**Cover Sheet and Instructions**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **PURPOSE OF DOCUMENT:** | To supplement the requirements in the Executive Design Professional Agreement (EDPA) with requirements that are particular to performing services for the University (more specifically, for a University Facility). | | | | | |
| **CROSS-REFERENCES TO FACILITIES MANUAL (FM):** | FM3[II] | | | | | |
| **CONTENTS:** | Supplemental Requirements | | | | | |
| **FOR USE WITH:**  **(Not Applicable to Some Documents)** |  | Long Form  (LF) |  | Short Form  (SF) |  | Brief Form  (BF) |
| **COMPLETED BY:** | ✓ | Filling In | ✓ | Adding Text |  | No Data Required |
| **ITS USE IS:** | ✓ | Required |  | Optional | | |

**NOTE:** To use the electronic file of this document, you must go to the “Tools” pull down menu in Microsoft Word, select “Options,” select the “View” tab, and then put a check in the box “Hidden text.” Most instructions and alternate language is displayed in hidden text. Do not print the hidden text for the final document.

**Completion Instructions:**

1. Notes, suggested text, instructions and other information is formatted using the following methods:

* Hidden text within brackets. {This is an example of the format.} Read the material within the brackets and take the appropriate action (usually inserting text or selecting from a choice of texts.) When printing this document, the default print property will not print the hidden text.
* Coded instruction within brackets. The instructions and shading will disappear when the required information is typed.

2. Text shaded in gray without brackets is OPTIONAL. This is an example of the format (see Modification and Additions below.)

**Modifications and Additions:**

1. Facility should consider the Supplemental Requirements as a “model” document. The text may be modified by the Facility to meet the needs of the Project.
2. Ensure that any modified or added text is consistent with the Contract Documents.

**Comments:**

1. ***Green Building Design***. The model document addresses implementation of the University’s policy on Green Building Design in new section 2.0.10 and various existing sections throughout the Supplemental Requirements, e.g. section 2.1.2.

**EXHIBIT C**

**SUPPLEMENTAL REQUIREMENTS**

**EXECUTIVE DESIGN PROFESSIONAL AGREEMENT**

(Version B)

TABLE OF CONTENTS

ARTICLE 1 GENERAL PROVISIONS

1.0 GENERAL INFORMATION

1.1 AGREEMENT CHANGES

1.2 APPLICABLE CODES, RULES & REGULATIONS

1.3 SUPPLEMENTAL DEFINITIONS

ARTICLE 2 BASIC SERVICES

2.0 DESIGN PROFESSIONAL’S SERVICES AND RESPONSIBILITIES - GENERAL

2.0.1 EXAMINATION OF SITE

2.0.1.1 ALTERATION/RENOVATION OF EXISTING BUILDINGS

2.0.2 PROGRAM AND BUDGET

2.0.3 CONSTRUCTION COST CONTROL

2.0.4 QUALITY ASSURANCE

2.0.5 MEETINGS AND SITE VISITS

2.0.6 REGULATORY AGENCY REVIEWS AND APPROVALS

2.0.7 UNIVERSITY REVIEWS AND APPROVALS

2.0.7.1 GENERAL

2.0.7.2 REGENTS’ DESIGN APPROVAL

2.0.7.3 FACILITY’S COMMITTEE REVIEW

2.0.7.4 DRAWING & SPECIFICATION REVIEWS

2.0.8 INDEPENDENT REVIEWS

2.0.8.1 DESIGN REVIEW

2.0.8.2 COST ESTIMATE REVIEW

2.0.8.3 SEISMIC REVIEW

2.0.8.4 QUALITY ASSURANCE REVIEW

2.0.9 SUBMITTAL REQUIREMENTS

2.0.9.1 GENERAL

2.0.9.2 DRAWINGS

2.0.9.3 SPECIFICATIONS

2.0.9.4 DOCUMENT SUBMITTAL TIMING

2.0.10 GREEN BUILDING DESIGN

2.0.11 CONSTRUCTION PHASING

2.0.12 PARTNERING

2.1 SCHEMATIC DESIGN PHASE

2.1.0 GENERAL

2.1.1 ESTIMATED PROJECT CONSTRUCTION COST

2.1.2 AREA TABULATION

2.1.3 DESIGN INTENT NARRATIVE

2.1.4 MATERIAL BOARD

2.1.5 CIVIL DRAWINGS

2.1.6 LANDSCAPE DRAWINGS

2.1.7 ARCHITECTURAL DRAWINGS

2.1.8 STRUCTURAL DRAWINGS

2.1.9 HVAC DRAWINGS

2.1.10 ELECTRICAL DRAWINGS

2.1.11 SAVINGS BY DESIGN PROGRAM PARTICIPATION

2.2 DESIGN DEVELOPMENT PHASE

2.2.1 ESTIMATED PROJECT CONSTRUCTION COST

2.2.2 AREA TABULATION

2.2.3 DESIGN INTENT NARRATIVE

2.2.4 MATERIAL BOARD

2.2.5 CIVIL DRAWINGS

2.2.6 ARCHITECTURAL DRAWINGS

2.2.7 STRUCTURAL DRAWINGS

2.2.8 PLUMBING DRAWINGS

2.2.9 HVAC DRAWINGS

2.2.10 ELECTRICAL DRAWINGS AND CATALOG CUTS

2.2.11 OUTLINE SPECIFICATIONS

2.2.12 ENERGY ANALYSIS

2.2.13 EMS/HVAC AUTOMATIC TEMPERATURE CONTROLS

2.3 CONSTRUCTION DOCUMENTS PHASE

2.3.1 ESTIMATED PROJECT CONSTRUCTION COST

2.3.2 AREA TABULATION

2.3.3 DESIGN INTENT NARRATIVE

2.3.4 MATERIAL BOARD

2.3.5 50% COMPLETE CONSTRUCTION DOCUMENTS

2.3.6 STRUCTURAL, Mechanical, AND Electrical Calculations

2.3.7 UTILITY SHUT DOWN PLAN

2.3.8 95% COMPLETE CONSTRUCTION DOCUMENTS

2.3.9 100% COMPLETE CONSTRUCTION DOCUMENTS

2.3.10 LETTER OF ASSURANCE

2.3.11 100 % BACKCHECK CONSTRUCTION DOCUMENTS

2.4 BIDDING PHASE

2.4.1 UNIVERSITY ADMINISTRATION

2.4.2 PRE-BID CONFERENCE AND SITE VISIT

2.4.3 BIDDERS CALLS AND INQUIRIES

2.4.4 ADDENDA

2.4.5 PRE-AWARD CONFERENCE

2.4.6 INTEGRATION OF ADDENDA IN CONSTRUCTION DOCUMENTS

2.4.7 SUBMITTAL LIST

2.5 CONSTRUCTION PHASE

2.5.1 GENERAL

2.5.2 CONSTRUCTION MEETINGS

2.5.3 INTERPRETATIONS

2.5.4 INSPECTION

2.5.5 MATERIALS TESTING

2.5.6 MATERIALS/COLOR SCHEDULE AND MATERIALS BOARDS

2.5.7 COMMISSIONING PLAN

2.5.8 PUNCH LIST

2.5.9 REVIEW OF CONTRACTOR’S AS-BUILT DOCUMENTS

2.5.10 FINAL APPROVAL AND INSPECTION ACCEPTANCE

2.5.11 RECORD DOCUMENTS

**ARTICLE 1**

**GENERAL PROVISIONS**

**1.0 GENERAL INFORMATION** These Supplemental Requirements are part of the Executive Design Professional Agreement (hereinafter called “Executive Agreement”).

**1.1 AGREEMENT CHANGES** An Amendment (as shown in the Exhibits) will be used to amend the Executive Agreement if the project schedule, project scope or the construction budget is changed. This document will also be used to authorize additional services as required.

**1.2 APPLICABLE CODES, RULES & REGULATIONS**

**1.2.1** It is Design Professional's responsibility to design the Project in compliance with applicable requirements of University policy, federal and state laws, codes, rules, regulations, ordinances, and standards, including, but not limited to, those outlined below. Design Professional shall have copies available of applicable codes and regulations for ready reference.

**.1** California Building Standards Code, Title 24, California Code of Regulation (CCR):

Part 1, Building Standards Administrative Code

Part 2, California Building Code

Part 3, California Electrical Code

Part 4, California Mechanical Code

Part 5, California Plumbing Code

Part 6, California Energy Code

Part 7, California Elevator Safety Construction Code

Part 8, California Historical Building Code

Part 9, California Fire Code

Part10, California Code for Building Conservation

Part 12, California Reference Standards Code

**.2** Air Quality Management District regulations, if applicable.

**.3** Americans with Disabilities Act (ADA), Title II, ADAAG.

**.4** California Coastal Commission Regulations.

**.5** Local Building Codes. University is not subject to local jurisdictions' building codes, nor is it required to obtain building permits from local jurisdictions for con­struction on real estate owned or controlled by University. However, the design and con­struction of utility connections and fire-protection systems may require liaison with local jurisdictions. This liaison shall be coordinated only through University's Designated Administrator. Con­struction or encroachment upon city- or county-owned property is subject to local codes and permit requirements.

**.6** University Policies (including without limitation “Seismic Safety” and “Green Building Design and Clean Energy”).

**.7** Facility Policies (including the Campus Standards and Campus Green Building Baseline).

**1.3 SUPPLEMENTAL DEFINITIONS**

**1.3.1** The following definitions supplement the Definition in the Executive Agreement:

**.1** *Facility* – The University of California,{INSERT FACILITY NAME}.

# ARTICLE 2

**BASIC SERVICES**

**2.0 DESIGN PROFESSIONAL’S SERVICES AND RESPONSIBILITIES - GENERAL**

**2.0.1 EXAMINATION OF SITE** At the beginning of the Schematic Design phase, Design Professional and Design Professional's consultants shall visit the Project site to become familiar with existing site conditions, including the site location and size, utility capacities, and connection options of external utilities. Prior to the completion of the 95% Construction Documents, Design Professional and Design Professional's consultants shall visit the Project site to coordinate their documents with current site conditions.

{NOTE: ADD THE FOLLOWING SECTION FOR ALTERATION/RENOVATION PROJECTS IN EXISTING BUILDINGS; OTHERWISE RETAIN NUMBER AND ADD WORDS “NOT USED”}

**2.0.1.1 ALTERATION/RENOVATION OF EXISTING BUILDINGS**

For alteration projects, visit all relevant areas of the existing buildings to be altered. Include architectural, mechanical, plumbing and electrical (including fire alarm) disciplines. Visually survey the following for consistency with the available documentation, evidence of chronic problems, and coordination with proposed new work:

.1 Adjacent site perimeter (40 feet from building) for accessible path of travel, fire access, drainage conditions, and distance to adjacent buildings.

.2 Building exterior (from the ground and roof surface).

.3 Interior spaces including storage, circulation, mechanical, electrical and telecom rooms.

.4 Rooftop including penthouses.

.5 Ceilings spaces above suspended lay-in ceiling tiles at several areas representing standard conditions and in areas with atypical ceiling heights or configurations.

.6 Concealed spaces accessible via access panel at several areas representing standard conditions and in areas with atypical concentrations of services, specifically at firewalls.

Notify University’s Representative of rooms or areas inaccessible due to locked doors, hard-suspended ceilings, heavy furniture and equipment or critical functions. No destructive testing shall be done except by specific authorization.

**2.0.2 PROGRAM AND BUDGET** University will furnish the Project Program to Design Professional at the start of Schematic Design. Design Professional shall evaluate the Project’s programmatic requirements, promptly call attention to any discrepancy contained therein, and request direction from the University’s Designated Administrator. Design Professional shall also inform University’s Designated Administrator of any imbalance between the Construction Budget and the Project Program requirements.

Prior to completing the 95% Schematic Design, 95% Design Development, 50% and 95% Construction Document phase submittals, Design Professional shall compare the submittal documents to the programmatic requirements and call to the attention of University’s Designated Administrator any discrepancy contained therein and request direction. Design Professional shall be prepared to present program or design adjustment alternatives for University consideration when adjustments are needed to bring the Project scope, Project schedule, and Construction Budget into alignment.

**2.0.3 CONSTRUCTION COST CONTROL** Throughout the Project, and in accordance with the Executive Agreement, Design Professional shall keep the Project’s cost within the Construction Budget, and is responsible to periodically submit a current Estimated Project Construction Cost to verify that this is done.

**2.0.4 QUALITY ASSURANCE**

The Design Professional shall demonstrate an effective quality assurance plan as described in Quality Assurance Program in the Exhibits that results in well-coordinated and consistent submittal documents.

**2.0.5 MEETINGS AND SITE VISITS**

Design Professional shall participate in regular meetings at the Facility through each phase of the Project for the purpose of explaining the Project design and reviewing the Project’s progress.

**2.0.6 REGULATORY AGENCY REVIEWS AND APPROVALS** Design Professional shall be responsible for obtaining review and approval by applicable regulatory agencies as stipulated in the Exhibits. University's Designated Administrator will arrange to pay application fees that may be required.

It is recommended that preliminary State Fire Marshal (SFM), or the local designee, and Division of State Architect (DSA) reviews occur during Schematic Design and Design Development. Review and approval by the SFM and DSA are required at Construction Document completion. The Design Professional shall arrange all reviews with DSA for access compliance and with SFM for fire safety and code compliance. The Design Professional shall incorporate corrections required by DSA and SFM into the Contract Documents before advertisement for bid. Design Professional shall stamp the drawings and submit the specification Certification page when the Construction Documents are 100 percent complete.

For major State-funded projects, approval of the completed Design Development documents by the State Public Works Board is required, as well as State Department of Finance approval of the 100 percent Construction Documents.

**2.0.7 UNIVERSITY REVIEWS AND APPROVALS**

**2.07.1 GENERAL** In accordance with the Executive Agreement, each design phase is subject to review and approval by the University. Project items to be reviewed include design and cost, site, seismic safety, and environmental impact.

Other University personnel, external consultants, or public agencies may also review the Design Professional’s submittals at the University's discretion or as required by applicable regulations. These reviews shall not relieve Design Professional of responsibility for errors and omissions in Design Professional's work. The Design Professional shall cooperate with the reviewers and participate in the reviews.

Meetings to discuss University policy and legal requirements are required.

The University’s review of Drawings and related documents at the various stages of project development is intended to determine whether:

.1 The Executive Design Professional has completed the work of that phase,

.2 The Executive Design Professional’s design satisfies the University programmatic needs,

.3 The Project design is within the stipulated scope and Project budget, and

.4 The Project is in conformance with University administrative policies and procedures.

**2.0.7.2 Regents’ Design REVIEW AND Approval** Design review by the Regents and/or the Office of the President is required on building projects with a total project cost in excess of $5 million, except when such projects consist of the following:

.1 Alterations or remodeling where the exterior of the building is not materially changed, or

.2 Buildings or facilities located on agricultural, engineering, or other field stations, and buildings or facilities located in agricultural areas of a campus.

Building projects with a total cost of less than $5 million may be subject to Regents design review when, in the judgment of the UC President, a project merits review and approval by the Regents because of budget matters, fund-raising activities, environmental impacts, community concerns, or other reasons.

The Design Professional shall provide presentation drawings, sustainable design information, and other support materials for use in the Regents’ design review process. Drawings and written documents for presentations to the Regents shall be simple, clear and concise.

{NOTE: INSERT NAME OF RELEVANT CAMPUS COMMITTEE, IF ANY; IF NO CAMPUS REVIEW COMMITTEE, RETAIN NUMBER AND ADD THE WORDS “NOT USED”}

**2.0.7.3** FACILITY’S COMMITTEE REVIEW.

Additionally, all projects require review by the Facility’s {INSERT NAME OF COMMITTEE} Committee at the end of Schematic Design. Design Professional shall verify presentation requirements with the University’s Representative.

**2.0.7.4** **DRAWING AND SPECIFICATION REVIEWS**

The University will review the submitted drawings at all stages and provide written comments.

The University will review the submitted specifications at three stages and provide written comments. The 50% Construction Document review will cover general issues (e.g. format and Division 1 references). The 95% Construction Document review covers all sections for content, consistency and completeness. The 100% Construction Document review is the final review for corrections and typographical mistakes.

The Design Professional shall respond in writing (item by item) to the University’s review comments using the University’s format.

**2.0.8 INDEPENDENT REVIEWS**

**2.0.8.1 DESIGN REVIEW**

An independent architectural design review shall be conducted for projects that are subject to Regents’ design review. The design review shall be performed early in the preparation of design and focus on, but not be limited to, the compatibility of the design with its setting, and the appropriateness of the design to its functional program and the project budget.

**2.0.8.2 cost estimate review**

Independent cost estimates may be contracted by the University as described in the Cost/Value Control Program and Cost Estimate Format in the Exhibits.

**2.0.8.3 seismic review**

An independent review shall be conducted of the structural seismic design of all capital projects, whether new construction or remodeling, which involve structural design and are intended for human occupancy or affect human safety. A review of non-structural building elements shall be included.

The review shall be initiated early, preferably during Schematic Design, so that it can be performed in conjunction with the independent design and cost review and value engineering processes, where applicable. The review shall be continued at appropriate times during the design process. Drawings and calculations shall be reviewed for conformance to the most current applicable seismic design code requirements.

**2.0.8.4** **QUALITY ASSURANCE REVIEW**

This Project is subject to independent Quality Assurance Review as specified in the Quality Assurance Program in the Exhibits. The Design Professional shall attend meetings as necessary to resolve issues.

**2.0.9 SUBMITTAL REQUIREMENTS**

**2.0.9.1 GENERAL**

Required documents shall be submitted electronically as both PDF files and executable software files (Autocad, Excel, and Word), and as specifically outlined below. When required, hardcopies of submittals shall be on bond paper. Final Record Drawings shall be on mylar.

**2.0.9.2 DRAWINGS**

Design Professional shall submit one set hardcopy and two sets of digital files on CD-ROM, one formatted in AutoCAD.dwg, the other as PDF. Design Professional shall "bind" all plot sheets.

Each copy and each disk shall be fully labeled with the project name, contract number, date, names and contact information for the entity(ies) responsible for preparation and submittal of the files and disks, and the sequence number of the disk in the set. Files may be submitted compressed, but the decompression utility used (executable preferred) should be fully described with directions included on the transmittal as well as in electronic form. Design Professional shall provide an index of electronic file drawings and their associated XREF. Unused layers and blocks shall be purged from the drawing file. Directions for restoring the directory structure shall be included, and all data necessary to plot the files, such as PCP, PNP, and CTB files, layering, pens, fonts, and color information shall be provided. Electronic file CAD drawings must be identical to the required hardcopy submittals.

The digital file name shall match the drawing number. The complexity of the files / folders shall be matched to the scale of the project.

Submittal of the drawing CAD files shall be considered a legal submittal of any fonts, menus, line types, symbols (blocks or entities), and any proprietary information incorporated into the drawings. If symbols (blocks or entities) or other information is copyrighted, the University will have the right to use and to distribute all such information at no cost or liability. Copyright language shall not be included on the Drawings.

Design Professional shall coordinate with the University’s Designated Administrator to insure room numbering in accordance with the Area Tabulation and Rooms Listing in described the Exhibits.

In addition to the standard submittal format requirements, presentation graphics materials shall be submitted to the University as digital files in the jpeg format or other photo-quality digital format.

Drawing Preparation Guidelines containing more detailed requirements will be provided to the Design Professional at the beginning of the Schematic Design phase.

**2.0.9.3 SPECIFICATIONS**

Specifications, in CSI format, shall consist of one set in hard copy and a copy on CD-ROM formatted in Microsoft Word, Office 97 version or later. Each specification section shall be saved as a document file named with the corresponding Master format number (e.g., 15400.doc, 15950.doc).

The Design Professional shall use the format and terminology standards from the sample specification provided by the University. Specifications shall be:

.1 Complete, coordinated and consistent with each other and the drawings.

.2 Coordinated with the University’s General Conditions and General Requirements.

.3 Written for a two party contract between the University and the Contractor.

.4 Written to describe the University’s Representative as the University’s acting functionary.

.5 Written with open specifications for material and equipment except in specifically permitted exceptions.

Specifications Preparation Guidelines containing more detailed examples of the application of the requirements listed above will be provided to the Design Professional at the beginning of specification production in the Design Development phase.

Where the University provides guide specifications for the Design Professional’s use, the Design Professional shall review the sample speci­fications and determine the extent to which the various sections and paragraphs are applicable and the extent to which modifications are required. Where, in the opinion of Design Professional, modifications are required, Design Professional shall mark the modifications in the specifications for University attention, review, and approval. The sample specifications are not intended to limit Design Professional's discretion to specify products, materials, or construction methods and procedures. Neither the provisions of the sample specifications established by University nor Design Professional's use of the samples as a guide in preparing specifications shall derogate from Design Professional's responsibility to prepare the Construction Documents.

{NOTE: PARAGRAPH 2.0.9.5 IS OPTIONAL. IF NOT APPLICABLE, RETAIN THE NUMBER AND ADD THE WORDS “NOT USED”}

**2.0.9.4 DOCUMENT SUBMITTAL TIMING**

Design Professional shall submit the required documents for 50%, 95% and 100% Schematic Design; 50%, 95% and 100% Design Development; and 50%, 95% and 100% and Construction Document in two parts and approximately two weeks apart unless otherwise requested by the University. The first part of the submittal shall include Drawings and Specifications, Code Analysis, Design and System Narratives, Sustainability Score Sheet, and similar items. The second part of the submittal shall include items such as the Area Tabulation, Special Inspections and Testing Requirements, Estimated Project Construction Cost, Calculations, Material Board, and the Energy Model and related information.

**2.0.10 GREEN BUILDING DESIGN**

Design Professional shall:

.1 Exceed Title 24 California Energy Code efficiency requirements by at least .

.2 Achieve level based on LEED or the UC standard equivalent based on an approved Campus Green Building Baseline for those points or credits that are applicable to the Project. {INSERT THE FOLLOWING LANGUAGE FOR LABORATORY BUILDINGS:} Meet additional requirements for laboratory buildings derived from Labs21 Environmental Performance Criteria.

.3 Enroll in the Savings-by-Design program at the beginning of the Schematic Design Phase, apply for incentives that may be applicable, and participate in meetings with Savings by Design representatives.

.4 Prepare and submit both a hardcopy and an electronic copy of the Sustainability Score Sheet (on the form in the Exhibits), supporting documentation sufficient to establish credit for each point for which credit is sought, and a completed letter template to be signed by the University based on the Campus Green Building Baseline. The Sustainability Score Sheet and supporting documentation shall be updated at each Design Phase. The applicable letter templates shall be submitted at the Construction Documents phase.

{NOTE: PARAGRAPH 2.0.11 IS OPTIONAL. IF NOT APPLICABLE, RETAIN THE NUMBER AND ADD THE WORDS “NOT USED.”

**2.0.11 CONSTRUCTION PHASING**

Construction Phasing will require review and approval by University’s Representative. Design Professional shall clearly show construction phasing requirements on the drawings and also describe them in the specifications. Design Professional shall also provide a construction-phasing schedule in bar chart, or in CPM form as an additional service.

{NOTE: PARAGRAPH 2.0.12 IS OPTIONAL. IF NOT APPLICABLE, RETAIN THE NUMBER AND ADD THE WORDS “NOT USED.”

**2.0.12 PARTNERING**

University and Design Professional will cooperate and participate fully in Partnering at all levels and among all the parties involved in this Project, and at their own expense. Partnering shall mean both formal and informal interaction between and among all the parties involved in the Project, including but not limited to, University representatives, Design Professionals, Construction Contractors, Subcontractors and outside entities as designated by University to promote the desired goal of a successful, non-adversarial completion of the Project on time and within budget. The requirement for Partnering shall not be construed as a change in the terms or conditions of the Executive Agreement.

**2.1 SCHEMATIC DESIGN PHASE**

**2.1.0 GENERAL**

Conduct a Schematic Design kick-off workshop to discuss the requirements and goals described in the Project Program.

Enroll in the Savings-by-Design program, apply for incentives that may be applicable, and participate in meetings with Savings by Design representatives.

Shortly after the Schematic Design kick-off workshop, conduct an Integrated Design workshop addressing the Project Program and the following requirements with all of the Design Professional’s Consultants, a representative of Savings-by-Design Program, and the University to:

.1 Review the findings of the site analysis, program analysis and preliminary engineering analysis.

.2 Discuss challenges and opportunities inherent in the project

.3 Review design priorities

.4 Prepare a Sustainability Score Sheet on the form in the Exhibits after a review and consideration of potential credits, if applicable, shown in the approved campus green building baseline.

Early in the Schematic Design phase, develop and present to the University three alternative site and building designs that meet the program needs. Provide graphics or physical study models as appropriate to fully describe the designs. These materials shall be delivered to the University for review and shall include digital files of graphic presentation materials.

For each of the three alternative designs, update the Detailed Project Program cost model by changing, adding and/or deleting cost items, adjusting control quantities, and submitting these updates with the designs.

Design Professional shall submit the following items upon 50%, 95% and 100% completion of the Schematic Design phase.

**2.1.1 ESTIMATED PROJECT CONSTRUCTION COST**

For the 50% Schematic Design submittal, Design Professional shall update the Detailed Project Program cost model by changing, adding and/or deleting cost items and adjusting control quantities.

Design Professional shall provide an estimated project construction cost based on the 95% Schematic Design documents using the estimate format as described in the Cost/Value Control Program and Cost Estimate Format included in the Exhibits. Design Professional shall compare the estimate with the Construction Budget and bring any unusual cost items to the attention of the University’s Designated Administrator.

**2.1.2 AREA TABULATION**

Design Professional shall develop a space-by-space comparison of the Schematic Design documents' assignable square feet (ASF) with the Project program's ASF. Design Professional shall provide overall gross square feet (OGSF) and, for projects exceeding 5 million dollars, shall provide a tabulation of rentable square footage (RSF) according to specifications of the Building Owners and Managers Association. These tabulations shall be made by floor and program component and shall include totals for the building or renovated area as a whole. Design Professional shall calculate the efficiency ratios (ASF/GSF), and shall refer to the Area Tabulation and Rooms Listing included in the Exhibits for the required format.

**2.1.3 DESIGN INTENT NARRATIVE**

Design Professional shall provide a narrative description of the Project's site, architectural design, and building organizational concept. Design Professional shall set forth the design concepts and important features of the Project.

Design Professional shall include a short narrative description of the Project's sustainable design goals and features. Included shall be an update of the University’s Sustainable Design Matrix (see Sustainable Design Matrix and Utility Demand Form in the Exhibits) to reflect the project specifics. A preliminary building energy model identifying the estimated scale of the various load components and identifying potential energy and resource conservation options shall be provided. Design Professional shall complete and include the Utility Demand Worksheet available from the University’s Representative.

Design Professional shall describe the type of construction, including the wall, ceiling, roofing, and waterproofing systems; exterior and interior finishes; and doors, windows, and casework systems. The finishes shall be identified at a gross level, indicating the type and quality level. Fire safety items, including all related mechanical and electrical devices, shall be described as required by the State Fire Marshal for the intended occupancy of the building.

Design Professional shall describe the recommended structural system and the basis for recommending this system over others. Included shall be strategies for dealing with special conditions, subsurface conditions, and substructure.

Design Professional shall provide the basis of design and an analysis of the principles of operation of the HVAC, plumbing and electrical systems and their controls. Included shall be the schematic diagrams and written material thoroughly describing the proposed systems and equipment.

Design Professional shall describe the mechanical (plumbing and HVAC systems) conceptually including controls, ducts, filtration, and piping. A written analysis of the calculated loads of proposed new HVAC systems and plumbing systems, the design demands of the Project, and the capacity of the existing systems, if any, shall be provided. Design Professional shall identify the capacity of existing systems if any, based on an examination of the Facility's Record Drawings, an inspection of the existing system, and test reports.

Design Professional shall describe special systems including special laboratory control systems, energy management systems, special exhaust systems, and similar items. Design Professional shall describe the proposed fume hood ducting and exhaust system.

Design Professional shall describe the proposed new electrical systems for the power, lighting, communication, fire alarm, and security systems. Indicated in sufficient detail shall be the proposed power system voltages including the main points of connection to existing systems, electrical service voltage, and number of feeders. Items to be served by emergency power shall be listed and Design Professional shall describe design considerations for special areas.

All of the above descriptions shall include applicable code references where not covered by the code analysis described in the Executive Agreement.

**2.1.4 MATERIAL BOARD**

Design Professional shall provide a display board with mounted samples of the actual exterior materials proposed. The board shall be 20”H x 30”W and weigh no more than 30 pounds. The material samples shall be removable from the board without disassembling the board. The area of each sample shall roughly correspond to the proportion of that material to the other materials in the proposed building.

**2.1.5 CIVIL DRAWINGS**

.1 **Site Demolition Plan**– Shall show existing structures and utilities removed by the Contractor or by others.

.2 **Grading Plan**–Shall show existing and proposed contours at 1 foot intervals.

.3 **Utility Plan** shall show**:**

a. All existing utilities and underground structures within the Project site based on both the information provided by University and on Design Professional's field investigation.

b. Off-site utilities in the vicinity required for this project, and all points of connection.

c. Proposed points of connection to the existing Facility utility systems including the proposed method of service and routing for electrical power, chilled water, steam, domestic water, fire water, utility water, sanitary sewer, storm drain, natural gas, telephone, and fire alarm systems. Exterior pad-mounted transformers and site distribution shall be included.

**2.1.6 LANDSCAPE DRAWINGS**

.1 **Landscape Design Plan –** Shall show conceptual hardscape and planting.

**2.1.7 ARCHITECTURAL DRAWINGS**

* + - 1. **Site Plan** shall include**:**

.a Overall dimensions of the proposed new building(s), wings, etc.

.b Existing structures and streets (with names) within a radius of 300 feet of the Project site perimeter with the distances from each proposed new building exterior walls to existing buildings, property lines (setbacks), and roadways.

.c Major new exterior elements and, for alterations and additions, all existing exterior elements that will remain in place. These elements shall include but are not limited to streets, service drives, easements, loading docks, parking areas (cars and bicycle), paved areas, walks, stairs, ramps, pools, retaining walls, fences, fire hydrants, recycling, and trash container locations and equipment.

.d Elevations of building entrances and the placement of ramps and other provisions for disabled access to the site and building. Also depicted shall be the parking area and drop-off location nearest the building, and the routes and travel distances to all building entrances.

.2 **Site Sections** – Include as needed to explain changes in levels within the proposed building as related to the site.

.3 **Floor Plans** shall include**:**

.a Locations, room names, sizes (in assignable square feet), and space numbers for all programmed spaces and required gross area spaces including entrances, lobbies, corridors, stairs, elevators, toilet rooms, janitors' closets, storage and mechanical/electrical equipment rooms.

.b Overall dimensions of major elements of the building(s).

.c Building elements such as walls, columns, doors, windows, openings, and major built-in equipment.

.d Means for complying with applicable disabled access codes.

.e Floor plans for additions or alterations to existing buildings shall show the existing floor plan and indicate the existing space usages and any proposed changes.

.4 **Demolition Plan** - (applicable whenever a Project requires the demolition of a building or portions thereof). Design Professional shall differentiate between new work (walls, doors, finishes, and so on), existing work to be removed, and existing work to remain in place.

.5 **Sections –** Shall be provided as needed to explain structure and unusual design features, and shall show existing and proposed grades.

.6 **Elevations –** Shall include all elevations of the building, floor-to-floor dimensions, the overall building height, and elevations of existing neighboring buildings.

.7 **Presentation Materials** – As required for presentation to the Facilities and Enterprise Policy Committee (FEPC) and to the Regents. Design Professional shall verify all requirements for presentation materials with the University’s Representative. These may include:

a. Colored presentation-quality drawings of all floor plans, elevations (all sides), sections, site plan, and other drawings, as appropriate.

b. Two rendered perspective drawings, compensated as an additional service, in color and large enough to convey the overall design. A normal, "eye-level" view of the Project is preferred. In some instances, a “birds-eye” view will be needed to convey the full scope of the Project. The landscape features of the site development shall be shown in a realistic manner, but shall not obscure the structure.

**2.1.8 STRUCTURAL DRAWINGS**

Design Professional shall provide a conceptual structural framing plan of a typical floor that indicates the grid system (dimensioned), columns, shear walls, and related items.

**2.1.9 HVAC DRAWINGS**

Design Professional shall provide a conceptual single-line mechanical diagram showing major ducts and equipment. The sizes and locations of major equipment items including cooling towers, chillers, pumps, fans, air-handling units, compressors, and related items, shall be identified.

**2.1.10 ELECTRICAL DRAWINGS**

Design Professional shall provide a conceptual single-line diagram showing permanent as well as temporary points of connection to high-voltage, telephone, and signal systems. Included shall be the:

.1 Method of service (Facility or local utility) showing primary service to loop switch

.2 Major transformers and transformer substations

.3 Secondary service to switchboards, motor control centers, distribution boards and panel boards for power and lighting.

.4 Major components of the emergency power system

**2.1.11 SAVINGS BY DESIGN PROGRAM PARTICIPATION**

Design Professional shall participate in the Public Utility Commission’s Savings by Design program. Design Professional shall attend meetings with representatives of the program to identify energy conservation measures or combinations of measures for analysis. Estimated construction costs, estimated maintenance costs, estimated equipment life spans and technical information shall be provided by Design Professional to University.

**2.2 DESIGN DEVELOPMENT PHASE**

Upon 50%, 95%, and backcheck to 100% completion of Design Development documents, Design Professional shall submit updated versions of all Schematic Design phase submittal items as well as the additional items described below.

**2.2.1 ESTIMATED PROJECT CONSTRUCTION COST**

Design Professional shall update the estimate at the time of each submittal to include all construction components including quantities of materials and unit costs.

**2.2.2 AREA TABULATION**

Design Professional shall update the area tabulation prepared during Schematic Design.

**2.2.3 DESIGN INTENT NARRATIVE**

Design Professional shall update the Design Intent Narrative. All fire safety items including the flame spread rating of all applicable material and finishes shall be identified.

**2.2.4 MATERIAL BOARD**

Design Professional shall update the Material Board(s) to include samples of all finish materials listed in the materials/color schedule.

**2.2.5 CIVIL DRAWINGS**

* + - 1. **Grading Plan–** Design professional shall update to show the general method of site drainage as affected by each proposed building. Added shall be baseline and benchmark references and elevations of major exterior elements including those for stairways, walls, and terraces.

.2 **Utility Plan -** Design Professional shall update to indicate all utility lines, ductbanks, tanks, and equipment that are to be abandoned, removed, or rerouted.

.3 **Conceptual Staging and Bicycle Routing Plan -** Design Professional shall update to indicate contractor staging and parking areas. Impacted bicycle and pedestrian pathways and proposed rerouting shall be identified.

**2.2.6 ARCHITECTURAL DRAWINGS**

.1 **Floor Plans shall include:**

a. Corridors (with widths)

b. Door swings

c. Locations and fire ratings of all fire separations, exit enclosures, fire doors, and similar elements, as required by applicable codes.

d. Accessible toilets and drinking fountains.

e. Plumbing fixtures such as lavatories, floor drains, water closets, urinals, service sinks, drinking fountains, eyewash fountains, deluge showers, and fire-hose cabinets.

f. Built-in features such as fixed auditorium seats, kitchen equipment, display cases, counters, shelves, lockers, laboratory benches, casework, glass washers, sterilizers, fume hoods, and similar items.

g. Movable furniture, which in most cases is “not in contract” (NIC), including “interior landscape” partitions and equipment. Differentiate between movable furniture and equipment and built-in furniture and equipment (built-in items are usually included in the construction contract).

h. Reference all sections and elevations.

.2 **Roof plan** – Shall show associated equipment, slopes, ridges, drains, and other items.

.3 **Elevations shall include:**

a. Building elements including penthouses, entrances, windows, doors, stairs, platforms, louvers, vents, exhaust stacks, retaining walls, and similar items. Indicate proposed finished grades.

.b Windowsill and head heights.

.4  **Sections shall include:**

a. Longitudinal and transverse sections for each major area, indicating floor elevations, existing and proposed exterior grades, ceiling heights, pipe tunnels, unexcavated areas, basement areas, rooflines, and parapets. Show cuts for connections to adjoining buildings where appropriate.

b. Include a small-scale plan or diagram (if necessary) to indicate section lines for each elevation and section.

c. Provisions for HVAC distribution and hood venting.

.5 **Large Scale Drawings** - Provide detail plans, sections, and elevations for the following types of space:

a. Classrooms and lecture halls

b. Kitchens and related service areas

c. Laboratories and laboratory support areas

d. Toilet and locker rooms

e. Other areas of special design with notes related to materials and design

.6 **Schedules shall include:**

a. Door schedule indicating each door's type, size, material, hardware group and pertinent comments.

b. Window schedule indicating each window's type, size, material, and pertinent comments.

c. Preliminary interior finish schedule indicating the material, texture, and color of each finish material proposed for use in the Project.

**2.2.7 STRUCTURAL DRAWINGS**

Design Professional shall provide structural plans for each level of the structure (including each foundation and roof level) at the same scale as that used for the architectural plans. Design Professional shall indicate the grid system (dimensioned), columns, load-bearing walls, shear walls, footings, and related items.

**2.2.8 PLUMBING DRAWINGS**

.1 **Floor Plans** shall show**:**

a. Plumbing fixtures and any equipment requiring plumbing service (including pumps, tanks, generators, pressure-reducing valves, etc.) showing their locations and required piping connections.

b. Main waste lines and stacks and vents as well as all service mains, including those for water, air, gas, and vacuum. Plumbing chases in multi-storied buildings.

c. Fire water mains, standpipes and hose racks.

**2.2.9 HVAC DRAWINGS**

.1 **Floor Plans** shall show**:**

a. Mechanical equipment including air handling units, chillers, cooling towers, pumps, converters, expansion tanks, boilers, fans, fan coil units, heat exchangers, fume hoods and other equipment.

b. Mains for each duct system.

c. Typical supply and return air zones for each type of occupancy (offices, laboratories, computer rooms, conference rooms, and special application rooms.) A typical air zone shall include the terminal unit with all applicable branch ducts and air outlets and inlets.

d. Typical exhaust air duct for each type of application (hoods, toilet rooms, janitors' closets, transformers, mechanical/electrical equipment rooms, and other rooms as required for a satisfactory indoor environment.) A typical duct shall include an air inlet and a source destination for exhaust air.

.2 **Large-Scale Drawings of Equipment Rooms** - Layout all equipment rooms to ensure that the proposed equipment will fit in the allotted space.

**2.2.10 ELECTRICAL DRAWINGS AND CATALOG CUTS**

.1 **Single line diagrams** – Shall be updated to include each load center unit substation, telephone equipment rooms, and closets.

.2 **Floor Plans -** The power, signal, and communications layouts shall be shown on one set of drawings, and the lighting layouts shall be shown on a different set of drawings. Included shall be lighting fixtures in typical offices, laboratories, corridors, examination rooms, and similar spaces. A schedule shall be used to show detail.

.3 **Catalog cuts** – Design Professional shall provide for all proposed lighting fixtures.

.4 **Large-Scale Drawings** – Shall include a layout of all equipment rooms to ensure that the proposed equipment will fit in the allotted space.

**2.2.11 OUTLINE SPECIFICATIONS**

Prior to beginning production of the specifications, Design Professional shall schedule a meeting with University's Designated Administrator and the Contract Admin­istration staff to discuss specifications guidelines. At this meeting, University will provide guidelines for preparing specifications. Attendees at this meeting shall include Design Professional, Design Professional's consultants, and Design Professional's specifications writer.

Outline specifications with a detailed description of all building components and systems shall include:

.1 An index showing all divisions and sections intended to be used. The format shall be that recommended by the Construction Specifications Institute (CSI), narrow scope type.

.2 All technical sections in outline specification format

**2.2.12 ENERGY ANALYSIS**

Design Professional shall submit a complete performance-approach computer simulation demonstrating Title 24 energy compliance for University review and certification. Process loads shall be clearly identified and evaluated as allowed by California Code of Regulation Title 24, Part 6. The simulation shall demonstrate compliance with the University’s requirement to outperform Title 24 energy efficiency requirements by the amount specified in section 2.0.10 above. The Design Professional shall correct any non-complying aspect of the design, including the energy compliance approach.

{NOTE: PARAGRAPH 2.2.13 IS OPTIONAL. IF NOT APPLICABLE, RETAIN THE NUMBER AND ADD THE WORDS “NOT USED”}

**2.2.13 AUTOMATIC FIRE MONITORING EMS/HVAC TEMPERATURE CONTROLS**

.1 Design Professional shall specify automatic fire monitoring controls that can communicate and are fully interoperable with {INSERT BRAND OF FIRE MONITORING CONTROLS}.

.2 Design Professional shall specify automatic EMS/HVAC temperature controls that can communicate and is fully interoperable with {INSERT BRAND OF TEMPERATURE CONTROLS}.

**2.3 CONSTRUCTION DOCUMENTS PHASE**

Upon 50%, 95%, 100% and backcheck to 100% completion of Construction Documents, Design Professional shall submit updated versions of all of the required items for the Design Development phase submittal as well as the additional items described below.

**2.3.1 ESTIMATED PROJECT CONSTRUCTION COST**Design Professional shall update the estimate at each submittal, and shall bring any unusual cost item to the attention of University’s Designated Administrator.

**2.3.2 AREA TABULATION** Design Professional shall update the area tabulation prepared during Design Development.

**2.3.3 DESIGN INTENT NARRATIVE**

Design Professional shall update the Design Intent Narrative.

**2.3.4 MATERIAL BOARD**

Design Professional shall update the Material Board(s).

**2.3.5 50% COMPLETE CONSTRUCTION DOCUMENTS** **\**

Design Professional shall update the documents required for the Design Developement submittal and provide additional drawings, details, and specifications as follows:

.1 **Cover Sheet and Regulatory Compliance Drawings shall include:**

a. Title sheet with index, general notes, legends, and a small-scale Facility/Project location map.

.b Code Compliance Calculations and Diagrams.

.2 **Civil Drawings** **-** shall include**:**

a. Existing civil survey

b. Site demolition plan

c. Site utilities plan

i. Coordinate size and location for all stub outs for connection by Architectural, Mechanical, Plumbing, Electrical, etc. Indicate continuation sheet number.

ii. Indicate identification number as provided by UC Davis Engineering Services on all new manholes, valve boxes, cleanouts, lift stations, etc.

iii. Completely design steam and condensate lines, steam vaults, expansion legs, anchors and guides.

iv. Show locations, sizes, and elevations of the site sewer, street water main, and water service into the building.

d. Site plan

e. Rough grading plan. Show drainage structures

f. Site profile sections

g. Details

.3 **Landscape Drawings -** shall include**:**

a. Finished grading plan

b. Hardscape (paving) plan

c. Irrigation plan

d. Planting plan

e. Hardscape details (walls, walks, planters, etc.)

f. Irrigation details

g. Planting details

h. Other details as appropriate

.4 **Architectural Drawings -** shall include**:**

a. Reflected ceiling plans showing all penetrations

b. Details

.5 **Structural Drawings** **-** shall include**:**

a. Plans that indicate the location, type of member, size, and material of each structural element for foundations, floors, roofs, and any intermediate levels including both new and existing structural elements. List safe bearing pressures on soils and ultimate strengths of concrete.

b. Schedules (beam, column and slab)

c. Details of all connections, assemblies, expansion joints, and similar items

d. Details of the structural framing systems required to support nonstructural elements and fixed equipment

.6 **Plumbing Drawings:**

a. Floor Plans shall show:

i. Locations, sizes, and elevations of the building sewer, drains, waste, and waste vent stacks with connections to drains, fixtures, and equipment

ii. Locations and sizes of hot, cold, and circulation water mains, branches, and risers from the service entrance and tanks

iii. Fire-extinguishing equipment such as sprinklers and wet/dry standpipes

iv. Locations and sizes of natural gas, vacuum, and medical gas systems

b. Riser diagrams for each system shall show all plumbing stacks with vents, water risers, and fixture connections for multistory buildings; materials, gauges, and sizes for all elements

c. Sections shall show structural, HVAC, and piping systems through congested areas.

.7 **HVAC Drawings** shall include**:**

a. Mechanical floor plans showing the complete HVAC systems including the following items:

i. Heating and steam mains, including branches, with pipe sizes

ii. Air-conditioning systems including refrigerators, water and refrigerant piping, and duct work

iii. Exhaust and supply ventilating systems showing duct sizes for steam or water connections and piping

iv. Air and piping systems, including all branches, on each floor plan

b. Detailed floor plans and sections clearly indicating the work required for all mechanical equipment rooms.

c. Air balance schedule indicating the CFM (cubic feet per minute) of outside air, supply air, return air, and exhaust air for each air system.

d. Elevations of built-up fan units to ensure required airflows and access to the component parts of the units

e. Flow diagram for each of the following types of water systems: Chilled water, Condenser water, Hot water and others as needed to clearly define the scope of work

f. Riser diagram for each type of system (air, chilled water, heating hot water, and specialty systems)

g. Mounting details

h. Sequence of operations diagram

.8 **Electrical Drawings**

a. Electrical service entrance and its service switches, the service feeds to the public service feeders, and the characteristics of the light and power currents

b. Transformers and their connections, whether in the building or on the Project site

c. Main switchboard, power panels, light panels, and associated equipment

d. Feeder and conduit sizes

e. Light fixtures, receptacles, switches, and power outlets

f. Telephone outlets, conduits, terminal cabinets, and backboards

g. Complete fire alarm system including its connection to the Facility's system

h. Emergency electrical power system including generator transfer switches, fuel tanks, and all auxiliaries

i. Other systems as required

j. Mounting details

.9 **Specifications**

a. Update the Specification Index.

b. Submit, at minimum, any six completed archi­tectural sections from Divisions 2 through 13, one completed mechanical section from Division 15, and one completed electrical section from Division 16. If Division 14 is used include 1 completed Section.

c. Update the remaining outline specifications in Divisions 2 through 16.

d. University will prepare its Bidding Documents including Specifications, Division 1.

.10 **Energy Analysis**

Update the Title 24 energy compliance computer simulation including require to achieve the energy efficiency specified in section 2.0.10. Submit California Energy Commission forms, certifying that the design complies with the code and the UC Green Building and Clean Energy Policy. The University, acting as the enforcement agency, is required to independently check the designs and certify that they are in com­pliance with the code. Any non-complying aspect of the design, as determined by University's Designated Administrator, shall be corrected by Design Professional before the design can be certified by the University.

**2.3.6 STRUCTURAL, Mechanical, AND Electrical Calculations**

Design Professional shall clearly list all design criteria, assumptions, and references used. Calculations shall be arranged in a clear manner and shall include schematic diagrams and spreadsheets where necessary together with information sufficient to show compliance with all applicable codes and design standards. Finally, calculations shall be checked and stamped by an engineer registered in the applicable discipline.

Submitted calculations shall include, but not be limited to:

.1 **Structural Calculations**

a. Preface with a statement outlining the basis for the structural design and indicating the manner in which the proposed building will resist vertical loads and horizontal forces.

b. Structural diagrams hall be accompanied by computations, stress diagrams and other pertinent data and shall be complete to the extent that calculations for individual structural members can be readily interpreted.

c. List assumed safe bearing pressures on soils and ultimate strengths of concrete.

d. Where unusual conditions occur, submit additional data as is pertinent.

.2 **Mechanical Calculations**

a. Heating and cooling load calculations.

b. Psychometric charts and air conditions.

c. Fan and coil sizing calculations and selection data.

d. Sizing calculations and selection data for chillers, boilers, cooling towers, heat exchangers, packaged air conditioners, etc.

e. Ductwork and pipe sizing calculations – include flows per room or coil, sizing method used and pressure drops.

f. Domestic/industrial hot water sizing calculations, including pump sizing.

g. Structural and seismic calculations for equipment supports (may be submitted with structural calculations).

.3 **Electrical Calculations**

a. Summary of electrical loads used in calculating transformer size.

b. Fault interruption calculations.

c. Point-by-point lighting analysis for all interior rooms and exterior areas showing light level contours graphically.

d. Structural and seismic calculations for equipment supports (may be submitted with structural calculations).

**2.3.7 UTILITY SHUT DOWN PLAN**

Design Professional shall provide a detailed Utility Shut Down Plan that identifies all utilities affected, how the utility is to be isolated, maximum allowable duration of interruption (if applicable) and the affected facilities for all major shut downs. Design Professional shall specify by-pass or temporary service if required to minimize disruption to the University.

**2.3.8 95% COMPLETE CONSTRUCTION DOCUMENTS**

Design Professional shall update the documents required for the 50% Construction Document submittal and provide additional drawings, details and all specification sections complete from Divisions 2 through 16.

.1 **Architectural Drawings**. Detail the anchorage of all fixed equipment.

.2 **Mechanical Drawings.** A sufficient level of detail shall be pro­vided to illustrate connections, routings, and other items in complex areas.

.3 **Electrical Drawings**. A sufficient level of detail shall be pro­vided to illustrate connections, routings, and other items in complex areas. All wiring shall be final-sized. Provide a schedule of feeder breakers or switches, locations of all circuits, details for other systems as required.

.4 **Soils and Materials Testing Recommendations**

The Design Professional shall provide written recommendations for construction phase testing and special inspections such as soils and materials testing, welding inspec­tions, and dewatering requirements.

**2.3.9 100% COMPLETE CONSTRUCTION DOCUMENTS**

Design Professional shall update the documents required for the 95% Construction Document submittal and provide additional drawings, details and specifications in sufficient detail as to be deemed 100% complete and buildable. Prior to submitting the 100% construction documents, Design Professional and Design Professional's consultants shall have thoroughly checked, coordinated, and revised all docu­ments to bring them to 100% completed level:

.1 **Contract Documents**. University will prepare Bidding Documents including Specifications Division 1. The University shall provide the Cover Page, Table of Contents, Advertisement for Bids, Project Directory, Instructions to Bidders, Supplementary Instructions to Bidders, Information Available to Bidders, Bid Form, Location Map(s), Geotechnical Engineering Report, Prevailing Wage Determinations, Qualifications Questionnaire, Bonds, Agreement, General Conditions, Supplemental Conditions, Equal Opportunity Documentation, Exhibits and Specifications, Division 1, General Requirements. The Design Professional shall provide or assist with the following documents:

a. Certification Page (prepared by the University, signed and stamped by the Design Professional)

b. Project Description (furnished by the Design Professional, prepared by the University)

c. Index to the Specifications (furnished by the Design Professional, prepared by the University)

d. Specifications, Divisions 2 through 16

e. List of Drawings (with dates; furnished by the Design Professional, prepared by the University).

**2.3.10** **letter of assurance**

Upon completing the 100% Construction Documents, Design Professional shall submit to the University a Letter of Assurance as described in the Quality Assurance Program in the Exhibits attesting that the documents are complete and ready to bid.

**2.3.11** **100 % BACKCHECK Construction Documents**

The 100% Backcheck submittal shall either incorporate any changes or corrections required by University or review agencies as a result of their review of the 95%, and 100% Construction Documents, or be accompanied by a written statement as to why such changes were not incorporated. University may reject Design Professional's explanation and require Design Professional to make the changes or corrections to the Construction Documents as previously requested by University.

**2.4 BIDDING PHASE**

**2.4.1 UNIVERSITY ADMINISTRATION**

The University shall administer and coordinate the following:

.1 Reproduction of all documents, including addenda

.2 Completing and placing the Advertisement for Bids

.3 Scheduling and coordination of pre-bid conference

.4 Receipt of questions from bidders and distribution of questions to the Design Professional

.5 Receipt of addenda documents from Design Professional

.6 Issuance of addenda

.7 Receipt of Bids

.8 Rejection of Bids

.9 Bidder Protests

.10 Contract Award and Execution

**2.4.2 PRE-BID CONFERENCE AND SITE VISIT** University’s Representative shall conduct, and Design Professional and Design Professional's consultants shall attend and participate in pre-bid conferences and pre-bid site visits with potential bidders to help identify questions that bidders may raise during the Bidding phase. Questions from prospective Bidders shall be collected by the University’s Representative during these conferences and job site visits. No questions shall be answered at these events which require interpretation, clarification or modifications of the Contract Documents.

**2.4.3 BIDDERS CALLS OR INQUIRIES** During the Bidding phase, University Representative (or designee) shall receive all requests for interpretation, clarification and modification from Bidders, and log in the date, time, and caller's name and question. This information shall be forwarded to the Design Professional. The Design Professionals and consultants are not to issue any verbal statements regarding the Bidding Documents.

The University’s Representative sets the deadline for receiving all requests for clarification or interpretation of the Bidding Documents (Refer to Advertisement for Bids and Supplementary Instructions to Bidders). Questions received after the deadline may be answered at the discretion of the University’s Representative.

**2.4.4 ADDENDA**

Interpretation, clarifi­cation, and modification of the Contract Documents shall be issued only in the form of an Addendum to the Contract Documents. Design Professional shall furnish the information required to the University for issuance of Addenda.

The Design Professional is responsible for receiving, reviewing, approving, coordinating, and incorporating addenda items received from its consultant(s) into a single addendum document prior to submitting this document to the University. Addenda shall be submitted to the University in the same format as the 100% complete drawings and specifications except as follows:

.1 In the Specifications all additions shall be shown in boldface and underlined or bold italics and all deletions shown in strikethrough.

.2 In the Drawings, all changes shall be “clouded.”

**2.4.5 PRE-AWARD CONFERENCE** Design Professional shall, if requested by the University, participate in a pre-award meeting to include review of Contractors’ submittals which are received with the signed Agreement of the Construction Contract.

**2.4.6** **integration of addenda items**

Design Professional shall provide to the University at the end of the Bidding Phase a conformed set of the Bidding Documents with changes identified as follows. In the Specifications all additions shall be shown in boldface and underlined or bold italics and all deletions shown in strikethrough. In the Drawings, all changes shall be “clouded.” Design Professional shall submit:

.1 One complete set in hardcopy format of Construction Drawings and Specifications that fully integrate all addenda items.

.2 One complete set on CD-ROM of Construction Drawings and Specifications that fully integrate all addenda items.

**2.4.7 SUBMITTAL LIST**

Design Professional shall submit, prior to the bid date, a complete list of all submittals required by the Contract Documents listed by individual specification sections.

**2.5 CONSTRUCTION PHASE**

**2.5.1 GENERAL**

The presence of University professional staff does not relieve Design Professional from performing the services required by the Executive Agreement.

**2.5.2 CONSTRUCTION MEETINGS**

.1 Pre-Construction Meeting. (Kick-off) The Design Professional may submit items to the University Representative for inclusion in the agenda.

.2 Construction Meetings. Construction meetings shall be held at the Project site as established in the Contract Documents and the Design Professional’s consultants shall attend as necessary.

**2.5.3 INTERPRETATIONS** Design Professional’s decisions or interpretations regarding the Contract Documents, or disputes arising out of the Contract Documents shall be issued by University’s Representative following University review, but shall be based upon Design Professional’s independent judgment. Information regarding, or changes to, the Contract Documents shall be issued by the University on the University’s forms (Letters of Instruction, Field Orders, and Change Orders).

**2.5.4 INSPECTION** Construction Phase inspection will be provided and paid for by University.

.1 Design Professional shall provide technical direction to, and interpretation of, the Contract Documents for inspectors and advise these inspectors of decisions rendered.

.2 The inspectors, acting under the direction of University’s Representative, shall:

a. Be responsible for milestone inspections (spot checks) to assess compliance with the requirements of the Contract Documents.

b. Prepare a written report following each milestone inspection. The inspector shall notify University’s Representative when work that does not comply with the Contract Document requirements is observed in the field. Observed instances of noncompliance shall be noted in the inspector's report.

c. Comment in subsequent inspector's reports on whether or not instances of noncompli­ance have been corrected.

d. Participate in punch list inspections for beneficial occupancy, substantial completion and final completion.

e. Assist University’s Representative in reviewing test and inspection results from testing laboratories. If University contracts for specialty inspection services, the inspector shall report the results of these inspections to University’s Representative.

f. Not authorize deviations from the Contract Documents.

g. Not advise or issue directions to contractor regarding any aspect of construction means, methods, techniques, sequences, or procedures or regarding safety programs in connection with the Project.

**2.5.5** **MATERIALS TESTING**

.1 University will contract with soils and materials testing laboratories upon Design Professional’s recommendations and as required by the Specifications.

.2 University’s Representative or the University Representative’s delegate shall coordinate the activities of Contractor and University's testing consultants.

**2.5.6 MATERIALS/COLOR SCHEDULE AND MATERIALS BOARDS**

Design Professional shall revise and update the materials/color schedule and materials boards, which were prepared during the Design Development Phase and updated during the Construction Document Phase, as necessary to reflect the actual manufacturers' products that have been submitted by Contractor and approved for use on the Project.

**2.5.7 COMMISSIONING PLAN** Design Professional shall review the Contractor's or the University’s Commissioning Plan for accurate incorporation of design intent.

**2.5.8 PUNCH LIST** Design Professional and Design Professional’s consultants shall review the construction with University Representative and Contractor when notified that the construction is substantially complete, and again when notified that the construction is fully complete. The Design Professional shall compile a punch list indicating any lack of compliance with contract document requirements and submit to the University’s Representative. University’s Representative, Design Professional, and Contractor shall also inspect the construction when Beneficial Occupancy is required by University or stipulated in the Contract Documents.

**2.5.9 REVIEW OF CONTRACTOR’S AS-BUILT DOCUMENTS** Design Professional shall review Contractor's As-Built Documents prior to or immediately following each contractor pay request submitted to verify that Contractor's work is in compliance with the Contract Documents. Design Professional shall initial any changes to the As-Built Documents made by Contractor.

Design Professional shall review Contractor's Final As-Built Documents and verify the University’s approval of the changes shown on the As-Built Documents prior to Design Professional's preparation of the final Record Documents.

**2.5.10 FINAL APPROVAL AND INSPECTION ACCEPTANCE**

The Design Professional and Design Professional's consultants shall:

.1 Assist University’s Representative to review contractor's guarantees, and operating data to assess compliance with the Contract Document requirements.

.2 Assist University’s Representative to assemble written guarantees, operating and maintenance instruction books, diagrams, and charts required of Contractor. University’s Representative is responsible for verifying that all required submittals have been received.

.3 Recommend final acceptance of the construction and shall advise University of the acceptability of the work performed by Contractor.

.4 Attend a final inspection and sign a Final Completion form.

**2.5.11 RECORD DOCUMENTS**

Any revisions or changes that have been made during construc­tion shall be incorporated in the Record Documents to show the As-Built condition of the work. The Record Documentsshall include the Contract Documents, contractor prepared shop, design, and layout drawings. The Record Drawings shall include all revisions and changes made during construction both as issued by the Design Professional and University and as recorded by the contractor during the course of the work. Merely supplementing the contract drawings with Change Orders and Field Directive documents stamped “AS-BUILT” is not acceptable. All changes must be transferred to the original drawings, including the revision of the CAD electronic files for the Drawings, to reflect a true “As-Built” condition. The electronic files and plots shall be labeled “RECORD DRAWING” with the appropriate date. The Design Professional shall submit an interim set of Record Drawings at the midpoint of construction incorporating all changes to date. The final Record Drawings shall be submitted to the University within 30 days of receiving the Contractor’s As-Built Drawings.