFormat* and that establish in detail the quality levels of all materials and systems required for the Project and include all stipulations pertaining to the furnishing and installation of the Work as required for completion of the Project;
- ~~5.3.1.35.3.2.3~~ develop estimates a Detailed Estimate of the Construction Costs ("Construction Documents Estimate") in increasing detail Cost; and
 - .1 If the ~~Construction Documents~~ Detailed Estimate of Construction Cost exceeds the Construction Budget ~~by more than 5 percent~~, the Contracting Authority may require the A/E to immediately develop viable proposals to reconcile the estimate with the Construction Budget. The A/E will present those proposals as an addendum to ~~it~~ the Construction Documents ~~Stage Submission~~.
- ~~5.3.1.45.3.2.4~~ an updated Project Schedule.

~~5.3.25.3.3~~ If the Project is administered using ~~OAKS-CI~~ the State's web-based project management software, the A/E shall create, approve, and submit the A/E's provisional Construction Documents Stage Submission and any revisions through the "Design Review" business process.

5.4 Construction Documents Review

5.4.1 ~~The~~ After the Contracting Authority, ~~the~~ and Owner, ~~and the A/E shall meet~~ have had a reasonable period to review the A/E's provisional Construction Documents Stage Submission, the Contracting Authority, Owner, and ~~to~~ A/E shall meet to discuss the provisional Construction Documents and reach agreement on any Contracting Authority-authorized

adjustments to the Approved Program of Requirements, Project Schedule, or Construction Budget and any necessary clarifications of the ~~A/E's Construction Documents-Stage Submission~~.

5.4.2 Unless the Contracting Authority agrees otherwise in writing, within 5 business days after the review meeting, the A/E shall revise ~~its~~the Construction Documents-Stage Submission to reflect the adjustments and clarifications agreed upon in the review meeting, and resubmit those documents to the Owner, and ~~the~~ Contracting Authority.

~~5.4.25.4.3~~ When the Contracting Authority and ~~the~~ Owner approve ~~of~~ the revised Construction Documents Stage Submission and sign the related Design Review Acceptance form, the revised Construction Documents-Stage Submission shall become the final Construction Documents, subject to **(1)** execution of an appropriate Modification to incorporate the adjustments into the Contract and **(2)** further revisions as provided in the General Conditions.

5.5 Government Approvals

5.5.1 Plan Approval.

5.5.1.1 The A/E shall secure the required structural, plumbing, HVAC, and electrical plan approvals ~~from the Ohio Department of Commerce, Division of Industrial Compliance.~~

~~1—If the Project is not on State property, the A/E shall secure the plan approvals from the local certified building department with jurisdiction, if applicable.~~

5.5.1.2 The A/E shall attend all intermediate and final inspections required for any permit applicable to the Work including ~~without limitation~~ the life safety inspection for occupancy permits.

5.5.2 Local Permits.

5.5.2.1 The A/E shall attend all intermediate and final inspections required for any local permit applicable to the Work.

5.5.3 National Pollutant Discharge Elimination System (“NPDES”) Storm Water General Permit.

5.5.3.1 The A/E shall secure the NPDES general permit by submitting a Notice of Intent (“NOI”) application form to the Ohio Environmental Protection Agency at least 45 days prior to the start of construction. The Contractor shall be a “co-permittee” if required under Applicable Law.

5.5.3.2 The A/E shall prepare and certify a storm water pollution prevention plan to provide sedimentation and erosion controls at the Project.

5.5.3.3 The A/E shall prepare and process the required Notice of Termination (“NOT”) prior to Contract Completion.

5.5.4 If the Project is administered using ~~OAKS C~~the State's web-based project management software, the A/E shall document transmission of government-approved Construction Documents and any ~~changes or revisions to the Contracting Authority, the Owner, and the Contractor,~~ through the “Transmittal” business process, with physical copies sent to their offices.

~~Article 6~~ARTICLE 6 - BIDDING AND AWARD STAGE

6.1 Obtaining Bids

6.1.1 The A/E shall develop and make recommendations for bidding criteria, bidding schedules, and bidding information and develop Bidders' interest in the Project.

6.1.2 The A/E shall prepare and issue Addenda as necessary to render interpretations and clarifications of the Contract Documents.

6.2 Bid Packages

6.2.1 The A/E shall obtain all necessary prevailing wage determinations and shall include them in the Contract Documents.

6.2.2 The A/E, or its designee (e.g., its reprographer), shall assemble and distribute the Contract Documents to prospective Bidders, Contracting Authority, Owner, and other appropriate persons, including, but not limited to, any applicable local or regional plan room organizations.

6.2.2.1 If the Project utilizes the State's electronic bidding software, the A/E or its designee shall provide the Contract Documents in PDF format to the Contracting Authority 1 business day before the first advertisement.

6.26.3 Pre-bid Conference

6.2-16.3.1 The A/E shall conduct pre-bid conference(s) with prospective Bidders to familiarize Bidders with the Contract Documents, including any special requirements of the Contract Documents.

6.2-26.3.2 At the pre-bid conference(s), the A/E shall also familiarize prospective Bidders with requirements of equal employment opportunity, prevailing wage, EDGE, Drug Free Safety Program, campaign contribution limits, ethics compliance, Sustainability Requirements, an overview of ~~OAKS CI~~ the State's electronic bidding software if applicable, an overview of the State's web-based project management software if applicable, and other requirements, as necessary.

6.2-36.3.3 The A/E shall respond to questions from the pre-bid conference(s) by preparing and issuing pre-bid conference minutes attached to one or more written Addenda within 5 days of the conference.

~~6.2.6 The A/E, or its designee (e.g., its reprographer), shall assemble and distribute the Contract Documents to prospective Bidders, the Contracting Authority, the Owner, and other appropriate persons, including, but not limited to, any applicable local or regional plan room organizations.~~

6.36.4 Bid Review

6.3-16.4.1 The A/E shall, in accordance with Applicable Law, review all Bids received for responsiveness, investigate ~~the~~ responsibility of Bidders, and deliver a written recommendation to the Contracting Authority about ~~the~~ award, or rejection, of any Bid or Bids for each contract for the Project.

6.3-26.4.2 In making the recommendation, the A/E shall evaluate all applicable Alternates referenced in the Contract Documents.

6.46.5 Substitutions after Bid Opening

6.4-16.5.1 The A/E shall consider Requests for Substitutions after the bid opening only when the Contractor can conclusively demonstrate to the A/E the following conditions:

6.4-1-16.5.1.1 The specified Basis of Design Components, Acceptable Components, or Substitutions approved prior to the bid opening, through no fault of the Contractor or ~~the~~ Contractor's Subcontractors and Material Suppliers, are not available; or

6.4-1-26.5.1.2 The specified Basis of Design Components, Acceptable Components, or previously-approved Substitutions will not perform as designed or intended.

6.56.6 Pre-award Conferences

6.5-16.6.1 The A/E shall conduct pre-award conferences with apparent successful Bidders and shall assist the Contracting Authority ~~to~~ gather documentation for contract execution from such Bidders.

6.5-26.6.2 Upon ~~the~~ failure of a Bidder to provide such documentation in a timely manner, the A/E shall assist the Contracting Authority in considering whether an extension of time for submitting such documentation is appropriate.

6.66.7 Subcontractor and Material Supplier Review

6.6-16.7.1 The A/E, based upon review of the Contract Documents, any past experience, and reasonable inquiry, shall participate in investigating any Subcontractor or Material Supplier proposed by any Contractor and recommend approval or disapproval.

6.6-26.7.2 After receiving original or amended **Subcontractor and Material Supplier Declaration** forms from a Contractor, the A/E shall verify that the forms are complete and deliver them to the Contracting Authority.

6.6-36.7.3 If the A/E finds the forms are incomplete, the A/E shall return them to the Contractor with no action and identify corrective action the Contractor shall perform prior to resubmitting the forms. If the A/E returns such incomplete forms to the Contractor, the Contractor shall resubmit the forms with revisions complying with the corrective action identified by the A/E.

6.6-46.7.4 Upon the Contracting Authority's receipt of the forms, the A/E and ~~the~~ Owner shall consult with the Contracting Authority in performing an initial review of each Subcontractor and Material Supplier listed.

6.6-56.7.5 If the Project is administered using ~~OAKS CI~~ the State's web-based project management software, the A/E shall review and recommend approval or disapproval to the Contracting Authority of each Subcontractor and Material Supplier through the ~~OAKS CI~~ "Subcontractor Supplier Declaration" business process.

6.76.8 Over Budget Options

6.7-16.8.1 If the Construction Budget is exceeded by the total of the lowest responsive and responsible Bids and any legally negotiated prices for the Project, the Contracting Authority and ~~the~~ Owner shall, at their option:

6.7-1-16.8.1.1 Approve in writing an increase in the Construction Budget and rebid the Project;

6.7-1-26.8.1.2 Authorize rebidding or renegotiation for some or all parts of the Project within a reasonable time without an increase in the Construction Budget;

6.7-1-36.8.1.3 Abandon the Project, in whole or in part, and terminate this Agreement; or

6.7-1-46.8.1.4 Cooperate in the revision of the Project Scope as defined in **Section 5.3-1.3-15.3.2.3.1** to reduce the actual cost of construction to the Construction Budget.

6.7-26.8.2 If the Contracting Authority and ~~the~~ Owner adopt the option in **Section 6.8.1.1** above and such increase in the Construction Budget is more than 10 percent, the A/E may request, in writing, an adjustment to the Basic Fee.

6.7-36.8.3 If the Contracting Authority and the Owner adopt the option in **Section 6.8.1.4** above, the A/E shall appropriately modify the Approved Program of Requirements, ~~the~~ Project Schedule, and ~~the~~ Contract Documents and cooperate in any necessary bidding or negotiation without additional charge.

6.86.9 Further Revisions to Cost Estimate and Project Schedule

6.8-16.9.1 If necessary, the A/E shall inform the Contracting Authority and ~~the~~ Owner of the need for any adjustments in the Detailed Estimate of Construction Cost and ~~the~~ Project Schedule.

6.8-26.9.2 Upon approval of the Contracting Authority and ~~the~~ Owner of any such adjustments, the A/E shall prepare a revised Detailed Estimate of Construction Cost or a revised Project Schedule, as applicable, incorporating such adjustments, obtain the Owner's signature thereon, and deliver the signed, revised Detailed Estimate of Construction Cost or Project Schedule to the Contracting Authority.

6.96.10 Conformed Documents

6.9-16.10.1 During the entire bidding and award Stage, the A/E shall incorporate all Addenda information into the Contract Documents; and, between the date that the Contracting Authority issues a Notice of Intent to Award for the first construction contract for the Project and the effective date of the first construction contract Notice to Proceed, the A/E shall provide updated Contract Documents that conform in every regard to the documents originally issued for bidding purposes plus all of the information in all Project Addenda and accepted Alternates ("Conformed Documents").

6.9-26.10.2 The A/E shall issue the Conformed Documents to the successful Bidder(s) upon award of their respective contracts.

6.9-36.10.3 If the amount of a contract is \$500,000 or less, the A/E shall furnish 5 sets of Conformed Documents to the respective Contractor. If the amount of a contract is greater than \$500,000, the A/E shall furnish 7 sets of Conformed Documents to the respective Contractor.

6.9-46.10.4 The A/E shall provide Electronic Files to each requesting Contractor for the Contractor's convenience for the purpose of preparing its submittals, including, but not limited to, Shop Drawings and Coordination Drawings. The A/E shall provide such Electronic Files at no additional cost to the Contractor or the Owner.

6.106.11 Partnering

6.10-16.11.1 The A/E shall, prior to construction of the Project, participate in the creation and implementation of a partnering arrangement, and shall participate in partnering meetings with the Contracting Authority, Owner, appropriate Consultants, A/E's field representative, Contractors, and other parties involved in the Project. Partnering meetings may be conducted during both the design and construction stages of the Project.

6.10-26.11.2 The formation of a cohesive, mutually beneficial partnering arrangement among the Contractors, the Contracting Authority, the A/E, and the Owner will accomplish the construction of the Project most effectively and efficiently. This arrangement draws on their collective strengths, skills, and knowledge to achieve a Project of the intended quality, within budget, and on schedule. To achieve that objective, participation in a partnering session is required for the following key stakeholders:

6.10-2-16.11.2.1 Contracting Authority: Project Manager

6.10-2-26.11.2.2 Owner: Primary representative

6.10-2-36.11.2.3 A/E: Principal-in-charge, project manager, field representative, major consultants

~~6.10.2.46.11.2.4~~ Contractors: Principal-in-charge, project manager, and superintendent

~~6.10.2.56.11.2.5~~ Major Subcontractors (e.g., masonry, fire protection): Principal-in-charge, project manager or superintendent

~~6.10.2.66.11.2.6~~ CxA, if applicable

~~6.10.36.11.3~~ The purpose of the partnering arrangement is to build cooperative relationships between the Project's key stakeholders, avoid or minimize disputes, and nurture a more collaborative ethic characterized by trust, cooperation and teamwork. This arrangement is intended to produce a voluntary, non-binding, but formally structured agreement among the Project's key stakeholders, leading to an attitude that fosters risk sharing.

~~6.10.46.11.4~~ To create and implement the partnering arrangement, the Project's key stakeholders shall meet prior to the construction of the Project for developing a partnering agreement. The arrangement should be comprehensive and focus on all issues necessary for successful completion of the Project, and shall identify common goals and objectives, develop a problem solution process, an Alternative Dispute Resolution ("ADR") strategy, and an implementation plan for the partnering arrangement.

~~6.10.56.11.5~~ Formal contractual relations, responsibilities, and liabilities are not affected by any partnering arrangement. The cost associated with establishing this partnership shall be included in an allowance in the Lead Contractor's bid. The A/E shall include in its Basic Fee the resources necessary to participate in the partnering meetings.

~~6.10.66.11.6~~ Partnering services may extend over the entire period of performance of the Project and may include intervention or project realignment services to be utilized if serious disputes arise. The Project's key stakeholders should agree, during the initial partnering session, to the types of situations and circumstances in which intervention or realignment services shall be utilized.

~~6.10.6.16.11.6.1~~ If realignment or intervention services are utilized, partnering facilitators shall not be called as witnesses in any litigation, mediation, or quasi-judicial proceeding.

~~Article 7~~ARTICLE 7 - CONSTRUCTION STAGE

7.1 Duration; Extent, Access

7.1.1 Unless the Contracting Authority agrees otherwise in writing, the Construction Stage will commence with the Contracting Authority's issuance of the Notice to Proceed and will terminate upon ~~Final Acceptance of the Project~~Contract Completion.

7.1.2 The A/E shall have access, at all times, to the Project whenever any Work is in preparation or in progress.

7.2 Progress of the Project

7.2.1 The A/E shall record the progress of the Project and provide written reports to the Contracting Authority and ~~the~~ Owner on a monthly basis, unless otherwise agreed in writing. Such reports shall include, ~~but are not limited to,~~ information on the Contractor's Work, as well as completion status on the entire Project, showing percentages of completion.

7.2.1.1 If the Project is administered using ~~OAKS-CI~~the State's web-based project management software, the A/E shall issue written reports to the Contracting Authority, ~~the~~ Owner, and ~~the~~ Contractor through the "Field Reports" business process.

7.3 Construction Progress Schedule

7.3.1 The A/E shall review the Construction Progress Schedule for conformance with the Contract Documents, provide a copy of the Construction Progress Schedule and schedule of submittals to the Contracting Authority and ~~the~~ Owner.

7.3.1.1 If the Project is administered using ~~OAKS-CI~~the State's web-based project management software, the A/E shall receive initial and updated schedules from the Contractor, and forward them to the Contracting Authority and ~~the~~ Owner, through the "Schedule Approvals" business process.

7.3.2 The A/E shall periodically inform the Contracting Authority and ~~the~~ Owner of the need to update the Project Schedule as required to show current conditions, including, ~~but not limited to,~~ conformance to the Construction Progress Schedule, as updated from time to time.

7.3.2.1 If such conditions indicate that Milestone completion dates shown on the Project Schedule may not be met, the A/E shall recommend corrective action to the Contracting Authority and ~~the~~ Owner and carry out the directions

of the Contracting Authority so that the Milestone completion dates may be met, unless the Contracting Authority and ~~the~~ Owner agree in writing to revise the Milestone completion dates.

7.4 Meetings

7.4.1 The A/E shall schedule, conduct, and participate in weekly progress meetings with the Contracting Authority, Owner, appropriate Consultants, ~~the~~ Contractor, Subcontractors, and any other parties involved in the Project to discuss such matters as procedures, progress, problems, and scheduling.

7.4.1.1 The A/E shall prepare and distribute written agendas and minutes of all progress meetings to the Contracting Authority, Owner, Contractor, and any other parties involved. The A/E shall not delegate the duty to prepare such agendas and minutes and shall distribute the written minutes of each meeting within 3 business days after the meeting.

- .1** If the Project is administered using ~~OAKS-CI~~ the State's web-based project management software, the A/E shall distribute meeting agendas and minutes to each Contractor, ~~the~~ Contracting Authority, and ~~the~~ Owner through the "Meeting Minutes" business process and document issues identified during progress meetings that require resolution by one or more construction participants through the "Action Items" business process.

7.4.1.2 The A/E shall attach the minutes of each progress meeting to the ~~Contractor's~~ Contractors' weekly written ~~report~~ reports as submitted to the A/E, describing progress on the ~~Contractor's~~ Contractor and its Subcontractors' past, current, and upcoming activities.

7.4.1.3 The minutes of each progress meeting shall reflect any objection made to the minutes of the previous meeting and any response.

7.4.1.4 The A/E shall notify the Contractor, and other Persons involved in the Project of the time and place of the progress meetings that shall thereafter be the same day and hour of the week for the duration of the Project, unless the A/E notifies the Contractors and other persons involved in the Project of a different day and hour at least 2 days in advance.

7.4.2 The A/E shall attend and participate in preconstruction, quality-control, pre-installation, and special meetings with the Contracting Authority, Owner, appropriate Consultants, ~~the Contractor~~ Contractors, Subcontractors, and any other parties involved in the Project.

7.5 Site Visits and Observation

7.5.1 The A/E shall notify, advise, and consult with the Contracting Authority and ~~the~~ Owner and protect the State against Defective Work throughout the completion of the Project, which includes ~~a period of 1 year after Final Acceptance~~ the Correction Period.

7.5.2 The A/E shall designate a field representative, subject to the Contracting Authority's approval, to review the Work of the Contractor for Defective Work, to maintain familiarity with the progress and quality of the Work on the Project, to observe and check the progress and quality of the Work, and to take action as necessary or appropriate to achieve conformity with the Contract Documents.

7.5.3 The A/E, and appropriate Consultants, shall also visit the Project at such intervals as the Contracting Authority requires, to review the Work of the Contractor for Defective Work, to become familiar with the progress and quality of the Work on the Project, and to determine if the Work is proceeding in conformity with the Contract Documents.

7.5.3.1 Such visits shall specifically include, ~~but are not limited to~~, those listed in the Agreement, observation of large excavations, observation of footings during placement of concrete and observation of masonry work, structural steel erection, roofing work and interior finishes.

7.5.4 In all events, the A/E and appropriate Consultants, shall be at the Site for such purposes not less than the number of hours per week identified in the Agreement whenever any Work is in preparation or progress, unless otherwise expressly provided in writing by the Contracting Authority.

7.5.5 If the A/E becomes aware, either through such visits or otherwise, of any Defective Work on the Project, then the A/E shall immediately report the Defective Work to the Contracting Authority and ~~the~~ Owner, together with recommendations for the correction thereof, and shall deliver written notice to the Contractor to correct such Defective Work. Such written notice shall specify the time within which the Contractor shall correct the Work- ("72-Hour Notice")).

7.5.5.1 If the Project is administered using ~~OAKS-CI~~the State's web-based project management software, the A/E shall issue written notice of Defective Work to the Contractor with copies to the Contracting Authority and ~~the~~ Owner, through the "72 Hour Notice" business process.

7.5.6 The A/E may disapprove or reject any item of Work that it believes will not produce a Project that conforms to the Contract Documents or will prejudice the integrity of the design concept of the Project as a functioning whole as indicated by the Contract Documents.

7.5.7 The A/E shall immediately notify the Contracting Authority and ~~the~~ Owner any time the A/E disapproves or rejects an item of Work.

7.6 Investigation of Conditions for Renovation or Remodeling

7.6.1 For renovation and remodeling, the A/E shall, as portions of the Project become accessible, investigate existing conditions, and verify the accuracy of information provided by the Owner about such existing conditions.

7.7 Interpretations

7.7.1 The A/E shall render interpretations of the Contract Documents necessary for the proper execution or progress of the Work on the Project.

7.7.2 The A/E shall respond to the Contractor's Request for Interpretation ("RFI") within 3 days of receiving the RFI.

7.7.3 All interpretations shall be in writing, shall be consistent with the intent of, and reasonably inferable from, the Contract Documents and shall be delivered to the Contracting Authority, ~~the~~ Owner, and ~~the~~ Contractor.

7.7.4 The A/E shall keep a log of all RFIs and their respective responses.

7.7.5 If the Project is administered using ~~OAKS-CI~~the State's web-based project management software, the A/E shall render its interpretations to the Contracting Authority, ~~the~~ Owner, and ~~the~~ Contractor through the "Request for Interpretations" business process.

7.8 Differing Site Condition Investigation

7.8.1 Promptly after receiving notice of a Differing Site Condition from a Contractor, the A/E shall investigate to determine whether the Contractor has encountered a Differing Site Condition.

7.8.2 The A/E shall give written notice of its determination to the Contracting Authority and ~~the~~ Contractor within 10 days after completing the investigation.

7.8.3 If the A/E determines that the Contractor has encountered a Differing Site Condition, the A/E shall prepare (as appropriate) a resulting Change Order or a Change Directive through which the Contracting Authority may convey its disagreement with the A/E's determination.

7.9 Coordination Drawings

7.9.1 The A/E shall review the Coordination Drawings to determine whether the Coordination Participants achieved the goals established in the coordination meetings.

7.9.2 The A/E shall report any concerns, in writing, to the Coordination Participants within 14 days after receiving the drawings.

7.9.3 If installed Work causes or contributes to interference with subsequent Work of a Separate Contractor, the A/E shall determine the needed modifications to the installed Work to accommodate the subsequent Work.

7.9.4 If the Project is administered using ~~OAKS-CI~~the State's web-based project management software, the A/E shall receive and forward Coordination Drawings to its Consultants using the "Submittals" business process.

7.10 Submittal Review

7.10.1 The A/E shall review Submittals such as Shop Drawings, Product Data, and Samples for conformity with design intent and conformity with the Contract Documents within 14 days of receiving Submittals or in accordance with the approved submittal schedule, or other period as mutually agreed by the A/E and ~~a~~submitting Contractor.

7.10.2 The A/E shall also review drawings, calculations, and designs required of each Contractor and its Subcontractors and provided with such Submittals (except calculations and designs of manufacturers of original equipment and systems to be installed in the Project and except calculations and designs which the Contract Documents expressly make the sole responsibility of a Contractor or one or more Subcontractors, Material Suppliers, or other persons).

7.10.3 The A/E shall act upon resubmission of corrected Submittals within 14 days of receiving them, or other period as mutually agreed by the A/E and ~~submitting~~ Contractor.

7.10.4 Each Contractor shall review and stamp “approved” all Submittals before forwarding them to the A/E. If it is apparent to the A/E that a Contractor has not reviewed the Submittals, or has conducted an incomplete review of them, the A/E may reject the Submittals.

7.10.5 The A/E may hold samples and other Submittals used to coordinate finishes, colors, patterns, textures, or other characteristics until Submittals for adjacent materials are available. The A/E shall issue a written notice to the submitting Contractor stating that its Submittal is being held, within 7 days of receiving it.

7.10.6 If the Project is administered using ~~OAKS-CI~~ the State’s web-based project management software, the A/E shall receive and forward submittals to its Consultants, and return reviewed submittals to the Contractor, using the “Submittals” business process.

7.11 Additional Tests and Inspections

7.11.1 If the A/E determines that any portion of the Work requires inspection, testing, or approval not otherwise required under the Contract Documents, the A/E shall order the inspection, testing, or approval.

7.11.2 Within 5 days after completion of an inspection, test, or approval, the A/E shall provide an original report of the inspection, test, or approval to the Contractor and the Contracting Authority with a recommendation for or against acceptance of the results therein.

7.11.3 The Owner shall reimburse the A/E for the special inspection, test, or approval as a change in the Services.

7.11.4 The A/E shall not be reimbursed or otherwise compensated for any special inspection, testing, or approval made necessary by the act or omission of the A/E or any Consultant of the A/E.

7.12 Change Order Procedure

7.12.1 Paperwork Consolidation.

7.12.1.1 Related ~~Contract modifications~~ Modifications, with the same or similar justification (e.g., Owner Request or field resolution), may be consolidated into the same ~~change related document~~ Change Order.

7.12.1.2 Add and deduct ~~Contract modifications~~ Modifications, with the same or similar justification, may be included on the same Change Order.

7.12.1.3 ~~Contract modifications~~ Modifications resulting from errors or omissions shall not be combined with other modifications for which the A/E will receive a fee.

7.12.2 Change Order Numbering.

7.12.2.1 The A/E shall assign a number to each Modification, which shall uniquely identify it.

7.12.2.2 The A/E shall not duplicate or reuse any number throughout the Project or reuse assigned numbers for Proposal Requests that are initiated but cancelled in process.

7.12.2.3 The number for each Change Order shall be coordinated with any associated Proposal Request or Change Directive.

7.12.3 ~~Change Order~~ Modification Log.

7.12.3.1 The A/E shall create and maintain a ~~Change Order~~ Modification Log for the Project, which shall contain the following minimum information:

- .1 number of the Modification;
- .2 a brief description of the Modification;
- .3 cost of the Modification;
- .4 schedule impact of the Modification; and
- .5 dates sent to, and received from, the parties.

7.12.4 Reconciliation of Unit Price Items.

7.12.4.1 The Contracting Authority may increase, decrease, or delete entirely the scheduled quantities of Work to be performed and materials to be furnished by Change Order.

7.12.4.2 The A/E shall issue a Change Order to reconcile the difference between the scheduled and actual quantities of Work performed and materials furnished.

7.12.4.3 If the actual quantity of a Unit Price item differs from the scheduled quantity by 20 percent or more, so that application of the Unit Price to the quantities of Work proposed would create an undue hardship on either the Owner or the Contractor, the A/E shall issue a Proposal Request and subsequent Change Order to adjust the Unit Price.

.1 If a Unit Price is adjusted as described under Section 7.12.4.3, the new Unit Price will only apply to the units of Work performed that are (1) less than the 20 percent threshold if the Unit Price is changed on account of an over-estimation of the scheduled quantity of a Unit Price item involved in the Work or (2) in excess of the 20 percent threshold if the Unit Price is changed on account of an under-estimation of the scheduled quantity of a Unit Price item involved in the Work.

7.12.4.4 If the actual quantity of a Unit Price item exceeds the scheduled quantity by 20 percent or more, the Contractor shall immediately notify the A/E, who shall issue a Change Directive and subsequent Change Order to authorize an adjustment in the scheduled quantity.

7.12.5 Change Orders.

7.12.5.1 The A/E shall prepare each Change Order form, attach the supporting documentation, and issue the Change Order form to the Contractor for signature.

7.12.5.2 When the A/E receives the Change Order signed by the Contractor, the A/E shall recommend approval by signing the form and transmitting the Change Order and the revised Change Order Log to the Owner.

7.12.5.3 If the Project is administered using ~~OAKS-CI~~the State's web-based project management software, the A/E shall prepare and recommend Change Orders for approval, using the "Change Order" (Agency/Higher Education) or "Contract Modifications" (School Facilities) business process.

7.12.6 Proposal Requests.

7.12.6.1 The A/E shall prepare Proposal Requests with estimated costs and other necessary documentation seeking Proposals from the Contractor for adjustments of the Contract Sum or the Contract Times, or both, associated with potential and proposed changes in the Work.

7.12.6.2 If the Project is administered using ~~OAKS-CI~~the State's web-based project management software, the A/E shall prepare and distribute Proposal Requests using the "Change Order" (Agency/Higher Education) or "Contract Modifications" (School Facilities) business process with the "Proposal Request" workflow.

7.12.7 Request for Change Order.

7.12.7.1 The Contractor may initiate a change in the Work by submitting written notice to the A/E accompanied by a Proposal. The A/E shall promptly evaluate the Request for Change Order and submit a written recommendation to the Contracting Authority and the Owner.

7.12.7.2 If the Project is administered using ~~OAKS-CI~~the State's web-based project management software, the A/E shall respond to the Contractor's Request for Change Order using the "Change Order" (Agency/Higher Education) or "Contract Modifications" (School Facilities) business process.

7.13 **Change Directives**

7.13.1 A Change Directive may, if necessary:

7.13.1.1 State a proposed basis for adjustment, if any, in the Contract Sum or Contract Times, or both; or

7.13.1.2 Limit the scope of the change in the Work by a fixed adjustment of the Contract Sum.

7.13.2 If a change in the Contractor's Work must start immediately to avoid an imminent impact to the schedule of the Project, the A/E shall prepare a Change Directive, for the Contracting ~~Authority's~~Authority and Owner's signatures pursuant to Section 7.13.1, authorizing the Contractor to proceed.

7.13.3 A Change Directive shall be used to direct a change in a Contractor's Work in the absence of total agreement on the terms of a Change Order.

7.13.3.1 A Change Directive may also be used in the absence of agreement as to whether the subject of the Change Directive actually constitutes a change in the Work.

7.13.4 If the Project is administered using ~~OAKS-CI~~the State's web-based project management software, the A/E shall prepare and recommend Change Directives for approval, using the "Change Order" (Agency/Higher Education) or "Contract Modifications" (School Facilities) business process with the "Change Directive" workflow.

7.14 Orders for Minor Changes in the Work

7.14.1 The A/E may order minor changes in the Work not involving adjustment of the Contract Sum or extension of the Contract Times and not inconsistent with the intent of the Contract Documents.

7.14.2 The A/E shall issue orders for minor changes in the Contractor's Work by written order to the Contractor. The A/E shall keep a log of all Orders for Minor Change in the Work.

7.14.3 If the Project is administered using ~~OAKS C~~the State's web-based project management software, the A/E shall prepare and recommend Orders for Minor Changes in the Work for approval, using the "Action Items" business process.

7.15 Claims Analysis

7.15.1 The A/E, in consultation with the Contracting Authority, shall respond to the Contractor's written notice of a Claim within a reasonable time of receipt, but not to exceed 10 days.

7.15.2 The A/E shall review each Contractor Claim, prepare a written analysis of its content, and submit the written analysis to the Project Manager no more than 30 days after receiving the Contractor's substantiated and certified Claim. The written analysis shall include:

7.15.2.1 A narrative of the A/E's examination of the facts giving rise to the Claim;

7.15.2.2 Identification of relevant Contract Documents and language;

7.15.2.3 An analysis of whether the Contractor complied with the requirements of the Contract Documents pertaining to Claim initiation and substantiation including, ~~but not limited to,~~ the issues of entitlement to, and calculation of, adjustments of the Contract Sum; and Contract Times; ~~or both;~~

7.15.2.4 An analysis of claimed additional labor, materials, and equipment for the scope of the Work items described;

7.15.2.5 An analysis of any time extension for any interference, disruption, hindrance, impact, or delay claimed (to include the calculation of any concurrent delays affecting entitlement);

7.15.2.6 A concluding opinion regarding the Contractor's entitlement to, and the appropriateness and reasonableness of all, or any part of, the Claim; and

7.15.2.7 An appendix containing copies of contemporaneous documentation supporting the concluding opinion.

7.15.3 The A/E shall attend dispute resolution meetings convened by the Contracting Authority related to each Claim.

7.16 Project Costs

7.16.1 The A/E shall monitor Project cost accounting records on Work performed by the Contractor under unit costs, actual costs for labor and materials, or other appropriate basis. The A/E shall afford the Contracting Authority and ~~the~~ Owner access to these records at all times.

7.17 Schedule of Values

7.17.1 The Contractor shall submit to the A/E a Schedule of Values with separate amounts shown for labor and materials for each branch of the Contractor's Work.

7.17.2 The A/E may return the Schedule of Values to the Contractor for re-submittal if it does not meet the requirements or contains insufficient items or details of the Work, or approve the Schedule of Values if the A/E determines that it conforms to the requirements in the General Conditions.

7.17.3 If the Project is administered using ~~OAKS C~~the State's web-based project management software, the A/E shall receive and process the Contractor's Schedule of Values, using the "Contract Schedule of Values" business process.

7.18 Payments

7.18.1 The Contractor may submit a Contractor Payment Request to the A/E each month or upon another interval approved by the Contracting Authority. When the rate of Work and amount involved is sufficient that it is considered appropriate by the Contracting Authority, the Contractor may submit Contractor Payment Requests twice a month.

7.18.1.1 If the Project is not administered using ~~OAKS C~~the State's web-based project management software, the Contractor shall submit 1 draft copy of its Contractor Payment Request ("Pencil Copy") to the A/E not less than 1 week prior to submitting multiple copies of its Contractor Payment Request.

7.18.1.2 The A/E shall review the Pencil Copy and provide comments to the Contractor within 3 days of receiving it.

7.18.1.3 The Contractor shall incorporate the A/E's comments into its Contractor Payment Request prior to submitting multiple copies for payment.

7.18.2 Based upon the A/E's review of the applicable Work and evaluations of the Contractor Payment Request, the A/E shall review and approve, modify, or reject the amounts shown on such Payment Request as being due to the Contractor.

7.18.3 The A/E may request, from a Contractor, additional documentation in connection with each payment to the Contractor.

7.18.4 Each Contractor Payment Request that the A/E determines that it will recommend shall be signed by the A/E and delivered to the Contracting Authority.

7.18.5 The A/E may recommend to the Contracting Authority that payments be withheld from, or Liquidated Damages be assessed against, a Contractor Payment Request.

7.18.6 If the Project is administered using ~~OAKS CI~~ the State's web-based project management software, the A/E shall receive and approve the Contractor's Contractor Payment Request, using the "Contractor Pay Request" (Agency/Higher Education) or "Applications for Payment" (School Facilities) business process.

Article 8 ARTICLE 8 - CLOSEOUT

8.1 Pre-closeout Conference

~~8.1.1~~ The A/E shall ~~assist the~~ participate in a pre-closeout conference conducted by the Contracting Authority ~~and to familiarize the Owner in determining dates of Partial Occupancy of the Work or portions thereof designated by the Owner and shall assist in obtaining any certification required by Applicable Law.~~

~~8.1.2~~ **8.1.1** If the Project is administered using OAKS CI, the A/E shall ~~process the partial Certification of Contract Completion, using the "Contractors with Closeout - Contractor" business process~~ requirements and procedures, including any special requirements of the Contract Documents.

8.2 Contract Closeout

8.2 Substantial Completion

8.2.1 Within 3 business days of receipt of the Contractor's request for the ~~A/E's Review~~ Substantial Completion inspection of the Work, the A/E shall notify the Contractor of acceptance or rejection of the request, stating reasons for any rejection.

8.2.2 Within 7 days of its acceptance of a Contractor's request, the A/E shall conduct the ~~A/E's Review~~ Substantial Completion inspection to determine whether the Contractor's Work, or the designated portion, is ~~in conformity with the Contract Documents~~ Substantially Complete.

8.2.3 The A/E shall notify the requesting Contractor, Contracting Authority, and Owner of the scheduled time of the ~~A/E's Review~~ Substantial Completion inspection.

~~8.2.4~~ **8.2.4** ~~Within~~ If the A/E determines that the Work is Substantially Complete, ~~within~~ 3 business days after the ~~A/E's Review~~ Substantial Completion inspection, the A/E shall ~~provide to the applicable Contractor~~ prepare a Certificate of Substantial Completion that shall establish the date of Substantial Completion and include a list of Defective, incomplete, or unacceptable Work ("A/E's Punch List"). ~~The A/E shall include~~ The A/E's Punch List shall include (1) the items on the applicable Contractor's Punch List that are not yet completed or corrected as of the date of the Substantial Completion inspection, and (2) comments from the Contracting Authority and Owner ~~in the A/E's Punch List.~~

8.2.4.1 If the Project is administered using ~~OAKS CI~~ the State's web-based project management software, the A/E shall receive the Contractor's Punch List and distribute the A/E's Punch List, using the "Punch List" business process.

8.2.5 If the A/E accepts a ~~Contractor's~~ request for the ~~A/E's Review of the Work~~ Substantial Completion inspection and subsequently ~~reasonably~~ determines that the Work is not ~~in conformity with the Contract Documents~~ Substantially Complete, the A/E may request compensation for expenses related to excessive Punch List activities.

8.3 Partial Occupancy

8.3.1 The A/E shall assist the Contracting Authority and Owner in determining dates of Partial Occupancy of the Work, or portions thereof designated by the Owner, and shall assist in obtaining any certification required by Applicable Law.

8.3.2 Before the Owner commences Partial Occupancy, the A/E shall process a Certification of Contract Completion for the designated area listing incomplete or Defective Work under the Contract for approval of the Contracting Authority.

8.3.2.1 If the Project is administered using the State's web-based project management software, the A/E shall process the partial Certification of Contract Completion, using the "Closeout - Contractor" business process.

8.4 Contract Completion

~~8.2.68.4.1~~ **8.4.1** Within 3 business days of receipt of the applicable Contractor's notice that all Punch List items have been completed, the A/E shall complete a Final Inspection of the Work for compliance with the Contract Documents.

~~8.2.78.4.2~~ **8.4.2** If multiple inspections of items on the A/E's Punch List are required because of the Contractor's failure to properly and timely complete them, the A/E may request compensation for expenses related to excessive Punch List activities.

8.4.3 When all items on the A/E's Punch List have been completed to the A/E's satisfaction and all requirements of the Contract Documents have been completed, the A/E shall prepare and recommend execution of a Certificate of Contract Completion.

~~8.2.88.4.3.1~~ **8.4.3.1** When items of Work cannot be completed until a subsequent date, the A/E may recommend that these items be deferred and the Contracting Authority may release payment to the Contractor, as determined in the Contracting Authority's sole discretion. The A/E shall list deferred items on a partial Certificate of Contract Completion with the dates the items are to be completed.

~~8.2.9~~ **8.4.3.2** The A/E shall list deferred items on a Partial Certification of Contract Completion with the dates the items are to be completed.

~~8.2.10~~ **8.4.3.3** When all items on the A/E's Punch List have been completed to the A/E's satisfaction and all requirements of the Contract Documents have been completed, the A/E shall prepare and recommend execution of a Final Certification of Contract Completion.

~~8.2.10.18.4.3.2~~ **8.4.3.4** If the Project is administered using OAKS-CI the State's web-based project management software, the A/E shall process the Final Certification Certificate of Contract Completion, using the "Closeout - Contractor" business process.

~~8.2.118.4.4~~ **8.4.4** Upon execution of a Final Certification Certificate of Contract Completion, the A/E shall receive, review for conformity with the requirements of the Contract Documents, and transmit to the Contracting Authority any affidavits and turn over to the Owner any keys, manuals and the originals of any guarantees, warranties, releases, bonds, and waivers.

~~8.2.128.4.5~~ **8.4.5** The A/E shall transmit a copy of any guarantees, warranties, releases, bonds, and waivers to the Contracting Authority.

8.38.5 Record Documents

~~8.3.18.5.1~~ **8.38.5.1** The A/E shall prepare the Record Documents by revising the Contract Documents and related electronic files on the basis of the information contained on the As-Built Documents submitted by each Contractor and the A/E's observations during the progress of the Project. The Record Documents shall detail the actual construction of the Project and contain such annotations by the A/E as may be necessary for someone unfamiliar with the Project to understand the changes that were made to the Contract Documents.

~~8.3.28.5.2~~ **8.38.5.2** The A/E shall label the revised Contract Documents and related electronic files as "Record Documents" and reflect the date on which the A/E finished preparing them.

~~8.3.38.5.3~~ **8.38.5.3** The A/E shall furnish to the Owner one_1 set of Record Documents in the form of paper documents and one set in the form of electronic files.

~~8.3.48.5.4~~ **8.38.5.4** By submitting the Record Documents to the Owner, the A/E certifies that the Record Documents are complete, correct, and accurate, to the best of the A/E's knowledge based upon the As-Built Documents delivered to the A/E by the Contractors and the A/E's observations during the progress of the Project.

8.4.8.6 Post-Occupancy Inspection

8.6.1 During the Correction Period, the A/E shall work with the Contracting Authority, Owner, and Contractors to investigate suspected Defective Work and to design and coordinate its repair or completion. The Owner shall not be obligated to compensate the A/E for the A/E's performance of the A/E's services under this **Section 8.6.1** unless it has been determined that the Defective Work was not the result of the A/E's failure to meet its obligations under the Agreement.

~~8.4.18.6.2~~ The A/E shall participate in a walk-through of the Project with the Owner ~~one~~ **1** month prior to the expiration of each Correction Period. The A/E shall consult with the Owner to address any issue identified in the walk-through according to the procedures specified in the ~~Standard Requirements-General Conditions~~. The A/E shall notify the Contractor of such defects in writing with a request that the Contractor correct the ~~deficient~~ **Defective** Work, prior to the end of the Correction Period.

Article 9 ARTICLE 9 - ADDITIONAL SERVICES**9.1 General****9.1.1 Services Not Included in Basic Services.**

9.1.1.1 The A/E shall provide the services listed in **Sections 9.1.2** through **9.1.19** as Additional Services only when identified in the Agreement Form and approved in writing by the Contracting Authority in consultation with the Owner.

9.1.1.2 The Fee for the Additional Services listed in **Sections 9.1.2** through **9.1.19** shall be paid as provided in the Agreement Form, in addition to payment for the Basic Services; however, the A/E shall not be compensated for any of the Additional Services listed in **Sections 9.1.2** through **9.1.19** made necessary by any act or omission of the A/E or any of the A/E's Consultants.

9.1.1.3 Unless waived by the Contracting Authority in writing, authorization to provide Additional Services must be obtained prior to providing the Additional Services.

9.1.2 Specialized Services. Providing specialized design and engineering services, including, ~~but not limited to,~~ services for acoustical analysis or design, computer services, communication consultant services, design or specification of unusual or large volumes of fixtures, furnishings, and equipment.

9.1.3 Additional On-Site Services. Providing administration or observation of construction beyond the Basic Services provided pursuant to **Exhibit B**.

9.1.4 Extensive Change Orders. Preparing Drawings, Specifications, cost estimates, and other documents and supporting data in connection with Change Orders beyond those services to be reasonably provided as Basic Services, pursuant to **Exhibit B**.

9.1.5 Partnering and Scheduling Consultants. Serving as a partnering or construction scheduling consultant or providing such consulting services.

9.1.6 Perspectives, Models, Renderings. Preparing professional perspectives, physical models, or renderings, which are not otherwise useful or necessary to the A/E in providing the Basic Services required hereunder and which are provided at the prior written request of the Contracting Authority in consultation with the Owner.

9.1.7 Grant Applications. Preparing applications and supporting documents for governmental grants, loans, or advances.

9.1.8 Special Studies. Providing planning services, site evaluations, environmental studies, or comparative studies of prospective sites, preparing special surveys, studies, and submissions required under Applicable Law.

9.1.9 Surveys. Providing surveying services, including land surveys and rights-of-way studies.

9.1.10 Investigation of Conditions for New Construction. Providing services for new construction to investigate existing conditions or facilities, to make measured drawings thereof, or to verify the accuracy of drawings or other information furnished by the Owner.

9.1.11 Constructability and Cost Analyses. Preparing extensive analyses of the construction feasibility of the Project or of owning and operating costs, or preparing detailed quantity surveys or inventories of material, equipment, and labor beyond those services to be reasonably provided as Basic Services in **Exhibit B**.

9.1.12 Off-Site Services. Providing planning or design services for off-site utilities, which are not adjacent to the Project, building connections, or roadways.

9.1.13 Certain Revisions. Making revisions in Drawings, Specifications, or other Contract Documents at the request of the Contracting Authority when such revisions are inconsistent with written approvals or instructions previously given or are required by the enactment or revision of Applicable Law subsequent to the preparation of such documents.

9.1.14 Replacement Work. Providing consultation and other services in connection with replacement of any Work damaged by fire, casualty, or other incident not caused by negligence of the A/E or any Consultant.

9.1.15 Contractor Default. Providing services made necessary by a Contractor's default.

9.1.16 Additional Documents. Providing more sets of Contract Documents than the number required as Basic Services pursuant to **Exhibit B**.

9.1.17 Prototype Design. Use of the A/E's Documents for one or more prototype projects as described in the A/E Standard Terms and Conditions.

9.1.179.1.18 Special Inspections Required by the Ohio Building Code.

9.1.179.1.18.1 The special inspections indicated in the current edition of the OBC Chapter 17 are not included as Basic Services; however, in the event such special inspections are required as a condition of the Plan Approval issued by the Building Authority having jurisdiction for the Project, the A/E shall provide the special inspections and be compensated for such as Additional Services, and shall provide written notice to the Contractor, the Owner, and the Contracting Authority of the Special Inspection to be performed.

9.1.179.1.18.2 The A/E shall not be compensated for any such Additional Services made necessary by the act or omission of the A/E or any Consultant of the A/E.

9.1.189.1.19 Quality Assurance Testing.

9.1.189.1.19.1 General Requirements.

- .1 The Quality Assurance ("QA") Testing services listed under **Sections 9.1.19.2 through 9.1.19.10**, which is not intended to be an exhaustive list, are not included as Basic Services, however, the A/E shall provide such services when identified in the **Agreement Form** either itself (if qualified) or through a Consultant properly licensed to perform the required inspections and all related testing services.
- .2 Unless otherwise specified in the Contract Documents, the A/E shall apply for, secure, and pay for the costs of quality assurance testing, structural testing and special inspections required under the current edition of Ohio Building Code ("OBC") Chapter 17.
- .3 Such testing and inspections shall include geotechnical analysis, environmental testing and analysis, concrete, masonry, structural steel, reinforcing steel, welding, bolts, steel connections, HVAC systems and controls, plumbing and piping, air and water balancing and testing, or other testing (e.g., medical gases testing, lead shielding, etc.); or approval required by Applicable Law.
- .4 The A/E shall identify the name or names of the Consultants it intends to use for all quality assurance and special inspections that would be reasonably anticipated for the Project and shall provide a Schedule of Fees for Typical Services for each Consultant. The A/E may include a negotiated markup for the Consultant services used.

9.1.189.1.19.2 Geotechnical Analysis. Sampling and analysis of soils and hydrologies, and subsequent reporting and recommendations, upon which architectural and engineering designs may be based. Applicable to Construction Stage observation, testing, and reporting of soils conditions, including testing for types and quality of fill material and its installation, compaction, soil density testing, caisson borings inspections, cut and fill monitoring, etc.

9.1.189.1.19.3 Environmental Testing and Analysis. Sample and analysis of existing conditions or materials for any of a variety of environmental materials, including Hazardous Materials and suspected Hazardous Materials, and subsequent reporting.

9.1.189.1.19.4 Concrete. Test for general quality, such as: slump, air entrainment, cylinder test, core test, ~~swiss~~Swiss hammer.

9.1.189.1.19.5 Masonry. Includes such testing as prism tests, mortar cube, grout tests, water infiltration.

9.1.189.1.19.6 Structural Steel, Reinforcing Steel, Welding, Bolts and Connections. Includes any testing and reporting of any type of steel, including those listed above.

9.1.189.1.19.7 HVAC Systems and Controls. Includes testing and balancing of any or all HVAC components including controls systems.

9.1.189.1.19.8 Plumbing and Piping. Includes testing of water, waste, vent and process piping, and provide associated reporting.

~~9.1.18.99.1.19.9~~ 9.1.19.9 Air and Water Testing and Balancing. Includes testing and balancing of various pneumatic and hydronic piping, and provide associated reporting.

~~9.1.18.109.1.19.10~~ 9.1.19.10 Other. (e.g., Medical Gases testing, Lead Shielding, etc.)

END OF DOCUMENT