

ADDENDUM NO. A

January 4, 2019

PRE-BID DOCUMENTS

FOR

**SCHOOL OF MEDICINE CLINICAL SKILLS AND
SIMULATION SUITE**

PROJECT NO. 958091

CONTRACT NO. 958091-CMAR-2019-67



The following changes, additions, or deletions shall be made to the following documents as indicated for this Project; and all other terms and conditions shall remain the same.

1. **RFP COVER**

Replace the RFP Cover with the one issued in this Addendum.

2. **CM TABLE OF CONENTS**

Replace the CM Table of Contents with the one issued in this Addendum.

3. **LEVEL 2 INTERVIEW REQUIREMENTS**

Replace the Level 2 Interview Requirements with the one issued in this Addendum.

4. **SUPPLEMENTAL ORAL PRESENTATION QUESTIONS**

Replace and rename the Oral Presentation Questions form with the one issued in this Addendum.

5. **BEST VALUE QUESTIONNAIRE**

Add the Best Value questionnaire.

6. **INSTRUCTIONS TO BIDDERS**

Replace the Instruction to Bidders with the one issued in this Addendum.

7. **SUPPLEMENTARY INSTRUCTIONS TO BIDDERS**

Replace the Supplemental Instruction to Bidders with the one issued in this Addendum.

8. **BID FORM**

Replace the Bid Form with the one issued in this Addendum.

9. **GENERAL CONDITIONS**

Replace the General Conditions with the one issued in this Addendum.

10. **SUPPLEMENTARY CONDITIONS**

Replace the Supplementary Conditions with the one issued in this Addendum.

11. **ADD THE EXHIBIT TABLE OF CONTENTS AND THE FOLLOWING EXHIBITS:**

Exhibit 02	Certificate of Insurance
Exhibit 03	Payment Bond
Exhibit 04	Performance Bond
Exhibit 05	Application for Payment
Exhibit 06	Selection of Retention Options
Exhibit 07	Escrow Agreement for Deposit of Securities In Lieu of Retention and Deposit of Retention
Exhibit 08	Submittal Schedule
Exhibit 09	Cost Proposal
Exhibit 10	Field Order

Exhibit 11	Change Order/Contract Amendment
Exhibit 12	Subcontractor's Conditional Waiver and Release Upon Progress Payment
Exhibit 13	Subcontractor's Unconditional Waiver and Release Upon Progress Payment
Exhibit 14	Summary of Builder's Risk Insurance Policy
Exhibit 15	Bid Package Certification
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Exhibit 17	Key Personnel
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Exhibit 20	Letter of Bid Package Review
Exhibit 21	Bid Protest Procedures
Exhibit 22	Project Schedule
Exhibit 23	Self-Certification – Contractor/Subcontractor
Exhibit 24	CM Expanded List of Subcontractors
Exhibit 25	Report of Subcontractor Information
Exhibit 26	Final Distribution of Contract Dollars
Exhibit 27	Value Engineering Process
Exhibit 28	Certificate of Substantial Completion
Exhibit 29	CM/Contractor Claim Certification
Exhibit 30	Subcontractor Claim Certification
Exhibit 31	Conditional Waiver and Release Upon Final Payment
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Exhibit 33	Bid Subcontractor Packages Table of Contents
Exhibit 34	Notice of Completion

12. ADD THE FOLLOWING DIVISION 1 SPECIFICATIONS

01325	Schedule
01630	Product Options and Substitutions
01 100	Summary of Work
01 1400	Work Restrictions
01 2300	Alternates
01 2613	Request for Information & Instructions (RFI) Procedures
01 3113	Coordination
01 3119	Project Meetings
01 3200	Document Control
01 3280	Electronic Data Transfer
01 3300	Submittals
01 3520	Design Assist Procedures
01 3543	Environmental Procedures
01 3546	Indoor Air Quality Procedures & Requirements
01 4100	Regulatory Requirements
01 4200	References
01 4300	Inspection of Work
01 4339	Mockups
01 4500	Quality Control
01 4516	Contractor's Quality Control
01 5100	Temporary Utilities
01 5200	Construction Facilities
01 5300	Temporary Construction
01 5400	Construction Aids
01 5500	Vehicular Access and Parking
01 5600	Temporary Barriers and Enclosures

- 01 5639 Tree and Plant Protection
- 01 5700 Temporary Controls
- 01 6000 Product Requirements
- 01 7100 Examination and Preparation
- 01 7329 Cutting and Patching
- 01 7400 Cleaning and Waste Management
- 01 7700 Contract Closeout
- 01 7839 As-Built Documents
- 01 8113 Sustainable Design Requirements
- 01 9113 General Commissioning Requirements

13. REQUEST FOR INFORMATION

BID RFI No.	QUESTIONS / ANSWERS
1-1	<p>Question: Bid Form Section 8.0 (page 4), Section 8.0 of the bid form states that we are to refer to Division 1 specification for further detail on Alternate No. 1 and Alternate No. 2. No Division 1 Specifications are provided in the RFP Documents. Please provide.</p> <p>Answer: See this Addendum No. A for missing documents.</p>
1-2	<p>Question: CO Programming Report (Information Available to Bidders) Kickoff Meeting Minutes, Is the cost estimate referenced on CO Meeting Minutes from 10/8/18 meeting "INTRODUCTION" bullet point 2 available for review?</p> <p>Answer: No.</p>
1-3	<p>Question: CO Programming Report (Information Available to Bidders) Kickoff Meeting Minutes. Is phasing and night and weekend work required as referenced on CO Meeting Minutes from 10/8/18 meeting (issued 10/12/18) "GENERAL" last bullet point? If so please provide phasing and work hours.</p> <p>Answer: Phasing and alternate work hours will be part of this project, see Division 1, Section 01 1400, Work Restrictions.</p>
1-4	<p>Question: General Conditions. Line 1.1.10 "CM/CONTRACTOR BASE FEE" (page 4 of 54) outlines the items that are considered part of CM/Contractor Base Fee. General Liability Insurance, DIC for Builders Risk Insurance and General Contractor Bond are not listed as part of the VM/Contractor Base Fee. Please confirm that those charges are to be billed separately per line 7.3.2.9 of the General Conditions.</p> <p>Answer: The following specify what to include in CM/Contractor's Option Sum - Phase 2: Articles 1.2, D. and E. of the Announcement to Level 2 Prequalified Bidders, Article 1.1.10 and 1.1.32 of the General Conditions, and Exhibit, Scope of Work. Article 7 of the General Conditions speaks to Changes in the Work/Change Orders only, do not mix the two when compiling your Phase 2 Fee. The University provides Builders Risk Coverage for all projects over \$300,00, refer to Builders Risk Exhibit issued in this Addendum.</p>
1-5	<p>Question: General Conditions. General Conditions line 1.1.32 "GENERAL CONDITIONS WORK" (page 7 of 54) references items required by the exhibits. No exhibits are attached. Please provide.</p> <p>Answer: See this Addendum No. A for missing documents.</p>

<p>1-6</p>	<p>Question: General Conditions. General Conditions line 3.8.3 (page 13 of 54) references Key Personnel Exhibit. This exhibit is not attached. Please provide. If there are minimum staffing requirements please stipulate.</p> <p>Answer: See this Addendum No. A for missing documents, also refer to Scope of Work Exhibit issued in this Addendum No. A.</p>
<p>1-7</p>	<p>Question: General Conditions. Line 16.4.1. "BID PACKAGES" (page 54 of 54). Please confirm that General Contractor Insurance and Bond are to be added to each bid package as they are incorporated into the project and those costs are NOT included in the Phase 2 Option Sum.</p> <p>Answer: Please refer to General Conditions 16.4.1, and Announcement to Level 2 Prequalified Bidders. In essence, the University does not pay for a "mark-up" of any kind on any bid packages/costs until the Maximum Contract Amount is exceeded. Also refer back to answer in RFQ 1-4 for additional information.</p>
<p>1-8</p>	<p>Question: RFQ - Sample Contracts. Please clarify the purpose of the sample contract for design services included in the RFP.</p> <p>Answer: Sample provided for informational purposes only.</p>
<p>1-9</p>	<p>Question: RFP Due Dates. Please confirm the due date of the Best Value Questionnaire? The Cover Page (pg. 1 of the PDF) of the RFP indicates January 29, 2019 by 2:00PM. However page 2 of the "Advertisement" (pg. 44 of the PDF) indicates Jan 11, 2019 by 3:00PM.</p> <p>Answer: See revised Cover Page issued in this Addendum. Best Value Questionnaires are due January 11, 2019 on or before 2:00 P.M.</p>
<p>1-10</p>	<p>Question: Best Value Questionnaire. Please provide a letter designation for the Section named "Managing and Coordination with Trade Partners"</p> <p>Answer: See revised Best Value Questionnaire issued in this Addendum.</p>
<p>1-11</p>	<p>Question: Best Value Questionnaire. Section C under Management Competency - Please clarify if you would like this information of each individual's resume?</p> <p>Answer: Yes, in addition to completing the appropriate section in the questionnaire.</p>
<p>1-12</p>	<p>Question: Best Value Questionnaire. Do you want the word document Best Value Questionnaire included in the RFP to be filled out and submitted with supporting documentation or is it ok to answer each of the required sections in a the proposal and not include the provided Questionnaire?</p> <p>Answer: Provide the completed questionnaire with supporting documentation properly labeled.</p>
<p>1-13</p>	<p>Question: If a member of our team who was listed on the prequalification is no longer available for this project, what do we do?</p> <p>Answer: Provide a letter and resume detailing relatable project experience; University will provide authorization if newly identified member is accepted.</p>

END OF ADDENDUM

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Oral Presentation Questions

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Exhibit 15 Bid Package Certification

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Division 1 Specifications

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BEST VALUE EVALUATION QUESTIONNAIRE

Total Points Available – 1000

INSTRUCTIONS

Bidders shall submit responses to this Best Value Questionnaire by responding to the following questions and shall attach all required documents and information as indicated below.

Provide six (6) sets of this document in binders organized with tabs per each section and subsections and PDF format file with bookmarks for each section and subsection). For Safety Program under Item #5, submit one (1) hard copy ONLY. Type size shall be no smaller than 11 point, except within exhibits/graphics. Also, refer to submission requirements in the Instructions to Bidders, Article 5.3 (Submission of Bids).

If, prior to bid opening, a CM Contractor does not earn a minimum of 650/1000 quality points, then this shall result in a determination by the University that such CM Contractor is non-responsive based on quality of Best Value submittals and its Bid shall be rejected by the University. The interview will allow each potential CM to earn an additional 100 points that will bring the maximum to 1100 points possible. Thereafter, to determine the Best Value Contractor, the University shall divide each remaining qualified Bidders' price by its respective qualifications scores. The lowest resulting cost per quality point will represent the Best Value Bid.

1. FINANCIAL CONDITION Total Possible Points – ~~100~~ 150

Provide the following information regarding your financial condition.

Current assets	\$ _____
Current liabilities	\$ _____
Total Revenue	\$ _____
Net Income	\$ _____
Total Debt	\$ _____
Total Assets	\$ _____
Total net worth	\$ _____

To verify the foregoing information, each Bidder shall also submit a copy of its latest financial statements as well as that of its most recently audited financial statements either reviewed or audited in accordance with Generally Accepted Accounting Principles. **NOTE: Only a financial statement that is reviewed or audited will be acceptable. Failure to submit a financial statement that is reviewed or audited will deem the CM Contractor's submittal as non-responsive.**

Note: The Confidentiality of private financial information will be protected to the extent allowed by law. The financial statements required above may be placed in a separate sealed envelope marked confidential and addressed to **Betty Osuna, UCR Contracts Administration**. If you wish to have this document returned to you, please indicate as much.

2. RELEVANT EXPERIENCE

Total Possible Points: 150

Provide detailed information on **two (2) projects of similar scale, scope and complexity** to the **School of Medicine Clinical Skills and Simulation Suite** Project described in this document. Each project must have been a minimum of **\$5M** in construction cost at the time of its completion and ***substantially completed*** by your firm **within the last 10 years**. The projects submitted will be scored based on the similarities to the proposed **School of Medicine Clinical Skills and Simulation Suite** project, which will have components as follows:

School of Medicine Clinical Skills and Simulation Suite Summary Program: Demolition, Mock-exam rooms, Standardized patient staging area, multiple simulation rooms, wet and dry instructional spaces, control rooms with AV-IT needs, and other support spaces necessary for the full functioning of the suite. Total Area: 12,924 GSF.

A. **Bidder shall provide the following information for each project** (all documents shall be double-sided, and each side shall count as one page):

i. General project Information:

Submitted project information shall be no more than one page per project.

- a. Project name:
- b. Location:
- c. Name of Owner and current contact information:
- d. Contract completion date:
- e. Actual completion date:
- f. Total construction duration in calendar days:
- g. Project delivery method:
- h. GSF:
- i. Construction cost - contract amount:
- j. Construction cost - final amount:
- k. Change order rate - % (if over 5%, provide explanation):
- l. Project Management personnel (including Project Executive, Project Manager, Preconstruction Manager and Project Superintendent):

ii. Type and scope of project:

Indicate the type of project using descriptive words such as renovation, new construction, Site Utilities, Indoor Dining, Kitchen Renovation, Meeting Rooms, Restrooms, Theater, and Demolition, etc. Describe in detail all aspects of the construction work scope, including but not necessarily limited to underground civil infrastructure, HVAC, electrical, plumbing, steam, fire protection, etc.

iii. Description of project similarities:

Compare similarities in construction with proposed UCR's **SCHOOL OF MEDICINE CLINICAL SKILLS AND SIMULATION SUITE**.

- iv. Specific challenges:
 Describe any specific challenges that had to be overcome during the design and construction process and how they were resolved. Based on those challenges, describe how your approach to managing design and construction-related activities will differ for UCR's **SCHOOL OF MEDICINE CLINICAL SKILLS AND SIMULATION SUITE**.
- v. Management Responsibilities:
 Describe the firm's role in managing the CM at Risk subcontractors and the process used to coordinate between the Architect, Contractor and the subcontractors, and how the implementation affected the production, cost, quality, and schedule of the project.
- vi. Building System Complexities
 Describe the complexity of the building systems similar to the proposed **SCHOOL OF MEDICINE CLINICAL SKILLS AND SIMULATION SUITE**, e.g., complex exterior walls and MEP systems. If your firm considers the building systems complex, describe the systems.
- vii. Standardization and Modularity:
 Describe the firm's role in managing the construction supply chain in order to reduce project lead time through the standardization of products and/or modularization of products and components. More specifically, explain how the CM at Risk team eliminated unwanted variations while maximizing value.
- viii. Off-site fabrication:
 Describe whether or not the firm implemented off-site fabrication on relevant projects. Explain the decision making system implemented to proceed with off-site fabrication or its alternative(s). Include the lessons learned from proceeding with the decision.

Project narrative shall be submitted in the form of attachments to this document. Presented information shall follow the same outline format as this document using no more than ten (10) standard pages per project, minimum font size: 12. Photos, diagrams, sketches, and organizational charts, total of 15 pages.

B. Projects will be scored on how closely they meet the following criteria:

- i. Project(s) that fully meet the criteria delineated in Item 2 (Relevant Experience) will be scored favorably.
- ii. Complexity of the work with an emphasis on Medical Clinic and/or Teaching/Research laboratory will be scored favorably.
- iii. Projects that have included the successful development of CM at Risk packages, management of CM at Risk subcontractors, and coordination with the Design Professional and the University's Separate Consultants will be evaluated and scored favorably.

- iv. Projects with management personnel and the core team proposed under Item 3 (Management Competency) section will be evaluated favorably.
- v. Projects that were completed at University of California, Riverside with proposed personnel under Item 3 will be scored favorably.
- vi. Projects that were successfully completed under critical constraints (e.g., urban setting, accelerated schedule, multiple stakeholders, etc.) will be scored favorably.
- vii. Projects that were successfully completed while facing specific challenges that were overcome due to the experience and expertise of project management and implementation of techniques to increase collaboration and address issues will be scored favorably.

3. MANAGEMENT COMPETENCY

Total Possible Points: 400

A. Management and Staffing Plan

Submit a “Management and Staffing Plan” that clearly shows on-the-job time commitments during the pre-construction and construction periods and for the period from substantial completion to final acceptance. The Management and Staffing Plan shall include all information requested below in Items 3.B through 3.J. Staffing plans must meet the minimum requirements outlined in The Scope of Work. Staffing plans which include additional on-the-job commitments and positions in excess of the minimum requirements should be clearly outlined. **Staffing plans that do not meet the minimum requirements will deem the CM Contractor’s submittal as non-responsive.**

B. Project Team Organization

i. Provide an organizational chart:

The chart should identify by name and title all of the proposed key personnel of each team component. Bidders proposing multiple members of the management personnel that have previous experience working at UCR and with each other on relevant projects submitted in Section 2 above will score favorably.

ii. Resumes:

Submit resumes demonstrating qualifications, training, and experience for the key personnel who will be assigned to this project.

a. **Project Executive**

- Provide specific information regarding experience with supporting the utilization of the CM at Risk delivery required in the UCR Agreement.
- Prior work experience at UCR preferred.

b. **Project Manager**

- Provide specific information regarding experience with managing projects that utilized the CM at Risk delivery required in the UCR Agreement.
- Provide information on experience in the Development of Built In Quality Programs and Plans.
- Prior work experience at UCR preferred.

c. **Pre-Construction Manager**

- Provide specific information regarding experience with managing projects that utilized CM at Risk delivery required in the UCR Agreement.
- Include experience in support of the assembly of bid packages within the project budget.
- Provide information on experience in the Development of Built In Quality Programs and Plans

d. **Estimator**

- Provide specific information regarding experience with managing projects that utilized the CM at Risk delivery required in the UCR Agreement, and to support the assembly of cost estimates within the project budget.

e. **Project Scheduler**

- Provide specific information regarding experience with projects that utilized the CM at Risk delivery required in the UCR Agreement and the use of systems to develop and track the project schedule. Provide – if any – information regarding experience with schedule optimization.

f. **MEP/BIM Coordinator**

- Provide specific information regarding experience with managing projects that utilized the CM at Risk delivery required in the UCR Agreement, supporting the analysis and coordination of the appropriate building systems. Also, information about experience with collaborating with manufacturers to manage off-site fabrication will be scored favorably.
- Provide specific information regarding experience structuring Project Information Systems and managing projects that utilized BIM for design and engineering, clash detection, analysis of construction phasing and coordination, integration of cost modeling and use of outside tools such as Virtual Design and Construction (VDC), Total Station Layout, BIM 360 or other software, Laser Scanning, etc.

g. Construction Field Superintendents

- Provide specific information regarding experience managing projects that utilized the CM at Risk delivery required in the UCR Agreement, and, in particular, use of visual management tools to track progress and coordinate work. Provide information regarding experience with use of outside tools such as Virtual Design and Construction (VDC), Total Station Layout, BIM 360 or other software, Laser Scanning, or other technological tools to help plan and manage work in the field.

h. Project Engineer(s)

- Provide specific information regarding experience with managing projects that utilized the CM at Risk delivery required in the UCR Agreement, and, in particular, systems to develop and track the project schedule. Information about how the Project Engineers tracked progress, and visually communicated it to the team on a weekly basis will be scored favorably.

i. Safety Coordinator

- Provide specific information regarding experience with projects that utilized the CM at Risk delivery to assist in the early identification of potential hazards and mitigation of safety incidents. The Safety coordinator should hold a certification issued by the Board of Certified Safety Professionals (CSP, OHST, CHST or STSC) and be responsible for application of sophisticated and proactive training plans while maintaining a safety program based on proactive management principles.

C. Questions for the Project Team proposed in response to Item 3.B.ii

Projects references submitted below, where members of the management personnel that have previous experience working at UCR and with each other as well as being consistent with the relevant projects submitted in Section 2 above, will score favorably

- a. Have you personally completed two or more projects where Pull Planning was the primary process used for creating and updating the project schedule?
- Yes No

If yes, provide the project name, owner, and construction cost:

Project _____

Owner _____
 Construction Cost _____
 Project Duration _____
 Exceeded Schedule Requirements Yes No

Project _____
 Owner _____
 Construction Cost _____
 Project Duration _____
 Exceeded Schedule Requirements Yes No

- b. Have you personally completed one or more Medical Clinic and/or Teaching/Research laboratory projects?
 Yes No

If yes, provide the project name, owner, and construction cost:

Project _____
 Owner _____
 Construction Cost _____
 Project Duration _____
 Exceeded Schedule Requirements Yes No

- c. Have you personally completed one or Medical Clinic and/or Teaching/Research laboratory projects at UCR's Campus?
 Yes No

If yes, provide the project name, owner, and construction cost:

Project _____
 Owner _____
 Construction Cost _____
 Project Duration _____
 Exceeded Schedule Requirements Yes No

D. Relationship with UCR

Describe how your team will fulfil this relationship with UCR, and your commitment to a successful partnership and project delivery:

- i. Describe how your team will work with the University's project team.
- ii. Describe how your team will work with University stakeholders.

E. Relationship with the University's Design Professionals and other Partners

Describe how you will collaborate with the Design Team and other partners, such as the University's elevator contractor and furniture provider, to ensure the successful project delivery:

- i. Describe your roles, responsibilities and relationship with the Design Team and other business partners and vendors during Phase 1 (pre-construction).

- ii. Describe your roles, responsibilities and relationship with the Design Team and other business partners and vendors during Phase 2 (construction).

F. Managing Design and Preconstruction Services:

- i. Provide a short narrative that describes how you will manage Design and Preconstruction Services, with the application of the Plan, Do, Check, Adjust (PDCA) Cycle. Summarize your use of the “Plan” portion of the cycle during the Design and Preconstruction phase and how that planning and lessons evolve in to learning pathways which shape the “Do, Check and Adjust” aspect of the cycle.
- ii. Describe how you will incorporate the use of set based design combined with 4-D and 5-D analysis to allow for better decision making and more efficient constructability reviews.
- iii. Outline how you will address the need to collocate with the project team in the interim period before the Big Room is constructed.
- iv. Provide a preliminary site logistics plan outlining initial thoughts on use of the site for such items as site deliveries, laydown space, hoisting, parking, coordination with other projects in the area, etc.
- v. Provide a preliminary summary of what you feel the main challenges and risks are with project and initial thoughts on how to mitigate those risks.

G. Target Value Design/Set Based Design

- i. Outline your approach to support decision making on this project, and what decision documents will be utilized to analyze design and construction options.
- ii. Provide a summary of your approach to creating and implementing a Target Value Design and Construction Framework based on the information within bidding documents.
- iii. Provide a summary and associated tools you plan to utilize to understand the total cost of ownership and life cycle costs, and how they will be applied to the project.

H. Managing Contract Schedule

- i. Describe how your firm will develop the baseline schedule for this project and keep it updated. Based on the PDCA Cycle, outline how the planning in the Design and Pre-Construction Phase of the contract will utilize tools to inform in the development of the schedule and how those planning efforts will feed into the execution of a final construction schedule for the “Do Check and an Adjust” portion of the cycle.
- ii. Provide a Preliminary contract schedule outlining timeframes for inclusion of proposed trade partners in order to accelerate participation of a complete team as soon as possible. Include proposed timelines for phasing of Deferred Approvals Packages, and organization of trade subcontractor’s scope into Bid Packages to accelerate construction timeframes.
- iii. Describe how you will implement an overall program to include scheduling processes and other related weekly work plan tools to track Percent Complete in the Design and Construction phases. Describe your firm’s mitigation measures when there are potential issues with schedule as well as lack of participation and/or false information.

I. Managing and Coordination with Trade Partners

- i. Provide a short narrative that describes how you will manage trade partners in a phased design and construction process to facilitate applications of lessons learned to improvements in project design and construction processes.
- ii. Provide a draft of Subcontractors and trade partners Bid Packages for immediate execution post-award. Include draft Best Value Questionnaires for each Bid Package. Discuss why these recommendations are important to the successful execution of this project and the factors which define the minimum amount of time required to execute these packages. (Best Value Questionnaire Sample http://www.ucop.edu/construction-services/files/facman/contracts/BV.1_Questionnaire.docx)(?)
- iii. Outline how you intend to organize Deferred Approvals Packages, and organize trade subcontractor's scope into Bid Packages to increase efficiency, support collaboration and leverage the experience of specific trade subcontractors.
- iv. Describe how you intend to structure the Pre Construction and Construction Phase of the contract utilizing tools in the contract to coordinate Trade Partners and identify conflicts during the Planning portion of the PDCA cycle.
- v. Summarize how you will leverage integration of the Contractors in the Pre-Construction phase will lead to opportunities for advanced production management and the efficiencies that would result from processes such as offsite fabrication, modularity, etc. in the Construction phase.(?)

J.I. Management Competency Evaluation:

The Management and Staffing Plan will be reviewed and scored based on the following criteria and any noted items specified above.

- iv. The firm's understanding, readiness and commitment to properly manage the **SCHOOL OF MEDICINE CLINICAL SKILLS AND SIMULATION SUITE** project in accordance with the requirements of the Contract.
- v. The firm's demonstrated experience and readiness in managing preconstruction and design services, subcontractors, contract schedules, construction costs and quality assurance programs to achieve Project Objectives.
- vi. The firm's demonstrated experience and readiness in implementing tools in project delivery in accordance with the requirements of the Contract.
- vii. The strength, experience, and work history of the personnel that will be assigned to the team and time commitment to this project. Firms that propose management personnel with prior experience where members of the management personnel that have previous experience working at UCR and with each other, as well as being consistent with the relevant projects submitted in Section 2 above, will be scored favorably.

4. **LABOR COMPLIANCE**

Total Possible Points – ~~100~~ 150

- A. Provide the **name, address and telephone number** of the apprenticeship program (approved by the California Apprenticeship Council) from whom Bidder intends to request the dispatch of apprentices to Bidder for use on the Project.

Name _____

Address _____

Telephone Number _____

If Bidder operates its own State-approved apprenticeship program, state the year in which each such apprenticeship program was approved, and attach evidence of the most recent California Apprenticeship Council approval(s) of Bidder's apprenticeship program(s).

- B. At any time during the last five (5) years, has Bidder been found to have violated any provision of California apprenticeship laws or regulations, or the laws pertaining to use of apprentices on public works?

Yes No

If yes, provide the date(s) of such findings, and attach copies of the Department's final decision(s).

- C. During the last five (5) years, was Bidder required to pay either back wages or penalties for Bidder's failure to comply with the State's prevailing wage laws?

Yes No.

If yes, identify the violation by providing the project name, date of the violation, name of the entity (or entities), a brief description of the nature of the violation, and a brief description of the status of the violation (pending, or if resolved, a brief description of the resolution).

5. SAFETY RECORD

Total Possible Points 100 ~~150~~

A. Does your firm have a written Injury and Illness Prevention Program (IIPP) that complies with California Code of Regulations, Title 8, Sections 1509 and 3203?
 YES NO

B. Does your firm have a written safety program that meets CAL/OSHA requirements? Submit a copy of the safety program that will be applicable to this project.
 YES NO

C. Will your firm have personnel permanently assigned and dedicated to safety on this project?
 YES NO

If yes, state the names of all such personnel who will be assigned and individually list their specific duties. Please also attach resumes for such persons and include any certifications and safety related training received.

D. Have you had accidents, which resulted in a construction fatality, on any of your projects within the last five (5) years?
 YES NO

If yes, provide additional information. _____

E. Has CAL OSHA cited and assessed penalties against your firm for any “serious”, “willful” or “repeat” violations of its safety or health regulations in the last five (5) years?
 YES NO

If yes, provide additional information.

Note: If you have filed an appeal of a citation and the Occupational Safety and Health Appeals Board has not yet ruled on your appeal, you need not include information about it.

F. Attach EMR verification from State of California or from insurance company for each year listed below.
EMR Rating:
 Current year: _____
 Previous year: _____
 Year prior to previous year: _____

6. **INTERVIEW & ORAL PRESENTATION**

Total Possible Points 150

- A. See Level 2 Interview Requirements and Supplemental Oral Presentation Questions for formatting.
- i. Interview and Oral Presentation will be graded together.

Firms who do not provide all of the above information will be deemed non-responsive.

Level 2 Interview Requirements

Maximum 100 points to be evaluated in conjunction with the Supplemental Oral Presentation Questions

Introduction

The interview will be conducted by the entire Review Panel and will be structured as indicated below.

Presentation by Bidder

Each entity selected for the interview will be required to make a presentation. ~~concerning their Prequalification submittal.~~ The presentation will be approximately 30 minutes in duration during which the presenter(s) will address, as a minimum, the following areas:

1. Overall experience with construction of comparable projects that provides a basis for the determination that the Bidder is qualified to perform this Project. Expand upon the basic information provided in Level 1 to explain the nature of the past experience and how it relates to this Project. Provide specific examples from past projects that relate to or are similar in scope/complexity/design of the Project. Specifically address any projects where there were disputes/claims/delays and their resolution. Provide evidence of capability and effectiveness in the areas of (1) cost estimating during preconstruction in comparison with the ultimate construction cost, (2) constructability review (3) value engineering and (4) plan coordination.
2. The reasons for selecting the key members of the Project team, their past experience and the specific benefits this team brings to the University and this Project.
3. Anticipated major/significant schedule problems and proposed solutions.

There may also be specific supplementary questions and requests for additional documentation related to the above in the interview notification. **See document titled Supplemental Oral Presentation Questions reissued in Addendum No. A.**

At the conclusion of the presentation the members of the Review Panel will have an opportunity to ask questions of the Bidder. The questions are not necessarily limited to the items in the presentation but may cover any issue included in the Prequalification Questionnaire and any related subject. As one example, the references given and the projects listed in the responses will be verified and questions may arise as a result.

Bidder Team

The following members of the Bidder team must be present for the Interview:

Pre-Construction Manager
Project Manager
Superintendent
Project Engineer

Total Points Required for Prequalification

Bidders receiving 650 points or more out of a total of 1000 available will be allowed to submit a bid.
~~The oral presentation is worth a maximum 100 points, which will bring the total maximum points to 1100.~~



SUPPLEMENTAL ORAL PRESENTATION QUESTIONS

1. Present a site logistic plan. The plan should include access, staging, project trailers and project parking at a minimum. In your discussion, include a plan for contractor interruptions to campus pathways and how do you plan to address an active library.

ANSWER / COMMENTS:

2. Please describe what you think are the three biggest challenges to the School of Medicine Clinical Skills and Simulation Suite Project.

ANSWER / COMMENTS:

3. How will you manage the schedule of the School of Medicine Clinical Skills and Simulation Suite to proactively identify schedule challenges and how will you manage schedule recovery?

ANSWER / COMMENTS:

4. Please describe your how your team will use estimating to control the project budget at each stage of the design process.

ANSWER / COMMENTS:

5. Please outline a summary of your approach to creating and implementing a Target Value Design and Construction Framework based on the information within bidding documents. What additional information would have been helpful?

ANSWER / COMMENTS:

6. Please share with us your experience at significant value engineering efforts post-award. How did you assist with VE decisions? What cost impacts were experienced and how was the design influenced as a result of the VE effort?

ANSWER / COMMENTS:

7. Describe the structure you feel you will provide during the Pre-Construction phase. Please share your past experiences in CM-at-Risk projects. What worked well, what didn't?

ANSWER / COMMENTS:

8. Who on your team is most critical to the success of this project? How have you planned to support that person and those in support of that person to ensure success?

ANSWER / COMMENTS:

9. Please describe how you will incorporate the use of set based design combined with drawing analysis to allow for better decision making and more efficient constructability reviews?

ANSWER / COMMENTS:

10. Please describe your understanding of and approach to supporting the architectural quality of the project.

ANSWER / COMMENTS:

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ARTICLE 1 **DEFINITIONS**

1.1 Except as otherwise specifically provided, definitions set forth in the General Conditions or in other Contract Documents are applicable to all Bidding Documents.

1.2 The term "Addenda" means written or graphic instruments issued by University prior to the Bid Deadline which modify or interpret the Bidding Documents by additions, deletions, clarifications, or corrections.

1.3 The term "Alternate" means a proposed change in the Work, as described in the Bidding Documents which, if accepted, may result in a change to either the Contract Sum or the Contract Time, or both.

1.4 The term "Bid Deadline" means the date and time on or before which Bids must be received, as designated in the Advertisement for Bids and which may be revised by Addenda.

1.5 The term "Bidder" means a person or firm that submits a Bid.

1.6 The term "Bidding Documents" means the construction documents prepared and issued for bidding purposes including all Addenda thereto.

1.7 The term "Estimated Quantity" means the estimated quantity of an item of Unit Price Work.

1.8 As used in these Instructions to Bidders, the term "Facility" means the University's Facility office issuing the Bidding Documents.

1.9 The term "Option Sum - Phase 2" means the sum stated in the Bid for which Bidder offers to perform the Work for Phase 2 described in the Bidding Documents, but not including Unit Price items or Alternates.

1.10 The term "Planholder" means a person or entity known by the Facility to have received a complete set of Bidding Documents and who has provided a street address for receipt of any written pre-bid communications.

1.11 The term "Unit Price" means an amount stated in the Bid for which Bidder offers to perform an item of Unit Price Work for a fixed price per unit of measurement.

1.12 The term "Best Value" means a procurement process whereby the lowest responsible Bidder may be selected on the basis of objective criteria for evaluating the qualifications of Bidders with the resulting selection representing the best combination of price and qualifications.

1.13 42 As used in these Instructions to Bidders, the term "Business Day" means any day other than a Saturday, a Sunday, and the holidays specified herein, and to the extent provided herein, if the Facility or applicable office of the University is closed for the whole of any day, insofar as the business of that office is concerned, that day shall be considered as a holiday for the purposes of computing time in these Instructions to Bidders. Holidays include January 1st, the third Monday in January, the third Monday in February, the last Monday in May, July 4th, the first Monday in September, November 11th, Thanksgiving Day, December 25th, and every day designated by the University as a holiday.

ARTICLE 2
BIDDER'S REPRESENTATIONS

2.1 Bidder, by making a Bid, represents that:

2.1.1 Bidder has read, understood, and made the Bid in accordance with the provisions of the Bidding Documents.

2.1.2 Bidder has visited the Project site and is familiar with the conditions under which the Work is to be performed and the local conditions as related to the requirements of the Contract Documents.

2.1.3 The Bid is based upon the materials, equipment, and systems required by the Bidding Documents without exception.

2.1.4 At the time of submission of the Bid, Bidder and all Subcontractors, regardless of tier, have the appropriate current and active licenses issued by the State of California Contractors State License Board for the Work to be performed and any licenses specifically required by the Bidding Documents. If Bidder is a joint venture, at the time of submission of the Bid, Bidder shall have the licenses required by the preceding sentence in the name of the joint venture itself. The State of California Business and Professions Code, Division 3, Chapter 9, known as the "Contractor's License Law," establishes licensing requirements for contractors.

2.1.5 Bidder has read and shall abide by the nondiscrimination requirements contained in the Bidding Documents.

2.1.6 Bidder has the expertise and financial capacity to perform and complete all obligations under the Bidding Documents.

2.1.7 The person executing the Bid Form is duly authorized and empowered to execute the Bid Form on behalf of Bidder.

2.1.8 Bidder is aware of and, if awarded the Contract, will comply with Applicable Code Requirements in its performance of the Work.

2.1.9 Bidder agrees that every contractor and subcontractors at every tier will use a skilled and trained workforce, meaning all workers in an apprenticeable occupation in the building and construction trades are either skilled journeypersons or apprentices registered in a program approved by the Chief of the Division of Apprenticeship Standards of the Department of Industrial Relations ("Chief") and in compliance with the following provisions:

.1 For work performed on or after January 1, 2018, at least 40 percent of the skilled journeypersons employed to perform work on the project by every contractor and each of its subcontractors at every tier are graduates of an apprenticeship program for the applicable occupation.

.2 For work performed on or after January 1, 2019, at least 50 percent of the skilled journeypersons employed to perform work on the contract or project by every contractor and each of its subcontractors at every tier are graduates of an apprenticeship program for the applicable occupation.

.3 For work performed on or after January 1, 2020, at least 60 percent of the skilled journeypersons employed to perform work on the contract or project by every contractor and each of its subcontractors at every tier are graduates of an apprenticeship program for the applicable occupation.

.4 The requirements above shall not apply to work performed in the following occupations: acoustical

installer, bricklayer, carpenter, cement mason, drywall installer or lather, marble mason, finisher, or setter, modular furniture or systems installer, operating engineer, pile driver, plasterer, roofer or waterproofer, stone mason, surveyor, teamster, terrazzo worker or finisher, and tile layer, setter, or finisher.

.5 Apprenticeship occupations without Chief-approved apprenticeship programs prior to January 1, 1995 may satisfy the above thresholds with up to 50 percent skilled journeypersons who worked in those occupations before the Chief approved of an apprenticeship program.

.6 The apprenticeship graduation percentage requirements above are considered met if, in a calendar month, at least the percentage of skilled journeypersons meet the graduation percentage requirement, or the percentage of hours performed by skilled journeypersons meeting the graduation requirement is at least equal the required graduation percentage.

.7 The apprenticeship graduation percentage requirements do not need to be met if, during the calendar month, skilled journeypersons perform fewer than 10 hours of work on the contract.

.8 A subcontractor does not need to meet apprenticeship graduation percentage requirements if the subcontractor is not a listed subcontractor under California Public Contract Code Section 4104 or a substitute, and the subcontractor agreement does not exceed one-half of 1 percent of the price of the prime contract.

ARTICLE 3 **BIDDING DOCUMENTS**

3.1 COPIES

3.1.1 Bidders may obtain complete sets of the Bidding Documents from the issuing office designated in the Advertisement for Bids, for the sum stated therein, if any. Documents are only available in full sets and shall not be returned.

3.1.2 Bidders shall use a complete set of Bidding Documents in preparing Bids.

3.1.3 University makes copies of the Bidding Documents available, on the above terms, for the sole purpose of obtaining Bids for the Work and does not confer a license or grant permission for any other use of the Bidding Documents.

3.2 INTERPRETATION OR CORRECTION OF BIDDING DOCUMENTS

3.2.1 Bidder shall, before submitting its Bid, carefully study and compare the components of the Bidding Documents and compare them with any other work being bid concurrently or presently under construction which relates to the Work for which the Bid is submitted; shall examine the Project site, the conditions under which the Work is to be performed, and the local conditions; and shall at once report to University's Representative errors, inconsistencies, or ambiguities discovered. If Bidder is awarded the Contract, Bidder waives any claim arising from any errors, inconsistencies or ambiguities, that Bidder, its subcontractors or suppliers, or any person or entity under Bidder on the Contract became aware of, or reasonably should have become aware of, prior to Bidder's submission of its Bid.

3.2.2 Requests for clarification or interpretation of the Bidding Documents shall be addressed only to the person or firm designated in the Supplementary Instructions to Bidders.

3.2.3 Clarifications, interpretations, corrections, and changes to the Bidding Documents will be made by Addenda issued as provided in Article 3.5. Clarifications, interpretations, corrections, and changes to the Bidding Documents made in any other manner shall not be binding and Bidders shall not rely upon them.

3.3 PRODUCT SUBSTITUTIONS

3.3.1 No substitutions will be considered prior to award of Contract. Substitutions will only be considered after award of the Contract and as provided for in the Contract Documents.

3.4 SUBCONTRACTORS

3.4.1 Each Bidder shall list in its Bid, in the form of the CM/Contractor Expanded List of Subcontractors Exhibit, all first-tier Subcontractors that will perform work, labor or render such services as defined in Article 9 of the Bid Form for General Conditions Work. The CM/Contractor Expanded List of Subcontractors contains spaces for the following information when listing Subcontractors: (1) portion of the Work; (2) name of Subcontractor; (3) city of Subcontractor's business location; (4) California contractor license number. An inadvertent error in listing the California contractor license number shall not be grounds for filing a bid protest or grounds for considering the bid nonresponsive if the corrected contractor's license number is submitted in writing by, and actually received from the Bidder within 24 hours after the bid opening and provided the corrected contractor's license number corresponds to the submitted name and location for that subcontractor. The failure to provide the CM/Contractor Expanded List of Subcontractors or to list on the form any one of the items set forth above will result in the University treating the Bid as if no Subcontractor was listed for that portion of the Work and Bidder will thereby represent to University that Bidder agrees that it is fully qualified to perform that portion of the Work and shall perform that portion of the Work.

3.4.2 Subcontractors listed in the CM/Contractor Expanded List of Subcontractors shall only be substituted after the Bid Deadline with the written consent of University and in accordance with the State of California "Subletting and Subcontracting Fair Practices Act."

3.5 ADDENDA

3.5.1 Addenda will be issued only by University and only in writing. Addenda will be identified as such and will be mailed or delivered to all Planholders. At its sole discretion, the University may elect to deliver Addenda via facsimile to Planholders who have provided a facsimile number for receipt of Addenda.

3.5.2 Copies of Addenda will be made available for inspection wherever Bidding Documents are on file for inspection.

3.5.3 Addenda will be issued such that Planholders should receive them no later than 3 full business days prior to the Bid Deadline. Addenda withdrawing the request for Bids or postponing the Bid Deadline may be issued anytime prior to the Bid Deadline.

3.5.4 Each Bidder shall be responsible for ascertaining, prior to submitting a Bid, that it has received all issued Addenda.

3.6 BUILDER'S RISK PROPERTY INSURANCE

3.6.1 University will provide builder's risk property insurance subject to deductibles in the policy as required by the General Conditions if the Anticipated Contract Value exceeds \$300,000 at the time of award and the requirements of the Project are not excluded by such coverage. A summary of the provisions of the policy is included as an Exhibit to the Contract; the policy may be reviewed at the Facility office. Bidder agrees that the University's provision of builder's risk property insurance containing said provisions meets the University's obligation to provide builder's risk property insurance under the Contract and, in the event of a conflict between the provisions of the policy and any summary or description of the provisions contained herein or otherwise, the provisions of the policy shall control and shall be conclusively presumed to fulfill the University's obligation to provide such insurance.

ARTICLE 4 **PRE-BID CONFERENCE**

4.1 Bidder shall attend the Pre-Bid Conference at which the requirements of the Bidding Documents are reviewed by University, comments and questions are received from Bidders, and a Project site visit is conducted. University requires all Pre-Bid Conference attendees to arrive for the meeting on time and to sign an attendance list, which in turn is used to determine if Bidders meet this requirement. Any Bidder not attending the Pre-Bid Conference in its entirety will be deemed to have not complied with the requirements of the Bidding Documents and its Bid will be rejected.

ARTICLE 5 **BIDDING PROCEDURES**

5.1 FORM AND STYLE OF BIDS

5.1.1 Bids shall be submitted on the Bid Form included with the Bidding Documents. Bids not submitted on the University's Bid Form shall be rejected.

5.1.2 The Bid Form shall be filled in legibly in ink or by typewriter. All portions of the Bid Form must be completed and the Bid Form must be signed before the Bid is submitted. Failure to comply with the requirements of this Article 5.1.2 will result in the Bid being rejected as nonresponsive.

5.1.3 Bidder's failure to submit a price for any Alternate or Unit Price will result in the Bid being considered as non-responsive. If Alternates are called for and no change in the Option Sum - Phase 2 is required, indicate "No Change" by marking the appropriate box.

5.1.4 Bidder shall make no stipulations on the Bid Form nor qualify the Bid in any manner.

5.1.5 The Bid Form shall be signed by a person or persons legally authorized to bind Bidder to a contract. Bidder's Representative shall sign and date the Declaration included in the Bid Form. Failure to sign and date the declaration will cause the Bid to be rejected.

5.2 BID SECURITY

5.2.1 Each Bid shall be accompanied by Bid Security in the amount of 10% of the Anticipated Contract Value as security for Bidder's obligation to enter into a Contract with University on the terms stated in the Bid Form and to furnish all items required by the Bidding Documents. Bid Security shall be a Bid Bond on the form provided by University and included herein, or a certified check made payable to "The Regents of the University of California." When a Bid Bond is used for Bid Security, failure to use University's Bid Bond form will result in the rejection of the Bid. Bidder must use the Bid Bond form provided by the University or an exact, true and correct photocopy of such form. The Bid Bond form may not be retyped, reformatted, transcribed onto another form, or altered in any manner except for the purpose of completing the form.

5.2.2 If the apparent lowest responsible Bidder fails to sign the Agreement and furnish all items required by the Bidding Documents within the time limits specified in these Instructions to Bidders, University may reject such Bidder's Bid and select the next apparent lowest responsible Bidder until all Bids have been exhausted or University may reject all Bids. The Bidder whose Bid is rejected for such failure(s) shall be liable for and forfeit to University the amount of the difference, not to exceed the amount of the Bid Security,

between the amount of the Bid of the Bidder so rejected and the greater amount for which University procures the Work.

5.2.3 If a Bid Bond is submitted, the signature of the person executing the Bid Bond must be notarized. If an attorney-in-fact executes the Bid Bond on behalf of the surety, a copy of the current power of attorney bearing the notarized signature of the appropriate corporate officer shall be included with the Bid Bond. Additionally, the surety issuing the Bid Bond shall be, on the Bid Deadline, an admitted surety insurer (as defined in the California Code of Civil Procedure Section 995.120).

5.2.4 Bid Security will be returned after the contract has been awarded. Notwithstanding the preceding, if a Bidder fails or refuses, within 10 days after receipt of notice of selection, to sign the Agreement or submit to University all of the items required by the Bidding Documents, the University will retain that Bidder's Bid Security. If the Bid Security is in the form of a Bid Bond, the Bid Security will be retained until the University has been appropriately compensated; if the Bid Security is in the form of certified check, the University will negotiate said check and after deducting its damages, return any balance to Bidder.

5.2.5 University will retain the Bid Security of the successful Bidder until CM/Contractor has furnished the Performance and Payment Bonds required by Article 11 of the General Conditions.

5.2.6 If the Bidder is awarded the Contract and fails to furnish the Performance and Payment Bonds within 10 days of the University's issuance of the Notice of Intent, as required by Article 11 of the General Conditions, University may:

.1 Elect to not exercise its Option for Phase 2 and not award a contract for Construction Work to another contractor, in which case the CM/Contractor shall pay to the University, as liquidated damages, \$250,000, or

.2 Elect to not exercise its Option for Phase 2 and award a contract for the Construction Work to another contractor, in which case the CM/Contractor shall pay to the University, not to exceed the amount of the Bid Security, the difference between the amount of the Option Sum Phase 2 and the larger amount for which University procures the Work, plus liquidated damages at the rate specified in Article 6 of the Agreement, for each day of delay, beyond the 10 days for furnishing payment and performance bonds, in awarding a contract for the Construction Work to another contractor, or

.3 Elect to exercise its Option for Phase 2, after the CM/Contractor furnishes the payment and performance bonds, in which case the CM/Contractor shall pay to the University, not to exceed the amount of the Bid Security, liquidated damages at the rate specified in Article 6 of the Agreement, for each day of delay beyond the 10 days for furnishing payment and performance bonds.

5.3 SUBMISSION OF BIDS

5.3.1 The Bid Form, Bid Security, and all other documents required to be submitted with the Bid shall be enclosed in a sealed opaque envelope. The envelope shall be addressed to the office designated in the Supplementary Instructions to Bidders for receipt of Bids. The envelope shall be identified with the Project name, Bidder's name and address, and, if applicable, the designated portion of the Project for which the Bid is submitted. If the Bid is sent by mail, the sealed envelope shall be enclosed in a separate mailing envelope with the notation "SEALED BID ENCLOSED" on the face thereof.

5.3.2 Bids shall be deposited at the designated location on or before the Bid Deadline. A Bid received after the Bid Deadline will be returned to Bidder unopened.

5.3.3 Bidder shall assume full responsibility for timely delivery at the location designated for receipt of Bids.

5.3.4 Oral, telephonic, electronic (e-mail), facsimile, or telegraphic Bids are invalid and will not be accepted.

5.4 MODIFICATION OR WITHDRAWAL OF BID

5.4.1 Prior to the Bid Deadline, a submitted Bid may be modified or withdrawn by notice to the Facility receiving Bids at the location designated for receipt of Bids. Such notice shall be in writing over the signature of Bidder and, in order to be effective, must be received on or before the Bid Deadline. A modification so made shall be worded so as not to reveal the amount of the original Bid.

5.4.2 A withdrawn Bid may be resubmitted on or before the Bid Deadline, provided that it then fully complies with the Bidding Requirements.

5.4.3 Bid Security shall be in an amount sufficient for the Bid as modified or resubmitted.

5.4.4 Bids may not be modified, withdrawn, or canceled within 60 days after the Bid Deadline unless otherwise provided in Supplementary Instructions to Bidders.

ARTICLE 6 **CONSIDERATION OF BIDS**

6.1 OPENING OF BIDS

6.1.1 Bids which have the required identification as stipulated in Article 5.3.1 and are received on or before the Bid Deadline will be opened publicly.

6.2 REJECTION OF BIDS

6.2.1 University will have the right to reject all Bids.

6.2.2 University will have the right to reject any Bid not accompanied by the required Bid Security or any other item required by the Bidding Documents, or a Bid which is in any other way incomplete or irregular.

6.3 AWARD

6.3.1 University will have the right, but is not required, to waive nonmaterial irregularities in a Bid. If the University awards the Contract, it will be awarded to the responsible Bidder submitting the lowest responsive Bid as determined by University and who is not rejected by University for failing or refusing, within 10 days after receipt of notice of selection, to sign the Agreement or submit to University all of the items required by the Bidding Documents.

6.3.2 University will have the right to accept Alternates in any order or combination, unless otherwise specifically provided in the Bidding Documents. The opening of Bids and evaluation of Alternates will be conducted in accordance with a procedure that, at University's option, either (i) prescribes, prior to the time of Bid opening, the order in which Alternates will be selected or (ii) prevents, before the determination of the apparent low Bidder has been made, information that would identify which Bid belongs to which Bidder from being revealed to the representative of the University selecting the Alternates to be used in determining

the low Bidder. After determination of the apparent low Bidder has been made, University will publicly disclose the identity of each Bidder that submitted a Bid and the amount of each such Bid.

6.3.3 University will determine the low Bidder on the basis of the sum of the Option Sum – Phase 2 plus all Unit Prices multiplied by their respective Estimated Quantities as stated in the Bid Form, if any, plus the daily rate for Compensable Delay multiplied by the “multiplier” as stated in the Bid Form, plus the amounts of all Alternates to be included in the Contract Sum at the time of award.

The Contract Sum will be the sum of the Contract Sum-Phase 1 and the additive or deductive amounts for all Alternates that University has elected to be included in the Contract Sum as of the time of award.

6.3.4 The University will post the Bid results in a public place at the address where the Bids are received (unless another address is specified in the Bidding Documents).

6.3.5 University will select the apparent lowest responsive and responsible Bidder and notify such Bidder on University's form within 50 days (unless the number of days is modified in Supplementary Instructions to Bidders) after the Bid Deadline or reject all bids. Within 10 days after receipt of notice of selection as the apparent lowest responsible Bidder, Bidder shall submit to University all of the following items:

- .1 Three originals of the Agreement signed by Bidder.
- .2 Written certification from CM/Contractor's surety company that it has encumbered an amount equal to the Anticipated Contract Value less the Phase 1 Contract Sum.
- .3 Certificates of Insurance on form provided by University required under Article 11 of the General Conditions.
- .4 Names of all Subcontractors identified on the CM/Contractor Expanded List of Subcontractors with their addresses, telephone number, facsimile number, contact person, portion of the Work, California contractor license number, and designation of any Subcontractor as a Small Business Enterprise (SBE), Disadvantaged Business Enterprise (DBE), Women-owned Business Enterprise (WBE) and Disabled Veteran Business Enterprise (DVBE) on Report of Subcontractor Information in the form contained in the Exhibits. Evidence, as required by University, of the reliability and responsibility of the proposed Subcontractors such as statements of experience, statements of financial condition, and references.
- .5 If Bidder wishes to utilize securities in lieu of retention beginning with the first Application For Payment, Selection of Retention Options accompanied by a completed Escrow Agreement for Deposit of Securities in Lieu of Retention and Deposit of Retention in the form contained in the Exhibits.
- .6 Provide list of Key Personnel. See Exhibits.

6.3.6 Prior to award of the Contract, University will notify Bidder in writing, if University, after due investigation, objects to a Subcontractor or Key Personnel proposed by Bidder, in which case Bidder shall propose a substitute acceptable to University. Substitution of Key Personnel shall be made in accordance with Article 3 of the General Conditions. Substitution of a Subcontractor shall be made in accordance with Article 5 of the General Conditions Failure of University to object to a proposed Subcontractor or Key Personnel prior to award shall not preclude University from requiring replacement of Subcontractor or Key Personnel based upon information received subsequent to award, information which cannot be properly evaluated prior to award due to time constraints, or information relating to a failure to comply with the requirements of the Contract.

6.3.7 If Bidder submits three originals of the signed Agreement and all other items required to be submitted to University within 10 days after receipt of notice of selection as the apparent lowest responsive and responsible Bidder, and if all such items comply with the requirements of the Bidding Documents and

are acceptable to University, University will award the Contract to Bidder by signing the Agreement and returning a signed copy of the Agreement to Bidder.

6.3.8 If University consents to the withdrawal of the Bid of the apparent lowest responsive and responsible Bidder, or the apparent lowest responsive and responsible Bidder fails or refuses to sign the Agreement or submit to University all of the items required by the Bidding Documents, within 10 days after receipt of notice of selection, or that Bidder is not financially or otherwise qualified to perform the Contract, University may reject such Bidder's Bid and select the next apparent lowest responsible Bidder, until all Bids are exhausted, or reject all Bids. Any Bidder whose Bid is rejected because the Bidder has failed or refused, within 10 days after receipt of notice of selection, to sign the Agreement or submit to University all of the items required by the Bidding Documents, shall be liable to the University for all resulting damages.

ARTICLE 7 **BID PROTEST**

7.1 FILING A BID PROTEST

7.1.1 Any Bidder, person, or entity may file a Bid protest. The protest shall specify the reasons and facts upon which the protest is based and shall be in writing and received by the Facility not later than 5:00 pm on the 3rd business day following:

- .1 if the Bid Form does not contain any Alternate(s), the date of the Bid opening;
- .2 if the Bid Form contains any Alternate(s), the date of posting in a public place of Bid results.

7.1.2 If a Bid is rejected by the Facility, and such rejection is not in response to a Bid protest, any Bidder, person or entity may dispute that rejection by filing a Bid protest (limited to the rejection) in writing and received by the Facility not later than 5:00 pm on the 3rd business day following the rejected Bidder's receipt of the notice of rejection.

7.1.3 For the purpose of computing any time period in this Article 7, the date of receipt of any notice shall be the date on which the intended recipient of such notice actually received it. Delivery of any notice may be by any means, with verbal or written confirmation of receipt by the intended recipient.

7.2 RESOLUTION OF BID CONTROVERSY

7.2.1 Facility will investigate the basis for the Bid protest and analyze the facts. Facility will notify Bidder whose Bid is the subject of the Bid protest of evidence presented in the Bid protest and evidence found as a result of the investigation, and, if deemed appropriate, afford Bidder an opportunity to rebut such evidence, and permit Bidder to present evidence that it should be allowed to perform the Work. If deemed appropriate by Facility, an informal hearing will be held. Facility will issue a written decision within 15 days following receipt of the Bid protest, unless factors beyond Facility's reasonable control prevent such a resolution, in which event such decision will be issued as expeditiously as circumstances reasonably permit. The decision will state the reasons for the action taken by Facility. A written copy of the decision will be furnished to the protestor, the Bidder whose Bid is the subject of the Bid protest, and all Bidders affected by the decision. As used in this Article 7, a Bidder is affected by the decision on a Bid protest if a decision on the protest could have resulted in the Bidder not being the lowest responsible and responsive Bidder for the Contract. A written copy of the Facility's decision must be received by the protestor, the Bidder whose Bid is the subject of the Bid protest, and all Bidders affected by the decision no later than 3 business days prior to award of the contract.

7.2.2 Notwithstanding the provisions of Article 7.2.1, at the election of Facility, a Bid protest may be referred directly to University's Construction Review Board without prior investigation and review by Facility. The Chair of the Construction Review Board will either decide the Bid protest or appoint a Hearing Officer. If a Hearing Officer is appointed, the Hearing Officer will review the Bid protest in accordance with the provisions of Article 7.2.4.

7.2.3 Bidder whose Bid is the subject of the protest, all Bidders affected by the Facility's decision on the protest, and the protestor have the right to appeal to the Construction Review Board if not satisfied with Facility's decision. The appeal must be in writing and shall specify the decision being appealed and all the facts and circumstances relied upon in support of the appeal. A copy of the appeal must be received by the Chair, Construction Review Board, not later than 5:00 pm on the 3rd business day following appellant's receipt of the written decision of Facility, at the following address:

Chair, Construction Review Board
University of California
Office of the President
1111 Franklin Street, 6th Floor
Oakland, CA 94607-5200
Attention: Director, Construction Services
and constructionreviewboard@ucop.edu

A copy of the appeal must be sent to all parties involved in the Bid protest and to Facility, to the same address and in the same manner as the original protest. An appeal received after 5:00 pm is considered received as of the next business day. If the final date for receipt of an appeal falls on a Saturday, Sunday, or University holiday, the appeal will be considered timely only if received by 5:00 pm on the following business day. The burden of proving timely receipt of the appeal is on the appealing party.

7.2.4 The Chair of the Construction Review Board will review the Facility's decision and the appeal, and issue a written decision, or if appropriate, appoint a Hearing Officer to conduct a hearing and issue a written decision. If a hearing is held, the hearing shall be held not later than the 10th day following the appointment of the Hearing Officer unless the Hearing Officer for good cause determines otherwise. The written decision of the Chair or Hearing Officer will state the basis of the decision, and the decision will be final and not subject to any further appeal to University. The Chair or Hearing Officer may consult with the University's Office of the General Counsel on the decision as to legal form. The University will complete its internal Bid protest procedures before award of the Contract.

SUPPLEMENTARY INSTRUCTIONS TO BIDDERS

1. Contract Time:
 - A. The time allowed for Phase 1 – Pre-Construction Services is **160** days, the “Phase 1 Time.”
 - B. The time allowed for Phase 2 – Construction is **320** days, the “Phase 2 Time.”
 - C. The Design/Construction Overlap Duration is **0** days.
2. Contract Sum:

Contract Sum – Phase 1 is **\$120,000.00**
3. Anticipated Contract Value:
 - A. Anticipated Contract Value is \$6,300,000.00
 - B. Maximum Anticipated Contract Value is \$7,700,000.00
4. Requests for clarification or interpretation of the Bidding Documents are due on or before **3:00 P.M., January 2, 2019** shall be addressed only to:

Betty Osuna, Contracts Administrator
Architects & Engineers
1223 University Ave., Suite 240
Riverside, CA 92521
(951)827-4590
5. The Pre-Bid Conference will be conducted at the time, day, and place indicated in the Advertisement for Bids. (Attendance at Pre-Bid Conference is mandatory.)
6. Bids will be received on or before **2:00 P.M., January 29, 2019** only at:

Architects & Engineers
University of California, Riverside
1223 University Ave., Suite 240
Riverside, CA 92521
7. Bids will be opened at **2:00 P.M., January 29, 2019**, at:

Architects & Engineers
University of California, Riverside
1223 University Ave., Suite 210-16
Riverside, CA 92521
8. Liquidated damages will only apply if the University exercises its Option for Phase 2. CM/Contractor will be assessed as liquidated damages the sum of **\$ 1,200.00** for each day the Work remains incomplete beyond the expiration of the Contract Time. After Substantial Completion, the rate for liquidated damages shall be reduced to the sum of **\$600.00** per day. See Article 6 of the Agreement for detailed requirements.
9. Unit Prices: University is requesting unit prices on this project. Refer to Instructions to Bidders, Bid Form and Section 6.3.3 - Unit Prices.

5.2 MODIFICATION OF INSTRUCTIONS TO BIDDERS – BID SECURITY

- 5.2.1 Each Bid shall be accompanied by Bid Security, in the amount of 10% of the Anticipated Contract Value as security for Bidder's obligation to enter into a Contract with University on the terms stated in the Bid Form and to furnish all items required by the Bidding Documents. Bid Security shall be a Bid Bond on the form provided by University and included herein, or a certified check made payable to “The Regents of

the University of California.” When a Bid Bond is used for Bid Security, failure to use University's Bid Bond form, Version B, will result in the rejection of the Bid.

If the Bidder is the successful Bidder it will be required to submit, in addition to those items required by paragraph 6.3.5, three originals of its Payment and Performance Bonds in the amount of the Phase 1 Contract Sum. The Bid Bond Version B so submitted will be retained until the successful Bidder submits all required documents and the Contract has been awarded.

5.2.2 If the apparent lowest responsible Bidder fails to sign the Agreement and to furnish all items required by the Bidding Documents within the time limits specified in these Instructions to Bidders, University may reject such Bidder's Bid and select the next apparent lowest responsible Bidder until all bids have been exhausted or University may reject all bids. The rejected Bidder shall be liable for and forfeit to University the amount of the difference, not to exceed the amount of the Bid Security, between the amount of the Bid of the Bidder so rejected and the larger amount for which University procures the Work.

5.2.3 If the Bidder is awarded the Contract and fails to furnish the Performance and Payment Bonds, within 10 days of the University's issuance of the Notice of Intent, as required by Article 11 of the General Conditions, University may:

.1 Elect to not exercise its Option for Phase 2 and not award a contract for Construction Work to another contractor, in which case the CM/Contractor shall pay to the University, as liquidated damages, \$250,000, or

.2 Elect to not exercise its Option for Phase 2 and award a contract for the Construction Work to another contractor, in which case the CM/Contractor shall pay to the University, not to exceed the amount of the Bid Security, the difference between the amount of the Option Sum Phase 2 and the larger amount for which University procures the Work, plus liquidated damages at the rate specified in Article 6 of this Agreement, for each day of delay, beyond the 10 days for furnishing Payment and Performance Bonds, in awarding a contract for the Construction Work to another contractor, or

.3 Elect to exercise its Option for Phase 2, after the CM/Contractor furnishes the Payment and Performance Bonds, in which case the CM/Contractor shall pay to the University, not to exceed the amount of the Bid Security, liquidated damages at the rate specified in Article 6 of this Agreement, for each day of delay beyond the 10 days for furnishing Payment and Performance Bonds.

5.2.4 If a Bid Bond is submitted, the signature of the person executing the Bid Bond must be notarized. If an attorney-in-fact executes the Bid Bond on behalf of the surety, a copy of the current power of attorney bearing a notarized signature of the appropriate corporate officer shall be included with the Bid Bond. Additionally, the surety issuing the Bid Bond shall be, on the Bid Deadline, an admitted surety insurer (as defined in California Code of Civil Procedure Section 995.120).

5.2.5 Bid Security will be returned after the contract has been awarded. Notwithstanding the preceding, if a Bidder fails or refuses, within 10 days after receipt of notice of selection, to sign the Agreement or submit to University all of the items required by the Bidding Documents, the University will retain that Bidder's Bid Security. If the Bid Security is in the form of a Bid Bond, the Bid Security will be retained until the University has been appropriately compensated; if the Bid Security is in the form of certified check, the University will negotiate said check and after deducting its damages, return any balance to Bidder.

5.2.6 University will retain the Bid Security of the successful Bidder until CM/Contractor has furnished the Performance and Payment Bonds required by Article 11 of the General Conditions.

Section 5.3.1 in the Instructions to Bidders is replaced in its entirety with the following:

5.3.1 The Bid Form, Bid Security, and all other documents required to be submitted with the Bid except for the Best Value Evaluation Questionnaire shall be enclosed in a sealed opaque envelope. The Best Value Evaluation Questionnaire shall be enclosed in a second sealed opaque envelope. Both such envelopes shall be clearly labeled to differentiate the dollar bid envelope from the Questionnaire envelope and both envelopes shall be enclosed in another separate envelope. The envelope shall be addressed to the office designated in the Supplementary Instructions to Bidders for receipt of Bids. The envelope shall be identified with the Project name, Bidder's name and address, and, if applicable, the designated portion of the Project for which the Bid is submitted. If the Bid is sent by mail, the sealed envelope shall be enclosed in a separate mailing envelope with the notation "SEALED BID ENCLOSED" on the face thereof.

Section 6.3.2 in the Instructions to Bidders is replaced in its entirety with the following:

6.3.2 University will have the right to accept Alternates in any order or combination, unless otherwise specifically provided in the Bidding Documents. All Alternates will be included in determining the lowest responsible Best Value Bidder. The evaluation of Alternates to be elected for inclusion in the Contract will be conducted after the lowest responsible Best Value Bidder is selected. After determination of the apparent low Bidder, University will publicly disclose the identity of each Bidder that submitted a Bid and the amount of each such Bid.

Section 6.3.3 in the Instructions to Bidders is replaced in its entirety with the following:

6.3.3 University will determine the low Bidder on the basis of Best Value. The price component of the evaluation will be the sum of the Lump Sum Base Bid plus all Unit Prices multiplied by their respective Estimated Quantities as stated in the Bid Form, if any, plus the daily rate for Compensable Delay multiplied by the "multiplier" as stated in the Bid Form, plus the amounts of any Alternates used as a basis of award. The University will divide each bidder's price by its Qualification Points to determine the cost per quality point or the Best Value Score. The lowest Best Value Score will represent the Best Value Bid.

The Contract Sum will be the sum of the Lump Sum Base Bid and the additive or deductive amounts for all Alternates that University has elected to be included in the Contract Sum as of the time of award.

Article 7.1.1 in the Instructions to Bidders is replaced in its entirety with the following:

7.1.1 Any Bidder, person, or entity may file a Bid protest. The protest shall specify the reasons and facts upon which the protest is based and shall be filed in writing with the Facility not later than 3 business days after the date of announcement of the apparent Best Value Contractor.

DISCLOSURE – PUBLIC RECORDS ACT

Information submitted by the Bidder shall not be open to public inspection to the extent that information is exempt from disclosure under the California Public Records Act.

11. The California State General Prevailing Wage Determination for this Project is **2018-2**. Bidder is required to refer to the California Department of Industrial Relations website (<http://www.dir.ca.gov/OPRL/DPreWageDetermination.htm>) and confirm the correct Prevailing Wage Determination for this Project.

BID FORM

January 4, 2019

FOR: SCHOOL OF MEDICINE CLINICAL SKILLS AND SIMULATION SUITE
UNIVERSITY OF CALIFORNIA, RIVERSIDE
RIVERSIDE, CA

BID TO: ARCHITECTS & ENGINEERS
UNIVERSITY OF CALIFORNIA, RIVERSIDE
1223 UNIVERSITY AVE.
RIVERSIDE, CA 92521
TELEPHONE: (951)827-4590

BID FROM:

(Name of Bidder)

(Address)

_____, _____
(City) (State) (Zip Code)

(Telephone Number)

(Date Bid Submitted)

Note: All portions of this Bid Form must be completed and the Bid Form must be signed before the Bid is submitted. Failure to do so will result in the Bid being rejected as non-responsive.

BIDDER'S NAME: _____

1.0 BIDDER'S REPRESENTATIONS

Bidder, represents that a) it, and all Subcontractors, regardless of tier, have the appropriate current and active Contractor's license required by the State of California and the Bidding Documents; b) it has carefully read and examined the Bidding Documents for the proposed Work on this Project; c) it has examined the site of the proposed Work and all Information Available to Bidders; d) it has become familiar with all the conditions related to the proposed Work, including the availability of labor, materials, and equipment. Bidder hereby offers to furnish all labor, materials, equipment, tools, transportation, and services necessary to complete the proposed Work on this Project in accordance with the Contract Documents for the sums quoted; e) Bidder and all Subcontractors, regardless of tier, are currently registered with the California Department of Industrial Relations pursuant to California Labor Code Section 1725.5 and 1771.1. Bidder represents that the Key Personnel identified in its Prequalification submittal shall be the Bidder's personnel provided pursuant to the corresponding provisions of the contract, if the contract is awarded to the Bidder. Bidder further agrees that it will not withdraw its Bid within 60 days after the Bid Deadline, and that, if it is selected as the apparent lowest responsive and responsible Bidder, that it will, within 10 days after receipt of notice of selection, sign and deliver to University the Agreement in triplicate and furnish to University all items required by the Bidding Documents. If awarded the Contract, Bidder agrees to complete the proposed Work for Phase 1 within **160** days after the date of commencement specified in the Notice to Proceed and to complete the Work for Phase 2 within **320** days after the date for commencement specified in the Notice to Proceed if the University exercises its Option for Phase 2.

2.0 ADDENDA

Bidder acknowledges that it is Bidder's responsibility to ascertain whether any Addenda have been issued and if so, to obtain copies of such Addenda from University's Facility at the appropriate address stated on Page 1 of this Bid Form. Bidder therefore agrees to be bound by all Addenda that have been issued for this Bid.

3.0 CONTRACT SUM – PHASE 1

The Contract Sum at time of award will be the Phase 1 Contract Sum. See Supplementary Instructions to Bidders for value.

4.0 OPTION SUM – PHASE 2

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(Place figures in appropriate boxes.)

BIDDER'S NAME: _____

5.0 SELECTION OF APPARENT LOW BIDDER

Refer to the Instructions to Bidders for selection of apparent low bidder.

6.0 UNIT PRICES – NOT USED

7.0 DAILY RATE OF COMPENSATION FOR COMPENSABLE DELAYS

Bidder shall determine and provide below the daily rate of compensation for any Compensable Delay caused by University at any time during the performance of the Work for Phase 2. A Facility may choose a minimum compensable delay in the best interests of the Project. If so, use the language in parentheses { } and in grey highlight.

\$

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 X **30** multiplier

(Place figures in appropriate boxes.)

Failure to fill in a dollar figure for the daily rate for Compensable Delay shall be interpreted as a daily rate of "zero." University will perform the extension of the daily rate times the multiplier.

The daily rate shown above will be the total amount of Contractor entitlement for each day of Compensable Delay caused by University at any time during the performance of the Work and shall constitute payment in full for all delay costs, direct or indirect, of the CM/Contractor and all subcontractors, suppliers, persons and entities under CM/Contractor on the Project, including without limitation all subcontractors added by Contract Amendment. The number of days of Compensable Delay shown as a "multiplier" above is not intended as an estimate of the number of days of compensable delay anticipated by the University. The University will pay the daily rate of compensation only for the actual number of days of Compensable Delay, as defined in the General Conditions; the actual number of days of compensable delay may be greater or lesser than the "multiplier" shown above. Bidder shall not bid less than zero dollars for the daily rate (i.e, the daily rate cannot be a negative number.)

BIDDER'S NAME: _____

8.0 ALTERNATES

In order for a Bid to be responsive, Bidder must submit an additive bid, deductive bid, or a “no change” bid, for each Alternate listed below. Bidder shall mark the additive, deductive, or “no change” box for each Alternate Failure to do so shall result in the Bid being rejected as non-responsive. Failure to quote an amount, unless the Bidder marks the “no change” box, will result in the Bid being rejected as non-responsive.

The Contract Time will change by the number of days, if any, specified for each accepted Alternate.

Alternate No. 1

Provide pre-construction services: SOM ED Building & Office Conversion, as specified in Division 1 Specification.

Bid for Alternate No. 1

Indicate by marking only **ONE** of the three boxes (“Add,” “Deduct,” or “No Change”) and state the amount, if “Add” or “Deduct” are selected, by placing figures in the corresponding boxes.

Add \$, , •

Deduct \$, , ▪

No Change: Bidder will perform alternate without change to Option Sum – Phase 2

University reserves the right to accept this Alternate within **200** calendar days after the date of the Agreement.

Alternate No. 2

Provide Option Sum: SOM ED Building & Office Conversion, as specified in Division 1 Specification.

Bid for Alternate No. 2

Indicate by marking only **ONE** of the three boxes (“Add,” “Deduct,” or “No Change”) and state the amount, if “Add” or “Deduct” are selected, by placing figures in the corresponding boxes.

Add \$, , •

Deduct \$, , ▪

No Change: Bidder will perform alternate without change to Option Sum – Phase 2

University reserves the right to accept this Alternate within **200** calendar days after the date of the Agreement.

BIDDER'S NAME: _____

11.0 BIDDER INFORMATION

TYPE OF ORGANIZATION:

(Corporation, Partnership, Individual, Joint Venture, etc.)

If a corporation, corporation is organized under the laws:

STATE OF _____.
(State)

NAME OF PRESIDENT OF THE CORPORATION:

(Insert Name)

NAME OF SECRETARY OF THE CORPORATION:

(Insert Name)

If A PARTNERSHIP, NAMES AND TITLES OF PERSONS SIGNING THE BID ON BEHALF OF BIDDER AND ALL GENERAL PARTNERS:

PERSONS SIGNING ON BEHALF OF BIDDER:

(Insert Names and Titles)

ALL GENERAL PARTNERS:

(Insert Names)

CALIFORNIA CONTRACTORS LICENSE(S):

(Classification) (License Number) (Expiration Date)

(For Joint Venture, list Joint Venture's license and licenses for all Joint Venture partners.)

BIDDER'S NAME: _____

12.0 REQUIRED COMPLETED ATTACHMENTS

The following documents are submitted with and made a condition of this Bid:

1. Bid security in the form of _____.
(Bid Bond or Certified Check)
2. If "Yes" in 9.0 above, a completed CM/Contractor Expanded List of Subcontractors form.
3. If "Yes" in 10.0 above, a completed CM/Contractor Expanded List of Subcontractors form identified as "LIST OF CHANGES IN SUBCONTRACTORS DUE TO ALTERNATES".
4. 7. A completed Best Value Evaluation Questionnaire.

13.0 DECLARATION

I, _____, hereby declare that I am the
(Printed name)

_____ of _____
(Title) (Name of bidder)

submitting this Bid Form; that I am duly authorized to execute this Bid Form on behalf of Bidder; and that all information set forth in this Bid Form and all attachments hereto are, to the best of my knowledge, true, accurate, and complete as of its submission date.

I further declare that this bid is not made in the interest of, or on behalf of, any undisclosed person, partnership, company, association, organization, or corporation; that the bid is genuine and not collusive or sham; that the bidder has not directly or indirectly induced or solicited any other bidder to put in a false or sham bid, and has not directly or indirectly colluded, conspired, connived, or agreed with any bidder or anyone else to put in a sham bid, or that anyone shall refrain from bidding; that the bidder has not in any manner, directly or indirectly, sought by agreement, communication, or conference with anyone to fix the bid price of the bidder or any other bidder, or to fix any overhead, profit, or cost element of the bid price, or of that of any other bidder, or to secure any advantage against the public body awarding the contract of anyone interested in the proposed contract; that all statements contained in the bid are true; and, further, that the bidder has not, directly or indirectly, submitted his or her bid price or any breakdown thereof, or the contents thereof, or divulged information or data relative thereto, or paid, and will not pay, any fee to any corporation, partnership, company association, organization, bid depository, or to any member or agent thereof to effectuate a collusive or sham bid.

I declare, under penalty of perjury, that the foregoing is true and correct and that this declaration was executed at: _____(Name of City if within City, otherwise Name of County), State of

_____, on _____.
(State) (Date)

(Signature)

GENERAL CONDITIONS
 (CM at Risk – Without UCIP Coverage)

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ARTICLE 1

GENERAL PROVISIONS

1.1 BASIC DEFINITIONS

1.1.1 APPLICABLE CODE REQUIREMENTS

The term "Applicable Code Requirements" means all laws, statutes, the most recent building codes, ordinances, rules, regulations, and lawful orders of all public authorities having jurisdiction over University, CM/Contractor, any Subcontractor, the Project, the Project site, the Work, or the prosecution of the Work including without limitation the requirements set forth in Article 3.7 of the General Conditions.

1.1.2 APPLICATION FOR PAYMENT

The term "Application for Payment" means the submittal from CM/Contractor wherein payment for certain portions of the completed Work is requested in accordance with Article 9 of the General Conditions.

1.1.3 ANTICIPATED CONTRACT VALUE

The term "Anticipated Contract Value" means the amount that the University anticipates the Work will cost at Final Completion.

1.1.4 BENEFICIAL OCCUPANCY

The term "Beneficial Occupancy" means the University's occupancy or use of any part of the Work in accordance with Article 9 of the General Conditions.

1.1.5 BID PACKAGE

The term "Bid Package" means a part of the Construction Work represented by a particular Design Package prepared by the University's Design Professional, and reviewed by the CM/Contractor in Phase 1 per the Scope of Work, and performed by CM/Contractor's Subcontractors or self-performed. All Bid Packages will be incorporated into the Contract by Contract Amendment and the price thereof will, together with the CM/Contractor's Option Sum - Phase 2, be the total amount due the CM/Contractor.

1.1.6 CERTIFICATE FOR PAYMENT

The term "Certificate for Payment" means the form signed by University's Representative attesting to the CM/Contractor's right to receive payment for certain completed portions of the Work in accordance with Article 9 of the General Conditions.

1.1.7 CHANGE ORDER

See Article 7.2 of the General Conditions.

1.1.8 CLAIM

See Article 4.3 of the General Conditions.

1.1.9 CM/CONTRACTOR

The term "CM/Contractor" means the person or firm identified as such in the Agreement and is referred to throughout the Contract Documents as if singular in number.

1.1.10 CM/CONTRACTOR BASE FEE

The term "CM/Contractor Base Fee" means the price the CM/Contractor has included in his Option Sum - Phase 2 that represents all costs for the following items incurred in performing the Construction Work:

- .1 Salaries, or other compensation, of the CM/Contractor's officers, executives or other supervisory personnel at the CM/Contractor's Home Office.
- .2 All expenses of the CM/Contractor in connection with maintaining and operating its Home Office of CM/Contractor other than field office of the Project.
- .3 Any part of the CM/Contractor's capital expenses, including interest on the CM/Contractor's capital employed for the Work.
- .4 Except as specifically provided elsewhere in the Contract Documents, rental costs of machinery and equipment.

- .5 Profit, overhead or general expenses of any kind, except as may be expressly included elsewhere in the Contract Documents, including Home Office supervision of all subcontracted work.
- .6 Payments made by CM/Contractor to its employees or personnel on account of merit bonuses.
- .7 All salaries, cost and expenses incurred by CM/Contractor in estimating and preparing estimates, administration of the Construction Work and all other cost data and preparation required by University, exclusive of the time involving the CM/Contractor's field forces engaged in the actual field performance of the Construction Work.
- .8 All cost and expenses of purchasing and expediting all purchase orders, exclusive of the time involving the CM/Contractor's field forces engaged in the actual field performance of the Construction Work.
- .9 All cost and expenses of supervision and administration of progress and cost control by executives above the level of Project Manager.
- .10 General accounting, auditing and billing to University, Subcontractors and purchase orders, payment of voucher costs, and payment of labor taxes and insurance.
- .11 Supervision of insurance and taxation matters.
- .12 All travel expenses of CM/Contractor's officers and executives, and relocation costs of personnel involved in the Project.
- .13 All expenses paid or incurred for purchase or rental of office equipment, stationery, stamps and office supplies of any kind or nature whatsoever for Home Office.
- .14 All costs of any business licenses required by CM/Contractor, and all dues, assessments and contributions paid or payable to CM/Contractor's technical or trade associations.
- .15 All cost of insurance on tools and equipment owned or furnished by CM/Contractor; taxes assessed against property and equipment of CM/Contractor which is not to be incorporated into the Project; taxes on gross income, except gross receipts tax, profit and net income of CM/Contractor; and interest or money borrowed or furnished by CM/Contractor.
- .16 All cost of Subcontractor performance or payment bonds, or insurance in lieu thereof.
- .17 Storage costs at yards owned and leased by CM/Contractor, except any yard leased by CM/Contractor on a short-term basis solely for purposes of the Project, with University's prior written approval.
- .18 All costs incurred by CM/Contractor in violation of any terms, provision, or agreement set forth in the Contract Documents.
- .19 Consultations with University and its Design Professionals, and other consultants engaged by the University with respect to the Construction Work.

1.1.11 COMPENSABLE DELAY

The term "Compensable Delay" means a delay that entitles the CM/Contractor to an adjustment of the Contract Sum and an adjustment of the Contract Time pursuant to Articles 7 and 8 of the General Conditions.

1.1.12 CONSTRUCTION WORK

The term "Construction Work" means that portion of the Work consisting of the provision of labor, materials, furnishings, equipment and services in connection with the construction of the Project as set forth in the Contract Documents, including, without limitation, all CM/Contractor Base Fee, General Conditions Work, and Bid Packages.

1.1.13 CONTRACT

The term "Contract" shall have the meaning identified in Article 3 of the Agreement.

1.1.14 CONTRACT AMENDMENT

The term "Contract Amendment" means the contract instrument to modify the Contract to exercise the Option or to include Bid Packages.

1.1.15 CONTRACT DOCUMENTS

The term "Contract Documents" means all documents listed in Article 3 of the Agreement, as modified by Change Order, including but not limited to the Drawings and Specifications.

1.1.16 CONTRACT SCHEDULE

The term "Contract Schedule" means the graphical representation of a practical plan, in accordance with the Specifications, to perform and complete the Work within the Contract Time in accordance with Article 3 of the General Conditions.

1.1.17 CONTRACT SUM

The term "Contract Sum" means the amount of compensation stated in the Agreement for the performance of the Work, as adjusted by Change Order or Contract Amendment.

1.1.18 CONTRACT TIME

The term "Contract Time" means the number of days set forth in the Agreement, as adjusted by Change Order or Contract Amendment, within which CM/Contractor must achieve Final Completion of the Work.

1.1.19 CONTRACTOR FEE

See Article 7.3 of the General Conditions.

1.1.20 COST OF EXTRA WORK

See Article 7.3 of the General Conditions.

1.1.21 DAY

The term "day," as used in the Contract Documents, shall mean calendar day, unless otherwise specifically provided.

1.1.22 DEFECTIVE WORK

The term "Defective Work" means work that is unsatisfactory, faulty, omitted, incomplete, deficient, or does not conform to the requirements of the Contract Documents, directives of University's Representative, or the requirements of any inspection, reference standard, test, or approval specified in the Contract Documents.

1.1.23 DESIGN/CONSTRUCTION OVERLAP DURATION

The term "Design/Construction Overlap Duration" is the maximum period of time stipulated in the Contract Documents that the University will allow Phase 2 to start prior to the scheduled completion of Phase 1. See Supplementary Conditions for the specified time period for Design/Construction Overlap Duration.

1.1.24 DESIGN PACKAGE

The term "Design Package" means the Drawings and Specifications for a component of the Construction Work as shown on the Project Schedule Exhibit.

1.1.25 DESIGN PROFESSIONAL

The term "Design Professional" means the individuals or entities who University has hired to provide architectural, engineering, and other professional services required for the coordinated design of the Project.

1.1.26 DESIGN WORK

The term "Design Work" means the work performed by Design Professional(s) to produce Bid Packages and a coordinated design for the Project; which incorporates University approved input by CM/Contractor resulting from its Phase 1 Pre-Construction Services.

1.1.27 DRAWINGS

The term "Drawings" means the graphic and pictorial portions of the Contract Documents showing the design, location, and dimensions of the Work, generally including plans, elevations, sections, details, schedules, and diagrams. The Drawings are listed in the List of Drawings.

1.1.28 EXCUSABLE DELAY

The term "Excusable Delay" means a delay that entitles the CM/Contractor to an adjustment of the Contract Time but not an adjustment of the Contract Sum, pursuant to Articles 7 and 8 of the General Conditions.

1.1.29 EXTRA WORK

The term "Extra Work" means Work beyond or in addition to the Work required by the Contract Documents.

1.1.30 FIELD ORDER

See Article 7.2 of the General Conditions.

1.1.31 FINAL COMPLETION

The term "Final Completion" means the date at which the Construction Work has been fully completed in accordance with the requirements of the Contract Documents pursuant to Article 9.8.1 of the General Conditions.

1.1.32 GENERAL CONDITIONS WORK

The term "General Conditions Work" means all work and associated cost to complete the Construction Work that is not included in CM/Contractor's Base Fee or in Bid Packages; including, but not limited to, items required by the exhibits. All costs for General Conditions Work incurred in performing the Contract shall be included in the CM/Contractor's Option Sum - Phase 2.

1.1.33 GUARANTEE TO REPAIR PERIOD

See Article 12.2 of the General Conditions.

1.1.34 HAZARDOUS MATERIAL

The term "Hazardous Material" means any substance or material identified as hazardous under any California or federal statute governing handling, disposal and/or cleanup of any such substance or material.

1.1.35 HOME OFFICE

The term "Home Office" means any and all offices, including but not limited to principal, branch, or main office, the CM/Contractor may have before or during the Work, except its field office for this Project.

1.1.36 MAXIMUM ANTICIPATED CONTRACT VALUE

The term "Maximum Anticipated Contract Value" means the maximum amount that the University anticipates the Work will cost at Final Completion.

1.1.37 NOTICE OF INTENT

The term "Notice of Intent" means the notice given by the University's Representative that the University intends to exercise its Option for Phase 2. This notice shall provide time for the CM/Contractor to submit certain Contract Documents prior to a Contract Amendment being issued for Phase 2.

1.1.38 OPTION

See Article 2 of the Agreement and Article 16 of these General Conditions.

1.1.39 OPTION SUM – PHASE 2

See Article 4 of the Agreement.

1.1.40 PHASE 2 TIME

See Article 5 of the Agreement.

1.1.41 PRE-CONSTRUCTION SERVICES

The term "Pre-Construction Services" means the services provided by the CM/Contractor under Phase 1 of the Scope of Work. The Pre-Construction Services shall continue through Design/Construction Overlap Duration, if any, after the University's Option for Phase 2 is exercised.

1.1.42 PROJECT

The term "Project" means the Work of the Contract and all other work, labor, equipment, and materials necessary to accomplish the Project. The Project may include construction by University or by Separate Contractors.

1.1.43 PROJECT SITE

The term "Project Site" or "Project site" or "Site" or "site" means lands and facilities upon which the Work pertaining to physical construction operations is performed, including such access and other lands and facilities designated in the Contract Documents for use by CM/Contractor.

1.1.44 SEPARATE CONTRACTOR

The term "Separate Contractor" means a person or firm under separate contract with University performing other work related to the Project.

1.1.45 SHOP DRAWINGS, PRODUCT DATA, AND SAMPLES

See Article 3.12 of the General Conditions.

1.1.46 SPECIFICATIONS

The term "Specifications" means that portion of the Contract Documents consisting of the written requirements for materials, equipment, construction systems, standards and workmanship for the Work, and performance of related services.

1.1.47 SUBCONTRACTOR

The term "Subcontractor" means a person or firm that has a contract with CM/Contractor or with a Subcontractor to perform a portion of the Work. Unless otherwise specifically provided, the term Subcontractor includes Subcontractors of all tiers.

1.1.48 SUBSTANTIAL COMPLETION

See Article 9.7 of the General Conditions.

1.1.49 SUPERINTENDENT

The term "Superintendent" means the person designated by CM/Contractor to represent CM/Contractor at the Project site in accordance with Article 3 of the General Conditions.

1.1.50 TIER

The term "tier" means the contractual level of a Subcontractor or supplier with respect to CM/Contractor. For example, a first-tier Subcontractor is under subcontract with CM/Contractor, a second-tier Subcontractor is under subcontract with a first-tier Subcontractor, and so on.

1.1.51 UNEXCUSABLE DELAY

The term "Unexcusable Delay" means a delay that does not entitle the CM/Contractor to an adjustment of the Contract Sum and does not entitle the CM/Contractor to an adjustment of the Contract Time.

1.1.52 UNILATERAL CHANGE ORDER

See Article 7.2 of the General Conditions.

1.1.53 UNIVERSITY

The term "University" means The Regents of the University of California.

1.1.54 UNIVERSITY'S BUILDING OFFICIAL

The term "University's Building Official," or "Certified Building Official," means the individual the University has designated to act in the capacity as the "Building Official" as defined by the California Building Standards Code. The University's Building Official will determine whether the Work complies with Applicable Code Requirements and will determine whether and when it is appropriate to issue a Certificate of Occupancy.

1.1.55 UNIVERSITY'S REPRESENTATIVE

The term "University's Representative" means the person identified as such in the Agreement.

1.1.56 UNIVERSITY'S RESPONSIBLE ADMINISTRATOR

The term "University's Responsible Administrator" means the person, or his or her authorized designee, who is authorized to execute the Agreement, Change Order, Contract Amendment, Field Order and other applicable Contract Documents on behalf of the University.

1.1.57 WORK

The term "Work" means the Pre-Construction Services and all Construction Work and other requirements of the Contract Documents as modified by Change Order or Contract Amendment, whether completed or partially completed, and includes all labor, materials, equipment, tools, and services provided, or to be provided by, CM/Contractor to fulfill CM/Contractor's obligations without limitation. The Work may constitute the whole or a part of the Project.

1.2 OWNERSHIP AND USE OF CONTRACT DOCUMENTS

1.2.1 The Contract Documents and all copies thereof furnished to or provided by CM/Contractor are the property of the University and are not to be used by CM/Contractor on other work.

1.3 INTERPRETATION

1.3.1 The Contract Documents are complementary and what is required by one shall be as binding as if required by all. In the case of conflict between terms of the Contract Documents, the following order of precedence shall apply:

- .1 The Agreement
- .2 The Supplementary Conditions
- .3 The General Conditions
- .4 The Specifications
- .5 The Drawings

1.3.2 With respect to the Drawings, figured dimensions shall control over scaled measurements and specific details shall control over typical or standard details.

1.3.3 With respect to the Contract Documents, Addenda shall govern over other portions of the Contract Documents to the extent specifically noted; subsequent Addenda shall govern over prior Addenda only to the extent specifically noted.

1.3.4 Organization of the Specifications into various subdivisions and the arrangement of the Drawings shall not control CM/Contractor in dividing the Construction Work among Subcontractors or in establishing the extent of work to be performed by any trade.

1.3.5 Unless otherwise stated in the Contract Documents, technical words and abbreviations contained in the Contract Documents are used in accordance with commonly understood construction industry meanings; and non-technical words and abbreviations are used in accordance with their commonly understood meanings.

1.3.6 The Contract Documents may omit modifying words such as "all" and "any," and articles such as "the" and "an," but the fact that a modifier or an article is absent from one statement and appears in another is not intended to affect the interpretation of either statement. The use of the word "including," when following any general statement, shall not be construed to limit such statement to specific items or matters set forth immediately following such word or to similar items or matters, whether or not non-limiting language (such as "without limitation," "but not limited to," or words of similar import) is used with reference thereto, but rather shall be deemed to refer to all other items or matters that could reasonably fall within the broadest possible scope of such general statement.

1.3.7 Whenever the context so requires, the use of the singular number shall be deemed to include the plural and vice versa. Each gender shall be deemed to include any other gender, and each shall include corporation, partnership, trust, or other legal entity whenever the context so requires. The captions and headings of the various subdivisions of the Contract Documents are intended only for reference and convenience and in no way define, limit, or prescribe the scope or intent of the Contract Documents or any subdivision thereof.

ARTICLE 2 **UNIVERSITY**

2.1 INFORMATION AND SERVICES PROVIDED BY UNIVERSITY

2.1.1 If required for performance of the Work, as determined by University's Representative, University will make available a survey describing known physical characteristics, boundaries, easements, and utility locations for the Project site.

2.1.2 University is not subject to any requirement to obtain or pay for local building permits, inspection fees, plan checking fees, or certain utility fees. Except as otherwise provided in the Contract Documents, University will obtain and pay for any utility permits, demolition permits, easements, and government approvals for the use or occupancy of permanent structures required in connection with the Construction Work.

2.1.3 CM/Contractor will be furnished, free of charge, such copies of the Contract Documents, as University deems reasonably necessary for execution of the Work.

2.2 ACCESS TO PROJECT SITE

2.2.1 University will provide access to the lands and facilities upon which the Construction Work is to be performed at the time it exercises its Option for Phase 2, including such access and other lands and facilities designated in the Contract Documents for use by CM/Contractor.

2.3 UNIVERSITY'S RIGHT TO STOP THE WORK

2.3.1 If CM/Contractor fails to correct Defective Work as required by Article 12.2 of the General Conditions or fails to perform the Work in accordance with the Contract Documents, University or University's Representative may direct CM/Contractor to stop the Work, or any portion thereof, until the cause for such order has been eliminated by CM/Contractor. CM/Contractor shall not be entitled to any adjustment of Contract Time or Contract Sum as a result of any such order. University and University's Representative have no duty or responsibility to CM/Contractor or any other party to exercise the right to stop the Work.

2.4 UNIVERSITY'S RIGHT TO CARRY OUT THE WORK

2.4.1 If CM/Contractor fails to carry out the Work in accordance with the Contract Documents, fails to provide sufficient labor, materials, equipment, tools, and services to maintain the Contract Schedule, or otherwise fails to comply with any material term of the Contract Documents, and, after receipt of written notice from University, fails within 2 days, excluding Saturdays, Sundays and legal holidays, or within such additional time as the University may specify, to correct such failure, University may, without prejudice to other remedies University may have, correct such failure at CM/Contractor's expense. In such case, University will be entitled to deduct from payments then or thereafter due CM/Contractor the cost of correcting such failure, including without limitation compensation for the additional services and expenses of University's consultants made necessary thereby. If payments then or thereafter due CM/Contractor are not sufficient to cover such amounts, CM/Contractor shall pay the additional amount to University.

2.5 UNIVERSITY'S RIGHT TO REPLACE UNIVERSITY'S REPRESENTATIVE

2.5.1 University may at any time and from time to time, without prior notice to or approval of CM/Contractor, replace University's Representative with a new University's Representative. Upon receipt of notice from University informing CM/Contractor of such replacement and identifying the new University's Representative, CM/Contractor shall recognize such person or firm as University's Representative for all purposes under the Contract Documents.

ARTICLE 3

CM/CONTRACTOR

3.1 REVIEW OF CONTRACT DOCUMENTS AND FIELD CONDITIONS BY CM/CONTRACTOR

3.1.1 CM/Contractor and its Subcontractors shall carefully study and compare each of the Contract Documents with the others and with information furnished or made available by University, and shall promptly report in writing to University's Representative any errors, inconsistencies, or omissions in the Contract Documents or inconsistencies with Applicable Code Requirements observed by CM/Contractor or its Subcontractors.

3.1.2 CM/Contractor and its Subcontractors shall take field measurements, verify field conditions, and carefully compare with the Contract Documents such field measurements, conditions, and other information known to CM/Contractor before commencing any item of Construction Work. Errors, inconsistencies, or omissions discovered at any time shall be promptly reported in writing to University's Representative.

3.1.3 If CM/Contractor and its Subcontractors performs any construction activity involving an error, inconsistency, or omission referred to in Articles 3.1.1 and 3.1.2 of the General Conditions, without giving the notice required in those Articles and obtaining the written consent of University's Representative, CM/Contractor shall be responsible for the resultant losses, including, without limitation, the costs of correcting Defective Work.

3.1.4 CM/Contractor, as part of the Scope of Work in the Exhibits, has assisted the University in preparing Contract Documents for Bid Packages that will be incorporated into the Contract by Contract Amendment. CM/Contractor shall be responsible for all Losses attributable to the errors or omissions of the CM/Contractor in the performance of Pre-Construction Services and all services required in the preparation of the various Bid Packages.

3.2 SUPERVISION AND CONSTRUCTION PROCEDURES

3.2.1 CM/Contractor shall supervise, coordinate, and direct the Construction Work using CM/Contractor's best skill and attention. CM/Contractor shall be solely responsible for and have control over construction means, methods, techniques, sequences, procedures, and the coordination of all portions of the Construction Work. CM/Contractor shall manage and administer all phases of construction activities to achieve the completion of all Bid Packages within the requirements of the Contract Documents. The CM/Contractor shall coordinate the work of its Subcontractors to optimize efficiency and minimize conflict and interference between the various Subcontractors on-site.

3.2.2 CM/Contractor shall be responsible to University for acts and omissions of CM/Contractor's agents, employees, and Subcontractors, and their respective agents and employees.

3.2.3 CM/Contractor shall not be relieved of its obligation to perform the Construction Work in accordance with the Contract Documents either by acts or omissions of University or University's Representative in the administration of the Contract, or by tests, inspections, or approvals required or performed by persons or firms other than CM/Contractor.

3.2.4 CM/Contractor shall be responsible for inspection of all portions of the Construction Work, including those portions already performed under this Contract, to determine that such portions conform to the requirements of the Contract Documents and are ready to receive subsequent Construction Work.

3.2.5 CM/Contractor shall at all times maintain good discipline and order among its employees and Subcontractors. CM/Contractor shall provide competent, fully qualified personnel to perform the Work.

3.2.6 CM/Contractor's responsibility shall include assuring that its Subcontractors are meeting all the terms of the Contract Documents. CM/Contractor shall provide on-site quality control and inspection to ensure compliance with documents, drawings and contract specifications, schedule coordination and information coordination for all construction activities on the construction site including all General Conditions Work. CM/Contractor shall schedule and coordinate testing and inspection services. This will include coordination with the Subcontractors of the scheduling of all University's Representative inspections, Fire Marshall, Test Labs, Materials Inspectors and other inspections as required. Prior to close-up of concealed areas, the CM/Contractor shall coordinate all Campus Fire Marshall, OSHPD, and all other applicable inspections with the University's Representative and create a punch list and distribute to all affected Subcontractors.

3.2.7 CM/Contractor shall coordinate all required utility shut downs, road closures, traffic closures, and the like. This coordination shall follow procedures at the Facility, and or direction as provided by the University's Representative.

3.3 LABOR AND MATERIALS

3.3.1 Unless otherwise provided in the Contract Documents, CM/Contractor shall provide and pay for all labor, services, materials, equipment, tools, construction equipment and machinery, water, heat, utilities, transportation, and other facilities and services necessary for proper execution and Final Completion of the Construction Work, whether temporary or permanent and whether or not incorporated or to be incorporated in the Construction Work.

3.4 CM/CONTRACTOR'S WARRANTY

3.4.1 CM/Contractor warrants to University that all materials and equipment used in or incorporated into the Construction Work will be of good quality, new, and free of liens, claims, and security interests of third parties; that the Construction Work will be of good quality and free from defects; and that the Construction Work will conform with the requirements of the Contract Documents. If required by University's Representative, CM/Contractor shall furnish satisfactory evidence as to the kind and quality of materials and equipment.

3.4.2 The CM/Contractor shall assure that there is no damage of existing utilities; and protect trees and root systems both during demolition and construction.

3.5 TAXES

3.5.1 CM/Contractor shall pay all sales, consumer, use, and similar taxes for the Work or portions thereof provided by CM/Contractor.

3.6 PERMITS, FEES, AND NOTICES

3.6.1 Except for the permits and approvals which are to be obtained by University or the requirements with respect to which University is not subject as provided in Article 2.1.2 of the General Conditions, CM/Contractor shall secure and pay for all permits, approvals, government fees, licenses, and inspections necessary for the proper execution and performance of the Construction Work. CM/Contractor shall deliver to University all original licenses, permits, and approvals obtained by CM/Contractor in connection with the Construction Work prior to the final payment or upon termination of the Contract, whichever is earlier.

3.7 APPLICABLE CODE REQUIREMENTS

3.7.1 CM/Contractor shall perform the Construction Work in accordance with the following Applicable Code Requirements:

- .1 All laws, statutes, the most recent building codes, ordinances, rules, regulations, and lawful orders of all public authorities having jurisdiction over University, CM/Contractor, any Subcontractor, the Project, the Project site, the Construction Work, or the prosecution of the Construction Work.
- .2 All requirements of any insurance company issuing insurance required hereunder.
- .3 The Federal Occupational Safety and Health Act and all other Applicable Code Requirements relating to safety.
- .4 Applicable titles in the State of California Code of Regulations.
- .5 Applicable sections in the State of California Labor Code.
- .6 All Applicable Code Requirements relating to nondiscrimination, payment of prevailing wages, payroll records, apprentices, and work day.

3.7.2 Without limiting the foregoing, CM/Contractor shall comply with the provisions regarding nondiscrimination, payment of prevailing wages, payroll records, apprentices, and work day set forth in Article 14 of the General Conditions.

3.7.3 CM/Contractor shall comply with and give notices required by all Applicable Code Requirements, including all environmental laws and all notice requirements under the State of California Safe Drinking Water and Enforcement Act of 1986 (State of California Health and Safety Code Section 25249.5 and applicable sections that follow). CM/Contractor shall promptly notify University's Representative in writing if CM/Contractor becomes aware during the performance of the Work that the Contract Documents are at variance with Applicable Code Requirements.

3.7.4 If CM/Contractor performs Construction Work which it knows or should know is contrary to Applicable Code Requirements, without prior notice to University and University's Representative, CM/Contractor shall be responsible for such Construction Work and any resulting damages including, without limitation, the costs of correcting Defective Work.

3.8 SUPERINTENDENT AND KEY PERSONNEL

3.8.1 CM/Contractor shall employ a competent Superintendent satisfactory to University who shall be in attendance at the Project site at all times during the performance of the Construction Work. Superintendent shall represent CM/Contractor and communications given to and received from Superintendent shall be binding on CM/Contractor. Failure to maintain a Superintendent on the Project site at all times Construction Work is in progress shall be considered a material breach of this Contract, entitling University to terminate the Contract or alternatively, issue a stop Construction Work order until the Superintendent is on the Project site. If, by virtue of issuance of said stop Work order, CM/Contractor fails to complete the Contract on time, CM/Contractor will be assessed Liquidated Damages in accordance with the Agreement.

3.8.2 The Superintendent approved for the Project must be able to read, write and verbally communicate in English. The superintendent may not perform the Construction Work of any trade, pick-up materials, or perform any Construction Work not directly related to the supervision and coordination of the Construction Work at the Project site when Construction Work is in progress.

3.8.3 CM/Contractor shall provide the Key Personnel, in addition to the Superintendent, as named in the Key Personnel Exhibit to this Contract. Substitution or replacement of any named individual requires the written approval of the University's

Representative and approval will be at the sole discretion of University. Failure to provide the listed individuals at all times Work is in progress shall be considered a material breach of this Contract unless the named individuals are no longer employed or retained by CM/Contractor, a company CM/Contractor has a financial interest in, or a parent company of CM/Contractor; such material breach shall entitle University to terminate the Contract or alternatively, issue a Stop Work order until the individual or an acceptable replacement is provided. If, by virtue of issuance of said Stop Work order, CM/Contractor fails to complete the Contract on time, CM/Contractor will be assessed Liquidated Damages in accordance with the Agreement.

3.9 SCHEDULES REQUIRED OF CM/CONTRACTOR

3.9.1 CM/Contractor shall submit a Preliminary Contract Schedule to University's Representative in the form and within the time limit required by the Specifications. University's Representative will review the Preliminary Contract Schedule with CM/Contractor within the time limit required by the Specifications, or, if no such time period is specified, within a reasonable period of time.

3.9.2 CM/Contractor shall submit a Contract Schedule and updated Contract Schedules to University's Representative in the form and within the time limits required by the Specifications and acceptable to University's Representative. University's Representative will determine acceptability of the Contract Schedule and updated Contract Schedules within the time limits required by the Specifications, or if no such time period is specified, within a reasonable period of time. If University's Representative deems the Contract Schedule or updated Contract Schedule unacceptable, it shall specify in writing to CM/Contractor the basis for its objection.

3.9.3 The Preliminary Contract Schedule, the Contract Schedule, and updated Contract Schedules shall represent a practical plan to complete the Work within the Contract Time and/or Phase 2 Time. Schedules showing the Work completed in less than the Contract Time and/or Phase 2 Time may be acceptable if judged by University's Representative to be practical. Schedules showing the Work completed beyond the Contract Time may be submitted under the following circumstances:

- .1 If accompanied by a Change Order Request seeking an adjustment of the Contract Time consistent with the requirements of paragraph 8.4 for Adjustment of the Contract Time for Delay; or
- .2 If the Contract Time has passed, or if it is a practical impossibility to complete the Work within the Contract Time, then the updated Contract Schedule or fragnet schedule shall show completion at the earliest practical date.

University's Representative will timely review the updated Contract Schedule or Fragnet Schedule submitted by CM/Contractor. If University's Representative determines that additional supporting data are necessary to fully evaluate the updated Contract Schedule or Fragnet Schedule, University's Representative will request such additional supporting data in writing. Such data shall be furnished no later than 10 days after the date of such request. University's Representative will render a decision promptly and in any case within 30 days after the later of the receipt of the updated Contract Schedule or Fragnet Schedule or the deadline for furnishing such additional supporting data. Failure of University's Representative to render a decision by the applicable deadline will be deemed a decision denying approval of the updated Contract Schedule or Fragnet Schedule. Acceptance of any schedule showing completion beyond the Contract Time by University's Representative shall not change the Contract Time and/or Phase 2 Time and is without prejudice to any right of the University. The Contract Time, not the Contract Schedule, shall control in the determination of liquidated damages payable by CM/Contractor under Article 5 and Article 6 of the Agreement and in the determination of any delay under Article 8 of the General Conditions.

3.9.4 If a schedule showing the Work completed in less than the Contract Time and/or Phase 2 Time is accepted, CM/Contractor shall not be entitled to extensions of the then current Contract Time for Excusable Delays or Compensable Delays or to adjustments of the Contract Sum for Compensable Delays until such delays extend the Final Completion of the Work beyond the expiration of the then current Contract Time.

3.9.5 CM/Contractor shall prepare and keep current, to the reasonable satisfaction of University's Representative, a Submittal Schedule in the form contained in the Exhibits, for each submittal, as required by the Specifications, and that are coordinated with the other activities in the Contract Schedule.

3.9.6 The Preliminary Contract Schedule, Contract Schedule, and the Updated Contract Schedules shall meet the following requirements:

- .1 Schedules must be suitable for monitoring progress of the Work.
- .2 Schedules must provide necessary data about the timing for University decisions and University-furnished items.
- .3 Schedules must be in sufficient detail to demonstrate adequate planning for the Work.

- .4 Schedules must represent a practical plan to perform and complete the Work within the Contract Time.

University's Representative's review of the form and general content of the Preliminary Contract Schedule, Contract Schedule, and Updated Contract Schedules is for the purpose of determining if the above-listed requirements have been satisfied.

3.9.7 CM/Contractor shall plan, develop, supervise, control, and coordinate the performance of the Construction Work so that its progress and the sequence and timing of Construction Work will permit its completion within the Contract Time, any Contract milestones and any Contract phases.

3.9.8 In preparing the Preliminary Contract Schedule, the Contract Schedule, and updated Contract Schedules, CM/Contractor shall obtain such information and data from Subcontractors as may be required to develop a reasonable and appropriate schedule for performance of the work and shall provide such information and data to the University's Representative upon request. CM/Contractor shall continuously obtain from Subcontractors information and data about the planning for and progress of the Construction Work and the delivery of equipment, shall coordinate and integrate such information and data into updated Contract Schedules, and shall monitor the progress of the Construction Work and the delivery of equipment.

3.9.9 CM/Contractor shall act as the expeditor of potential and actual delays, interruptions, hindrances, or disruptions for its own forces and those forces of Subcontractors, regardless of tier. CM/Contractor shall cooperate with University's Representative in the development of the Contract Schedule and updated Contract Schedules.

3.9.10 University's Representative's acceptance of or its review comments about any schedule or scheduling data shall not relieve CM/Contractor from its sole responsibility to plan for, perform, and complete the Work within the Contract Time. Acceptance of or review comments about any schedule shall not transfer responsibility for any schedule to University's Representative or University nor imply their agreement with (1) any assumption upon which such schedule is based or (2) any matter underlying or contained in such schedule.

3.9.11 Failure of University's Representative to discover errors or omissions in schedules that it has reviewed, or to inform CM/Contractor that CM/Contractor, Subcontractors, or others are behind schedule, or to direct or enforce procedures for complying with the Contract Schedule shall not relieve CM/Contractor from its sole responsibility to perform and complete the Work within the Contract Time and shall not be a cause for an adjustment of the Contract Time or the Contract Sum.

3.10 AS-BUILT DOCUMENTS

3.10.1 CM/Contractor shall maintain one set of As-built drawings and specifications, which shall be kept up to date during the Construction Work of the Contract. All changes which are incorporated into the Construction Work which differ from the documents as drawn and written shall be noted on the As-built set. Notations shall reflect the actual materials, equipment and installation methods used for the Construction Work and each revision shall be initialed and dated by Superintendent. Prior to filing of the Notice of Completion each drawing and the specification cover shall be signed by CM/Contractor and dated attesting to the completeness of the information noted therein. As-built Documents shall be turned over to the University's Representative and shall become part of the Record Documents.

3.11 DOCUMENTS AND SAMPLES AT PROJECT SITE

3.11.1 CM/Contractor shall maintain the following at the Project site:

- .1 One as-built copy of the Contract Documents, in good order and marked to record current changes and selections made during construction
- .2 The current accepted Contract Schedule
- .3 Shop Drawings, Product Data, and Samples
- .4 All other required submittals

These documents shall be available to University's Representative and shall be delivered to University's Representative for submittal to University upon the earlier of Final Completion or termination of the Contract.

3.12 SHOP DRAWINGS, PRODUCT DATA, AND SAMPLES

3.12.1 Definitions:

- .1 Shop Drawings are drawings, diagrams, schedules, and other data specially prepared for the Construction Work by CM/Contractor or a Subcontractor to illustrate some portion of the Construction Work.
- .2 Product Data are illustrations, standard schedules, performance charts, instructions, brochures, diagrams, and other information furnished by CM/Contractor to illustrate or describe materials or equipment for some portion of the Construction Work.
- .3 Samples are physical examples which illustrate materials, equipment, or workmanship and establish standards by which the Construction Work will be judged.

3.12.2 Shop Drawings, Product Data, Samples, and similar submittals are not Contract Documents. Their purpose is to demonstrate, for those portions of the Construction Work for which submittals are required, how CM/Contractor proposes to conform to the information given and the design concept expressed in the Contract Documents.

3.12.3 CM/Contractor shall review, approve, and submit to University's Representative Shop Drawings, Product Data, Samples, and similar submittals required by the Contract Documents with reasonable promptness and in such sequence as to cause no delay in the Construction Work or in the activities of University or of Separate Contractors. Submittals made by CM/Contractor which are not required by the Contract Documents may be returned without action by University's Representative.

3.12.4 CM/Contractor shall perform no portion of the Construction Work requiring submittal and review of Shop Drawings, Product Data, Samples, or similar submittals until the respective submittal has been reviewed by University's Representative and no exceptions have been taken by University's Representative. Such Construction Work shall be in accordance with approved submittals and the Contract Documents.

3.12.5 By approving and submitting Shop Drawings, Product Data, Samples, and similar submittals, CM/Contractor represents that it has determined or verified materials and field measurements and conditions related thereto, and that it has checked and coordinated the information contained within such submittals with the requirements of the Contract Documents and Shop Drawings for related Construction Work.

3.12.6 If CM/Contractor discovers any conflicts, omissions, or errors in Shop Drawings or other submittals, CM/Contractor shall notify University's Representative and receive instruction before proceeding with the affected Work.

3.12.7 CM/Contractor shall not be relieved of responsibility for deviations from requirements of the Contract Documents by University's Representative's review of Shop Drawings, Product Data, Samples, or similar submittals, unless CM/Contractor has specifically informed University's Representative in writing of such deviation at the time of submittal and University's Representative has given written approval of the specific deviation. CM/Contractor shall not be relieved of responsibility for errors or omissions in Shop Drawings, Product Data, Samples, or similar submittals by University's Representative's review, acceptance, comment, or approval thereof.

3.12.8 CM/Contractor shall direct specific attention, in writing or on resubmitted Shop Drawings, Product Data, Samples, or similar submittals, to revisions other than those requested by University's Representative on previous submittals.

3.13 USE OF SITE AND CLEAN UP

3.13.1 CM/Contractor shall confine operations at the Project site to areas permitted by law, ordinances, permits, and the Contract Documents. CM/Contractor shall not unreasonably encumber the Project site with materials or equipment.

3.13.2 CM/Contractor shall, during performance of the Construction Work, keep the Project site and surrounding area free from the accumulation of excess dirt, waste materials, and rubbish caused by CM/Contractor. CM/Contractor shall remove all excess dirt, waste material, and rubbish caused by the CM/Contractor; tools; equipment; machinery; and surplus materials from the Project site and surrounding area at the completion of the Construction Work.

3.13.3 Personnel of CM/Contractor and Subcontractors shall not occupy, live upon, or otherwise make use of the Project site during any time that Work is not being performed at the Project site, except as otherwise provided in the Contract Documents.

3.14 CUTTING, FITTING, AND PATCHING

3.14.1 CM/Contractor shall do all cutting, fitting, or patching of the Construction Work required to make all parts of the Construction Work come together properly and to allow the Construction Work to receive or be received by work of Separate Contractors shown upon, or reasonably implied by, the Contract Documents.

3.14.2 CM/Contractor shall not endanger the Construction Work, the Project, or adjacent property by cutting, digging, or otherwise. CM/Contractor shall not cut or alter the work of any Separate Contractor without the prior consent of University's Representative.

3.15 ACCESS TO CONSTRUCTION WORK

3.15.1 University, University's Representative, their consultants, and other persons authorized by University will at all times have access to the Construction Work wherever it is in preparation or progress. CM/Contractor shall provide safe and proper facilities for such access and for inspection.

3.16 ROYALTIES AND PATENTS

3.16.1 CM/Contractor shall pay all royalties and license fees required for the performance of the Work. CM/Contractor shall defend suits or claims resulting from CM/Contractor's or any Subcontractor's infringement of patent rights and shall indemnify University and University's Representative from losses on account thereof.

3.17 DIFFERING SITE CONDITIONS

3.17.1 If CM/Contractor encounters any of the following conditions at the site, CM/Contractor shall immediately notify the University's Representative in writing of the specific differing conditions before they are disturbed and before any affected Work is performed, and permit investigation of the conditions:

- .1 Subsurface or latent physical conditions at the site (including Hazardous Materials) which differ materially from those indicated in this Contract, or if not indicated in this Contract, in the Information Available to Bidders; or
- .2 Unknown physical conditions at the site, of an unusual nature, which differ materially from those ordinarily encountered and generally recognized as inherent in work of the character provided for in the Contract.

3.17.2 CM/Contractor shall be entitled to an adjustment to the Contract Sum and/or Contract Time as the result of extra costs and/or delays resulting from a materially differing site condition, if and only if CM/Contractor fulfills the following conditions:

- .1 CM/Contractor fully complies with Article 3.17.1; and
- .2 CM/Contractor fully complies with Article 4 of the General Conditions (including the timely filing of a Change Order Request and all other requirements for Change Orders Requests and Claims).

3.17.3 Adjustments to the Contract Sum and/or Contract Time shall be subject to the procedures and limitations set forth in Articles 7 and 8 of the General Conditions.

3.18 CONCEALED, UNFORESEEN, OR UNKNOWN CONDITIONS OR EVENTS

3.18.1 Except and only to the extent provided otherwise in Articles 3.17, 7 and 8 of the General Conditions, by signing the Agreement, CM/Contractor agrees:

- .1 To bear the risk of concealed, unforeseen or unknown conditions and events, if any, which may be encountered in performing the Contract; and
- .2 That CM/Contractor's bid for the Contract was made with full knowledge of this risk.

In agreeing to bear the risk of concealed, unforeseen or unknown conditions and events, CM/Contractor understands that, except and only to the extent provided otherwise in Articles 3.17, 7 and 8 of the General Conditions, concealed, unforeseen or unknown conditions or events shall not excuse CM/Contractor from its obligation to achieve Final Completion of the Work within the Contract Time, and shall not entitle the CM/Contractor to an adjustment of the Contract Sum.

3.18.2 If CM/Contractor encounters concealed, unforeseen or unknown conditions or events that may require a change to the design shown in the Contract Documents, CM/Contractor shall immediately notify University's Representative in writing such that University's Representative can determine if a change to the design is required.. CM/Contractor shall be liable to University for any extra costs incurred as the result of CM/Contractor's failure to immediately give such notice.

3.18.3 If, as the result of concealed, unforeseen or unknown conditions or events, the University issues a Change Order or Field Order that changes the design from the design depicted in the Contract Documents, CM/Contractor shall be entitled, subject to compliance with all the provisions of the Contract, including those set forth in Articles 4, 7 and 8 of the General Conditions, to an adjustment of the Contract Sum and/or Contract Time, for the cost and delay resulting from implementing the changes to the design. Except as provided in this Article 3.18.3, or as may be expressly provided otherwise in the Contract, there shall be no adjustment of the Contract Sum and/or Contract Time as a result of concealed, unforeseen or unknown conditions or events.

3.18.4 CM/Contractor shall, as a condition precedent to any adjustment in Contract Sum or Contract Time under Article 3.18.3 above, fully comply with Article 4 of the General Conditions (including the timely filing of a Change Order Request and all other requirements for Change Orders Requests and Claims).

3.19 HAZARDOUS MATERIALS

3.19.1 The University shall not be responsible for any Hazardous Material brought to the site by the CM/Contractor.

3.19.2 If the CM/Contractor: (i) introduces and/or discharges a Hazardous Material onto the site in a manner not specified by the Contract Documents; and/or (ii) disturbs a Hazardous Material identified in the Contract Documents, the CM/Contractor shall hire a qualified remediation contractor at CM/Contractor's sole cost to eliminate the condition as soon as possible. Under no circumstance shall the CM/Contractor perform Work for which it is not qualified. University, in its sole discretion, may require the CM/Contractor to retain at CM/Contractor's cost an independent testing laboratory.

3.19.3 If the CM/Contractor encounters a Hazardous Material which may cause foreseeable injury or damage, CM/Contractor shall immediately: (i) secure or otherwise isolate such condition; (ii) stop all Work in connection with such material or substance (except in an emergency situation); and (iii) notify University (and promptly thereafter confirm such notice in writing)

3.19.4 Subject to CM/Contractor's compliance with Article 3.19.3, the University shall verify the presence or absence of the Hazardous Material reported by the CM/Contractor, except as qualified under Section 3.19.1 and 3.19.3, and, in the event such material or substance is found to be present, verify that the levels of the hazardous material are below OSHA Permissible Exposure Levels and below levels which would classify the material as a state of California or federal hazardous waste. When the material falls below such levels, Work in the affected area shall resume upon direction by the University. The Contract Time and Sum shall be extended appropriately as provided in Articles 7 and 8.

3.19.5 The University shall indemnify and hold harmless the CM/Contractor from and against claims, damages, losses and expenses, arising from a Hazardous Material on the Project site, if such Hazardous Material: (i) was not shown on the Contract Documents or Information Available to Bidders; (ii) was not brought to the site by CM/Contractor; and (iii) exceeded OSHA Permissible Exposure Levels or levels which would classify the material as a state of California or federal hazardous waste. The indemnity obligation in this Article shall not apply to:

- .1 Claims, damages, losses or expenses arising from the breach of contract, negligence or willful misconduct of CM/Contractor, its suppliers, its Subcontractors of all tiers and/or any persons or entities working under CM/Contractor; and
- .2 Claims, damages, losses or expenses arising from a Hazardous Material subject to Article 3.19.2.

3.19.6 In addition to the requirements in Article 3.22, CM/Contractor shall indemnify and hold harmless the University from and against claims, damages, losses and expenses, arising from a Hazardous Material on the Project site, if such Hazardous Material exceeded OSHA Permissible Exposure Levels or levels which would classify the material as a state of California or federal hazardous waste, and was either i) shown on the Contract Documents or Information Available to Bidders; or (ii) brought to the site by CM/Contractor. Nothing in this paragraph shall obligate the CM/Contractor to indemnify University in the event of the sole negligence of the University, its officers, agents, or employees.

3.20 INFORMATION AVAILABLE TO BIDDERS

3.20.1 Any information provided pursuant to Information Available to Bidders is subject to the following provisions:

- .1 The information is made available for the convenience of Bidders and is not a part of the Contract.
- .2 The CM/Contractor may rely on written descriptions of physical conditions included in the information to the extent such reliance is reasonable.

- .3 Other components of the information, including but not limited to recommendations, may not be relied upon by CM/Contractor. University shall not be responsible for any interpretation of or conclusion drawn from the other components of the information by the CM/Contractor.

3.21 LIABILITY FOR AND REPAIR OF DAMAGED CONSTRUCTION WORK

3.21.1 CM/Contractor shall be liable for any and all damages and losses to the Project (whether by fire, theft, vandalism, earthquake or otherwise) prior to University's acceptance of the Project as fully completed except that CM/Contractor shall not be liable for earthquake in excess of magnitude 3.5 on the Richter Scale, tidal wave, or flood, provided that the damages or losses were not caused in whole or in part by the negligent acts or omissions of CM/Contractor, its officers, agents or employees (including all Subcontractors and suppliers of all tiers). As used herein, "flood" shall have the same meaning as in the builder's risk property insurance.

3.21.2 CM/Contractor shall promptly repair and replace any Construction Work or materials damaged or destroyed for which the CM/Contractor is liable under Paragraph 3.21.1.

3.22 INDEMNIFICATION

3.22.1 CM/Contractor shall indemnify, defend and hold harmless University, University's consultants, University's Representative, University's Representative's consultants, and their respective directors, officers, agents, and employees from and against losses (including without limitation the cost of repairing defective work and remedying the consequences of defective work) arising out of, resulting from, or relating to the following:

- .1 The failure of CM/Contractor to perform its obligations under the Contract.
- .2 The inaccuracy of any representation or warranty by CM/Contractor given in accordance with or contained in the Contract Documents.
- .3 Any claim of damage or loss by any Subcontractor against University arising out of any alleged act or omission of CM/Contractor or any other Subcontractor, or anyone directly or indirectly employed by CM/Contractor or any Subcontractor.
- .4 Any claim of damage or loss resulting from Hazardous Materials introduced, discharged, or disturbed by CM/Contractor as required per Article 3.19.6.

3.22.2 The University shall not be liable or responsible for any accidents, loss, injury (including death) or damages happening or accruing during the term of the performance of the Work herein referred to or in connection therewith, to persons and/or property, and CM/Contractor shall fully indemnify, defend and hold harmless University and protect University from and against the same as provided in paragraph 3.22.1 above. In addition to the liability imposed by law upon the CM/Contractor for damage or injury (including death) to persons or property by reason of the negligence of the CM/Contractor, its officers, agents, employees or Subcontractors, which liability is not impaired or otherwise affected hereby, the CM/Contractor shall defend, indemnify, hold harmless, release and forever discharge the University, its officers, employees, and agents from and against and waive any and all responsibility of same for every expense, liability, or payment by reason of any damage or injury (including death) to persons or property suffered or claimed to have been suffered through any negligent act, omission, or willful misconduct of the CM/Contractor, its officers, agents, employees, or any of its Subcontractors, or anyone directly or indirectly employed by either of them or from the condition of the premises or any part of the premises while in control of the CM/Contractor, its officers, agents, employees, or any of its Subcontractors or anyone directly or indirectly employed by either of them, arising out of the performance of the Work called for by this Contract. CM/Contractor agrees that this indemnity and hold harmless shall apply even in the event of negligence of University, its officers, agents, or employees, regardless of whether such negligence is contributory to any claim, demand, loss, damage, injury, expense, and/or liability; but such indemnity and hold harmless shall not apply (i) in the event of the sole negligence of University, its officers, agents, or employees; or (ii) to the extent that the University shall indemnify and hold harmless the CM/Contractor for Hazardous Materials pursuant to Article 3.19.5.

3.22.3 In claims against any person or entity indemnified under this Article 3.22 that are made by an employee of CM/Contractor or any Subcontractor, a person indirectly employed by CM/Contractor or any Subcontractor, or anyone for whose acts CM/Contractor or any Subcontractor may be liable, the indemnification obligation under this Article 3.22 shall not be limited by any limitation on amount or type of damages, compensation, or benefits payable by or for CM/Contractor or any Subcontractor under workers' compensation acts, disability benefit acts, or other employee benefit acts.

3.22.4 The indemnification obligations under this Article 3.22 shall not be limited by any assertion or finding that the person or entity indemnified is liable by reason of a non-delegable duty.

3.22.5 CM/Contractor shall indemnify University from and against losses resulting from any claim of damage made by any Separate Contractor against University arising out of any alleged acts or omissions of CM/Contractor, any Subcontractor, anyone directly or indirectly employed by either of them, or anyone for whose acts either of them may be liable.

3.22.6 CM/Contractor shall indemnify Separate Contractors from and against losses arising out of the negligent acts, omissions, or willful misconduct of CM/Contractor, any Subcontractor, anyone directly or indirectly employed by either of them, or anyone for whose acts either of them may be liable.

3.23 BIDDING

3.23.1 CM/Contractor is responsible as part of Pre-Construction Services, to competitively bid all work not performed by the CM/Contractor in accordance with the applicable provisions of the California Public Contract Code and University Policy. As such, CM/Contractor shall:

- .1 Provide public notice of the availability of work to be subcontracted in accordance with Section 10500 et seq. of the Public Contract Code.
- .2 The contents of the notice shall state the time and place for receiving and opening of sealed bids and general description of the work.
- .3 As authorized by the University, establish reasonable prequalification criteria and standards which are consistent with the competitive bidding laws.
- .4 Provide that the subcontracted work be awarded to the lowest responsive and responsible bidder, subject to University's right, in its sole discretion, to reject all bids and require CM/Contractor to re-bid any subcontract Bid Package.
- .5 Receive, open, and analyze for compliance with competitive bidding procedures, the bids received, other than for self-performed work, for Bid Package Contracts.
- .6 Provide University with a Bid Package Certification Form, as contained in the Exhibits, certifying to the University that the CM/Contractor has followed the procedures of this section and that the CM/Contractor has determined that the lowest bidder is both responsible and responsive. Additionally, upon submittal of the Bid Package Certification Form for the final Bid Package as shown in the Contract Schedule, CM/Contractor shall certify to the University on the Bid Package Certification that all Construction Work, previously approved by the University for insertion into Bid Packages, has been incorporated into the Contract, whether by the final Bid Package or preceding Bid Packages. CM/Contractor shall bear the cost any such Construction Work not incorporated in the final Bid Package or preceding Bid Packages.
- .7 Incorporate requirements related to bid protest procedures, pursuant to University Policy, and comply with the procedures in Bid Protest Procedure Exhibit.

3.23.2 University will conduct bidding for any Bid Package when the CM/Contractor, a company CM/Contractor has a financial interest in, or a parent company of CM/Contractor, intends to submit a bid to self-perform the work of the Bid Package.

3.23.3 CM/Contractor, a company CM/Contractor has a financial interest in, or a parent company of CM/Contractor will be permitted to submit a bid to self-perform the work of a Bid Package if:

- .1 The categories of work to be bid are listed in the Supplementary Conditions, and
- .2 CM/Contractor has notified University's Representative in writing within the time period specified in the Supplementary Conditions of such intent.

ARTICLE 4

ADMINISTRATION OF THE CONTRACT

4.1 ADMINISTRATION OF THE CONTRACT BY UNIVERSITY'S REPRESENTATIVE

4.1.1 University's Representative will provide administration of the Contract as provided in the Contract Documents and will be the representative of University. University's Representative will have authority to act on behalf of University only to the extent provided in the Contract Documents.

4.1.2 University's Representative will have the right to visit the Project site at such intervals as deemed appropriate by the University's Representative. However, no actions taken during such Project site visit by University's Representative shall relieve CM/Contractor of its obligations as described in the Contract Documents.

4.1.3 University's Representative will not have control over, will not be in charge of, and will not be responsible for construction means, methods, techniques, sequences, or procedures, or for safety precautions and programs in connection with the Construction Work, since these are solely CM/Contractor's responsibility.

4.1.4 Except as otherwise provided in the Contract Documents or when direct communications have been specifically authorized, University and CM/Contractor shall communicate through University's Representative. Except when direct communication has been specifically authorized in writing by University's Representative, communications by CM/Contractor with University's consultants and University's Representative's consultants shall be through University's Representative. Communications by University and University's Representative with Subcontractors will be through CM/Contractor. Communications by CM/Contractor and Subcontractors with Separate Contractors shall be through University's Representative. CM/Contractor shall not rely on oral or other non-written communications.

4.1.5 Based on University's Representative's Project site visits and evaluations of CM/Contractor's Applications for Payment, University's Representative will recommend amounts, if any, due CM/Contractor and will issue Certificates for Payment in such amounts.

4.1.6 University's Representative will have the authority to reject the Work, or any portion thereof, which does not conform to the Contract Documents. University's Representative will have the authority to stop the Work or any portion thereof. Whenever University's Representative considers it necessary or advisable for implementation of the intent of the Contract Documents, University's Representative will have the authority to require additional inspection or testing of the Work in accordance with the Contract Documents, whether or not such Work is fabricated, installed, or completed. However, no authority of University's Representative conferred by the Contract Documents nor any decision made in good faith either to exercise or not exercise such authority, will give rise to a duty or responsibility of University or University's Representative to CM/Contractor, or any person or entity claiming under or through CM/Contractor.

4.1.7 University's Representative will have the authority to conduct inspections as provided in the Contract Documents, to take Beneficial Occupancy and to determine the dates of Substantial Completion and Final Completion; will receive for review and approval any records, written warranties, and related documents required by the Contract Documents and assembled by CM/Contractor; and will issue a final Certificate for Payment upon CM/Contractor's compliance with the requirements of the Contract Documents.

4.1.8 University's Representative will be, in the first instance, the interpreter of the requirements of the Contract Documents and the judge of performance thereunder by CM/Contractor. Should CM/Contractor discover any conflicts, omissions, or errors in the Contract Documents; have any questions about the interpretation or clarification of the Contract Documents; question whether Work is within the scope of the Contract Documents; or question that Work required is not sufficiently detailed or explained, then, before proceeding with the Work affected, CM/Contractor shall notify University's Representative in writing and request interpretation, clarification, or furnishing of additional detailed instructions. University's Representative's response to questions and requests for interpretations, clarifications, instructions, or decisions will be made with reasonable promptness. Should CM/Contractor proceed with the Work affected before receipt of a response from University's Representative, any portion of the Work which is not done in accordance with University's Representative's interpretations, clarifications, instructions, or decisions shall be removed or replaced and CM/Contractor shall be responsible for all resultant losses.

4.2 CM/CONTRACTOR CHANGE ORDER REQUESTS

4.2.1 CM/Contractor may request changes to the Contract Sum and/or Contract Time for Extra Work, materially differing site conditions, or Delays to Final Completion of the Construction Work.

4.2.2 Conditions precedent to obtaining an adjustment of the Contract Sum and/or Contract Time, payment of money, or other relief with respect to the Contract Documents, for any other reason, are:

- .1 Timely submission of a Change Order Request that meets the requirements of Articles 4.2.3.1 and 4.2.3.2; and
- .2 If requested, timely submission of additional information requested by the University's Representative pursuant to Article 4.2.3.3.

4.2.3 Change Order Request.

4.2.3.1 A Change Order Request will be deemed timely submitted if, and only if, it is submitted within 7 days of the date the CM/Contractor discovers, or reasonably should discover the circumstances giving rise to the Change Order Request, unless additional time is allowed in writing by University's Representative for submission of the Change Order Request, provided that if:

- .1 The Change Order Request includes compensation sought by a Subcontractor; AND
- .2 The CM/Contractor requests in writing to the University's Representative, within the 7-day time period, additional time to permit CM/Contractor to conduct an appropriate review of the Subcontractor Change Order Request, the time period for submission of the actual Change Order Request shall be extended by the number of days specified in writing by the University's Representative.

4.2.3.2 Change Order Request must state that it is a Change Order Request, state and justify the reason for the request, and specify the amount of any requested adjustment of the Contract Sum, Contract Time, and/or other monetary relief. If the CM/Contractor requests an adjustment to the Contract Sum or other monetary relief, the CM/Contractor shall submit the following with the Change Order Request:

- .1 A completed Cost Proposal in the form contained in the Exhibits meeting the requirements of Article 7 of the General Conditions; OR
- .2 A partial Cost Proposal and a declaration of what required information is not then known to CM/Contractor. If CM/Contractor failed to submit a completed Cost Proposal with the Change Order Request, CM/Contractor shall submit a completed Cost Proposal meeting the requirements of Article 7 of the General Conditions within 7 days of the date the CM/Contractor submitted the Change Order Request unless additional time is allowed by the University's Representative.

4.2.3.3 Upon request of University's Representative, CM/Contractor shall submit such additional information as may be requested by University's Representative for the purpose of evaluating the Change Order Request. Such additional information may include:

- .1 If CM/Contractor seeks an adjustment of the Contract Sum or other monetary relief, actual cost records for any changed or extra costs (including without limitation, payroll records, material and rental invoices and the like), shall be submitted by the deadline established by the University's Representative, who may require such actual cost records to be submitted and reviewed, on a daily basis, by the University's Representative and/or representatives of the University's Representative.
- .2 If CM/Contractor seeks an adjustment of the Contract Time, written documentation demonstrating CM/Contractor's entitlement to a time extension under Article 8.4 of the General Conditions, which shall be submitted within 15 days of the date requested. If requested, CM/Contractor may submit a fragnet in support of its request for a time extension. The University may, but is not obligated to, grant a time extension on the basis of a fragnet alone which, by its nature, is not a complete schedule analysis. If deemed appropriate by University's Representative, CM/Contractor shall submit a more detailed schedule analysis in support of its request for a time extension.
- .3 If CM/Contractor seeks an adjustment of the Contract Sum or other monetary relief for delay, written documentation demonstrating CM/Contractor's entitlement to such an adjustment under Article 7.3.9 of the General Conditions, which shall be submitted within 15 days of the date requested.
- .4 Any other information requested by the University's Representative for the purpose of evaluating the Change Order Request, which shall be submitted by the deadline established by the University's Representative.

4.2.4 University's Representative will make a decision on a Change Order Request, within a reasonable time, after receipt of a Change Order Request. In the event the Change Order Request is submitted pursuant to Article 8.4.1 the University's Representative shall promptly review and accept or reject it within thirty (30) days. A final decision is any decision on a Change Order Request which states that it is final. If University's Representative issues a final decision denying a Change Order Request in whole or in part, CM/Contractor may contest the decision by filing a timely Claim under the procedures specified in Article 4.4 below.

4.2.5 CM/Contractor may file a written demand for a final decision by University's Representative on all or part of any Change Order Request as to which the University's Representative has not previously issued a final decision pursuant to Article 4.2.4 above; such written demand may not be made earlier than the 30th day after submission of the Change Order Request. Within

30 days of receipt of the demand, University's Representative will issue a final decision on the Change Order Request. The University's Representative's failure to issue a decision within the 30-day period shall be treated as the issuance, on the last day of the 30-day period, of a final decision to deny the Change Order Request in its entirety.

4.3 CLAIMS

4.3.1 The term "Claim" means a written demand or assertion by CM/Contractor seeking an adjustment or interpretation of the terms of the Contract Documents, payment of money, extension of time, or other relief with respect to the Contract Documents, including a determination of disputes or matters in question between University and CM/Contractor arising out of or related to the Contract Documents or the performance of the Construction Work. However, the term "Claim" shall not include, and the Claims procedures provided under this Article 4, including but not limited to arbitration, shall not apply to the following:

- .1 Claims respecting penalties for forfeitures prescribed by statute or regulation which a government agency is specifically authorized to administer, settle, or determine.
- .2 Claims respecting personal injury, death, reimbursement, or other compensation arising out of, or resulting from, liability for personal injury or death.
- .3 Claims by University, except as set forth Articles 4.5, 4.6, and 4.7. of the General Conditions.
- .4 Claims respecting stop payment notices.

4.3.2 A Claim arises upon the issuance of a written final decision denying in whole or in part CM/Contractor's Change Order Request pursuant to Articles 4.2.4 and 4.2.5 above.

4.3.3 A Claim must include the following:

- .1 A statement that it is a Claim and a request for a decision pursuant to Article 4.5 of the General Conditions.
- .2 A detailed factual narrative of events fully describing the nature and circumstances giving rise to the Claim, including but not limited to, necessary dates, locations, and items of work affected.
- .3 A certification, executed by CM/Contractor, that the claim is filed in good faith. The certification must be made on the Claim Certification form, included in the Exhibits to the Contract. The language of the Claim Certification form may not be modified.
- .4 A certification, executed by each Subcontractor claiming not less than 5% of the total monetary amount sought by the claim, that the subcontractor's portion of the claim is filed in good faith. The certification must be made on the Claim Certification form, included in the Exhibits to the Contract. The language of the Claim Certification form may not be modified.
- .5 A statement demonstrating that a Change Order Request was timely submitted as required by Article 4.2.3 above.
- .6 If a Cost Proposal or declaration was required by Article 4.2.3 above, a statement demonstrating that the Cost Proposal or the declaration was timely submitted as required by Article 4.2.3.
- .7 A detailed justification for any remedy or relief sought by the Claim, including to the extent applicable, the following:
 - .1 If the Claim involves Extra Work, a detailed cost breakdown of the amounts claimed, including the items specified in Article 7.3.2 of the General Conditions. An estimate of the costs must be provided even if the costs claimed have not been incurred when the Claim is submitted. To the extent costs have been incurred when the Claim is submitted, the Claim must include actual cost records (including without limitation, payroll records, material and rental invoices and the like) demonstrating that costs claimed have actually been incurred. To the extent costs have not yet been incurred at the time the Claim is submitted, actual cost records must be submitted on a current basis not less than once a month during any periods costs are incurred. A cost record will be considered current if submitted within 30 days of the date the cost reflected in the record is incurred. At the request of the University's Representative, claimed extra costs may be subject to further verification procedures (such as having an inspector verify the performance of alleged Extra Work on a daily basis). The cost breakdown must include an itemization of costs for i) labor including workers' names, classifications, regular hours and overtime hours worked, dates worked, and other pertinent information; ii) materials stored or incorporated in the work including invoices, purchase orders, location of materials either stored or incorporated into the work, dates materials were transported to the project or incorporated into the work, and other pertinent information; and iii) itemization of machinery and

equipment including make, model, hours of use, dates of use and equipment rental rates of any rented equipment.

- .2 If the Claim involves an extension of the Contract Time, written documentation demonstrating the CM/Contractor's entitlement to a time extension under Article 8.4 of the General Conditions, including the specific dates for which a time extension is sought and the specific reasons for entitlement of a time extension.
- .3 If the Claim involves an adjustment of the Contract Sum for delay, written documentation demonstrating the CM/Contractor's entitlement to such an adjustment under Article 7.3.9 of the General Conditions, including but not limited to, a detailed time impact analysis of the Contract Schedule. The Contract Schedule must demonstrate CM/Contractor's entitlement to such an adjustment under Article 7.3.9.

4.4 ASSERTION OF CLAIMS

4.4.1 Claims by CM/Contractor shall be first submitted to University's Representative for decision.

4.4.2 Notwithstanding the making of any Claim or the existence of any dispute regarding any Claim, unless otherwise directed by University's Representative, CM/Contractor shall not cause any delay, cessation, or termination in or of CM/Contractor's performance of the Work, but shall diligently proceed with performance of the Work in accordance with the Contract Documents.

4.4.3 CM/Contractor shall submit a Claim in writing, together with all supporting data specified in Article 4.3.3 above, to University's Representative as soon as possible but not later than 30 days after the date the Claim arises under Article 4.3.2, provided that after written notification to the University's Representative within such time period, the time period for submission of the Claim shall be extended by the number of days specified in writing by the University's Representative where the Claim includes compensation sought by a Subcontractor and the CM/Contractor requests an extension of time to permit it to discharge its responsibilities to conduct an appropriate review of the Subcontractor claim.

4.4.4 Strict compliance with the requirements of Articles 4.2, 4.3, and 4.4 of the General Conditions are conditions precedent to CM/Contractor's right to an informal conference to meet and confer to resolve a claim, mediate a claim, or arbitrate or litigate a Claim. CM/Contractor specifically agrees to assert no Claims via an informal conference, mediation, arbitration or litigation unless there has been strict compliance with Articles 4.2, 4.3, and 4.4. The failure of CM/Contractor to strictly comply with the requirements of Articles 4.2, 4.3 and 4.4 constitutes a failure by CM/Contractor to exhaust its administrative remedies with the University, thereby denying any court or arbitration panel of jurisdiction to adjudicate the Claim.

4.5 DECISION OF UNIVERSITY'S REPRESENTATIVE ON CLAIMS

4.5.1 University's Representative will timely review Claims submitted by CM/Contractor. If University's Representative determines that additional supporting data are necessary to fully evaluate a Claim, University's Representative will request such additional supporting data in writing. Such data shall be furnished no later than 10 days after the date of such request. University's Representative will render a decision promptly and in any case within 30 days after the later of the receipt of the Claim or the deadline for furnishing such additional supporting data; provided that, if the amount of the Claim is in excess of \$50,000, the aforesaid 30-day period shall be 45 days. Failure of University's Representative to render a decision by the applicable deadline will be deemed a decision denying the Claim on the date of the deadline, unless, upon receipt of a Claim, CM/Contractor and University mutually agree to extend the time periods provided herein, or unless otherwise extended by law. The decision of University's Representative will be final and binding unless appealed in accordance with Articles 4.5.2, 4.6, and 4.7 of the General Conditions. The University's Representative's decision on a Claim or dispute will include a written statement both identifying all disputed and undisputed portions of the Claim and substantially including the following:

"This is a decision under Article 4.5 of the General Conditions of your contract. If you are dissatisfied with the decision, and if you complied with the procedural requirements for asserting claims specified in Article 4 of the General Conditions of your contract, you may have the right to demand in writing an informal conference to meet and confer for settlement of any remaining issues in dispute, following which, if still dissatisfied, you may demand in writing a further resolution via nonbinding mediation, after which you have the right to arbitrate or litigate this decision. If you fail to take appropriate action within 30 days of the date of this decision, the decision shall become final and binding and not subject to further appeal."

4.5.2 If either CM/Contractor or University disputes University's Representative's decision on a Claim, then, within 30 days after the decision of University's Representative on the Claim, or, if no decision has been issued, within 30 days from the date of the applicable deadline in Article 4.5.1 for University Representative to render a decision, such party (the "Disputing Party")

must provide written notice demanding an informal conference to meet and confer. University shall schedule the conference within 30 days upon receipt of the notice demanding an informal conference. The parties will attempt in good faith to resolve any controversy or Claim arising out of or relating to this Contract by negotiation at the conference.

4.6 MEDIATION

4.6.1 Within 10 business days following the informal conference to meet and confer stated in Article 4.5.2, if the Claim or any portion of the Claim remains in dispute, the University shall provide a written statement identifying the disputed and undisputed portions of the Claim. Within 30 days of receipt of the statement, if either CM/Contractor or University disputes any portion of the Claim, then the Disputing Party must provide written notice to the non-disputing party demanding non-binding mediation. The CM/Contractor and the University shall share the associated costs equally and shall mutually agree to a mediator within 10 business days. If the parties cannot agree upon a mediator, each party shall select a mediator and those mediators shall select a qualified neutral third party to mediate with regard to the disputed portion of the Claim, with each party bearing the fees and costs of its respective mediator. Mediation shall include, but not be limited to, neutral evaluation, a dispute review board, or other negotiation or evaluation through an independent third party or board. The CM/Contractor and the University may mutually agree to waive any individual mediation in writing and proceed to arbitration or litigation pursuant to this Contract.

4.7 LITIGATION AND ARBITRATION

4.7.1 Either party may provide a written notice of its election to arbitrate or provide written notice of its election to litigate the Claim within 30 days after the mediation pursuant to Article 4.6.1, or, if the parties mutually agreed in writing to waive mediation, within 30 days after the agreement is signed by both parties.

4.7.2 If a notice of election to arbitrate or litigate is not given by either party within 30 days pursuant to Article 4.7.1, University's Representative's decision on the Claim will be final and binding and not subject to appeal or challenge.

4.7.3 If the Disputing Party gives timely notice of its election to arbitrate the University's Representative's decision on a Claim, Disputing Party shall have the right, within 120 days after a Notice of Completion, or a Notice of Cessation, as applicable, is filed for the Contract, to make a demand for arbitration in accordance with Article 4.7. Failure to perfect a Claim for which a timely election to arbitrate has been made by the timely filing of a demand for arbitration and timely payment of all applicable and required fees to the American Arbitration Association ("AAA") shall result in the University's Representative's decision on said Claim becoming final and binding and not subject to appeal or challenge. If the Disputing Party makes a timely demand for arbitration, and the amount of the Claim in question, when combined with all other Claims, if any, which are the subject of previously filed demands for arbitration that have not been resolved by settlement or arbitration award, is \$100,000 or more, then the other party may elect to litigate all such Claims by filing a written notice with the AAA within 30 days after its receipt of notice from the AAA of the Disputing Party's demand for arbitration of the Claim that raises the total amount of Claims subject to arbitration to \$100,000 or more. If the other party fails to give notice of its election to litigate within such 30-day period, it shall be deemed to have consented to arbitration and waived the right to litigate. If after commencement of arbitration the amount of unresolved Claims in arbitration are allowed to be increased to \$100,000 or more, through an AAA-allowed amendment or otherwise, either party may elect to litigate within 30 days following the date that the electing party first receives written notification from the AAA that total Claims in arbitration equal or exceed \$100,000. If neither party gives notice of its election to litigate within such 30-day period as applicable, then both parties shall be deemed to have consented to arbitration and waived the right to litigate.

4.7.4 A demand for arbitration pursuant to Article 4.7.3 of the General Conditions shall include a copy of the Claim presented to University's Representative pursuant to Article 4.4 of the General Conditions, a copy of the decision of University's Representative pursuant to Article 4.5, if any, a copy of the University's written statement identifying the portion of the Claim that remained in dispute following the informal conference pursuant to Article 4.6.1, and a summary of the remaining portions of the Claim in dispute. The demand shall state the amount in controversy, if any, and state the remedy sought. The demand shall identify the University's Responsible Administrator as the representative of the responding party and the Office of the General Counsel as counsel for the responding party. The demand shall be filed with the AAA and shall not be deemed to have been made until all applicable fees have been paid to the AAA by the demanding party. Copies of the demand and attachments shall be sent to University's Responsible Administrator as the representative of the responding party and the University's Office of General Counsel as attorney for the responding party, at the addresses set forth in the Project Directory, at the time the demand for arbitration is initiated with the AAA.

4.7.5 Except as modified by this Article 4.7, arbitration shall be conducted in accordance with the Construction Industry Arbitration Rules of the AAA then in effect. The following additional modifications shall be made to the aforesaid AAA rules:

- .1 Civil discovery shall be permitted for the production of documents. Other discovery may be permitted at the discretion of the arbitrator. All disputes regarding discovery shall be decided by the arbitrator.
- .2 University's Representative and/or University's consultants, shall if required by agreement with University, upon demand by University join in and be bound by the Arbitration. University's Representative and University's consultants will have the same rights in any arbitration proceeding as are afforded by the AAA rules to CM/Contractor and University.
- .3 CM/Contractor's sureties shall be bound by any arbitration award and may join in any arbitration proceeding.
- .4 Except as provided in Articles 4.7.5.2 and 4.7.5.3 above, no Subcontractor or other person shall have a right or obligation to join in or be a party to any arbitration proceeding provided for in this Article 4 either directly, by joinder, by consolidation or actions, by counterclaim or cross-claim, or otherwise without the express written consent of University, CM/Contractor, and the joining party.
- .5 If more than one demand for arbitration is made by a party with respect to Claims referred to University's Representative, all such Claims shall be consolidated into a single arbitration unless the parties otherwise agree in writing.
- .6 If total Claims are less than \$50,000, the AAA expedited procedures as modified by this Article 4 shall apply. If total Claims are between \$50,000 and \$100,000, they shall be heard by a single arbitrator who shall be an attorney. If total Claims are in excess of \$100,000 and are submitted to arbitration, either by agreement or by failure to elect litigation, the controversy shall be heard by a panel of three arbitrators, one of which shall be an attorney.
- .7 No arbitrator shall be appointed and no discovery may be commenced prior to Final Completion unless University and CM/Contractor otherwise agree.
- .8 The exclusive forum for determining arbitrability shall be the Superior Court of the State of California. The AAA shall not submit to any arbitrator any matter concerning the arbitrability of the dispute if the arbitrability is contested.
- .9 If the expedited procedures of the AAA are applicable, the AAA shall submit simultaneously to each party an identical list of 7 proposed arbitrators drawn from the National Panel of Commercial Arbitrators, and each party may strike 3 names from the list on a peremptory basis and return the list to AAA within 10 days from the date of receipt.

4.7.6 Unless University and CM/Contractor otherwise agree in writing, the arbitration decision shall be binding upon the parties, made under and in accordance with the laws of the State of California, supported by substantial evidence, and in writing. If the total of all Claims or cross Claims submitted to arbitration is in excess of \$50,000, the award shall contain the basis for the decision, findings of fact, and conclusions of law. Any arbitration award shall be subject to confirmation, vacation, or correction under the procedures and on the grounds specified in the California Code of Civil Procedure including without limitation Section 1296. The expenses and fees of the arbitrators and the administrative fees of the AAA shall be divided among the parties equally. Each party shall pay its own counsel fees, witness fees, and other expenses incurred for its own benefit.

4.7.7 University may, but is not required, to assert as a counterclaim any matter arising out of the claims asserted by CM/Contractor in the arbitration. University's failure to assert any such counterclaim in an arbitration shall be without prejudice to the University's right to assert the counterclaim in litigation or other proceeding.

4.7.8 Any litigation shall be filed in the Superior Court of the State of California for the County in which the contract was to be performed.

4.8 WAIVER

4.8.1 A waiver of or failure by University or University's Representative to enforce any requirement in this Article 4 in connection with any Claim shall not constitute a waiver of, and shall not preclude the University or University's Representative from enforcing such requirements in connection with any other Claims.

4.8.2 The CM/Contractor agrees and understands that no oral approval, either express or implied, of any Claim shall be binding upon University unless and until such approval is ratified by execution of a written Change Order.

ARTICLE 5

SUBCONTRACTORS

5.1 AWARD OF SUBCONTRACTS AND OTHER CONTRACTS FOR PORTIONS OF THE CONSTRUCTION WORK

5.1.1 Unless otherwise stated in the Contract Documents, CM/Contractor shall submit in writing on the CM/Contractor Expanded List of Subcontractors, prior to entering into subcontract agreements, the names and addresses of all Subcontractors proposed for the Construction Work that were not previously listed in CM/Contractor's Bid. CM/Contractor shall submit an updated CM/Contractor Expanded List of Subcontractors, listing all additional subcontractors resulting from Bid Package(s) with its Bid Package Certification.

5.1.2 Any Subcontractor may be disqualified if University or University's Representative determines that such Subcontractor fails to meet the requirements of the Contract Documents or for any other reasons.

5.1.3 In accordance with the Subletting and Subcontracting Fair Practices Act, nothing herein shall be deemed to entitle CM/Contractor, without the approval of University, to substitute other subcontractors for those named in current University approved CM/Contractor Expanded List of Subcontractors and, except with such approval, no such substitution shall be made.

5.1.4 Except as hereinafter provided, any increase in the cost of the Construction Work resulting from the replacement or substitution of a Subcontractor, as required by University or University's Representative pursuant to this Article 5.1 shall be borne solely by CM/Contractor and CM/Contractor shall not be entitled to any increase in Contract Sum or extension of Contract Time on account of such replacement or substitution.

5.2 SUBCONTRACTUAL RELATIONS

5.2.1 Any part of the Construction Work performed for CM/Contractor by a first-tier Subcontractor shall be pursuant to a written subcontract. Each such subcontract shall require the Subcontractor, to the extent of the Construction Work to be performed by the Subcontractor, to be bound to CM/Contractor by the terms of the Contract Documents, to assume toward CM/Contractor all the obligations and responsibilities which CM/Contractor assumes towards University by the Contract Documents, and to perform such portion of the Construction Work in accordance with the Contract Documents. Each such subcontract shall preserve and protect the rights of University under the Contract Documents, with respect to the Construction Work to be performed by Subcontractor, so that subcontracting thereof will not prejudice such rights. CM/Contractor shall cause each such subcontract to expressly include the following requirements:

- .1 Subcontractor waives all rights that Subcontractor may have against University for damages caused by fire or other perils covered by builder's risk property insurance carried by CM/Contractor or University, except for such rights Subcontractor may have to the proceeds of such insurance held by University under Article 11 of the General Conditions.
- .2 University and entities and agencies designated by University will have access to and the right to audit and the right to copy at University's cost all of Subcontractor's books, records, contracts, correspondence, instructions, drawings, receipts, vouchers, purchase orders, and memoranda relating to the Work. Subcontractor shall preserve all such records and other items for a period of at least 3 years after Final Completion.
- .3 Subcontractor recognizes the rights of University under Article 5.3, Contingent Assignment of Subcontracts, below and agrees, upon notice from University that University has elected to accept said assignment and to retain Subcontractor pursuant to the terms of the subcontract, to complete the unperformed obligations under the subcontract and, if requested by University, to execute a written agreement confirming that Subcontractor is bound to University under the terms of the subcontract.

5.2.2 Upon the request of University, CM/Contractor shall promptly furnish to University a true, complete, and executed copy of any subcontract.

5.2.3 Nothing contained in the Contract Documents shall create any contractual relationship between any Subcontractor and University, except when, and only to the extent that, University elects to accept the assignment of the subcontract with such Subcontractor pursuant to Article 5.3, Contingent Assignment of Subcontracts, below.

5.3 CONTINGENT ASSIGNMENT OF SUBCONTRACTS

5.3.1 CM/Contractor hereby assigns to University all its interest in first-tier subcontracts now or hereafter entered into by CM/Contractor for performance of any part of the Work. The assignment will be effective upon acceptance by University in writing and only as to those subcontracts which University designates in writing. University may accept said assignment at any time during the course of the Work and prior to Final Completion in the event of a suspension or termination of CM/Contractor's rights under the Contract Documents. Such assignment is part of the consideration to University for entering into the Contract with CM/Contractor and may not be withdrawn prior to Final Completion.

ARTICLE 6

CONSTRUCTION BY UNIVERSITY OR BY SEPARATE CONTRACTORS

6.1 UNIVERSITY'S RIGHT TO PERFORM CONSTRUCTION AND TO AWARD SEPARATE CONTRACTS

6.1.1 University reserves the right to award separate contracts for, or to perform with its own forces, construction or operations related to the Work or other construction or operations at or affecting the Project site, including portions of the Work which have been deleted by Change Order. CM/Contractor shall cooperate with University's forces and Separate Contractors.

6.1.2 University will provide coordination of the activities of University's forces and of each Separate Contractor with the Work of CM/Contractor. CM/Contractor shall participate with University and Separate Contractors in joint review of construction schedules and Project requirements when directed to do so. CM/Contractor shall make necessary revisions to the Contract Schedule after such joint review.

6.2 MUTUAL RESPONSIBILITY

6.2.1 CM/Contractor shall afford University and Separate Contractors reasonable opportunity for introduction and storage of their materials and equipment and performance of their activities. CM/Contractor shall connect, schedule, and coordinate its construction and operations with the construction and operations of University and Separate Contractors as required by the Contract Documents.

6.2.2 If a portion of the Construction Work is dependent upon the proper execution or results of other construction or operations by University or Separate Contractors, CM/Contractor shall inspect such other construction or operations before proceeding with that portion of the Construction Work. CM/Contractor shall promptly report to University's Representative apparent discrepancies or defects which render the other construction or operations unsuitable to receive the Construction Work. Unless otherwise directed by University's Representative, CM/Contractor shall not proceed with the portion of the Construction Work affected until apparent discrepancies or defects have been corrected. Failure of CM/Contractor to so report within a reasonable time after discovering such discrepancies or defects shall constitute an acknowledgment that the other construction or operations by University or Separate Contractors is suitable to receive the Construction Work, except as to defects not then reasonably discoverable.

6.3 UNIVERSITY'S RIGHT TO CLEAN UP

6.3.1 If a dispute arises between CM/Contractor and Separate Contractors as to the responsibility under their respective contracts for maintaining the Project site and surrounding areas free from waste materials and rubbish, University may clean up and allocate the cost between those firms it deems to be responsible.

ARTICLE 7

CHANGES IN THE WORK

7.1 CHANGES

7.1.1 University may, from time to time, order or authorize additions, deletions, and other changes in the Work by Change Order or Field Order without invalidating the Contract and without notice to sureties. Absence of such notice shall not relieve such sureties of any of their obligations to University.

7.1.2 CM/Contractor may request a Change Order under the procedures specified in Article 4.2 of the General Conditions.

7.1.3 A Field Order may be issued by University, does not require the agreement of CM/Contractor, and shall be valid with or without the signature of CM/Contractor.

7.1.4 CM/Contractor shall proceed promptly with any changes in the Work, unless otherwise provided in the relevant Change Order or Field Order.

7.2 DEFINITIONS

7.2.1 A Change Order is a Contract Document (as shown in the Exhibits) which has been signed by both University and CM/Contractor, and states their agreement, as applicable, to the following:

- .1 A change in the Work, if any.
- .2 The amount of an adjustment of the Contract Sum, if any.
- .3 The amount of an adjustment of the Contract Time, if any.
- .4

7.2.2 A Unilateral Change Order may also be issued by University, without CM/Contractor's signature, where University determines that a change in the Work requires an adjustment of the Contract Sum or Contract Time, even though no agreement has been reached between University and CM/Contractor.

7.2.3 A Field Order (as shown in Exhibits) is a Contract Document issued by the University that orders the CM/Contractor to perform Work. A Field Order may, but need not, constitute a change in the Work and may, but need not, entitle CM/Contractor to an adjustment of the Contract Sum or Contract Time.

7.3 CHANGE ORDER PROCEDURES

7.3.1 CM/Contractor shall provide a Change Order Request and Cost Proposal pursuant to Article 4.2 of the General Conditions and this Article 7.3. Adjustments of the Contract Sum resulting from Extra Work and Deductive Work shall be determined using one of the methods described in this Article 7.3. Adjustments of the Contract Time shall be subject to the provisions in Article 8 of the General Conditions. CM/Contractor's obligation to provide Cost Proposals shall be subject to the following:

- .1 The obligation of CM/Contractor to provide Cost Proposals is not Extra Work, and shall not entitle the CM/Contractor to an adjustment of the Contract Sum or Contract Time.
- .2 The failure of CM/Contractor to timely provide a Cost Proposal pursuant to Article 4.2 and this Article 7.3.1 is a material breach of the Contract. CM/Contractor shall be responsible for any delay in implementing a change for which CM/Contractor failed to timely provide a Cost Proposal consistent with the requirements of Article 4.2 and this Article 7.3.1.

7.3.2 The term "Cost of Extra Work" as used in this Article 7.3 shall mean actual costs incurred or to be incurred by CM/Contractor and each Subcontractor regardless of tier involved, to the extent not otherwise disallowed under Article 7.3.3, and shall be limited to the following (to the extent the CM/Contractor demonstrates that the costs are both reasonable and actually incurred, if such costs have been incurred):

- .1 Straight-time wages or salaries for employees employed at the Project site, or at fabrication sites off the Project site, incurred as a result of the performance of the Extra Work.
- .2 Fringe Benefits and Payroll Taxes for employees employed at the Project site, or at fabrication sites off the Project site, incurred as a result of the performance of the Extra Work.
- .3 Overtime wages or salaries, specifically authorized in writing by University's Representative, for employees employed at the Project site, or at fabrication sites off the Project site, incurred as a result of the performance of the Extra Work.
- .4 Fringe Benefits and Payroll Taxes for overtime Work specifically authorized in writing by University's Representative, for employees employed at the Project site, or at fabrication sites off the Project site, incurred as a result of the performance of the Extra Work.
- .5 Costs of materials and consumable items which are furnished and incorporated into the Extra Work as approved by University's Representative. Such costs shall be charged at the lowest price available to the CM/Contractor but in no event shall such costs exceed competitive costs obtainable from other subcontractors, suppliers, manufacturers, and distributors in the area of the Project site. All discounts, rebates, and refunds and all returns

from sale of surplus materials and consumable items shall accrue to University and CM/Contractor shall make provisions so that they may be obtained.

- .6 Sales tax on the cost of materials and consumable items, which are incorporated into and used in the performance of the Extra Work pursuant to Article 7.3.2.5 above.
- .7 Rental charges for necessary machinery and equipment, whether owned or hired, as authorized in writing by University's Representative, exclusive of hand tools, used directly in the performance of the Extra Work. Such rental charges shall not exceed the current Equipment Rental Rates published by the California Department of Transportation for the area in which the work is performed. Such rental rates are found at <http://www.dot.ca.gov/hq/construc/equipmnt.html>. CM/Contractor shall attach a copy of said schedule to the Cost Proposal. The charges for any machinery and equipment shall cease when the use thereof is no longer necessary for the Extra Work.
- .8 Additional costs of royalties and permits due to the performance of the Extra Work.
- .9 The cost for Insurance and Bonds shall not exceed 2% of items .1 through .8 above.

University and CM/Contractor may agree upon rates to be charged for any of the items listed in this Article 7.3.2. Such agreed upon rates shall be subject to audit pursuant to Article 15.7 of the General Conditions. CM/Contractor shall promptly refund to University any amounts (including associated mark-ups) in excess of the actual costs of such items.

7.3.3 Cost of Extra Work shall not include any of the following:

- .1 Supervision
- .2 Superintendent(s)
- .3 Assistant Superintendent(s)
- .4 Project Engineer(s)
- .5 Project Manager(s)
- .6 Scheduler(s)
- .7 Estimator(s)
- .8 Small tools (Replacement value does not exceed \$300)
- .9 Office expenses including staff, materials and supplies
- .10 On-site or off-site trailer and storage rental and expenses
- .11 Site fencing
- .12 Utilities including gas, electric, sewer, water, telephone, telefax, copier equipment
- .13 Data processing personnel and equipment
- .14 Federal, state, or local business income and franchise taxes
- .15 Overhead and Profit
- .16 Costs and expenses of any kind or item not specifically and expressly included in Article 7.3.2 above
- .17 Costs and expenses of any kind or item specifically and expressly included in definition of CM/Contractor Base Fee

7.3.4 The term "CM/Contractor Fee" shall mean the full amount of compensation, both direct and indirect (including without limitation all overhead and profit), to be paid to CM/Contractor for its own Work and the Work of all Subcontractors, for all costs and expenses not included in the Cost of Extra Work, whether or not such costs and expenses are specifically referred to in Article 7.3.3 above. The CM/Contractor Fee shall not be compounded. The CM/Contractor Fee shall be computed as follows:

- .1 Fifteen percent (15%) of the cost of that portion of the Extra Work to be performed by the CM/Contractor with its own forces.

- .2 Fifteen percent (15%) of the cost of that portion of the Work to be performed by a Subcontractor with its own forces, plus 5% for the CM/Contractor. Total combined CM/Contractor and Subcontractor fee shall not exceed 20%.
- .3 Fifteen percent (15%) of the cost of that portion of the Work to be performed by a sub-subcontractor with its own forces, or any lower tier of Subcontractor, plus 5% for the Subcontractor, plus 5% for the CM/Contractor. Total combined CM/Contractor, Subcontractor and all sub-subcontractor fee shall not exceed 25%.

7.3.5 Compensation for Extra Work shall be computed on the basis of the following:

- .1 Where the Work involved is covered by Unit Prices contained in the Contract Documents, by application of the Unit Prices to the quantities of the items involved.
- .2 Where Unit Prices are not applicable, a mutually agreed upon lump sum supported by a Cost Proposal pursuant to Article 7.3.1 above.
- .3 Where University and CM/Contractor cannot agree upon a lump sum, by the Cost of Extra Work plus CM/Contractor Fee applicable to such Extra Work.
- .4 The CM/Contractor shall not be entitled to any CM/Contractor Fee under any of the foregoing provisions, except for the fees for subcontractors of any tier, if the Contract Sum is then below Maximum Anticipated Contract Value.

7.3.6 As a condition to CM/Contractor's right to an adjustment of the Contract Sum, pursuant to Article 7.3.5.3 above, CM/Contractor must keep daily detailed and accurate records itemizing each element of cost and shall provide substantiating records and documentation, including time cards and invoices. Such records and documentation shall be submitted to University's Representative on a daily basis.

7.3.7 For Work to be deleted by Change Order, the reduction of the Contract Sum shall be computed on the basis of one or more of the following:

- .1 Unit Prices stated in the Contract Documents.
- .2 Where Unit Prices are not applicable, a lump sum agreed upon by University and CM/Contractor, based upon the actual costs which would have been incurred in performing the deleted portions of the Work as calculated in accordance with Articles 7.3.2 and 7.3.3 above, supported by a Cost Proposal pursuant to Article 7.3.1 above.

7.3.8 If any one Change involves both Extra Work and Deleted Work in the same portion of the Work, a CM/Contractor Fee will not be allowed if the deductive cost exceeds the additive cost. If the additive cost exceeds the deductive cost, a CM/Contractor Fee will be allowed only on the difference between the two amounts, subject to limitations in Article 7.3.5.5 above.

7.3.9 The Contract Sum will be adjusted for a delay if, and only if, CM/Contractor demonstrates that all of the following three conditions are met:

- .1 Condition Number One: The delay results in an extension of the Contract Time pursuant to Article 8.4.1 of the General Conditions.
- .2 Condition Number Two: The delay is caused solely by one or more of the following:
 - .1 An error or omission in the Contract Documents; or
 - .2 The University's decision to change the scope of the Work, where such decision is not the result of any default or misconduct of the CM/Contractor; or
 - .3 The University's decision to suspend the Work, where such decision is not the result of any default or misconduct of the CM/Contractor; or
 - .4 The failure of the University (including the University acting through its consultants, Design Professionals, Separate Contractors or the University's Representative) to timely perform any Contract obligation where the failure to so perform is not the result of any default or misconduct of the CM/Contractor; or
 - .5 The decision of the University to direct the rejection of all bids for a given Bid Package(s) and the rebidding of same, if such rejection is not due to the failure of the CM/Contractor to fulfill its obligation to provide a Project Construction Cost Estimate per the requirements of the Agreement; or
 - .6 A materially differing site condition pursuant to Article 3.17 of the General Conditions.

- .3 Condition Number Three: The delay is not concurrent with a delay caused by an event other than those listed in Article 7.3.9.2.

7.3.10 For each day of delay that meets all three conditions prescribed in Article 7.3.9 above the Contract Sum will be adjusted by the daily rate included in the Agreement and specifically identified as the rate to be paid to CM/Contractor for Compensable Delays. Pursuant to Article 9.7.4 of the General Conditions, said daily rate shall not apply to delays occurring after Substantial Completion. Said daily rate shall not apply to Pre-Construction Services under Phase 1.

7.3.11 Except as provided in Articles 7 and 8 of the General Conditions, CM/Contractor shall have no claim for damage or compensation for any delay, interruption, hindrance, or disruption.

7.3.12 If for any reason one or more of the conditions prescribed in Article 7.3.9 above is held legally unenforceable, the remaining conditions must be met as a condition to obtaining an adjustment of the Contract Time under Article 7.3.10 above.

7.4 FIELD ORDERS

7.4.1 Field Orders issued by the University's Representative shall be subject to the following:

- .1 A Field Order may state that it does or does not constitute a change in the Work.
- .2 If the Field Order states that it does not constitute a change in the Work and the CM/Contractor asserts that the Field Order constitutes a change in the Work, in order to obtain an adjustment of the Contract Sum or Contract Time for the Work encompassed by the Field Order, CM/Contractor must follow all procedures set forth in Article 4 of the General Conditions, starting with the requirement of submitting a timely Change Order Request within 7 days of CM/Contractor's receipt of the Field Order; failure to strictly follow those procedures is a bar to any Claim for an adjustment of the Contract Sum or Contract Time arising from performance of the Work described in the Field Order.
- .3 If the Field Order states that it does constitute a change in the Work, the Work described in the Field Order shall be considered Extra Work and the CM/Contractor shall be entitled to an adjustment of the Contract Sum and Contract Time, calculated under and subject to CM/Contractor's compliance with the procedures for verifying and substantiating costs and delays in Articles 7 and 8 of the General Conditions.
- .4 In addition, if the Field Order states that it does constitute a change in the Work, the Field Order may or may not contain University's estimate of adjustment of Contract Sum and/or Contract Time. If the Field Order contains an estimate of adjustment of Contract Sum or Contract Time, the Field Order is subject to the following:
 - .1 The CM/Contractor shall not exceed the University's estimate of adjustment to Contract Sum or Contract Time without prior written notification to the University's Representative.
 - .2 If the CM/Contractor asserts that the change in the Work encompassed by the Field Order may entitle CM/Contractor to an adjustment of Contract Sum or Contract Time in excess of the University's estimate, in order not to be bound by University's estimate CM/Contractor must follow all procedures set forth in Article 4 of the General Conditions, starting with the requirement of submitting a timely Change Order Request within 7 days of CM/Contractor's receipt of the Field Order; failure to strictly follow those procedures is a bar to any Claim for an adjustment of the Contract Sum or Contract Time, in excess of the University's estimate, arising from performance of the Work described in the Field Order.

7.4.2 Upon receipt of a Field Order, CM/Contractor shall promptly proceed to perform the Work as ordered in the Field Order notwithstanding any disagreement by the CM/Contractor concerning whether the Work is extra.

7.5 VARIATION IN QUANTITY OF UNIT PRICE WORK

7.5.1 University has the right to increase or decrease the quantity of any Unit price item for which an Estimated Quantity is stated in the Bid Form.

7.6 WAIVER

7.6.1 A waiver of or failure by University or University's Representative to enforce any requirement in this Article 7, including without limitation the requirements in Articles 7.3.6, 7.3.8, 7.3.9, 7.3.10, 7.3.11, or 7.3.12 in connection with any adjustment of the Contract Sum, will not constitute a waiver of, and will not preclude the University or University's Representative from enforcing, such requirements in connection with any other adjustments of the Contract Sum.

7.6.2 The CM/Contractor agrees and understands that no oral approval, either express or implied, of any adjustment of the Contract Sum by University or its agents shall be binding upon University unless and until such approval is ratified by execution of a written Change Order.

ARTICLE 8

CONTRACT TIME

8.1 COMMENCEMENT OF THE WORK

8.1.1 The date of commencement of the Work shall be set forth in the Phase I Notice to Proceed. The date of commencement of the Work shall not be postponed by the failure of CM/Contractor, Subcontractors, or of persons or firms for whom CM/Contractor is responsible, to act.

8.2 PROGRESS AND COMPLETION

8.2.1 By signing the Agreement:

- .1 CM/Contractor represents to University that the Contract Time is reasonable for performing the Work and that CM/Contractor is able to perform the Work within the Contract Time.
- .2 CM/Contractor agrees that University is purchasing the right to have the CM/Contractor present on the Project site for the full duration of the Contract Time, even if CM/Contractor could finish the Contract in less than the Contract Time.

8.2.2 CM/Contractor shall not, except by agreement or instruction of University in writing, commence operations on the Project site or elsewhere prior to the effective date of insurance required by Article 11 of the General Conditions to be furnished by CM/Contractor. The dates of commencement and Final Completion of the Construction Work shall not be changed by the effective date of such insurance.

8.2.3 CM/Contractor shall proceed expeditiously with adequate forces and shall achieve Final Completion of the Work within the Contract Time. If University's Representative determines and notifies CM/Contractor that CM/Contractor's progress is such that CM/Contractor will not achieve Final Completion of the Work within the Contract Time, CM/Contractor shall immediately and at no additional cost to University, take all measures necessary, including working such overtime, additional shifts, Sundays, or holidays as may be required to ensure that the Work is fully completed within the Contract Time. Upon receipt of such notice from University's representative, CM/Contractor shall immediately notify University's Representative of all measures to be taken to ensure Final Completion of the Work within the Contract Time. CM/Contractor shall reimburse University for any extra costs or expenses (including the reasonable value of any services provided by University's employees) incurred by University as the result of such measures.

8.3 DELAY

8.3.1 Except and only to the extent provided otherwise in Articles 7 and 8 of the General Conditions, by signing the Agreement, CM/Contractor agrees:

- .1 To bear the risk of delays to the Work; and
- .2 That CM/Contractor's bid for the Contract was made with full knowledge of this risk.

In agreeing to bear the risk of delays to the Work, CM/Contractor understands that, except and only to the extent provided otherwise in Articles 7 and 8, the occurrence of events that delay the Work shall not excuse CM/Contractor from its obligation to achieve Final Completion of the Work within the Contract Time, and shall not entitle the CM/Contractor to an adjustment of the Contract Sum.

8.4 ADJUSTMENT OF THE CONTRACT TIME FOR DELAY

8.4.1 Subject to Article 8.4.2 below, the Contract Time will be extended for each day of delay for which CM/Contractor demonstrates that all of the following four conditions have been met; a time extension will not be granted for any day of delay for which CM/Contractor fails to demonstrate compliance with the four conditions:

- .1 Condition Number One: The delay is critical. A delay is critical if and only to the extent it delays a work activity that cannot be delayed without delaying Final Completion of the Work beyond the Contract Time. Under this Article 8.4.1.2, if the Contract Schedule shows Final Completion of the Work before expiration of the Contract Time, a delay is critical if and only to the extent the delay pushes Final Completion of the Work to a date that is beyond the Contract Time.
- .2 Condition Number Two: Within 7 days of the date the CM/Contractor discovers or reasonably should discover an act, error, omission or unforeseen condition or event causing the delay is likely to have an impact on the critical path of the Project, (even if the CM/Contractor has not yet been delayed when the CM/Contractor discovers or reasonably should discover the critical path impact of the act, error, omission or unforeseen condition giving rise to the delay) the CM/Contractor submits both a timely and complete Change Order Request that meets the requirements of Article 4.2 of the General Conditions.
- .3 Condition Number Three: The delay is not caused by:
 - .1 A concealed, unforeseen or unknown condition or event except for a materially differing site condition pursuant to Article 3.17 of the General Conditions; or
 - .2 The financial inability, misconduct or default of the CM/Contractor, a Subcontractor or supplier; or
 - .3 The unavailability of materials or parts.
- .4 Condition Number Four: The delay is caused by:
 - .1 Fire; or
 - .2 Strikes, boycotts, or like obstructive actions by labor organizations; or
 - .3 Acts of God (As used herein, "Acts of God" shall include only earthquakes in excess of a magnitude of 3.5 on the Richter Scale and tidal waves); or
 - .4 A materially differing site condition pursuant to Article 3.17 of the General Conditions; or
 - .5 An error or omission in the Contract Documents; or
 - .6 The University's decision to change the scope of the Work, where such decision is not the result of any default or misconduct of the CM/Contractor; or
 - .7 The University's decision to suspend the Construction Work, where such decision is not the result of any default or misconduct of the CM/Contractor; or
 - .8 The failure of the University (including the University acting through its consultants, Design Professionals, Separate Contractors or the University's Representative) to perform any Contract obligation unless such failure is due to CM/Contractor's default or misconduct; or
 - .9 "Adverse weather," but only for such days of adverse weather, or on-site conditions caused by adverse weather, that are in excess of the number of days specified in the Supplementary Conditions. In order for a day to be considered a day of adverse weather for the purpose of determining whether CM/Contractor is entitled to an adjustment in Contract Time, both of the following conditions must be met:
 - .1 The day must be a day in which, as a result of adverse weather, less than one half day of critical path work is performed by CM/Contractor; and
 - .2 The day must be identified in the Contract Schedule as a scheduled work day.

8.4.2 If and only if a delay meets all four conditions prescribed in Article 8.4.1, then a time extension will be granted for each day that Final Completion of the Work is delayed beyond the Contract Time, subject to the following:

- .1 When two or more delays (each of which meet all four conditions prescribed in Article 8.4.1) occur concurrently on the same day, and each such concurrent delay by itself without consideration of the other delays would be critical, then all such concurrent delays shall be considered critical. For the purpose of determining whether and

to what extent the Contract Time should be adjusted pursuant to this Article 8.4.2, such concurrent critical delays shall be treated as a single delay for each such day.

- .2 CM/Contractor shall be entitled to a time extension for a day of delay that meets all four requirements of Article 8.4.1 if the delay is concurrent with a delay that does not meet all four conditions of Article 8.4.1.

8.4.3 If for any reason one or more of the four conditions prescribed in Article 8.4.1 above is held legally unenforceable, then all remaining conditions must be met as a condition to obtaining an extension of the Contract Time under Article 8.4.2.

8.5 COMPENSATION FOR DELAY

8.5.1 To the maximum extent allowed by law, any adjustment of the Contract Sum as the result of delays shall be limited to the amounts specified in Article 7 of the General Conditions. Such adjustment shall, to the maximum extent allowed by law, constitute payment in full for all delay related costs (including costs for disruption, interruption and hindrance, general conditions, on and off-site overhead and profit) of CM/Contractor, its Suppliers and Subcontractors of all tiers and all persons and entities working under or claiming through CM/Contractor in connection with the Project.

8.5.2 By signing the Agreement, the parties agree that the University is buying the right to do any or all of the following, which are reasonable and within the contemplation of the parties:

- .1 To order changes in the Work, regardless of the extent and number of changes, including without limitation:
 - .1 Changes to correct errors or omissions, if any, in the Contract Documents.
 - .2 Changes resulting from the University's decision to change the scope of the Work subsequent to execution of the Contract.
 - .3 Changes due to unforeseen conditions.
- .2 To suspend the Work or any part thereof.
- .3 To delay the Work, including without limitation, delays resulting from the failure of the University or the University's Representative to timely perform any Contract obligation and delays for University's convenience.

8.6 WAIVER

8.6.1 A waiver of or failure by University or University's Representative to enforce any requirement in this Article 8, including without limitation the requirements in Article 8.4 above, in connection with any or all past delays shall not constitute a waiver of, and shall not preclude the University or University's Representative from enforcing, such requirements in connection with any present or future delays.

8.6.2 CM/Contractor agrees and understands that no oral approval, either express or implied, of any time extension by University or its agents shall be binding upon University unless and until such approval is ratified by execution of a written Change Order.

ARTICLE 9

PAYMENTS AND COMPLETION

9.1 COST BREAKDOWN

9.1.1 Within 10 days after receipt of the Notice of Intent, CM/Contractor shall submit to University's Representative a Cost Breakdown of the Contract Sum in the form contained in the Exhibits. The Cost Breakdown shall itemize as separate line items the cost of each Work Activity and all associated costs, including but not limited to warranties, as-built documents, overhead expenses, and the total allowance for profit. Insurance and bonds shall each be listed as separate line items. The total of all line items shall equal the Contract Sum. The Cost Breakdown, when approved by the University's Representative, shall become the basis for determining the cost of Work performed for CM/Contractor's Applications for Payment. The Cost Breakdown shall be amended and updated after each Bid Package is bid and shall be submitted for University approval by the University's Representative. Such approval shall be obtained prior to University issuing a Contract Amendment incorporating the Bid Package into the Contract.

9.2 PROGRESS PAYMENT

9.2.1 University agrees to pay monthly to CM/Contractor, subject to Article 9.4.3 below, an amount equal to 95% of the sum of the following:

- .1 Cost of the Construction Work in permanent place as of the date of the CM/Contractor's Application for Payment.
- .2 Plus cost of materials not yet incorporated in the Construction Work, subject to Article 9.3.5 below.
- .3 Less amounts previously paid.
- .4 For Pre-Construction Services, the University shall pay CM/Contractor monthly a prorated amount, based on the Contract Sum for Phase 1.

Under this Article 9.2.1, University may, but is not required, to pay CM/Contractor more frequently than monthly.

9.2.2 After Substantial Completion and subject to Article 9.4.3 below, University will make any of the remaining progress payments in full.

9.3 APPLICATION FOR PAYMENT

9.3.1 On or before the 10th day of the month or such other date as is established by the Contract Documents, CM/Contractor shall submit to University's Representative an itemized Application for Payment, for the cost of the Work in permanent place, as approved by University's Representative, which has been completed in accordance with the Contract Documents, less amounts previously paid. The Application for Payment shall be prepared as follows:

- .1 Use the form contained in the Exhibits.
- .2 Itemize in accordance with the Cost Breakdown.
- .3 Include such data substantiating CM/Contractor's right to payment as University's Representative may reasonably require, such as invoices, certified payrolls, daily time and material records, and, if securities are deposited in lieu of retention pursuant to Article 9.5 below, a certification of the market value of all such securities as of a date not earlier than 5 days prior to the date of the Application for Payment.
- .4 Itemize retention.

9.3.2 Applications for Payment shall not include requests for payment on account of (1) changes which have not been authorized by Change Orders or (2) amounts CM/Contractor does not intend to pay a Subcontractor because of a dispute or other reason.

9.3.3 If required by University, an Application for Payment shall be accompanied by (1) a summary showing payments that will be made to Subcontractors covered by such application and conditional waivers and releases of claims and stop payment notices upon progress payment and final payment in the form contained in the Exhibits, and (2) unconditional waivers and releases of claims and stop payment notices, in the form contained in the Exhibits, from each Subcontractor listed in the preceding Application for Payment covering sums disbursed pursuant to that preceding Application for Payment.

9.3.4 CM/Contractor warrants that, upon submittal of an Application for Payment, all Work, for which Certificates for Payment have been previously issued and payment has been received from University, shall be free and clear of all claims, stop payment notices, security interests, and encumbrances in favor of CM/Contractor, Subcontractors, or other persons or firms entitled to make claims by reason of having provided labor, materials, or equipment relating to the Work.

9.3.5 At the sole discretion of University, University's Representative may approve for inclusion in the Application for Payment the cost of materials not yet incorporated in the Work but already delivered and suitably stored either at the Project site or at some other appropriate location acceptable to University's Representative. In such case, CM/Contractor shall furnish evidence satisfactory to University's Representative (1) of the cost of such materials and (2) that such materials are under the exclusive control of CM/Contractor. Only materials to be incorporated in the Work will be considered for payment. Any payment shall not be construed as acceptance of such materials nor relieve CM/Contractor from sole responsibility for the care and protection of such materials; nor relieve CM/Contractor from risk of loss to such materials from any cause whatsoever; nor relieve CM/Contractor from its obligation to complete the Work in accordance with the Contract; nor act as a waiver of the right of University to require fulfillment of all terms of the Contract. Nothing contained within this Article 9.3.5 shall be deemed to obligate University to agree to payment for any non-incorporated materials or any part thereof, payment being in the sole and absolute discretion of University.

9.4 CERTIFICATE FOR PAYMENT

9.4.1 If CM/Contractor has submitted an Application for Payment in accordance with Paragraph 9.3, University's Representative shall, not later than 5 working days after the date of receipt of the Application for Payment, issue to University, with a copy to CM/Contractor, a Certificate for Payment for such amount as University's Representative determines to be properly due.

9.4.2 If any such Application for Payment is determined not to be in accordance with Article 9.3 above, University will inform CM/Contractor as soon as practicable, but not later than 5 working days after receipt. Thereafter, CM/Contractor shall have 3 days to revise and resubmit such Application for Payment; otherwise University's Representative may issue a Certificate for Payment in the amount that University's Representative determines to be properly due without regard to such Application for Payment.

9.4.3 Approval of all or any part of an Application for Payment may be withheld, a Certificate for Payment may be withheld, and all or part of a previous Certificate for Payment may be nullified and that amount withheld from a current Certificate for Payment on account of any of the following:

- .1 Defective Work not remedied.
- .2 Third-party claims against CM/Contractor or University arising from the acts or omissions of CM/Contractor or Subcontractors.
- .3 Stop payment notices.
- .4 Failure of CM/Contractor to make timely payments due Subcontractors for material or labor.
- .5 A reasonable doubt that the Construction Work can be completed for the balance of the Contract Sum then unpaid.
- .6 Damage to University or Separate Contractor for which CM/Contractor is responsible.
- .7 Reasonable evidence that the Work will not be completed within the Contract Time; and that the unpaid balance of the Contract Sum would not be adequate to cover University's damages for the anticipated delay.
- .8 Failure of CM/Contractor to maintain and update as-built documents.
- .9 Failure of CM/Contractor to submit schedules or their updates as required by the Contract Documents.
- .10 Failure to provide conditional or unconditional releases from any Subcontractor or supplier, if such waiver(s) have been requested by University's Representative.
- .11 Performance of Construction Work by CM/Contractor without properly processed Shop Drawings.
- .12 Liquidated damages assessed in accordance with Article 6 of the Agreement.
- .13 Failure to provide updated Reports of Subcontractor Information and Self-Certifications, as applicable.
- .14 Failure to provide a Final Distribution of Contract Dollars with final Application for Payment.
- .15 Any other failure of CM/Contractor to perform its obligations under the Contract Documents.

9.4.4 Subject to the withholding provisions of Subparagraph 9.4.3, University will pay CM/Contractor the amount set forth in the Certificate for Payment no later than 10 days after the issuance of the Certificate for Payment.

9.4.5 Neither University nor University's Representative will have an obligation to pay or to see to the payment of money to a Subcontractor, except as may otherwise be required by law.

9.4.6 Neither a Certificate for Payment nor a progress payment made by University will constitute acceptance of Defective Work.

9.4.7 The University shall withhold payment if Contractor fails to provide a monthly report on skilled journey person graduation percentage requirements as listed in the Instructions to Bidders, provides a report that is incomplete, or provides a report that fails to demonstrate compliance until Contractor provides a plan to achieve substantial compliance.

9.5 DEPOSIT OF SECURITIES IN LIEU OF RETENTION AND DEPOSIT OF RETENTION INTO ESCROW

9.5.1 At the request and expense of CM/Contractor, a substitution of securities may be made for any monies retained by University under Article 9.2 to ensure performance under the Contract Documents. Securities equivalent in value to the retention amount required by the Contract Documents for each Certificate For Payment shall be deposited by CM/Contractor with a state or federally chartered bank in the State of California ("Escrow Agent"), which shall hold such securities pursuant to the escrow agreement referred to in Article 9.5.3 until retention is due in accordance with Article 9.8. Securities shall be valued as often as conditions of the securities market warrant, but in no case less than once per month. CM/Contractor shall deposit additional securities so that the current market value of the total of all deposited securities shall be at least equal to the total required amount of retention.

9.5.2 Alternatively to Article 9.5.1 above, and at the request and expense of CM/Contractor, University will deposit retention directly with Escrow Agent. CM/Contractor may direct the investment of such deposited retention into interest bearing accounts or securities, and such deposits, or securities, shall be held by Escrow Agent upon the same terms provided for securities deposited by CM/Contractor. CM/Contractor and its surety shall bear the risk of failure of the Escrow Agent selected.

9.5.3 A prerequisite to the substitution of securities in lieu of retention or the deposit of retention into escrow shall be the execution by CM/Contractor, University, and Escrow Agent of an Escrow Agreement for Deposit of Securities in Lieu of Retention and Deposit of Retention in the form contained in the Exhibits. The CM/Contractor shall submit the Selection of Retention Options and the Escrow Agreement for Deposit of Securities in Lieu of Retention and Deposit of Retention not later than the date when 50% of the Work has been completed. The terms of such escrow agreement are incorporated into the requirements of this Article 9.5.

9.6 BENEFICIAL OCCUPANCY

9.6.1 University reserves the right, at its option and convenience, to occupy or otherwise make use of any part of the Construction Work at any time prior to Substantial Completion or Final Completion upon 10 days' notice to CM/Contractor. Such occupancy or use is herein referred to as "Beneficial Occupancy." Beneficial Occupancy shall be subject to the following conditions:

- .1 University's Representative will make an inspection of the portion of the Project to be beneficially occupied and prepare a list of items to be completed or corrected prior to Final Completion. Prior to Beneficial Occupancy, University will issue a Certificate of Beneficial Occupancy on University's form.
- .2 Beneficial Occupancy by University shall not be construed by CM/Contractor as an acceptance by University of that portion of the Construction Work which is to be occupied.
- .3 Beneficial Occupancy by University shall not constitute a waiver of existing claims of University or CM/Contractor against each other.
- .4 CM/Contractor shall provide, in the areas beneficially occupied and on a 24 hour and 7 day week basis as required, utility services, heating, and cooling for systems which are in operable condition at the time of Beneficial Occupancy. All responsibility for the operation and maintenance of equipment shall remain with CM/Contractor while the equipment is so operated. CM/Contractor shall submit to University an itemized list of each piece of equipment so operated with the date operation commences.
- .5 The Guarantee to Repair Periods, as defined in Article 12.2 of the General Conditions, will commence upon the occupancy date stated in the Certificate of Beneficial Occupancy except that the Guarantee to Repair Periods for that part of equipment or systems that serve portions of the Work for which University has not taken Beneficial Occupancy or issued a Certificate of Substantial Completion shall not commence until the University has taken Beneficial Occupancy for that portion of the Work or has issued a Certificate of Substantial Completion with respect to the entire Project. .6 University will pay all normal operating and maintenance costs resulting from its use of equipment in areas beneficially occupied.
- .7 University will pay all utility costs which arise out of the Beneficial Occupancy.
- .8 CM/Contractor shall not be responsible for providing security in areas beneficially occupied.
- .9 University will use its best efforts to prevent its Beneficial Occupancy from interfering with the conduct of CM/Contractor's remaining Construction Work.

- .10 CM/Contractor shall not be required to repair damage caused by University in its Beneficial Occupancy.
- .11 Except as provided in this Article 9.6, there shall be no added cost to University due to Beneficial Occupancy.
- .12 CM/Contractor shall continue to maintain all insurance required by the Contract in full force and effect.

9.7 SUBSTANTIAL COMPLETION

9.7.1 "Substantial Completion" means the stage in the progress of the Construction Work, as determined by University's Representative, when the Construction Work is complete and in accordance with the Contract Documents except only for completion of minor items which do not impair University's ability to occupy and fully utilize the Construction Work for its intended purpose and a Certificate of Occupancy has been issued by the University.

9.7.2 When CM/Contractor gives notice to University's Representative that the Construction Work is substantially complete, unless University's Representative determines that the Construction Work is not sufficiently complete to warrant an inspection to determine Substantial Completion, University's Representative will inspect the Construction Work. If the University's Representative determines that the Work is not substantially completed the University's Representative will prepare and give to CM/Contractor a comprehensive list of items to be completed or corrected before establishing Substantial Completion. CM/Contractor shall proceed promptly to complete and correct items on the list. Failure to include an item on such list does not alter the responsibility of CM/Contractor to complete all Construction Work in accordance with the Contract Documents. University's Representative will make an inspection to determine whether the Construction Work is substantially complete. Costs for additional inspection by University's Representative shall be deducted from any monies due and payable to CM/Contractor.

9.7.3 When University's Representative determines that the Construction Work is substantially complete, University's Representative will arrange for inspection by University's Building Official and other officials, as appropriate, for the purpose of issuing a Certificate of Occupancy. After a Certificate of Occupancy has been issued by the University, the University's Representative will prepare a Certificate of Substantial Completion on University's form as contained in the Exhibits, which, when signed by University, shall establish the date of Substantial Completion and the responsibilities of University and CM/Contractor for security, maintenance, utilities, insurance, and damage to the Construction Work. The University's Representative will prepare and furnish to the CM/Contractor a comprehensive "punch list" of items to be completed or corrected prior to Final Completion.

9.7.4 Unless otherwise provided in the Certificate of Substantial Completion, the Guarantee to Repair Period for the Construction Work covered by the Certificate of Substantial Completion, shall commence on the date of Substantial Completion of the Construction Work except that Substantial Completion shall not commence the Guarantee to Repair Period for any equipment or systems that:

- .1 Are not operational (equipment or systems shall not be considered operational if they cannot be used to provide the intended service; or
- .2 Are not accepted by the University.

The Guarantee to Repair Period for equipment or systems which become operational and accepted subsequent to Substantial Completion will begin on the date of their written acceptance by University.

9.7.5 The daily rate included in the Agreement and specifically identified as the rate to be paid to CM/Contractor for Compensable Delays shall not apply to any delays occurring after the Construction Work is substantially completed.

9.8 FINAL COMPLETION, FINAL PAYMENT, AND RELEASE OF RETENTION

9.8.1 Upon receipt of notice from CM/Contractor that the Work is ready for final inspection, University's Representative will make such inspection. Final Completion shall be when University's Representative determines that the Work is fully completed and in accordance with the Contract Documents, including without limitation, satisfaction of all "punch list" items, and determines that a Certificate of Occupancy has been issued by the University. University will file a Notice of Completion within 15 days after Final Completion. After receipt of the final Application For Payment, if University's Representative determines that Final Completion has occurred, University's Representative will issue the final Certificate For Payment.

9.8.2 Final payment and retention shall be released to CM/Contractor, as set forth in Article 9.8.3, after:

- .1 CM/Contractor submits the final Application For Payment and all submittals required in accordance with Article

9.3;

.2 CM/Contractor submits all guarantees and warranties procured by CM/Contractor from Subcontractors, all operating manuals for equipment installed in the Project, as-built documents, and all other submittals required by the Contract Documents;

.3 CM/Contractor submits the Final Distribution of Contract Dollars in the form contained in the Exhibits; and

.4 University's Representative issues the final Certificate For Payment.

At its sole discretion, after Final Completion, University may waive the requirement that CM/Contractor submit a final Application For Payment before making final payment and/or release of retention to CM/Contractor.

9.8.3 Final payment shall be paid not more than 10 days after University's Representative issues the final Certificate For Payment. Retention shall be released to CM/Contractor 35 days after the filing of the Notice of Completion.

9.8.4 Acceptance of final payment by CM/Contractor shall constitute a waiver of all claims, except claims for retention and claims previously made in writing and identified by CM/Contractor as unsettled at the time of the final Application For Payment.

ARTICLE 10

PROTECTION OF PERSONS AND PROPERTY

10.1 SAFETY PRECAUTIONS AND PROGRAMS

10.1.1 CM/Contractor shall be solely responsible for initiating, maintaining, and supervising all safety precautions and programs in connection with the performance of the Contract.

10.2 SAFETY OF PERSONS AND PROPERTY

10.2.1 CM/Contractor shall take adequate precautions for safety of and shall provide adequate protection to prevent damage, injury, or loss to the following:

- .1 Employees involved in the Work and other persons who may be affected thereby.
- .2 The Work in place and materials and equipment to be incorporated therein, whether in storage on or off the Project site, under care, custody, or control of CM/Contractor or Subcontractors.
- .3 Other property at the Project site and adjoining property.

10.2.2 CM/Contractor shall erect and maintain, as required by existing conditions and performance of the Construction Work, adequate safeguards for safety and protection, including providing adequate lighting and ventilation, posting danger signs and other warnings against hazards, promulgating safety regulations, and notifying owners and users of adjacent sites and utilities.

10.2.3 When use or storage of explosives, other hazardous materials, equipment, or unusual methods are necessary for execution of the Construction Work, CM/Contractor shall exercise the utmost care and carry on such activities only under the supervision of properly qualified personnel.

10.2.4 CM/Contractor shall designate a responsible member of CM/Contractor's organization at the Project site whose duty shall be the prevention of accidents. That person shall be the Superintendent, unless otherwise designated by CM/Contractor in writing to University and University's Representative.

10.2.5 CM/Contractor shall not load or permit any part of the Work or the Project site to be loaded so as to endanger the safety of persons or property.

10.3 EMERGENCIES

10.3.1 In an emergency affecting the safety of persons or property, CM/Contractor shall act to prevent or minimize damage, injury, or loss. CM/Contractor shall promptly notify University's Representative, which notice may be oral followed by written confirmation, of the occurrence of such an emergency and CM/Contractor's action.

ARTICLE 11

INSURANCE AND BONDS

11.1 CM/CONTRACTOR'S INSURANCE

11.1.1 CM/Contractor shall, at its expense, purchase and maintain in full force and effect such insurance as will protect itself and University from claims, such as for bodily injury, wrongful death, and property damage, which may arise out of or result from the Work required by the Contract Documents, whether such Work is done by CM/Contractor, by any Subcontractor, by anyone directly or indirectly employed by any of them, or by anyone for whose acts any of them may be liable. The amounts of such insurance and any additional insurance requirements are specified in the Supplementary Conditions. See Article 3.21 of the General Conditions regarding the scope and extent of CM/Contractor's liability for repair of damaged Work.

11.1.2 The following policies and coverages shall be furnished by CM/Contractor:

- .1 **COMMERCIAL GENERAL LIABILITY INSURANCE** subject to terms no less broad than the Insurance Services Office's (ISO) form CG 0001 (2004 or later edition), or a substitute form providing coverage at least as broad as the ISO form specified, covering all Work done by or on behalf of CM/Contractor and providing insurance for bodily injury, wrongful death, personal injury, property damage, and contractual liability. There shall be no limitations or exclusions of coverage beyond those contained in the standard ISO form CG 0001 (2004 or later edition). Except with respect to bodily injury and property damage included within the products and completed operations hazards, the aggregate limit shall apply separately to Work required of CM/Contractor by these Contract Documents. CM/Contractor shall continue to maintain Products/Completed Operations liability insurance coverage for a minimum completed operations period of 10 year(s) or the applicable Statute of Repose as provided by the law of the jurisdiction where the project is located as shown in the policy(ies), whichever is less. All terms and conditions of such coverage shall be maintained during this completed operations period, including the required minimum coverage limits and the requirement to provide the University with coverage as an additional insured for completed operations as specified under this Article 11.1 and the Supplementary Conditions.
- .2 **BUSINESS AUTOMOBILE LIABILITY INSURANCE** subject to terms no less broad than the Insurance Services Office's (ISO) form CA 0001 (1990 or later edition), or a substitute form providing coverage at least as broad as the ISO form specified, covering owned, hired, leased, and non-owned automobiles used by or on behalf of Insured, and providing liability insurance for bodily injury and property damage arising from the use or operation of such auto(s) with a minimum combined single limit of not less than \$1,000,000 per accident. The minimum limits required may be satisfied by combination of primary and umbrella/excess policies. The Commercial Automobile Liability Insurance shall be provided by CM/Contractor for all on site and off site Work.
- .3 **WORKERS' COMPENSATION AND EMPLOYER'S LIABILITY INSURANCE** as required by Federal and State of California law. CM/Contractor shall also require all of its Subcontractors to maintain this insurance coverage.
- .4 **PROFESSIONAL LIABILITY INSURANCE.** If the insurance under this Article 11.1.2.4 is written on a claims-made form, coverage shall continue for a period of not less than 3 years following termination of this Contract. Coverage shall provide for a retroactive date of placement prior to or coinciding with the effective date of this Contract.

11.1.3 The coverages required under this Article 11 shall not in any way limit the liability of CM/Contractor.

11.1.4 CM/Contractor's Certificates of Insurance, executed by a duly authorized representative of each broker of record or each insurer as evidence of the insurance required by these Contract Documents and on the form contained in the Exhibits, shall be submitted by CM/Contractor to University prior to the commencement of Work by the CM/Contractor. The Certificates of Insurance shall provide for no cancellation or modification of coverage without prior written notice to University, in accordance with policy provisions.

11.1.5 In the event CM/Contractor does not comply with these insurance requirements, University may, at its option, provide insurance coverage to protect University; and the cost of such insurance shall be paid by CM/Contractor and may be deducted from the Contract Sum.

11.1.6 CM/Contractor's insurance as required by Article 11.1.2, shall, by endorsement to the policies, include the following:

- .1 The Regents of the University of California, The University of California, University, and each of their Representatives, consultants, officers, agents, employees, and each of their Representative's consultants, regardless of whether or not identified in the Contract Documents or to the CM/Contractor in writing, will be included as additional insureds on the CM/Contractor's General Liability insurance for and relating to the Work to be performed by the CM/Contractor and Subcontractors. Additional Insured provision or endorsement shall be at least as broad as the CG 20 10 07 04 in combination with the CG 20 37 07 04 (or earlier versions of CG 20 10 and CG 20 37 or Form B - CG 20 10 11 85 by itself), as published by Insurance Services Offices (ISO) and shall be included with Certificates of Insurance. The additional insured requirement shall not apply to Worker's Compensation and Employer's Liability insurance.

Further, the amount of insurance available to the University shall be for the full amount of the loss up to the available policy limits and shall not be limited to any minimum requirements stated in the Contract Documents.

- .2 University, University's consultants, University's Representative, and University's Representative's consultants will not by reason of their inclusion as insureds incur liability to the insurance carriers for payment of premiums for such insurance.
- .3 Coverage provided is primary and is not in excess of or contributing with any insurance or self-insurance maintained by University, University's consultants, University's Representative, and University's Representative's consultants. This provision, however, shall only apply as per the stipulations of Article 11.1.6.1.
- .3 The Professional Liability insurance policy shall include Contractual Liability Coverage or endorsements to the insurance policies for Contractual Liability Coverage for liability that would exist in the absence of the contract.

11.1.7 The form and substance of all insurance policies required to be obtained by CM/Contractor shall be subject to approval by University. All policies required by Articles 11.1.2.1, 11.1.2.2, and 11.1.2.3 above shall be issued by companies with ratings and financial classifications as specified in the Supplementary Conditions.

11.1.8 CM/Contractor shall, by mutual agreement with University, furnish any additional insurance as may be required by University. CM/Contractor shall provide Certificates of Insurance evidencing such additional insurance.

11.1.9 The Certificate of Insurance Exhibit shall show (1) all companies affording coverage and (2) the name of the insured exactly in the manner as shown on the Bid Form. The name of the insured must be the name under which the entity is licensed by the Contractors State License Board.

11.1.10 If insurance company refuses to use the Certificate of Insurance Exhibit, it must attach a Certificate of Insurance evidencing compliance with this Article including those provisions noted under DESCRIPTION OF OPERATIONS/LOCATIONS/VEHICLES section of Certificate of Insurance for covering those noted provisions exactly as they appear on the Certificate of Insurance Exhibit.

11.1.11 At the request of University, CM/Contractor shall submit to University copies of the policies obtained by CM/Contractor.

11.2 BUILDER'S RISK PROPERTY INSURANCE

11.2.1 If and only if the Anticipated Contract Value exceeds \$300,000 at the time of award of Phase 2 of the Contract, University will provide its standard builder's risk property insurance, subject to the deductibles, terms and conditions, exclusions, and limitations as contained in the provisions of the policy. A copy of the University's standard builder's risk property insurance policy is available at the University's Facility office. In addition, a summary of the provisions of the policy is included as an Exhibit to the Contract. CM/Contractor agrees that the University's provision of its standard builder's risk property insurance policy meets the University's obligation to provide builder's risk property insurance under the Contract and, in the event of a conflict between the provisions of the policy and any summary or description of the provisions contained herein or otherwise, the provisions of the policy shall control and shall be conclusively presumed to fulfill the University's obligation to provide such insurance. The proceeds under such insurance policies taken out by University insuring the Work and materials will be payable to University and CM/Contractor as their respective interests, from time to time, may appear. CM/Contractor shall be responsible for the deductible amount in the event of a loss. In addition, nothing in this Article 11.2 shall be construed to relieve CM/Contractor of full responsibility for loss of or damage to materials not incorporated in the Work, and for CM/Contractor's

tools and equipment used to perform the Work, whether on the Project site or elsewhere, or to relieve CM/Contractor of its responsibilities referred to under this Article 11. "Materials incorporated in the Work," as used in this Article 11.2, shall mean materials furnished while in transit to, stored at, or in permanent place at the Project site.

11.2.2 Insurance policies referred to under this Article 11.2 shall:

- .1 Include a provision that the policies are primary and do not participate with nor are excess over any other valid collectible insurance carried by CM/Contractor.
- .2 Include a waiver of subrogation against CM/Contractor, its Subcontractors, its agents and employees.

11.2.3 Builder's risk insurance coverage under this Article 11.2 will expire on the date of Final Completion recited in a Notice of Completion filed pursuant to Article 9.8.1. Should a Notice of Completion be filed more than 10 days after the date of Final Completion, the date of Final Completion recited in the Notice of Completion will govern.

11.3 PERFORMANCE BOND AND PAYMENT BOND

11.3.1 CM/Contractor shall furnish bonds covering the faithful performance of the Contract (Performance Bond) and payment of obligations arising thereunder (Payment Bond) on the forms contained in the Exhibits.

11.3.2 The Payment Bond and Performance Bond shall each be in the amount of the Anticipated Contract Value less the Phase 1 Contract Sum. If thereafter the Contract Sum exceeds the Anticipated Contract Value less the Phase 1 Contract Sum, CM/Contractor shall furnish supplemental Payment and Performance Bonds in an amount equal to any increase in the Contract Sum above the Anticipated Contract Value.

11.3.3 The Payment Bond and Performance Bond shall be in effect prior to the date the Contract Amendment for Phase 2 is signed by University. The CM/Contractor shall provide Payment Bond and Performance Bond within ten (10) days of Notice of Intent.

11.3.4 CM/Contractor shall promptly furnish such additional security as may be required by University to protect its interests and those interests of persons or firms supplying labor or materials to the Construction Work.

11.3.5 Surety companies used by CM/Contractor shall be, on the date the Contract is signed by University, an admitted surety insurer (as defined in the California Code of Civil Procedure Section 995.120).

11.3.6 The premiums for the Payment Bond and Performance Bond shall be paid by CM/Contractor.

ARTICLE 12

UNCOVERING AND CORRECTION OF WORK

12.1 UNCOVERING OF WORK

12.1.1 If a portion of the Work is covered contrary to University's Representative's request or direction, or contrary to the requirements of the Contract Documents, it must, if required in writing by University's Representative, be uncovered for University's Representative's observation and be replaced at CM/Contractor's expense without adjustment of the Contract Time or the Contract Sum.

12.1.2 If a portion of the Work has been covered, which is not required by the Contract Documents to be observed or inspected prior to its being covered and which University's Representative has not specifically requested to observe prior to its being covered, University's Representative may request to see such Work and it shall be uncovered and replaced by CM/Contractor. If such Work is in accordance with the Contract Documents, the costs of uncovering and replacing the Work shall be added to the Contract Sum by Change Order; and if the uncovering and replacing of the Work extends the Contract Time, an appropriate adjustment of the Contract Time shall be made by Change Order. If such Work is not in accordance with the Contract Documents, CM/Contractor shall pay such costs and shall not be entitled to an adjustment of the Contract Time or the Contract Sum.

12.2 CORRECTION OF DEFECTIVE WORK AND GUARANTEE TO REPAIR PERIOD

12.2.1 The term "Guarantee to Repair Period" means a period of 1 year, unless a longer period of time is specified, commencing as follows:

- .1 For any Construction Work not described as incomplete in the Certificate of Substantial Completion, on the date of Substantial Completion.
- .2 For space beneficially occupied or for separate systems fully utilized prior to Substantial Completion pursuant to Article 9.6 of the General Conditions, from the first date of such Beneficial Occupancy or actual use, as established in a Certificate of Beneficial Occupancy.
- .3 For all Construction Work other than .1 or .2 above, from the date of Final Completion.

12.2.2 CM/Contractor shall (1) correct Defective Work that becomes apparent during the progress of the Construction Work or during the Guarantee to Repair Period and (2) replace, repair, or restore to University's satisfaction any other parts of the Construction Work and any other real or personal property which is damaged or destroyed as a result of Defective Work or the correction of Defective Work. CM/Contractor shall promptly commence such correction, replacement, repair, or restoration upon notice from University's Representative or University, but in no case later than 10 days after receipt of such notice; and CM/Contractor shall diligently and continuously prosecute such correction to completion. CM/Contractor shall bear all costs of such correction, replacement, repair, or restoration, and all losses resulting from such Defective Work, including additional testing, inspection, and compensation for University's Representative's services and expenses. CM/Contractor shall perform corrective Construction Work at such times that are acceptable to University and in such a manner as to avoid, to the extent practicable, disruption to University's activities.

12.2.3 If immediate correction of Defective Work is required for life safety or the protection of property and is performed by University or Separate Contractors, CM/Contractor shall pay to University all reasonable costs of correcting such Defective Work. CM/Contractor shall replace, repair, or restore to University's satisfaction any other parts of the Construction Work and any other real or personal property which is damaged or destroyed as a result of such Defective Work or the correction of such Defective Work.

12.2.4 CM/Contractor shall remove from the Project site portions of the Work and materials which are not in accordance with the Contract Documents and which are neither corrected by CM/Contractor nor accepted by University.

12.2.5 If CM/Contractor fails to commence correction of Defective Work within 10 days after notice from University or University's Representative or fails to diligently prosecute such correction to completion, University may correct the Defective Work in accordance with Article 2.4 of the General Conditions; and, in addition, University may remove the Defective Work and store salvageable materials and equipment at CM/Contractor's expense.

12.2.6 If CM/Contractor fails to pay the costs of such removal and storage as required by Articles 12.2.4 and 12.2.5 above within 10 days after written demand, University may, without prejudice to other remedies, sell such materials at auction or at private sale, or otherwise dispose of such material. CM/Contractor shall be entitled to the proceeds of such sale, if any, in excess of the costs and damages for which CM/Contractor is liable to University, including compensation for University's Representative's services and expenses. If such proceeds of sale do not cover costs and damages for which CM/Contractor is liable to University, the Contract Sum shall be reduced by such deficiency. If there are no remaining payments due CM/Contractor or the remaining payments are insufficient to cover such deficiency, CM/Contractor shall promptly pay the difference to University.

12.2.7 CM/Contractor's obligations under this Article 12 are in addition to and not in limitation of its warranty under Article 3.4 of the General Conditions or any other obligation of CM/Contractor under the Contract Documents. Enforcement of CM/Contractor's express warranties and guarantees to repair contained in the Contract Documents shall be in addition to and not in limitation of any other rights or remedies University may have under the Contract Documents or at law or in equity for Defective Work. Nothing contained in this Article 12 shall be construed to establish a period of limitation with respect to other obligations of CM/Contractor under the Contract Documents. Establishment of the Guarantee to Repair Period relates only to the specific obligation of CM/Contractor to correct the Construction Work and in no way limits either CM/Contractor's liability for Defective Work or the time within which proceedings may be commenced to enforce CM/Contractor's obligations under the Contract Documents.

ARTICLE 13

TERMINATION OR SUSPENSION OF THE CONTRACT

13.1 TERMINATION BY CM/CONTRACTOR

13.1.1 Subject to Article 13.1.2 below, CM/Contractor shall have the right to terminate the Contract only upon the occurrence of one of the following:

- .1 Provided that University has not commenced reasonable action to remove any order of a court within the 90 day period, the he Construction Work is stopped for 90 consecutive days, through no act or fault of CM/Contractor, any Subcontractor, or any employee or agent of CM/Contractor or any Subcontractor, due to an issuance of an order of a court or other public authority having jurisdiction or due to an act of government, such as a declaration of a national emergency making material unavailable.
- .2 University fails to perform any material obligation under the Contract Documents and fails to cure such default within 30 days, or University has not commenced to cure such default within 30 days where such cure will require a reasonable period beyond 30 days and diligently prosecutes the same to completion, after receipt of notice from CM/Contractor stating the nature of such default.
- .3 Repeated suspensions by University, other than such suspensions as are agreed to by CM/Contractor under Article 13.3 below, which constitute in the aggregate more than 20% of the Contract Time.

13.1.2 Upon the occurrence of one of the events listed in Article 13.1.1 above, CM/Contractor may, upon 10 days additional notice to University and University's Representative, and provided that the condition giving rise to CM/Contractor's right to terminate is continuing, terminate the Contract.

13.1.3 Upon termination by CM/Contractor, University will pay to CM/Contractor the sum determined by Article 13.4.4 below. Such payment will be the sole and exclusive remedy to which CM/Contractor is entitled in the event of termination of the Contract by CM/Contractor pursuant to this Article 13.1; and CM/Contractor will be entitled to no other compensation or damages and expressly waives the same.

13.2 TERMINATION BY UNIVERSITY FOR CAUSE

13.2.1 University will have the right to terminate the Contract for cause at any time after the occurrence of any of the following events:

- .1 CM/Contractor becomes insolvent or files for relief under the bankruptcy laws of the United States.
- .2 CM/Contractor makes a general assignment for the benefit of its creditors or fails to pay its debts as the same become due.
- .3 A receiver is appointed to take charge of CM/Contractor's property.
- .4 The commencement or completion of any Work activity on the critical path is more than 30 days behind the date set forth in the Contract Schedule for such Work activity, and which results in an Unexcusable Delay. For a Contract with a Contract Time of less than 300 days, the 30-day period shall be reduced to the number of days commensurate with 10% of the Contract Time.
- .5 CM/Contractor abandons the Work.

13.2.2 Upon the occurrence of any of the following events, University will have the right to terminate the Contract for cause if CM/Contractor fails to promptly commence to cure such default and diligently prosecute such cure within 5 days after notice from University, or within such longer period of time as is reasonably necessary to complete such cure:

- .1 CM/Contractor persistently or repeatedly refuses or fails to supply skilled supervisory personnel, an adequate number of properly skilled workers, proper materials, or necessary equipment to prosecute the Work in accordance with the Contract Documents.
- .2 CM/Contractor fails to make prompt payment of amounts properly due Subcontractors after receiving payment from University.
- .3 CM/Contractor disregards Applicable Code Requirements.
- .4 CM/Contractor persistently or materially fails to execute the Work in accordance with the Contract Documents.
- .5 CM/Contractor is in default of any other material obligation under the Contract Documents.
- .6 CM/Contractor persistently or materially fails to comply with applicable safety requirements.

13.2.3 Upon any of the occurrences referred to in Articles 13.2.1 and 13.2.2 above, University may, at its election and by notice to CM/Contractor, terminate the Contract and take possession of the Project site and all materials, supplies, equipment,

tools, and construction equipment and machinery thereon owned by CM/Contractor; accept the assignment of any or all of the subcontracts; and then complete the Work by any method University may deem expedient. If requested by University, CM/Contractor shall remove any part or all of CM/Contractor's materials, supplies, equipment, tools, and construction equipment and machinery from the Project site within 7 days of such request; and if CM/Contractor fails to do so, University may remove or store, and after 90 days sell, any of the same at CM/Contractor's expense.

13.2.4 If the Contract is terminated by University as provided in this Article 13.2, CM/Contractor shall not be entitled to receive any further payment until the expiration of 35 days after Final Completion and acceptance of all Construction Work by University.

13.2.5 If the unpaid balance of the Contract Sum exceeds the cost of completing the Work, including all additional costs and expenses made necessary thereby, including costs for University staff time, plus all losses sustained, including any liquidated damages provided under the Contract Documents, such excess shall be paid to CM/Contractor. If such costs, expenses, losses, and liquidated damages exceed the unpaid balance of the Contract Sum, CM/Contractor shall pay such excess to University.

13.2.6 No termination or action taken by University after termination shall prejudice any other rights or remedies of University provided by law or by the Contract Documents upon such termination; and University may proceed against CM/Contractor to recover all losses suffered by University.

13.3 SUSPENSION BY UNIVERSITY FOR CONVENIENCE

13.3.1 University may, at any time and from time to time, without cause, order CM/Contractor, in writing, to suspend, delay, or interrupt the Work in whole or in part for such period of time, up to 90 days, as University may determine, with such period of suspension to be computed from the date of delivery of the written order. Such order shall be specifically identified as a "Suspension Order" under this Article 13.3. The Work may be stopped for such further period as the parties may agree. Upon receipt of a Suspension Order, CM/Contractor shall, at University's expense, comply with its terms and take all reasonable steps to minimize costs allocable to the Work covered by the Suspension Order during the period of Work stoppage. Within 90 days after the issuance of the Suspension Order, or such extension to that period as is agreed upon by CM/Contractor and University, University shall either cancel the Suspension Order or delete the Work covered by such Suspension Order by issuing a Change Order.

13.3.2 If a Suspension Order is canceled or expires, CM/Contractor shall continue with the Work. A Change Order will be issued to cover any adjustments of the Contract Sum or the Contract Time necessarily caused by such suspension. Any Claim by CM/Contractor for an adjustment of the Contract Sum or the Contract Time shall be made within 21 days after the end of the Work suspension. CM/Contractor agrees that submission of its claim within said 21 days is an express condition precedent to its right to Arbitrate or Litigate such a claim.

13.3.3 The provisions of this Article 13.3 shall not apply if a Suspension Order is not issued by University. A Suspension Order shall not be required to stop the Work as permitted or required under any other provision of the Contract Documents.

13.4 TERMINATION BY UNIVERSITY FOR CONVENIENCE

13.4.1 University may, at its option, terminate this Contract, in whole or from time to time in part, at any time by giving notice to CM/Contractor. Upon such termination, CM/Contractor agrees to waive any claims for damages, including loss of anticipated profits, on account thereof; and, as the sole right and remedy of CM/Contractor, University shall pay CM/Contractor in accordance with Article 13.4.4 below.

13.4.2 Upon receipt of notice of termination under this Article 13.4, CM/Contractor shall, unless the notice directs otherwise, do the following:

- .1 Immediately discontinue the Work to the extent specified in the notice.
- .2 Place no further orders or subcontracts for materials, equipment, services, or facilities, except as may be necessary for completion of such portion of the Construction Work as is not discontinued.
- .3 Promptly cancel, on the most favorable terms reasonably possible, all subcontracts to the extent they relate to the performance of the discontinued portion of the Work.
- .4 Thereafter do only such Construction Work as may be necessary to preserve and protect Construction Work already in progress and to protect materials, plants, and equipment on the Project site or in transit thereto.

13.4.3 Upon such termination, the obligations of the Contract shall continue as to portions of the Work already performed and, subject to CM/Contractor's obligations under Article 13.4.2 above, as to bona fide obligations assumed by CM/Contractor prior to the date of termination.

13.4.4 Upon such termination, University shall pay to CM/Contractor the sum of the following:

- .1 The amount of the Contract Sum allocable to the portion of the Work properly performed by CM/Contractor as of the date of termination, less sums previously paid to CM/Contractor.
- .2 Plus an amount equal to the lesser of \$50,000 or 5% of the difference between the Contract Sum and the amount of the Contract Sum allocable to the portion of the Work properly performed by CM/Contractor as of the date of termination.
- .3 Plus previously unpaid costs of any items delivered to the Project site which were fabricated for subsequent incorporation in the Work.
- .4 Plus any proven Losses with respect to materials and equipment directly resulting from such termination.
- .5 Plus reasonable demobilization costs.
- .6 Plus reasonable costs of preparing a statement of the aforesaid costs, expenses, and Losses in connection with such termination.

The above payment shall be the sole and exclusive remedy to which CM/Contractor is entitled in the event of termination of the Contract by University pursuant to this Article 13.4; and CM/Contractor will be entitled to no other compensation or damages and expressly waives same.

ARTICLE 14

STATUTORY AND OTHER REQUIREMENTS

14.1 PATIENT HEALTH INFORMATION

Contractor acknowledges that its employees, agents, subcontractors, consultants and others acting on its behalf may come into contact with Patient Health Information ("PHI") while performing work at the Project Site. This contact is most likely rare and brief (e.g. walking through a clinic where patient files may be visible, overhearing conversations between physicians while working or touring a hospital, noticing a relative or acquaintance receiving treatment in a University facility, etc.). CM/Contractor shall immediately notify University Representative of any such contact. Any and all forms of PHI should not be examined closer, copied, photographed, recorded in any manner, distributed or shared. CM/Contractor will adopt procedures to ensure that its employees, agents and subcontractors refrain from such activity. If Contractor, its employees, agents or subcontractors do further examine, copy, photograph, record in any manner, distribute or share this information, CM/Contractor will report such actions immediately to the University Representative. CM/Contractor will immediately take all steps necessary to stop any such actions and will ensure that no further violations of this contractual responsibility will occur. CM/Contractor will report to University Representative within five (5) days after CM/Contractor gives University Representative notice of the event/action of the steps taken to prevent future occurrences.

14.2 NONDISCRIMINATION

14.2.1 For purposes of this Article 14.2, the term Subcontractor shall not include suppliers, manufacturers, or distributors.

14.2.2 CM/Contractor shall comply and shall ensure that all Subcontractors comply with Sections 12900 through 12996, of the State of California Government Code.

14.2.3 CM/Contractor agrees as follows during the performance of the Work:

- .1 CM/Contractor shall provide equal treatment to, and shall not willfully discriminate against or allow harassment of any employee or applicant for employment on the basis of: race; color; religion; sex; age; ancestry; national origin; sexual orientation; physical or mental disability; veteran's status; medical condition (as defined in Section 12926 of the State of California Government Code and including cancer-related medical conditions and or genetic characteristics); genetic information (as defined in the Genetic Information Nondiscrimination Act of 2008 and including family medical history); marital status; gender identity, pregnancy, or citizenship (within the limits imposed by law or University's policy) or service in the uniformed services (as defined by the Uniformed Services Employment and Reemployment Rights Act of 1994). CM/Contractor will also take affirmative action to ensure that any such employee or applicant for employment is not discriminated against on any of the bases identified above. Such equal treatment shall apply, but not be limited to the following: employment; upgrade; demotion or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship. The CM/Contractor also agrees to post in conspicuous places, available to employees and applicants for employment, notices setting forth the provisions of this nondiscrimination clause. The CM/Contractor will, in all solicitations or advertisements for employees placed by or on behalf of the CM/Contractor, state that qualified applicants will receive consideration for employment without regard to: race; color; religion; sex; age; ancestry; national origin; sexual orientation; physical or mental disability; veteran's status; medical condition (as defined in Section 12926 of the State of California Government Code and including cancer-related medical conditions and or genetic characteristics); genetic information (as defined in the Genetic Information Nondiscrimination Act of 2008 and including family medical history); marital status; gender identity, pregnancy, or citizenship (within the limits imposed by law or University's policy) or service in the uniformed services (as defined by the Uniformed Services Employment and Reemployment Rights Act of 1994). For purposes of this provision: (1) "Pregnancy" includes pregnancy, childbirth, and medical conditions related to pregnancy and childbirth; and (2) "Service in the uniformed services" includes membership, application for membership, performance of service, application for service, or obligation for service in the uniformed services.
- .2 CM/Contractor and all Subcontractors will permit access to their records of employment, employment advertisements, application forms, and other pertinent data and records by University or any appropriate agency of the State of California designated by University for the purposes of investigation to ascertain compliance with this Article 14.2. The outcome of the investigation may result in the following:

- .1 A finding of willful violation of the provisions of this Contract or of the Fair Employment Practices Act may be regarded by University as (1) a basis for determining that CM/Contractor is not a "responsible bidder" as to future contracts for which such CM/Contractor may submit bids or (2) a basis for refusing to accept or consider the bids of CM/Contractor for future contracts.
- .2 University may deem a finding of willful violation of the Fair Employment Practices Act to have occurred upon receipt of written notice from the Fair Employment Practices Commission that it has (1) investigated and determined that CM/Contractor has violated the Fair Employment Practices Act and (2) issued an order under the State of California Government Code Section 12970 or obtained an injunction under Government Code Section 12973.
- .3 Upon receipt of such written notice from the Fair Employment Practices Commission, University may notify CM/Contractor that, unless it demonstrates to the satisfaction of University within a stated period that the violation has been corrected, CM/Contractor's bids on future projects will not be considered.
- .3 CM/Contractor agrees that, should University determine that CM/Contractor has not complied with this Article 14.2, CM/Contractor shall forfeit to University, as a penalty, for each day or portion thereof, for each person who was denied employment as a result of such non-compliance, the penalties provided in Article 14.3 below for violation of prevailing wage rates. Such penalty amounts may be recovered from CM/Contractor; and University may deduct any such penalty amounts from the Contract Sum.
- .4 Nothing contained in this Article 14.2 shall be construed in any manner so as to prevent University from pursuing any other remedies that may be available at law.
- .5 CM/Contractor shall meet the following standards for compliance and provide University with satisfactory evidence of such compliance upon University's request, which shall be evaluated in each case by University:
 - .1 CM/Contractor shall notify its Superintendent and other supervisory personnel of the nondiscrimination requirements of the Contract Documents and their responsibilities thereto.
 - .2 CM/Contractor shall notify all sources of employee referrals (including unions, employment agencies, and the State of California Department of Employment) of the nondiscrimination requirements of the Contract Documents by sending to such sources and by posting the Notice of Equal Employment Opportunity (EEO).
 - .3 CM/Contractor or its representative shall, through all unions with whom it may have agreements, develop agreements that (1) define responsibilities for nondiscrimination in hiring, referrals, upgrading, and training and (2) implement an affirmative nondiscrimination program, in terms of the unions' specific areas of skill and geography, such that qualified minority women, non-minority women, and minority men shall be available and given an equal opportunity for employment.
 - .4 CM/Contractor shall notify University of opposition to the nondiscrimination requirements of the Contract Documents by individuals, firms, or organizations during the term of the Contract.
- .6 CM/Contractor shall include the provisions of the foregoing Articles 14.2.3.2.1 through 14.2.3.2.6 in all subcontracts with Subcontractors, so that such provisions will be binding upon each such Subcontractor.

14.3 PREVAILING WAGE RATES

14.3.1 For purposes of this Article 14.3, the term Subcontractor shall not include suppliers, manufacturers, or distributors.

14.3.2 CM/Contractor shall comply and shall ensure that all Subcontractors comply with prevailing wage law pursuant to the State of California Labor Code, including but not limited to Section 1720 et seq. of the State of California Labor Code. Compliance with these sections is required by this Contract. The Work under this Contract is subject to compliance monitoring and enforcement by the State of California Department of Industrial Relations.

14.3.3 The State of California Department of Industrial Relations has ascertained the general prevailing per diem wage rates in the locality in which the Work is to be performed for each craft, classification, or type of worker required to perform the Work. A copy of the general prevailing per diem wage rates will be on file at University's principal facility office and will be made available to any interested party upon request. CM/Contractor shall post a copy of the general prevailing per diem wage rates as well as job site notices as prescribed by regulation at the job site. By this reference, such schedule is made part of the Contract Documents. CM/Contractor shall pay not less than the prevailing wage rates, as specified in the schedule and any amendments thereto, to all workers employed by CM/Contractor in the execution of the Work. CM/Contractor shall cause all subcontracts to include the provision that all Subcontractors shall pay not less than the prevailing rates to all workers employed

by such Subcontractors in the execution of the Work. CM/Contractor shall forfeit to University, as a penalty, not more than \$200 for each calendar day or portion thereof for each worker that is paid less than the prevailing rates as determined by the Director of Industrial Relations for the work or craft in which the worker is employed for any portion of the Work done by CM/Contractor or any Subcontractor. The amount of this penalty shall be determined pursuant to applicable law. Such forfeiture amounts may be deducted from the Contract Sum or sought directly from the surety under its Performance Bond if there are insufficient funds remaining in the Contract Sum. CM/Contractor shall also pay to any worker who was paid less than the prevailing wage rate for the work or craft for which the worker was employed for any portion of the Work, for each day, or portion thereof, for which the worker was paid less than the specified prevailing per diem wage rate, an amount equal to the difference between the specified prevailing per diem wage rate and the amount which was paid to the worker. Review of any civil wage and penalty assessment shall be made pursuant to section 1742 of the California Labor Code.

14.4 PAYROLL RECORDS

14.4.1 For purposes of this Article 14.4, the term Subcontractor shall not include suppliers, manufacturers, or distributors.

14.4.2 CM/Contractor and all Subcontractors shall keep an accurate payroll record, showing the name, address, social security number, job classification, straight time and overtime hours worked each day and week, and the actual per diem wages paid to each journeyworker, apprentice, worker, or other employee employed in connection with the Work. All payroll records shall be certified as being true and correct by CM/Contractor or Subcontractors keeping such records; and the payroll records shall be available for inspection at all reasonable hours at the principal office of CM/Contractor on the following basis:

- .1 A certified copy of an employee's payroll record shall be made available for inspection or furnished to such employee or the employee's authorized representative on request.
- .2 A certified copy of all payroll records shall be made available for inspection upon request to University, the State of California Division of Labor Standards Enforcement, and the Division of Apprenticeship Standards of the State of California Division of Industrial Relations.
- .3 A certified copy of all payroll records shall be made available upon request by the public for inspection or copies thereof made; provided, however, that the request by the public shall be made to either University, the Division of Apprenticeship Standards, or the Division of Labor Standards Enforcement. The public shall not be given access to such records at the principal offices of CM/Contractor or Subcontractors. Any copy of the records made available for inspection as copies and furnished upon request to the public or any public agency by University shall be marked or obliterated in such a manner as to prevent disclosure of an individual's name, address, and social security number. The name and address of CM/Contractor awarded the Contract or performing the Contract shall not be marked or obliterated.

14.4.3 CM/Contractor shall file a certified copy of the payroll records with the entity that requested the records within 10 days after receipt of a written request. CM/Contractor shall inform University of the location of such payroll records for the Project, including the street address, city, and county; and CM/Contractor shall, within 5 working days, provide notice of change of location of such records. In the event of noncompliance with the requirements of this Article 14.4 or with the State of California Labor Code Section 1776, CM/Contractor shall have 10 days in which to comply following receipt of notice specifying in what respects CM/Contractor must comply. Should noncompliance still be evident after the 10 day period, CM/Contractor shall forfeit to University, as a penalty, \$100 for each day, or portion thereof, for each worker, until strict compliance is accomplished. Such forfeiture amounts may be deducted from the Contract Sum.

14.5 APPRENTICES

14.5.1 For purposes of this Article 14.5, the term Subcontractor shall not include suppliers, manufacturers, and distributors.

14.5.2 Only apprentices, as defined in the State of California Labor Code Section 3077, who are in training under apprenticeship standards and written apprentice agreements under Chapter 4, Division 3, of the State of California Labor Code, are eligible to be employed by CM/Contractor and Subcontractors as apprentices. The employment and training of each apprentice shall be in accordance with the provisions of the apprenticeship standards and written apprentice agreements under which the apprentice is training and in accordance with prevailing wage law pursuant to the Labor Code, including but not limited to Section 1777.5. The CM/Contractor bears responsibility for compliance with this section for all apprenticeable occupations.

14.5.3 Every apprentice shall be paid the standard wage to apprentices, under the regulations of the craft or trade at which the apprentice is employed, and shall be employed only at the Construction Work in the craft or trade to which the apprentice is indentured.

14.5.4 When CM/Contractor or Subcontractors employ workers in any apprenticeship craft or trade on the Construction Work, CM/Contractor or Subcontractors shall 1) send contract award information to the applicable joint apprenticeship committee that can supply apprentices to the site of the public work and 2) apply to the joint apprenticeship committee, which administers the apprenticeship standards of the craft or trade in the area of the Project site, for a certificate approving CM/Contractor or Subcontractors under the apprenticeship standards for the employment and training of apprentices in the area of the Project site. The committee will issue a certificate fixing the number of apprentices or the ratio of apprentices to journeypersons who shall be employed in the craft or trade on the Construction Work. The ratio will not exceed that stipulated in the apprenticeship standards under which the joint apprenticeship committee operates; but in no case shall the ratio be less than 1 hour of apprentice work for every 5 hours of journeyperson work, except as permitted by law. CM/Contractor or Subcontractors shall, upon the issuance of the approval certificate in each such craft or trade, employ the number of apprentices or the ratio of apprentices to journeypersons fixed in the certificate issued by the joint apprenticeship committee or present an exemption certificate issued by the Division of Apprenticeship Standards.

14.5.5 "Apprenticeship craft or trade," as used in this Article 14.5, shall mean a craft or trade determined as an apprenticeship occupation in accordance with rules and regulations prescribed by the Apprenticeship Council.

14.5.6 If CM/Contractor or Subcontractors employ journeypersons or apprentices in any apprenticeship craft or trade in the area of the Project site, and there exists a fund for assisting to allay the cost of the apprenticeship program in the trade or craft, to which fund or funds other contractors in the area of the Project site are contributing, CM/Contractor and Subcontractors shall contribute to the fund or funds in each craft or trade in which they employ journeypersons or apprentices on the Construction Work in the same amount or upon the same basis and in the same manner done by the other contractors. CM/Contractor may include the amount of such contributions in computing its bid for the Contract; but if CM/Contractor fails to do so, it shall not be entitled to any additional compensation therefore from University.

14.5.7 In the event CM/Contractor willfully fails to comply with this Article 14.5, it will be considered in violation of the requirements of the Contract.

14.5.8 Nothing contained herein shall be considered or interpreted as prohibiting or preventing the hiring by CM/Contractor or Subcontractors of journeyperson trainees who may receive on-the-job training to enable them to achieve journeyperson status in any craft or trade under standards other than those set forth for apprentices.

14.6 CONSTRUCTION WORK DAY

14.6.1 CM/Contractor shall not permit any worker to labor more than 8 hours during any 1 day or more than 40 hours during any 1 calendar week, except as permitted by law and in such cases only upon such conditions as are provided by law. CM/Contractor shall forfeit to University, as a penalty, \$25 for each worker employed in the execution of this Contract by CM/Contractor, or any Subcontractor, for each day during which such worker is required or permitted to work more than 8 hours in any 1 day and 40 hours in any 1 calendar week in violation of the terms of this Article 14.6 or in violation of the provisions of any law of the State of California. Such forfeiture amounts may be deducted from the Contract Sum. CM/Contractor and each Subcontractor shall keep, or cause to be kept, an accurate record showing the actual hours worked each day and each calendar week by each worker employed on the Project, which record shall be kept open at all reasonable hours to the inspection of University, its officers and agents, and to the inspection of the appropriate enforcement agency of the State of California.

ARTICLE 15

MISCELLANEOUS PROVISIONS

15.1 GOVERNING LAW

15.1.1 The Contract shall be governed by the law of the State of California.

15.2 SUCCESSORS AND ASSIGNS

15.2.1 University and CM/Contractor respectively bind themselves and their successors, permitted assigns, and legal representatives to the other party and to the successors, permitted assigns, and legal representatives of such other party in respect to covenants, agreements, and obligations contained in the Contract Documents. Neither party to the Contract shall assign the Contract, in whole or in part, without prior written consent of the other party. Notwithstanding any such assignment, each of the original contracting parties shall remain legally responsible for all of its obligations under the Contract.

15.3 RIGHTS AND REMEDIES

15.3.1 All University's rights and remedies under the Contract Documents will be cumulative and in addition to and not in limitation of all other rights and remedies of University under the Contract Documents or otherwise available at law or in equity.

15.3.2 No action or failure to act by University or University's Representative will constitute a waiver of a right afforded them under the Contract, nor will such action or failure to act constitute approval of or acquiescence in a condition or breach thereunder, except as may be specifically agreed in writing. No waiver by University or University's Representative of any condition, breach or default will constitute a waiver of any other condition, breach or default; nor will any such waiver constitute a continuing waiver.

15.3.3 No provision contained in the Contract Documents shall create or give to third parties any claim or right of action against University, University's Representative, or CM/Contractor.

15.4 SURVIVAL

15.4.1 The provisions of the Contract which by their nature survive termination of the Contract or Final Completion, including all warranties, indemnities, payment obligations, and University's right to audit CM/Contractor's books and records, shall remain in full force and effect after Final Completion or any termination of the Contract.

15.5 COMPLETE AGREEMENT

15.5.1 The Contract Documents constitute the full and complete understanding of the parties and supersede any previous agreements or understandings, oral or written, with respect to the subject matter hereof. The Contract may be modified only by a written instrument signed by both parties or as provided in Articles 7 and 16 of the General Conditions.

15.6 SEVERABILITY OF PROVISIONS

15.6.1 If any one or more of the provisions contained in the Contract Documents should be invalid, illegal, or unenforceable in any respect, the validity, legality, and enforceability of the remaining provisions contained herein shall not in any way be affected or impaired thereby.

15.7 UNIVERSITY'S RIGHT TO AUDIT

15.7.1 University and entities and agencies designated by University will have access to and the right to audit and the right to copy at University's cost all of CM/Contractor's books, records, contracts, correspondence, instructions, drawings, receipts, vouchers, purchase orders, and memoranda relating to the Work. CM/Contractor shall preserve all such records and other items during the performance of the Contract and for a period of at least 3 years after Final Completion.

15.8 METHODS OF DELIVERY FOR SPECIFIED DOCUMENTS

15.8.1 The following documents must be delivered in a manner specified in Article 15.8.2:

- .1 CM/Contractor Notices of election to litigate or arbitrate;
- .2 Written demand for an informal conference to meet and confer pursuant to Article 4.5;
- .3 University's written statement identifying remaining disputes following informal conference pursuant to Article 4.6;
- .4 Written demand for non-binding mediation pursuant to Article 4.6;
- .5 CM/Contractor claims pursuant to Article 4.3;
- .6 CM/Contractor notices of conditions pursuant to Articles 3.17, 3.18, or 3.19;
- .7 University's notices of CM/Contractor's failure to perform and/or correct defective work pursuant to Articles 4.1.6, 12.2 and 13.2.3;
- .8 University's notice to stop work pursuant to Article 2.3.1;
- .9 Notices of termination or suspension pursuant to Article 13.

15.8.2 Delivery methods for documents specified in Article 15.8.1:

- .1 By personal delivery.
- .2 Sent by facsimile copy where receipt is confirmed.
- .3 Sent by Express Mail, or another method of delivery providing for overnight delivery where receipt is confirmed.
- .4 Sent by registered or certified mail, postage prepaid, return receipt requested.

15.8.3 The documents identified in Article 15.8.1 shall only be effective if delivered in the manner specified in Article 15.8.2. Subject to the forgoing, such documents shall be deemed given and received upon actual receipt in the case of all except registered or certified mail; and in the case of registered or certified mail, on the date shown on the return receipt or the date delivery during normal business hours was attempted. Delivery of the specified documents shall be made at the respective street addresses set forth in the Agreement. Such street addresses may be changed by notice given in accordance with this Article 15.8.

15.9 TIME OF THE ESSENCE

15.9.1 Time limits stated in the Contract Documents are of the essence of the Contract.

15.10 MUTUAL DUTY TO MITIGATE

15.10.1 University and CM/Contractor shall use all reasonable and economically practicable efforts to mitigate delays and damages to the Project and to one another with respect to the Project, regardless of the cause of such delay or damage.

15.11 UC FAIR WAGE

Contractor shall pay all persons providing construction services and/or any labor on site, including any University location, no less than the UC Fair Wage (defined as \$13 per hour as of 10/1/15, \$14 per hour as of 10/1/16, and \$15 per hour as of 10/1/17) and shall comply with all applicable federal, state and local working condition requirements.

ARTICLE 16
CONTRACT AMENDMENTS

16.1 GENERAL

16.1.1 Contract Amendments shall be used to modify the Contract when either the University elects to exercise its Option for Phase 2, or to incorporate Construction Work from a University approved Bid Package. Contract Amendments will be issued by the University unilaterally and do not require the signature of the CM/Contractor.

16.2 INCREASE IN PERFORMANCE AND PAYMENT BONDS

16.2.1 The amount of the Payment and Performance Bonds shall be increased by CM/Contractor, as appropriate, pursuant to Article 11.3.2 of the General Conditions upon the University's issuance of a Contract Amendment. University shall withhold payment until increased Performance and Payment Bonds are received, if they are not received within ten (10) days of the Contract Amendment.

16.3 OPTION

16.3.1 When a Contract Amendment is issued to exercise the University's Option for Phase 2, it shall increase the Contract Sum by the amount of the Option Sum - Phase 2 and will extend the Contract Time as set forth in Article 5 of the Agreement. No other increase of the CM/Contractor Base Fee, cost of General Conditions Work, or any other cost of the Work shall be included in the Contract Amendment; all such cost shall be included in the CM/Contractor's Option Sum - Phase 2.

16.4 BID PACKAGE(S)

16.4.1 When a Contract Amendment is issued to incorporate the Work of a Bid Package, only the Contract Sum will be adjusted. Contract Time associated with Bid Packages shall be incorporated into the Contract when the University elects to exercise its Option for Phase 2. The Contract Sum will only be adjusted by the amount approved by the University in the Bid Package; no additional cost for CM/Contractor's Base Fee, General Conditions Work, or any other cost of the Work shall be included in the Contract Amendment unless and until the Contract Sum exceeds the Maximum Anticipated Contract Value; if the Contract Sum exceeds the Maximum Anticipated Contract Value, the Contract Sum will be adjusted by the amount approved by the University in the Bid Package plus 5% of the amount of the Bid Package that is in excess of the Maximum Anticipated Contract Value.

[End]

SUPPLEMENTARY CONDITIONS

1. MODIFICATION OF GENERAL CONDITIONS, ARTICLE 3 – CM/CONTRACTOR

3.9.9.1 CM/Contractor shall incorporate in Contract Schedule a work activity of **60** days representing the time period for the University's Representative to obtain Department of Finance approval of each Bid Package.

3.9.9.2 CM/Contractor shall incorporate in Contract Schedule a work activity of **60** days representing the time period for the University's Representative to obtain approval of each Bid Package Certification. This duration follows and is in addition to the duration in 3.9.10.

3.9.12 The CM/Contractor shall insert, in all Preliminary Contract Schedule(s) and Contract Schedule(s), Work Activity(s) corresponding to each Bid Package immediately following the submittal by CM/Contractor to University of Bid Package Certification and preceding the University issuing a Contract Amendment for the Bid Package. The Work Activity shall be entitled "University Review of Bid Package Certification (Bid Package description)". This Work Activity represents the time required by the University to review the Bid Package Certification and time to resolve any bid protest under the University's Bid Protest Procedures exhibit. The CM/Contractor shall insert a duration of **480 days** for all such work activities. CM/Contractor will not be entitled to an extension of the Contract Time or compensation for delay if:

- .1 the Contract Amendment is issued on or before the expiration of the duration specified above, or
- .2 the decision of the Hearing Officer results in a determination in favor of the protesting party and the CM/Contractor was responsible for the circumstances that resulted in such decision.

2. MODIFICATION OF GENERAL CONDITIONS, ARTICLE 3 – CM/CONTRACTOR

3.23.3.1 The CM/Contractor may elect to bid for Construction Work for Bid Packages that primarily involve the following specific trade(s):

- demolition
- concrete
- rough carpentry
- finish carpentry

3.23.3.2 The CM/Contractor shall provide written notification to University's Representative within **30 days** from the Phase 1 Notice to Proceed date if CM/Contractor, a company CM/Contractor has a financial interest in, or a parent company of CM/Contractor intends to submit a bid to self-perform the work described above.

3. MODIFICATION OF GENERAL CONDITIONS, ARTICLE 8 – CONTRACT TIME

Adverse weather in excess of the following number of days will be granted a Contract Time extension pursuant to Article 8.4 of the General Conditions:

0 Days

4. MODIFICATIONS TO ARTICLE 10 – PROTECTION OF PERSONS AND PROPERTY

The following section 10.4 is added to Article 10:

10.4 ELECTRICAL CERTIFICATION AND APPRENTICESHIP REQUIREMENTS

10.4.1 Projects where the electrical scope of work is estimated to be \$100,000 or more will include a requirement that the contractor shall:

- 1. Ensure that a minimum of 60% of all journeymen wiremen will be graduates of an apprenticeship program approved by the California Apprenticeship Council.**
- 2. Ensure that a minimum of 20% of jobsite electrical workers are OSHA 10-hour General Industry Safety & Health certified.**
- 3. Ensure that at least one jobsite electrical worker is OSHA 30-hour General Industry Safety and Health certified.**

5. 4. MODIFICATION OF GENERAL CONDITIONS, ARTICLE 11 – INSURANCE AND BONDS

Insurance required by Paragraphs 11.1.2.1, 11.1.2.2, and 11.1.2.4 shall be (i) issued by companies with a Best rating of A- or better, and a financial classification of VIII or better (or an equivalent rating by Standard & Poor or Moody's) or (ii) guaranteed, under terms consented to by the University (such consent to not be unreasonably withheld), by companies with a Best rating of A- or better, and a financial classification of VIII or better (or an equivalent rating by Standard & Poor or Moody's). Such insurance shall be written for not less than the following:

		<u>Minimum Requirement</u>
11.1.2.1	Commercial General Liability Insurance- Limits of Liability	
	Each Occurrence-Combined Single Limit for Bodily Injury and Property	\$1,000,000
	Products-Completed Operations Aggregate	\$1,000,000
	Personal and Advertising Injury	\$1,000,000
	General Aggregate	\$2,000,000

11.1.2.2	Business Automobile Liability Insurance- Limits of Liability	
	Each Accident-Combined Single Limit for Bodily Injury and Property Damage	\$1,000,000
11.1.2.4	Professional Liability Insurance - Limits of Liability	
	Each Occurrence	\$1,000,000
	General Aggregate	\$1,000,000

Insurance required by Paragraph 11.1.2.3 shall be issued by companies (i) that have a Best rating of B+ or better, and a financial classification of VIII or better (or an equivalent rating by Standard & Poor or Moody's); or (ii) that are acceptable to the University. Such insurance shall be written for not less than the following:

11.1.2.3	WORKER'S COMPENSATION AND EMPLOYER'S LIABILITY –	Minimum Requirement
	Worker's Compensation:	(as required by Federal and State of California law).
	Employer's Liability:	
	Each Employee	\$1,000,000
	Each Accident	\$1,000,000
	Policy Limit	\$1,000,000

6. MODIFICATION OF GENERAL CONDITIONS ARTICLE 11 – INSURANCE AND BONDS

Article 11.3 of the General Conditions is replaced in its entirety with the following revised Article 11.3 (see also Article 5.2 – Supplementary Instructions to Bidders):

11.3 PERFORMANCE BOND AND PAYMENT BOND

11.3.1 CM/Contractor shall furnish bonds covering the faithful performance of the Contract (Performance Bond) and payment of obligations arising thereunder (Payment Bond) on the forms contained in the Exhibits.

11.3.2 The Payment Bond and Performance Bond shall each be in the amount of the Phase 1 Contract Sum.

11.3.3 The Payment Bond and Performance Bond shall be increased so that each is in the amount of the Anticipated Contract Value less the Phase 1 Contract Sum. The CM/Contractor shall provide the increased Payment Bond and the increased Performance Bond within ten (10) days of Notice of Intent.

If thereafter the Contract Sum exceeds the Anticipated Contract Value less the Phase 1 Contract Sum, CM/Contractor shall furnish supplemental Payment and Performance Bonds in an amount equal to any increase in the Contract Sum above the Anticipated Contract Value.

11.3.4 CM/Contractor shall promptly furnish such additional security as may be required by University to protect its interests and those interests of persons or firms supplying labor or materials to the Construction Work.

11.3.5 Surety companies used by CM/Contractor shall be, on the date the Contract is signed by University, an admitted surety insurer (as defined in the California Code of Civil Procedure Section 995.120).

11.3.6 The premiums for the Payment Bond and Performance Bond shall be paid by CM/Contractor.

11.3.7 If CM/Contractor fails to furnish the increased performance and payment bonds required hereunder within 10 days of the University's issuance of the Notice of Intent, University may:

.1 Elect to not exercise its Option for Phase 2 and not award a contract for Construction Work to another contractor, in which case the CM/Contractor shall pay to the University, as liquidated damages, \$250,000, or

.2 Elect to not exercise its Option for Phase 2 and award a contract for the Construction Work to another contractor, in which case the CM/Contractor shall pay to the University the difference between the amount of the Option Sum Phase 2 and the larger amount for which University procures the Work, plus liquidated damages at the rate specified in Article 6 of the Agreement, for each day of delay, beyond the 10 days for furnishing the increased payment and performance bonds, in awarding a contract for the Construction Work to another contractor, or

.3 Elect to exercise its Option for Phase 2, after the CM/Contractor furnishes the payment and performance bonds, in which case the CM/Contractor shall pay to the University liquidated damages at the rate specified in Article 6 of the Agreement, for each day of delay beyond the 10 days for furnishing the increased payment and performance bonds.

7. **Article 4.2.5 in the General Conditions is replaced in its entirety with the following:**

4.2.5 Should University's Representative fail to issue a decision on a Change Order Request within a 30-day period, CM/Contractor may send a notice of intent to file a lawsuit or stop notice to compel a response to the Change Order Request. If no decision is made in writing by the University's Representative within five business days after notice of intent to file a lawsuit to compel a response to the Change Order Request, CM/Contractor may file a stop notice, pursuant to California Law or a lawsuit to compel such response. If a lawsuit is successful in convincing a court to issue an order compelling such a response, the CM/Contractor shall be entitled to \$10,000 as damages to fully compensate contractor for any and all losses resulting from the University's failure to issue a decision, and neither CM/Contractor nor University shall be allowed its costs or attorney's fees. Nothing in this Article 4.2.5 shall be construed to otherwise increase or decrease rights or obligations of the CM/Contractor or University, if any, pursuant to Article 6 or Article 7 of the Agreement, or to create a right for either party to attorneys' fees or costs.

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CERTIFICATE OF LIABILITY INSURANCE

(for non-UCIP Construction Projects and Consultant/Design Contracts)

DATE (MM/DD/YYYY)

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

IMPORTANT: If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

PRODUCER	CONTACT NAME:	
	PHONE (A/C, No, Ext):	FAX (A/C, No):
	E-MAIL ADDRESS:	
	INSURER(S) AFFORDING COVERAGE	
	INSURER A :	
	INSURER B :	
INSURED	INSURER C :	
	INSURER D :	
	INSURER E :	
	INSURER F :	

COVERAGES **CERTIFICATE NUMBER:** **REVISION NUMBER:**

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR LTR	TYPE OF INSURANCE	ADDL INSR	SUBR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS
	GENERAL LIABILITY <input type="checkbox"/> COMMERCIAL GENERAL LIABILITY <input type="checkbox"/> CLAIMS-MADE <input type="checkbox"/> OCCUR <hr/> <small>GENL</small> AGGREGATE LIMIT APPLIES PER: <input type="checkbox"/> POLICY <input type="checkbox"/> PRO-JECT <input type="checkbox"/> LOC						
	AUTOMOBILE LIABILITY <input type="checkbox"/> ANY AUTO <input type="checkbox"/> ALL OWNED AUTOS <input type="checkbox"/> SCHEDULED AUTOS <input type="checkbox"/> HIRED AUTOS <input type="checkbox"/> NON-OWNED AUTOS						
	<input type="checkbox"/> UMBRELLA LIAB <input type="checkbox"/> OCCUR <input type="checkbox"/> EXCESS LIAB <input type="checkbox"/> CLAIMS-MADE <input type="checkbox"/> DED <input type="checkbox"/> RETENTION \$						
	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? <input type="checkbox"/> <small>Y/N</small> (Mandatory in NH) If yes, describe under DESCRIPTION OF OPERATIONS below			N/A			<input type="checkbox"/> WC STATUTORY LIMITS <input type="checkbox"/> OTHER
	PROFESSIONAL LIABILITY <input type="checkbox"/> OCCUR <input type="checkbox"/> CLAIMS-MADE						

Special Provisions:

- The Regents of the University of California, The University of California, University, and each of their Representatives, consultants, officers, agents, employees, and each of their Representative's consultants, are included as additional insureds on the general liability policy as required by contract and pursuant to additional insured endorsement CG2010 (11/85) or a combination of both CG 2010 (10/01 or 07/04) and CG 2037 (10/01 or 07/04) but only in connection with School of Medicine Clinical Skills and Simulation Suite, Project No. 958091 Contract No. 958091-CMAR-2019-67
- The General Liability coverage contains a Severability of Interest provision and shall be primary insurance as respects The Regents of the University of California, its officers, agents and employees. Any insurance or self-insurance maintained by The Regents of the University of California shall be excess of and non-contributory with this insurance.

CERTIFICATE HOLDER: The Regents of the University of California

Forward to: {Office, Room Number or Mail Stop} University of California, {Facility} {Street Address} {City, State, Zip}	<p>SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.</p> AUTHORIZED REPRESENTATIVE
--	--

EXHIBIT 03

Bond No.: _____

PAYMENT BOND

KNOW ALL PERSONS BY THESE PRESENTS:

THAT WHEREAS, The Regents of the University of California ("The Regents") has awarded to _____ as Principal a contract dated the ____ day of _____, ____ (the "Contract") for the work described as follows:

**Project Name: School of Medicine Clinical Skills and Simulation Suite, Project No. 958091
Contract No. 958091-CMAR-2019-67**

AND WHEREAS, Principal is required to furnish a bond in connection with the Contract to secure the payment of claims of laborers, mechanics, material suppliers, and other persons as provided by law;

NOW, THEREFORE, we, the undersigned Principal and

as Surety, are held and firmly bound unto The Regents in the sum of

_____ dollars (\$_____), for which payment well and truly to be made we bind ourselves, our heirs, executors, administrators, successors, and assigns, jointly and severally, firmly by these presents.

THE CONDITION OF THIS OBLIGATION IS SUCH, that if Principal, or its heirs, executors, administrators, successors, or assigns approved by The Regents, or its subcontractors shall fail to pay any of the persons named in State of California Civil Code Section 9100, or amounts due under the State of California Unemployment Insurance Code with respect to work or labor performed under the Contract, or for any amounts required to be deducted, withheld, and paid over to the State of California Employment Development Department from the wages of employees of Principal and subcontractors pursuant to Section 13020 of the State of California Unemployment Insurance Code with respect to such work and labor, that Surety will pay for the same in an amount not exceeding the sum specified in this bond, otherwise the above obligation shall become and be null and void.

This bond shall inure to the benefit of any of the persons named in State of California Civil Code Section 9100 as to give a right of action to such persons or their assigns in any suit brought upon this bond.

Surety, for value received, hereby expressly agrees that no extension of time, change, modification, alteration, or addition to the undertakings, covenants, terms, conditions, and agreements of the Contract, or to the work to be performed thereunder, shall in any way affect the obligation of this bond; and it does hereby waive notice of any such extension of time, change, modification, alteration, or addition to the undertakings, covenants, terms, conditions, and agreements of the Contract, or to the work to be performed thereunder.

Surety's obligations hereunder are independent of the obligations of any other surety for the payment of claims of laborers, mechanics, material suppliers, and other persons in connection with the Contract; and suit may be brought against Surety and such other sureties, jointly and severally, or against any one or more of them, or against less than all of them without impairing The Regents' rights against the other.

In the event suit is brought upon this bond, the parties not prevailing in such suit shall pay reasonable attorneys' fees and costs incurred by the prevailing parties in such suit.

Correspondence or claims relating to this bond shall be sent to Surety at the address set forth below.

IN WITNESS WHEREOF, we have hereunto set our hands this ____ day of _____, ____.

Principal: _____
(Name of Firm)

By: _____
(Signature)

(Printed Name)

Title: _____

Surety: _____
(Name of Firm)

By: _____
(Signature)

(Printed Name)

Title: _____

Address for Notices:

NOTE: Notary acknowledgement for Surety and Surety's Power of Attorney must be attached.

EXHIBIT 04

Bond No.: { }

PERFORMANCE BOND

KNOW ALL PERSONS BY THESE PRESENTS:

THAT WHEREAS, The Regents of the University of California ("The Regents") has awarded to _____ as Principal, a contract dated the _____ day of _____, _____, (the "Contract"), which Contract is by this reference made a part hereof, for the work described as follows:

**Project Name: School of Medicine Clinical Skills and Simulation Suite, Project No. 958091
Contract No. 958091-CMAR-2019-67**

AND WHEREAS, Principal is required to furnish a bond in connection with the Contract, guaranteeing the faithful performance thereof;

NOW, THEREFORE, we, the undersigned Principal and _____ as Surety are held and firmly bound unto The Regents in the sum of **\$(See General Conditions 11.3.2 for amount)**, to be paid to The Regents or its successors and assigns; for which payment, well and truly to be made, we bind ourselves, our heirs, executors, administrators, successors, and assigns, jointly and severally, firmly by these presents.

THE CONDITION OF THIS OBLIGATION IS SUCH, that if Principal, or its heirs, executors, administrators, successors, or assigns approved by The Regents, shall promptly and faithfully perform the covenants, conditions, and agreements of the Contract during the original term and any extensions thereof as may be granted by The Regents, with or without notice to Surety, and during the period of any guarantees or warranties required under the Contract, and shall also promptly and faithfully perform all the covenants, conditions, and agreements of any alteration of the Contract made as therein provided, notice of which alterations to Surety being hereby waived, on Principal's part to be kept and performed at the time and in the manner therein specified, and in all respects according to their true intent and meaning, and shall indemnify, defend, protect, and hold harmless The Regents as stipulated in the Contract, then this obligation shall become and be null and void; otherwise it shall be and remain in full force and effect.

No extension of time, change, alteration, modification, or addition to the Contract, or of the work required thereunder, shall release or exonerate Surety on this bond or in any way affect the obligation of this bond; and Surety does hereby waive notice of any such extension of time, change, alteration, modification, or addition.

Whenever Principal shall be and declared by The Regents to be in default under the Contract, Surety shall promptly remedy the default, or shall promptly:

1. Undertake through its agents or independent contractors, reasonably acceptable to The Regents, to complete the Contract in accordance with its terms and conditions and to pay and perform all obligations of Principal under the Contract, including without limitation, all obligations with respect to warranties, guarantees, and the payment of liquidated damages, or, at Surety's

July 1, 2002

Exhibit
Performance Bond

election, or, if required by The Regents.

2. Obtain a bid or bids for completing the Contract in accordance with its terms and conditions, and, upon determination by The Regents of the lowest responsible bidder, arrange for a contract between such bidder and The Regents and make available as work progresses (even though there should be a default or a succession of defaults under the contract or contracts of completion arranged under this paragraph) sufficient funds to pay the cost of completion less the balance of the Contract Sum, and to pay and perform all obligations of Principal under the Contract, including, without limitation, all obligations with respect to warranties, guarantees, and the payment of liquidated damages; but, in any event, Surety's total obligations hereunder shall not exceed the amount set forth in the third paragraph hereof. The term "balance of the Contract Sum," as used in this paragraph, shall mean the total amount payable by The Regents to the Principal under the Contract and any amendments thereto, less the amount paid by The Regents to Principal.

Surety's obligations hereunder are independent of the obligations of any other surety for the performance of the Contract, and suit may be brought against Surety and such other sureties, jointly and severally, or against any one or more of them, or against less than all of them without impairing The Regents' rights against the others.

No right of action shall accrue on this bond to or for the use of any person or corporation other than The Regents or its successors or assigns.

Surety may join in any arbitration proceedings brought under the Contract and shall be bound by any arbitration award.

In the event suit is brought upon this bond by The Regents, Surety shall pay reasonable attorney's fees and costs incurred by The Regents in such suit.

Correspondence or claims relating to this bond shall be sent to Surety at the address set forth below.

IN WITNESS WHEREOF, we have hereunto set our hands this _____ day of _____, 20____.

Principal: _____
 (Name of Firm)

Surety: _____
 (Name of Firm)

By: _____

By: _____

Title: _____

Title: _____

Address for Notices:

NOTE: Notary acknowledgement for individual signing above on behalf of Surety is required. Surety's Power of Attorney must also be attached with Notary Acknowledgement of Signature on Power of Attorney

EXHIBIT 05

APPLICATION FOR PAYMENT

Number: _____ Period to: _____

TO UNIVERSITY: THE REGENTS OF THE UNIVERSITY OF CALIFORNIA
 UNIVERSITY OF CALIFORNIA, RIVERSIDE, 900 University Ave., Riverside, CA 92521

AND UNIVERSITY'S REPRESENTATIVE: Mihai Gavan

FROM CM/CONTRACTOR: _____

ADDRESS: _____

PROJECT NAME: School of Medicine Clinical Skills and Simulation Suite

PROJECT NUMBER: 958091

CONTRACT DATE (Agreement Date): _____

APPLICATION DATE: _____

CHANGE ORDER/CONTRACT AMENDMENT SUMMARY:	<u>Additions</u>	<u>Deductions</u>
Total:	_____	_____

Change Orders/Contract Amendments approved in previous months:

Number:	Date Approved:	<u>Additions</u>	<u>Deductions</u>
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
Total:		_____	_____

NET CHANGE BY CHANGE ORDERS/CONTRACT AMENDMENTS: \$ _____

Application is made for payment under the Contract as shown below and in Schedule 1 attached hereto:

1. ORIGINAL CONTRACT SUM		\$	_____
2. NET CHANGE BY CHANGE ORDERS/CONTRACT AMENDMENTS		\$	_____
3. CONTRACT SUM TO DATE (Line 1 + Line 2)		\$	_____
4. TOTAL AMOUNT COMPLETED TO DATE (Column E on Schedule 1)		\$	_____
5. RETENTION: 5% of Completed Work (Column H on Schedule 1)*		\$	_____
a. Current Value of Securities Deposited in Escrow	\$		_____
b. Current Value of Retention Deposited in Escrow	\$		_____
c. Retention Held by University	\$		_____
Current Retention Value (a + b + c)	\$		_____
6. TOTAL EARNED LESS RETENTION (Line 4 less Line 5)		\$	_____
7. TOTAL AMOUNT PREVIOUSLY PAID		\$	_____
8. CURRENT PAYMENT DUE (Line 6 less Line 7)		\$	_____
9. BALANCE TO FINISH, PLUS RETENTION (Line 3 less Line 6)		\$	_____

*Pursuant to Article 9.2.2 of the General Conditions.

The undersigned CM/Contractor hereby represents and warrants to University that all Work, for which Certificates For Payment have previously been issued and payment received from University, is free and clear of all claims, stop notices, security interests, and encumbrances in favor of CM/Contractor, any Subcontractor, and any other persons or firms entitled to make claims by reason of having provided labor, materials, or equipment related to the Work.

The following Schedules are attached and incorporated herein, and made a part of this Application For Payment:

- Schedule 1 Cost Breakdown Schedule
- Schedule 2 Certification of Current Market Value of Securities in Escrow in Lieu of Retention
- Schedule 3 List of Subcontractors (if required)
- Schedule 4 Declaration of Releases of Claims (if required)

(CM/Contractor)

(Name)

(Title)

DECLARATION

I, _____, hereby declare that I am the _____ of CM/Contractor submitting this Application For Payment; that I am duly authorized to execute and deliver this Application For Payment on behalf of CM/Contractor; and that all information set forth in this Application For Payment and all Schedules attached hereto are true, accurate, and complete as of its date.

I declare, under penalty of perjury, that the foregoing is true and correct and that this declaration was subscribed at

_____, _____, State of _____ on _____, 20____.

(Signature)

(Print Name)



School of Medicine Clinical Skills and Simulation Suite
 Project Number: 958091
 Contract Number: 958091-CMAR-2019-67

PROJECT NAME: _____ APPLICATION NUMBER: _____
 PROJECT NUMBER: _____ APPLICATION DATE: _____
 FACILITY: _____ PERIOD TO: _____
 CONTRACT DATE: _____ CM/CONTRACTOR: _____

**SCHEDULE 1 TO
 APPLICATION FOR PAYMENT**

COST BREAKDOWN

A	B	C	D	E	F	G	H
ITEM NO.	DESCRIPTION OF WORK ACTIVITY OR OTHER ITEM	SCHEDULED VALUE	% COMPLETE TO DATE	TOTAL AMOUNT COMPLETED TO DATE (C x D)	TOTAL AMOUNT COMPLETED ON PRIOR APPLICATION FOR PAYMENT	AMOUNT OF THIS APPLICATION (E - F)	RETENTION (5% x E)

PROJECT NAME: _____
CM/CONTRACTOR: _____
PROJECT NUMBER: _____
APPLICATION NUMBER: _____

SCHEDULE 2
TO
APPLICATION FOR PAYMENT

CERTIFICATION OF CURRENT MARKET VALUE
OF SECURITIES IN ESCROW IN LIEU OF RETENTION

As of _____, _____ (not earlier than 5 days prior to the date of the Application For Payment of which this certification is a part), the aggregate market value of securities on deposit in Escrow

Account No. _____ with _____
(Escrow Agent)

is _____ Dollars (\$_____).

(Escrow Agent)

By: _____
(Name)

(Title)

Date: _____

(CM/Contractor)

By: _____
(Name)

(Title)

Date: _____

NOTE: Notary acknowledgment for CM/Contractor and Escrow Agent must be attached.

PROJECT NAME: _____
 CM/CONTRACTOR: _____
 PROJECT NUMBER: _____
 APPLICATION NUMBER: _____

SCHEDULE 3
 TO
APPLICATION FOR PAYMENT

LIST OF SUBCONTRACTORS

Subcontractors listed below are all Subcontractors furnishing labor, services, or materials for the period referred to in the Application For Payment referenced above, of which this Schedule 3 is a part:

Design Package	Bid Package	Name of Subcontractor	Subcontracted Work Activity	Date Work Activity Completed

 (CM/Contractor)

 (Name)

 (Title)

PROJECT NAME: _____
CM/CONTRACTOR: _____
PROJECT NUMBER: _____
APPLICATION NUMBER: _____

SCHEDULE 4
TO
APPLICATION FOR PAYMENT

DECLARATION OF RELEASE OF CLAIMS

CM/Contractor hereby certifies that attached hereto are releases and waivers of claims and stop notices from all Subcontractors furnishing labor, services, or materials covered by the Certificate For Payment dated _____, 20_____, except those listed below:

(CM/Contractor)

(Name)

(Title)

EXHIBIT 06

SELECTION OF RETENTION OPTIONS

I (we): _____
(CM/Contractor)

SELECTION OPTION 1 Check here for Option 1
University will withhold retention _____

OR SELECTION OPTION 2 Check here for Option 2
herewith elect to substitute securities in the form of: _____

(Type of security)

in lieu of retention being withheld by University for the above-referenced project.

OR SELECT OPTION 3 Check here for Option 3

herewith elect to have retention on the above-referenced project paid directly into the Escrow Account.

(Type of Security to be purchased)

An Escrow Account will be opened with**:

(Name of state or federally chartered bank in California)

whose address is:

(Street)

(City, County)

(State, Zip Code)

On Behalf of CM/Contractor*

(Name)

On Behalf of University Acknowledged and Approved

(Name)

(Title)

(Title)

*Signature shall be by the authorized party who signs the Escrow Agreement for Deposit of Securities in Lieu of Retention and Deposit of Retention ("Escrow Agreement").

**Note: CM/Contractor and its surety bear the risk of failure of the bank selected.

Note: If a completed and signed Escrow Agreement is not submitted with this form, University will not

allow deposit of securities in lieu of retention.

Escrow Agreement for Deposit of Securities

EXHIBIT 07

RETURN THIS AGREEMENT SIGNED BY CM/CONTRACTOR AND ESCROW AGENT TO:
UNIVERSITY OF CALIFORNIA, RIVERSIDE, 900 UNIVERSITY AVE., RIVERSIDE, CA 92521 –
USE THIS ADDRESS FOR ALL CORRESPONDENCE

Escrow Account No.: _____

**ESCROW AGREEMENT FOR
DEPOSIT OF SECURITIES IN LIEU OF RETENTION
AND
DEPOSIT OF RETENTION**

This Escrow Agreement is made as of _____, _____, and entered into by and
between THE REGENTS OF THE UNIVERSITY OF CALIFORNIA, hereinafter called "University,"
and

_____,
whose address is _____,

hereinafter called "CM/Contractor," and _____,
a state or federally chartered bank in the state of California, whose address is:

_____,
hereinafter called "Escrow Agent."

For consideration hereinafter set forth, University, CM/Contractor, and Escrow Agent agree
as follows:

(1) CM/Contractor has the option to deposit securities with Escrow Agent as a substitute for
retention required to be withheld by University pursuant to the Contract Documents, hereinafter
referred to as "Contract," entered into between University and CM/Contractor for the Project titled
_____ Project Number _____ in the amount of \$ _____
_____, dated _____. Alternatively, on written request of CM/Contractor, University
shall deposit retention directly with Escrow Agent. CM/Contractor and its surety shall be at risk of
failure of the Escrow Agent selected. When CM/Contractor deposits the securities as a substitute
for retention, Escrow Agent shall notify University within 5 days after the deposit. At all times,
CM/Contractor shall have on deposit securities the market value of which is at least equal to the
cash amount then required to be withheld as retention under the terms of the Contract. Securities
shall be held in the name of The Regents of the University of California, Riverside; and
CM/Contractor shall be designated as the beneficial owner.

(2) Escrow Agent shall review the market value of securities deposited in escrow under this
Escrow Agreement as often as conditions of the securities market warrant, but in no case less than
once per month. Escrow Agent shall promptly notify University and CM/Contractor of the market
value of the deposited securities if such market value is less than the total amount of retention
required to be withheld under the terms of the Contract. CM/Contractor shall promptly deposit

additional securities so that the current market value of the total of all deposited securities shall be at least equal to the total required amount of retention. Escrow Agent shall, within 5 days after University's request, provide a statement to University of the current market value of all securities deposited under this Escrow Agreement as of a date not earlier than 5 days prior to such request. The provisions of this Paragraph 2 shall not apply to securities consisting of monetary deposits as allowed by Paragraph 7 held by a bank as Escrow Agent, provided the bank provides monthly statements reflecting the status of the monetary deposits held by the bank to University and CM/Contractor.

(3) CM/Contractor shall not use any or all of the securities deposited in lieu of retention under this Escrow Agreement for any other obligations, including deposits in lieu of retention for other contracts. CM/Contractor represents, covenants and warrants that all deposited securities shall be lien free when tendered to the Escrow Agents and shall remain lien free during their retention by the Escrow Agent.

(4) University shall make progress payments to CM/Contractor for those funds which otherwise would be withheld from progress payments pursuant to the Contract provision, provided that Escrow Agent holds securities in the form and amount specified herein.

(5) Prior to CM/Contractor's submission of each Application For Payment, Escrow Agent shall issue a current statement of (a) the value of the securities currently being deposited in lieu of retention and (b) the current value of all securities being held in escrow pursuant to this Escrow Agreement. Such statement shall be no more than 5 days old at the time of submission, shall be notarized or have a guarantee of signature, and shall be submitted to CM/Contractor with a copy to University under separate cover. CM/Contractor shall attach such original statement to each Application For Payment. The provisions of this Paragraph 5 shall not apply to securities consisting of monetary deposits as allowed by Paragraph 7 held by a bank as Escrow Agent, provided the bank provides monthly statements reflecting the status of the monetary deposits held by the bank to University and CM/Contractor.

(6) If, at the request of CM/Contractor, University deposits retention directly with Escrow Agent, Escrow Agent shall hold such retention for the benefit of CM/Contractor until such time as the escrow created under the Contract is terminated. All terms and conditions of this Escrow Agreement and the rights and responsibilities of the parties shall be equally applicable and binding when University deposits retention directly with Escrow Agent.

(7) University will allow CM/Contractor to deposit the following securities in lieu of retention and direct the investment of the retention deposits into any of the following which at the time of payment are legal investments under the laws of the State of California:

- a. Direct obligations of the United States of America (including obligations issued or held in book-entry form on the books of the Department of the Treasury of the United States of America or any Federal Reserve Bank), or obligations the timely payment of the principal of and interest on which are fully guaranteed by the United States of America, or tax-exempt obligations which are rated in the highest rating category of a nationally recognized bond rating agency.
- b. Obligations, debentures, notes or other evidence of indebtedness issued or guaranteed by any of the following: Banks for Cooperatives, Federal Intermediate Credit Banks, Federal Home Loan Bank System, Export-Import Bank of the United States, Federal Financing Bank, Federal Land Banks, Federal Farm Credits, Government National Mortgage Association, Farmer's Home Administration, Federal Home Loan Mortgage Corporation, or Federal Housing Administration.

- c. Bonds of the State of California or those for which the faith and credit of the State of California are pledged for the payment of principal and interest.
- d. Interest-bearing bankers acceptances and demand or time deposits (including certificates of deposit) in banks, provided such deposits are either (1) secured at all times, in the manner and to the extent provided by law, by collateral security described in clauses a or b of this Paragraph 7 continuously having a market value at least equal to the amount so invested so long as such underlying obligations or securities are in the possession of the Securities Investors Protection Corporation, (2) in banks having a combined capital and surplus of at least One Hundred Million Dollars, or (3) fully insured by the Federal Deposit Insurance Corporation.
- e. Taxable government money market portfolios restricted to obligations with maturities of one (1) year or less, issued or guaranteed as to payment of principal and interest by the full faith and credit of the United States of America.
- f. Commercial paper rated in the highest rating category of a nationally recognized rating agency, and issued by corporations organized and operating within the United States of America and having total assets in excess of Five Hundred Million Dollars.

(8) CM/Contractor shall be responsible for paying all fees, costs, and expenses incurred by Escrow Agent in administering the escrow account. These expenses and payment terms shall be determined by CM/Contractor and Escrow Agent. All fees, costs, and expenses of this Escrow Agreement, and any transactions carried out hereunder shall be billed by Escrow Agent to CM/Contractor. In the event that any fees, costs, or expenses shall remain unpaid in excess of 30 days from the date due, Escrow Agent may withhold such unpaid amount from any income distributable to CM/Contractor, but shall not withhold such unpaid amount from any income distributable to University.

(9) Interest earned on the securities or the money market accounts held in escrow and all interest earned on the interest shall be for the sole account of CM/Contractor and shall be held in escrow. Interest may be withdrawn by CM/Contractor from time to time, without notice to University, only to the extent that the total amount held in escrow meets or exceeds the required amount of retention.

(10) Except as provided in Paragraph 9, CM/Contractor shall have the right to withdraw all or any part of the escrow account only by written notice to Escrow Agent accompanied by written authorization from University to Escrow Agent stating that University consents to the withdrawal of the amount sought to be withdrawn by CM/Contractor. University shall not be obligated to consent to any withdrawal to the extent of stop notice claims which cannot be satisfied from other funds then due and payable to CM/Contractor.

(11) University shall have the right to draw upon the securities, any interest earned on the securities, and any interest earned on the interest in the event of default by CM/Contractor. Upon 7 days written notice to Escrow Agent from University, with a copy to CM/Contractor, Escrow Agent shall immediately convert the securities, any interest earned on the securities, and all interest earned on the interest to cash and shall distribute the cash as instructed by University. Escrow Agent shall have no duty to determine whether a default has occurred and may rely solely upon the written notice of such default from University.

(12) Upon receipt of written notification from University certifying that final payment is due under the Contract, Escrow Agent shall release to CM/Contractor the amount, if any, by which the value of all securities and interest on deposit less escrow fees and charges of the escrow account

exceeds 125% of all stop notice claims on file. Escrow Agent shall pay the remaining amount to University or as directed by University. The escrow shall be closed immediately upon disbursement of all monies and securities on deposit and payment of fees and charges.

(13) Escrow Agent shall rely upon the written notifications from University and CM/Contractor pursuant to this Escrow Agreement; and University and CM/Contractor shall hold Escrow Agent harmless from Escrow Agent's release, conversion, and disbursement of the securities and interest as set forth herein.

(14) Escrow Agent shall have the right to terminate this Escrow Agreement upon 30 days notice to all parties hereunder. Upon receipt of such notice, University and CM/Contractor shall appoint a successor Escrow Agent in writing and deliver written notice of such appointment to Escrow Agent. Thereupon, Escrow Agent shall deliver all assets in its custody to such successor Escrow Agent and all responsibility of Escrow Agent under this Escrow Agreement shall terminate; provided, however, if CM/Contractor and University fail to appoint a successor Escrow Agent on or before the end of the 30 day notice period, then Escrow Agent is authorized and instructed to return all assets, documents, and other items in its custody to University and this Escrow Agreement shall be terminated without further instruction.

(15) The duties and responsibilities of Escrow Agent shall be limited to those expressly set forth in this Escrow Agreement; provided, however, that, with Escrow Agent's written consent, the duties and responsibilities in this Escrow Agreement may be amended at any time or times by an instrument in writing signed by all parties.

(16) Whenever CM/Contractor tenders securities to be deposited in lieu of retention, an authorized representative of the CM/Contractor shall declare under penalty of perjury that the securities are lien free and shall remain lien free during their retention by the Escrow Agent. The declaration shall be in the following form:

"The undersigned, on behalf of {NAME OF CONTRACTOR} whose address is {STREET ADDRESS}, {CITY}, {STATE} {ZIP CODE} represents, covenants and warrants that the securities tendered herewith are lien free and shall remain lien free during their retention by the Escrow Agent.

I, {NAME}, hereby declare that I am the {TITLE} of {NAME OF CONTRACTOR}, that I am duly authorized to make this representation, and that I declare under perjury under the laws of the State of California that the foregoing is true and correct."

(Signature)

(Date)

(17) The names of the persons authorized to give written notice or to receive written notice on behalf of University and on behalf of CM/Contractor in connection with this Escrow Agreement, and exemplars of their respective signatures, are as set forth below. Such names may be changed by written notice to the other parties.

On behalf of University:

1.

(Name)

On behalf of CM/Contractor:

1.

(Name)

(Signature)

(Telephone Number)
2.

(Name)

(Signature)

(Telephone Number)

(Signature)

(Telephone Number)
2.

(Name)

(Signature)

(Telephone Number)

CM/Contractor, Escrow Agent, and University hereby agree to the covenants contained herein.

IN WITNESS WHEREOF, CM/Contractor, Escrow Agent, and University have executed this Escrow Agreement, the day and year first written above.

University:

CM/Contractor:

By

By

(Signature)

(Printed Name)

(Title)

(Telephone Number)

(Signature)

(Printed Name)

(Title)

(Telephone Number)

By

By

(Signature)

(Printed Name)

(Title)

(Telephone Number)

(Signature)

(Printed Name)

(Title)

(Telephone Number)

Escrow Agent:

By:

(Signature)

(Printed Name)

(Title)

(Telephone Number)

EXHIBIT 08

SUBMITTAL SCHEDULE

Project Name: _____

Project Number: _____

Facility: _____

Contract Date: _____

Subcontractor: _____

Specification Section: _____

Work Activity: _____

Event	Scheduled Completion Date	Actual Completion Date	Calendar Days Required to Complete
1. Received by CM/Contractor and Time for Checking			
2. First Delivered to University's Representative and Time for Checking			
3. Return to CM/Contractor			
4. Corrections Completed and Time for Corrections			
5. Next Delivered to University's Representative and Time for Checking			
6. Return to CM/Contractor			
7. Approval for Job Information			
8. Approval for Fabrication and Time for Fabrication			
9. Fabrication Completed			
10. Shipping Date and Time Enroute			
11. Delivery to Job			

**EXHIBIT 09
 COST PROPOSAL**

Date: _____

Change Order Request (COR) No. _____

Scope of Change:

Instructions:

1. Complete this form by providing (a) all information required above, (b) the amount and justification based upon the Contract Schedule for any proposed adjustment of Contract Time, (c) the proposed adjustment of Contract Sum, (d) the attached "Cost Proposal Summary," (e) the attached form titled, "Supporting Documentation for the Cost Proposal Summary."
2. Attach the forms titled "Supporting Documentation for the Cost Proposal Summary" for CM/Contractor and each Subcontractor involved in the Extra Work. Each such form shall be completed and signed by CM/Contractor or Subcontractor actually performing the Work activity identified on the form. Attach supporting data to each such form to substantiate the individually listed costs. The costs provided on these forms shall be used to substantiate Additional Costs shown on the Cost Proposal Summary.
3. The CM/Contractor Fee shall be computed on the Cost of Extra Work of CM/Contractor if the Contract Sum exceeds the maximum anticipated contract value and each Subcontractor involved in the Extra Work; and shall constitute full compensation for all costs and expenses related to the subject change and not listed in the "Supporting Documentation for the Cost Proposal Summary," including overhead and profit.
4. Refer to Article 7.3 of the General Conditions for the method of computing the CM/Contractor Fee.

Adjustment of the Contract Time (Include justification based upon the Contract Schedule): _____
 Refer to Article 8 of the General Conditions. (Days)

Adjustment of the Contract Sum (Total from Line 18, Col. 4 of Cost Proposal Summary): \$ _____
 Refer to Article 7 of the General Conditions.

Submitted: CM/CONTRACTOR

Received: UNIVERSITY'S REPRESENTATIVE

 (Company Name)

 (Signature & Date)

 (Print Name & Title)

 (Signature & Date)

 (Print Name & Title)

cc: Director of Project Management, Architects & Engineers

COST PROPOSAL SUMMARY

CM/Contractor: _____ COR No. _____

		(1) Contractor	(2) 1st Tier Subs	(3) 2nd & Lower Tier Subs	(4) Total
ACTUAL COSTS	1. Straight Time Wages/Salaries-Labor				-
	2. Fringe Benefits and Payroll Taxes-Labor				-
	3. Overtime Wages/Salaries-Labor				-
	4. Fringe Benefits & Payroll Taxes-Overtime				-
	5. Materials & Cnsumable Items				-
	6. Sales Taxes (On Line 5)				-
	7. Rental Charges				-
	8. Royalties				-
	9. Permits				-
	10. Total Direct Expense (Sum of Lines 1-9)	\$-	\$-	\$-	\$-
	11. Insurance & Bonds (up to 2% of Line 10)	-	-	-	-
CM/CONTRAC TOR FEE	12. Sub-Sub (15% of Line 10, Col. 3)			-	-
	13. Subcontractor (5% of Line 10, Col. 3)		-		-
	14. Subcontractor (15% of Line 10, Col. 2)		-		-
	15. CM/Contractor (5% of Line 10, Col. 2 & 3)	-			-
	16. CM/Contractor (15% of Line 10, Col. 1)	-			-
	17. CM/Contractor Fee (Sum of Lines 12-16)	\$-	\$-	\$-	\$-
TOTAL	18. Sum of Lines 10, 11, & 17	\$-	\$-	\$-	\$-

Actual Costs are taken from Line 12 of the attached forms entitled, "Supporting Documentation for the Cost Proposal Summary" for Contractor and each Subcontractor involved in the Extra Work.

SUPPORTING DOCUMENTATION FOR THE COST PROPOSAL SUMMARY

Supporting Documentation

From: _____ COR No. _____
(Contractor/Subcontractor Name)

Work Activity: _____

COST ITEM	DESCRIPTION	COST ⁽¹⁾
ACTUAL COSTS	1. Straight Time Wages/Salaries-Labor	
	2. Fringe Benefits & Payroll Taxes-Labor: ___% of Line 1	
	3. Overtime Wages/Salaries-Labor (Attach University's Representative's written authorization.)	
	4. Fringe Benefits & Payroll Taxes-Overtime: ___% of Line 3	
	5. Materials & Consumable Items	
	6. Sales Taxes: ___% of Line 5	
	7. Rental Charges (Attach CalTrans' Schedule.)	
	8. Royalties	
	9. Permits	
	10. Total Direct Expense (Sum of Lines 1-9)	\$-
	11. Insurance & Bonds ___% of Line 10 (up to 2% of Line 10)	-
TOTAL	12. Sum of Lines 10 & 11	\$-

Prepared By:⁽²⁾

CM/CONTRACTOR:⁽³⁾

 (Company Name)

 (Company Name)

 (Signature & Date)

 (Signature & Date)

 (Print Name & Title)

 (Print Name & Title)

Notes:

- (1) This form shall be prepared and signed by CM/Contractor or Subcontractor actually performing the Work Activity indicated above.
- (2) If this form is signed by a Subcontractor, it shall be reviewed and signed by Contractor certifying the accuracy of the information.

EXHIBIT 10
FIELD ORDER

University of California Facility: Riverside

FIELD ORDER NO. _____

Project Name: _____

Project Number: _____ Contract Date: _____

To
CM/Contractor: _____

Address: _____

DESCRIPTION OF WORK:



Estimated Adjustment
of Contract Sum: _____

Estimated Adjustment
of Contract Time: _____

(University's Representative)

By: _____
(Signature)

(Title)

Date: _____

(University Project Manager)

(Signature)

(Title)

Date: _____

(CM/Contractor)

(Signature)

(Title)

Date: _____

NOTE: If the Work described above constitutes a change, this Field Order will be superseded by a Change Order that will include the scope of the change in the Work and any actual adjustments of the Contract Sum and the Contract Time. Field Order shall only be used for Work currently under contract; and shall not be used to modify Option Sum or Option Time.

EXHIBIT 11

CHANGE ORDER/CONTRACT AMENDMENT

University of California Facility: _____

CHANGE ORDER /CONTRACT AMENDMENT NO. ____

Reference Field Order No. _____

Project Name: _____

Project Number: _____ Contract Date _____

To CM/Contractor: _____

Address: _____

DESCRIPTION OF CONTRACT AMENDMENT

University hereby exercises its Option for Phase 2.

University hereby incorporates the Work of Bid Package Number ____ into the Contract.

DESCRIPTION OF CHANGE:

1.0 Change Order Adjustment

ADJUSTMENT OF CONTRACT SUM

ADJUSTMENT OF CONTRACT TIME

Original Contract Sum: _____

Original Contract Time: _____ (Days)

Prior Adjustments: _____

Prior Adjustments: _____ (Days)

Contract Sum Prior to this Change: _____

Contract Time Prior to this Change: _____ (Days)

Adjustment for this Change: _____

Adjustment for this Change: _____ (Days)

Revised Contract Sum: _____

Revised Contract Time: _____ (Days)

1.2

ADJUSTMENT OF OPTION SUM-PHASE 2

ADJUSTMENT OF OPTION TIME – PHASE 2

Original Option Sum Phase 2: _____

Original Option Time Phase 2: _____ (Days)

Prior Adjustments: _____

Prior Adjustments: _____ (Days)

Option Sum Prior to this Change: _____

Option Time Prior to this Change: _____ (Days)

Adjustment for this Change: _____

Adjustment for this Change: _____ (Days)

Revised Option Sum Phase 2 : _____

Revised Option Time Phase 2: _____ (Days)

2.0 Contract Amendment - Exercise of Option for Phase 2

ADJUSTMENT OF CONTRACT SUM

ADJUSTMENT OF CONTRACT TIME

Original Contract Sum: _____
 Prior Adjustments by Change Order (if applicable): _____
 Contract Sum Prior to this Amendment: _____
 Current Option Sum – Phase 2: _____
 Revised Contract Sum: _____

Original Contract Time: _____ (Days)
 Prior Adjustments by Change Order (if applicable): _____ (Days)
 Contract Time Prior to this Amendment: _____ (Days)
 Current Option Time - Phase 2: _____ (Days)
 Revised Contract Time: _____ (Days)

3.0 Contract Amendment – Incorporation of Bid Package

ADJUSTMENT OF CONTRACT SUM

Current Contract Sum Prior to this Amendment: _____
 Adjustment for this Amendment: _____
 Revised Contract Sum: _____

4.0 Current Contract Status Summary (Inclusive of Adjustments Above)

Contract Sum _____
 Contract Time _____
 Option Sum _____
 Option Time _____

5.0 CM/Contractor waives any claim for further adjustments of the Contract Sum and the Contract Time related to the above described change in the Work. (Applicable only if signed by CM/Contractor.)

Recommended:
Contract Amendment)

Accepted: (Signature not required if this is a

By: _____
(Signature of University's Representative)

By: _____
(CM/Contractor Signature)

(Printed Name)

(Printed CM/Contractor Name)

Date: _____

Date _____

Reviewed and Recommended

By: _____
(Signature of University's Designated Administrator)

(Printed Name)

Date: _____

Funds Sufficient:

By: _____
(Signature from University's Accounting Office)

(Printed Name)

Date: _____

Approved:

UNIVERSITY: THE REGENTS OF THE UNIVERSITY OF CALIFORNIA

By: _____
(Printed Name)

(Signature)

(Title)

Date: _____

**CONDITIONAL WAIVER AND
RELEASE ON PROGRESS PAYMENT**
Exhibit 12

Notice:

THIS DOCUMENT WAIVES THE CLAIMANT'S LIEN, STOP PAYMENT NOTICE, AND PAYMENT BOND RIGHTS EFFECTIVE ON RECEIPT OF PAYMENT. A PERSON SHOULD NOT RELY ON THIS DOCUMENT UNLESS SATISFIED THAT THE CLAIMANT HAS RECEIVED PAYMENT.

Identifying Information

Name of Claimant: _____
Name of Customer: _____
Job Location: _____
Owner: _____
Through Date: _____

Conditional Waiver and Release

This document waives and releases lien, stop payment notice, and payment bond rights the claimant has for labor and service provided, and equipment and material delivered, to the customer on this job through the Through Date of this document. Rights based upon labor or service provided, or equipment or material delivered, pursuant to a written change order that has been fully executed by the parties prior to the date that this document is signed by the claimant, are waived and released by this document, unless listed as an Exception below. This document is effective only on the claimant's receipt of payment from the financial institution on which the following check is drawn:

Maker of Check: _____
Amount of Check: \$ _____
Check Payable to: _____

Exceptions

This document does not affect any of the following:

- (1) Retentions.
- (2) Extras for which the claimant has not received payment.
- (3) The following progress payments for which the claimant has previously given a conditional waiver and release but has not received payment:

Date(s) of waiver and release: _____

Amount(s) of unpaid progress payment(s): \$ _____

- (4) Contract rights, including (A) a right based on rescission, abandonment, or breach of contract, and (B) the right to recover compensation for work not compensated by the payment.

Signature

Claimant's Signature: _____
Claimant's Title: _____
Date of Signature: _____

**UNCONDITIONAL WAIVER AND
RELEASE ON PROGRESS PAYMENT**
Exhibit 13

NOTICE TO CLAIMANT:

UNCONDITIONAL WAIVER AND RELEASE ON PROGRESS PAYMENT NOTICE TO CLAIMANT: THIS DOCUMENT WAIVES AND RELEASES LIEN, STOP PAYMENT NOTICE, AND PAYMENT BOND RIGHTS UNCONDITIONALLY AND STATES THAT YOU HAVE BEEN PAID FOR GIVING UP THOSE RIGHTS. THIS DOCUMENT IS ENFORCEABLE AGAINST YOU IF YOU SIGN IT, EVEN IF YOU HAVE NOT BEEN PAID. IF YOU HAVE NOT BEEN PAID, USE A CONDITIONAL WAIVER AND RELEASE FORM.

Identifying Information

Name of Claimant: _____
Name of Customer: _____
Job Location: _____
Owner: _____
Through Date: _____

Unconditional Waiver and Release

This document waives and releases lien, stop payment notice, and payment bond rights the claimant has for labor and service provided, and equipment and material delivered, to the customer on this job through the Through Date of this document. Rights based upon labor or service provided, or equipment or material delivered, pursuant to a written change order that has been fully executed by the parties prior to the date that this document is signed by the claimant, are waived and released by this document, unless listed as an Exception below. The claimant has received the following progress payment: \$ _____

Exceptions

This document does not affect any of the following:

- (1) Retentions.
- (2) Extras for which the claimant has not received payment.
- (3) Contract rights, including (A) a right based on rescission, abandonment, or breach of contract, and (B) the right to recover compensation for work not compensated by the payment.

Signature

Claimant's Signature: _____
Claimant's Title: _____
Date of Signature: _____

THE REGENTS OF THE UNIVERSITY OF CALIFORNIA
Master Builder's Risk Program
Coverage Summary

This document summarizes the Builder's Risk policy and is not intended to reflect all the terms, conditions, or exclusions of such policy as of the effective date of coverage. This document is not an insurance policy and does not amend, alter or extend the coverage afforded by the listed policy. The actual insurance policy defines all the terms, exclusions and conditions of coverage, and not this summary. Should any ambiguities or conflicts between the summary and policy exist, the policy terms and conditions will apply.

*Some Projects may be excluded and/or must be underwritten separately and may be subject to different rates, deductibles, and terms and conditions (see page 15). Therefore, **this document should be used as a guideline only.***

INSURANCE COMPANY: Allianz Global Risks U.S. Insurance Company

BEST'S RATING: A+

NAMED INSURED: Regents of the University of California

INSURING AGREEMENT

This Policy, subject to the Limit of Liability and the terms, conditions, and limitations contained herein or endorsed hereon, insures against all risks of direct physical loss of or direct physical damage to Insured Property while at the construction site, stored off-site, or in the course of transit within the Territorial Limits specified in the Schedule during the Period of Insurance of each Insured Project.

LIMITS OF LIABILITY

SCHEDULE OF LIMITS

This Company shall not be liable for more than the Limit of Liability, as stated in Confirmation of Coverage, in any one Occurrence for any one Insured Project, subject to the following limits and sublimits:

MASTER POLICY LIMITS, BY CONSTRUCTION CLASS

\$150,000,000 per project, per occurrence; except,
 \$ 25,000,000 per project, Joisted Masonry construction
 \$ 25,000,000 per project, Wood Frame construction

NOTE: *The Total Estimated Construction Cost is estimated through project completion and reported on the original Builder's Risk Insurance Application. This Limit of Liability (Total Project Value (TPV)) will correspond with the Total Estimated Construction Cost as shown on the original Builder's Risk Insurance Application. If the construction costs should increase, the Limit of Liability (TPV) should be subsequently increased, once advance notice has been given by the University's Representative to Willis Towers Watson.*

THE REGENTS OF THE UNIVERSITY OF CALIFORNIA
Master Builder's Risk Program
Coverage Summary

KEY SUBLIMITS (percentage or dollar value, whichever is less):

1. \$25,000,000 for **Wood Frame Construction**
2. \$25,000,000 for **Joisted Masonry Construction**
3. \$50,000,000 for **Structural Renovations**
4. \$500,000 for **Pollution Cleanup Expenses**
5. 15% of the declared estimated Total Project Value or minimum of \$2,500,000, subject to a maximum of \$30,000,000 for **Demolition and Increased Cost of Construction**
6. 25% of the adjusted property damage loss or minimum of \$1,000,000, subject to a maximum of \$5,000,000 for **Expediting Expense/Extra Expense**
7. 10% of the declared estimated Total Project Value or minimum of \$2,500,000, subject to a maximum of \$10,000,000 for **Insured Property while Stored Off-site**
8. 10% of the declared estimated Total Project Value or minimum of \$2,500,000, subject to a maximum of \$10,000,000 for **Insured Property while in the Course of Inland Transit (continental US)**
9. 25% of the declared estimated Total Project Value or minimum of \$2,500,000, subject to a maximum of \$30,000,000 for **Debris Removal**
10. \$750,000 for **Valuable Papers**
11. \$1,000,000 for **Trees, Grass, Shrubbery, Seed and Plants**
12. 10% of estimated Total Project Value or minimum of \$1,000,000, subject to a maximum of \$10,000,000 for **Frost, Freeze, Falling of Ice**
13. 15% of the adjusted property damage loss or minimum of \$1,000,000, subject to a maximum of \$15,000,000 for **Green/LEED Rating System**
14. 10% of the adjusted property damage loss or minimum of \$250,000, subject to a maximum of \$500,000 for **Mold/Fungi**
15. 5% of the declared estimated Total Project Value or minimum of \$1,000,000, subject to a maximum of \$10,000,000 for additional **Architects, Engineering and Professional Fees**
16. \$500,000 for **Claims Preparation Expenses**
17. \$750,000 for **Protection Services and Equipment Refills**
18. \$50,000 for **Reward Payment**
19. \$1,000,000 for **Off Premises Service Interruption – Direct Damage**

THE REGENTS OF THE UNIVERSITY OF CALIFORNIA
Master Builder's Risk Program
Coverage Summary

KEY TERMS AND CONDITIONS

NAMED INSURED

The Regents of the University of California and all affiliated and subsidiary companies, corporations, ventures, partnerships or other organizations, all owned, controlled or managed by the Named Insured and all as now exist or may hereafter be constituted or acquired.

ADDITIONAL INSUREDS

General Contractors, Construction Managers and subcontractors of every tier. Additionally, any other person or entity(ies) as identified on a Project Declaration Endorsement, Quarterly Report Endorsement, or to the extent required by a written contract or agreement. As respects architects, engineers, manufacturers and suppliers, the foregoing is limited to their site activities only.

ATTACHMENT/TERMINATION

Insurance hereunder applies to all projects specifically declared under the Master Policy in a Quarterly Report Endorsement or in a Project Declaration Endorsement, where the project is scheduled to begin during the term of the Master Policy. The Master Policy term commences on September 1, 2017 at 12:01AM and ends on September 1, 2020 at 12:01AM.

Coverage for each Insured Project declared under the Master Policy will go into effect and continue in full force and effect during the Coverage Period specified in the Confirmation of Coverage.

NOTIFICATION OF COVERAGE/TERMINATION: *The Confirmation of Coverage Period will correspond with the Estimated Dates of Commencement and Completion of Work as indicated on the original Builder's Risk Insurance Application. If construction is not completed on time and coverage beyond the Estimated Date of Completion of Work is required, prior notification must be given by the University Representative to Willis Towers Watson in order to ensure that coverage remains in force for the project.*

DEDUCTIBLES (Basis for determining Deductible is the Total Project Value on record with the insurance company at time of loss. Total Project Value will correspond with the Total Estimated Construction Cost reported.)

NOTE: *The contractor shall be responsible for the deductibles.*

All Other Perils (except Water Damage; Electrical/Mechanical Breakdown and/or Hot-testing)

\$10,000 for Projects up to a value of \$25,000,000
\$25,000 for Projects exceeding \$25,000,000 in value

Water Damage

\$25,000 for projects up to a value of \$25,000,000
\$50,000 for projects valued \$25,000,000 up to \$50,000,000
\$75,000 for projects exceeding \$50,000,000 in value

Frost/Freeze/Falling Ice: \$100,000

THE REGENTS OF THE UNIVERSITY OF CALIFORNIA
Master Builder's Risk Program
Coverage Summary

Electrical/Mechanical Breakdown and/or Hot Testing

\$50,000 for Projects up to a value of \$25,000,000

\$100,000 for Projects valued \$25,000,000 up to \$100,000,000

\$250,000 for Projects exceeding \$100,000,000 in value

KEY EXCLUSIONS

PROPERTY EXCLUDED

This Policy does not insure:

1. Land, but this exclusion does not apply to excavation and grading as long as the cost of the excavation and grading is included in the Limit of Liability as stated in Confirmation of Coverage.
2. Contractor's plant and equipment, machinery, tools, or property of similar nature not destined to become a permanent part of the Insured Project but this exclusion shall not apply to formwork, fences, shoring, falsework and temporary buildings as long as the value of these items are included in the estimated Limit of Liability as stated in Confirmation of Coverage.
3. Automobiles or other vehicles, watercraft or aircraft.
4. Water.
5. Accounts, bills, currency, deeds, securities, books, records, manuscripts, other similar papers, or data processing media.
6. Existing buildings or structures or any other existing property.
7. Owner supplied material, equipment, machinery and supplies, unless the value of such is included in the Limit of Liability as stated in Confirmation of Coverage.
8. Transmission and/or distribution lines; including wires, cables, poles, towers and all equipment attached thereto beyond 1,000 feet from the perimeter of the project site.
9. Partially or completely excavated or open trench, pipeline or workface, at any one time beyond 1,000 feet in length.

EXCLUDED CAUSES OF LOSS

1. Loss or damage caused by, or resulting from, wear and tear, moth, vermin, termites or other insects, inherent vice, latent defect, gradual deterioration, wet or dry rot and rust, corrosion, erosion or normal settling, shrinkage, and/or expansion of buildings and/or foundations.
2. Any loss of use or occupancy or consequential loss of any nature howsoever caused.
3. Liquidated damages and/or penalties for delay or detention in connection with guarantees of performance or efficiency.

THE REGENTS OF THE UNIVERSITY OF CALIFORNIA
Master Builder's Risk Program
Coverage Summary

4. Hostile or warlike action.
5. Nuclear reaction, nuclear radiation, or radioactive contamination.
6. Any cost or expenses incurred to test for, monitor, or assess the existence, concentration or effects of Fungi.
7. Loss or damage caused by or resulting from infidelity or dishonesty on the part of the Insured and/or any employee of the Insured; inventory shortage or unexplained disappearance.
8. Loss or damage caused by or resulting from the enforcement of any ordinance or law, or any order of governmental or municipal authority; by suspension, lapse, termination and/or cancellation of any license, lease, or permit, or any injunction or process of any court, unless otherwise endorsed herein.
9. Loss or damage caused by, resulting from, contributed to or made worse by actual, alleged, or threatened release, discharge, escape or dispersal of Contaminants and/or Pollutants.
10. Loss or damage to Insured Property while aboard any aircraft or watercraft.
11. The cost of making good faulty or defective workmanship, material, construction, designs, plans and/or specifications unless direct physical loss or direct physical damage not otherwise excluded under this policy ensues and then this Policy will cover such ensuing loss or damage only.
12. Loss, damage, corruption, destruction, distortion, interruption, disruption, erasure, deletion, alteration, loss of use, reduction in functionality, loss of access to, denial of access to or breakdown of Electronic Data from any cause whatsoever.
13. Loss or damage to Used Equipment caused by mechanical and/or electrical breakdown.
14. Loss or damage directly or indirectly caused by, resulting from, contributed to, or aggravated by Land Movement.
15. Loss or damage directly or indirectly caused by, resulting from, contributed to, or aggravated by Flood.
16. Loss or damage covered under any guarantee or warranty, expressed or implied, by any manufacturer or supplier whether or not such manufacturer or supplier is an Insured under this policy.
17. Terrorism.
18. Loss or damage arising out of the performance of the professional activities of any consulting engineer, architect, or designer, or any person employed by them or any others whose acts they are legally liable for whether or not named as an Insured under this Policy.

THE REGENTS OF THE UNIVERSITY OF CALIFORNIA
Master Builder's Risk Program
Coverage Summary

SELECTED EXTENSIONS OF COVERAGE

1. EXPEDITING/EXTRA EXPENSES

Subject to the stated sublimit, this Policy is extended to cover extra charges for overtime, night work, work on public holidays, the extra cost of rental construction equipment, express freight, including air freight all incurred solely:

- A. to facilitate the repair or replacement of the Insured Property which has sustained physical loss or physical damage from a peril insured, or;
- B. which are necessary to return the work on the Insured Property to the same schedule actually being observed immediately prior to the sustaining of physical loss or physical damage from a peril insured.

This Policy does not cover charges incurred to expedite work on parts of the Insured Property which have not sustained physical loss or physical damage.

2. DEMOLITION AND INCREASED COST OF CONSTRUCTION

- A. Subject to the stated sublimit, in the event of direct physical loss and/or direct physical damage by perils insured under this Policy, the Company shall also pay:
 - (i) The increased cost to repair, replace or re-erect the Insured Property caused by the enforcement of any building, zoning or land use ordinance or law in force at the time of loss. If the Insured Property is replaced, it must be intended for similar occupancy of the current Insured Property, unless otherwise required by zoning or land use ordinance or law.
 - (ii) The cost to demolish and clear the construction site of undamaged parts of the Insured Property caused by the enforcement of any building, zoning or land use law in force at the time of the loss.
- B. In no event, however, shall the Company be liable for costs associated with the enforcement of any ordinance or law which requires any Insured or others to test for, monitor, clean up, remove, contain, treat, detoxify, or neutralize, or in any way respond to or assess the discharge, dispersal, release or escape of smoke, vapors, soot, fumes, acids, alkali, toxic chemicals, liquids or gasses, waste materials or other irritants, any Contaminants and/or Pollutants.
- C. The Company shall not pay for the increased cost of construction until the Insured Property is actually repaired, replaced, or re-erected at the same construction site or elsewhere and as soon as reasonably possible after the loss or damage, not to exceed thirty (30) months.

THE REGENTS OF THE UNIVERSITY OF CALIFORNIA
Master Builder's Risk Program
Coverage Summary

D. In no event, however, shall the Company pay more:

- (i) If the Insured Property is repaired, replaced or re-erected at the same construction site than the amount the insured actually spends to:
 - a) Demolish and clear the construction site; and
 - b) Repair, replace or re-erect the Insured Property but not for more than property of like height, floor area and style at the same construction site.
- (ii) If the Insured Property is not repaired, replaced, or re-erected at the same construction site than:
 - a) The amount the Insured actually spends to demolish and clear the construction site; and
 - b) The cost to replace, at the same construction site, the damaged or destroyed Insured Property with other property;
 - 1) of like kind and quality;
 - 2) of like height, floor area and style; and
 - 3) used for the same purpose.
- (iii) Than the stated sublimit of Demolition and Increased Cost of Construction.

3. PROTECTION SERVICES AND EQUIPMENT REFILLS

Subject to the stated sublimit, in the event of direct physical loss or direct physical damage to Insured Property by perils insured under this Policy, this insurance shall also pay the cost for services rendered by the Fire Department, Police Department or other governmental authority to save or protect Insured Property from direct physical loss or damage by an insured peril, for which the Insured is liable, provided they are assumed by contract or written agreement prior to a loss or they are required by a local ordinance.

This policy also covers cost or expense to recharge or refill any fire protective equipment owned, in the control of, or used to protect the Insured Property when discharged:

- A. To prevent or control direct physical loss or direct physical damage by an insured peril; or
- B. Accidentally; or
- C. As a result of malfunction of the equipment.

In respect items B. and C. above, the Company will pay for amounts in excess of amounts recoverable under any manufacturer's or supplier's warranty.

THE REGENTS OF THE UNIVERSITY OF CALIFORNIA
Master Builder's Risk Program
Coverage Summary

4. PLANS, BLUEPRINTS, AND SPECIFICATIONS

Subject to the stated sublimit, in the event of direct physical damage to records, documents, drawings, plans, blueprints or specifications by perils insured under this policy, this insurance shall also pay the costs of mechanical reproduction from originals.

5. TREES, GRASS, SHRUBBERY, SEED AND PLANTS

Subject to the stated sublimit, this policy is extended to insure direct physical loss or direct physical damage to trees, grass, shrubbery, seed and plants caused by or resulting from fire, lightning, windstorm, hail, explosion, smoke, collision by aircraft or vehicle, riot, riot attending a strike or civil commotion, vandalism or malicious mischief.

6. DEBRIS REMOVAL

Subject to the stated sublimit, in the event of direct physical loss or physical damage to Insured Property by perils insured under this policy, this insurance shall also pay the cost of removal of material and debris being a part of the Insured Property located at the construction site and the cost to demolish and clear the construction site of undamaged parts caused by the enforcement of any building, zoning or land use law in force at the time of the loss.

This Policy also covers cost or expense to:

- A. Extract Contaminants and/or Pollutants from the debris; or
- B. Extract Contaminants and/or Pollutants from land and/or water; or
- C. Remove, restore, or replace land and/or water made necessary due to the presence of Contaminants and/or Pollutants; or
- D. Remove or transport any property, material, or debris to a site for storage or decontamination required because the property, material, or debris is affected by Contaminants and/or Pollutants, whether or not such removal, transport, or decontamination is required by law or regulation.
- E. This sub-clause (Items A - D above), is subject to a sublimit for **Pollution Cleanup Expenses**.

It is a condition precedent to recovery under this clause, that the Company shall have paid, or agreed to pay for direct physical loss or direct physical damage to the Insured Property and that the Insured shall give written notice to the Company of intent to claim for cost of removal of debris or the cost of cleanup no later than (12) twelve months after the date the original physical loss or physical damage occurred.

7. ARCHITECT, ENGINEERING AND PROFESSIONAL FEES

Subject to the stated sublimit, Architect, Engineering and Professional Fees shall mean the additional architectural and engineering expenses, excluding any costs for redesign or betterment, or owner's consultant service expenses, or owner's legal, appraisal, title and/or inspection fees incurred to facilitate repair or replacement of the Insured Property which has sustained physical loss or physical damage from an insured peril.

THE REGENTS OF THE UNIVERSITY OF CALIFORNIA
Master Builder's Risk Program
Coverage Summary

8. GREEN/LEED

Subject to the stated sublimit, in the event of a direct physical loss or direct physical damage not otherwise excluded in the policy to Insured Property by perils insured under the policy the Insurer shall also pay the reasonable additional cost, if any, incurred by the Insured to repair or replace such damaged or destroyed Insured Property in a manner and with products or materials of otherwise equivalent quality and function that meet the requirements of the LEED Rating System.

Coverage under this extension applies only if the Insured Project has been registered with the US Green Building Council during the Period of Insurance specified as stated in Confirmation of Coverage and prior to any loss, and only to the initial and intended building certification level that has been registered with the US Green Building Council, in accordance with the criteria outlined in order to comply with the requirements of the LEED Rating System existing at the time of the loss or damage to the Insured Project, which upon completion will undergo the process of being certified by the US Green Building Council.

This coverage extension includes the additional coverages below as part of and not in addition to the sublimit as stated:

(1) CERTIFICATION FEES

Coverage is provided herein for the registration and certification fees charged by U.S. Green Building Council for the Insured to obtain LEED certification;

(2) COMMISSIONING EXPENSE

Coverage is provided herein for the reasonable expense incurred by the Insured to hire a professional engineer to provide commissioning or retro-commissioning services, including overseeing the repairs and replacement of damaged or destroyed Insured Property in order to verify and document that the replacement systems have been installed and calibrated properly and perform according to the documented design criteria and manufacturers' specifications; and to conduct a Test-and-Balance analysis of heating, ventilating or air conditioning systems (HVAC) as part of the commissioning or retro-commissioning , even if the HVAC system did not sustain any physical loss or damage;

(3) FLUSH-OUT OF RECONSTRUCTED SPACE

Coverage is provided herein for the reasonable expense incurred by the Insured to flush out the reconstructed space with 100% outside air through new filtration media following reconstruction in a manner consistent with the LEED Rating System;

(4) LEED ACCREDITED PROFESSIONAL FEES

Coverage is provided herein for the reasonable expense incurred by the Insured to hire a LEED Accredited Professional to participate in the design and construction of the damaged or destroyed building.

(5) RECYCLING EXPENSE

DEBRIS REMOVAL is extended to cover the reasonable additional cost incurred, if any, to sort, collect and transport recyclable debris to recycling facilities instead of landfills. Any income or remuneration derived from this recycling will be used to reduce the amount of the loss.

THE REGENTS OF THE UNIVERSITY OF CALIFORNIA
Master Builder's Risk Program
Coverage Summary

GREEN / LEED EXCLUSIONS:

No coverage is provided under this extension:

- A. If no such products or materials exist at the time of the loss or damage; or
- B. If the Insured does not repair or replace the damaged or destroyed Insured Property.

In no event will the policy pay more than the lesser of the:

- A. The cost to repair; or
- B. The cost to replace;

the damaged Insured Property in a manner and with products or materials of otherwise equivalent quality and function that meet the requirements of the LEED Rating System existing at the time of the loss or damage.

No coverage is provided under this extension of coverage for any of the following items:

- A. Re-registering the Insured project with the US Green Building Council.
- B. Failure to meet the registered LEED Building Rating certification level.
- C. Land and land values.
- D. Any additional cost incurred to comply with any law or ordinance.
- E. Personal property of others in the Insured's care, custody or control.
- F. Raw materials, stock-in-process and finished goods.
- G. Motor vehicles.
- H. Property located outside the Territorial Limits of the policy.

9. CLAIMS PREPARATIONS EXPENSE

Subject to the stated sublimit, this policy is extended to include reasonable expenses incurred by the Insured, or by the Insured's representatives for preparing the details of a claim resulting from a loss which would be payable under this policy. However, the Company shall not be liable for expenses incurred by the Insured in utilizing or retaining the services of attorneys, insurance agents or brokers; or any subsidiary, related or associated entities either partially or wholly owned by an attorney or public adjuster.

10. MOLD/FUNGI

Subject to the stated sublimit, in the event of direct physical loss or direct physical damage to Insured Property by perils insured under the policy, the insurance shall also pay, subject to the Limit of Liability and the terms, conditions, and limitations of this policy, the cost to clean up or remove Mold/Fungi from Insured Property located at the construction site.

Notwithstanding any terms or conditions, this policy does not insure any cost or expense incurred to test for, monitor, or assess the existence, concentration or effects of Mold/Fungi.

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11. REWARD PAYMENT

Subject to the stated sublimit, the Company will reimburse the Named Insured for rewards that the Named Insured paid to others for information leading to:

- A. The successful return of undamaged stolen Insured Property to the Insured or a law enforcement agency; or
- B. The arrest and convictions of any persons responsible for having damaged or stolen Covered Property.

The reward payments must be documented.

The most that the Company will pay under this Coverage Extension in any one "occurrence" is 25% of the covered loss of or damage to Insured Property, prior to the application of any applicable Deductible and recovery of any Insured Property, up to the stated Sublimit.

12. OFF-PREMISES SERVICE INTERRUPTION – DIRECT DAMAGE

Subject to the stated sublimit, the Company will pay for direct physical loss of or damage to Insured Property at the project site directly caused by an off premises service interruption. The interruption must result from direct physical loss or damage directly caused by a covered cause of loss to property located away from the project site and used to provide any of the following services to the project site:

- A. Water;
- B. Power, including steam and natural gas; or
- C. Communication, including video, voice and data.

SELECTED GENERAL CONDITIONS

1. REQUIREMENTS IN CASE OF LOSS

In the event of loss or damage to Insured Property the Insured shall:

- A. Give immediate notice to the insurance company;
- B. Protect the Insured Property from further loss or damage;
- C. Within ninety (90) days from the date of discovery of the loss or damage, the Named Insured shall render a statement to the Insurer signed and sworn to by the Named Insured stating the knowledge and belief of the Insured as to the time and cause of the loss or damage and the interest of the Insured and all others in the Insured Property;
- D. Exhibit to any person designated by the Insurer all that remains of the Insured Property.
- E. Coordinate and cooperate with investigation and/or inspection of property and

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provide documentation as requested by the insurance adjuster. Do NOT destroy or salvage damaged property unless authorized to do so by the insurance adjuster.

- F. Submit to examinations under oath by any person named by the Insurer and produce for examination all writings, books of account, bills, invoices and other vouchers, or certified copies thereof if originals be lost, at such reasonable time and place as may be designated by the Insurer or its representative, and permit extracts and copies thereof to be made. No such examination under oath or examination of books or documents shall be deemed to be a waiver of any defense which the Insurer might otherwise have with respect to any loss or claim; but all such examinations and acts shall be deemed to have been made or done without prejudice to the Company's liability.
- G. Subject to the Limit of Liability and the terms, conditions, and limitations of the policy, all adjusted losses shall be paid or made good to the Named Insured within sixty (60) days after presentation and acceptance of the satisfactory proof of interest and loss to the Insurer. No amount shall be paid on an adjusted loss or made good if the Insured has collected the same from others.

2. VALUATION

Subject to the Limit of Liability, sublimits or Aggregate Limit of Liability, the Insurer shall not be liable beyond the cost to repair, replace, or re-erect the Insured Property at the time and place of loss, with materials of like kind and quality, less the cost of betterment, salvage, or other recovery including contractors reasonable profit and overhead in the proportion as that included in the original contract documents, or 15% profit and overhead, whichever is lesser. If the Insured Property is not replaced, then the loss shall be settled on the Actual Cash Value basis with proper deduction for depreciation, salvage or other recovery and exclusive of profit and overhead.

3. PROTECTION OF PROPERTY

In the case of direct physical loss or direct physical damage to Insured Property by perils insured under the policy, it shall be lawful and necessary for the Insured, his or their factors, servants, or assigns, to sue, labor, and travel for in and about the defense, safeguard, and recovery of the Insured Property, or any part thereof, without prejudice to this insurance, nor shall the acts of the Insured or Insurer, in recovering, saving, and preserving the Insured Property in case of loss be considered a waiver or an acceptance of abandonment. The expenses so incurred shall be borne by the Insured and the Insurer proportionately to the extent of their respective interests.

4. OTHER INSURANCE

This Policy shall not provide coverage to the extent of any other insurance, whether prior or subsequent hereto in date, and by whomsoever effected, directly or indirectly covering the same property against the same peril; and the Company shall be liable for direct physical loss or direct physical damage only for the excess value beyond the amount due from such other insurance, subject to the applicable Deductible.

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5. INSUREDS' REPRESENTATIVE

The first Named Insured shall be the sole and irrevocable agent of each and every Insured for the purpose of:

- A. Payment of premium;
- B. Giving or receiving notice of cancellation;
- C. Requesting amendments to this policy and accepting amendments to the policy made by the Insurer.

6. LOSS PAYABLE

Loss, if any, shall be payable to the first Named Insured and/or its assigned designee.

7. PARTIAL OCCUPANCY OR USE

Notwithstanding anything to the contrary elsewhere in the policy, the Owner and/or tenants may occupy or use any completed or partially completed portion of the Insured Property, provided that the Insured warrants that all fire protection shall be in service and fully operational during such occupancy or use.

SELECTED DEFINITIONS

The following terms have been defined in the Master Policy and will be applied in the interpretation of certain wording used herein or within the Master Policy.

1. FLOOD:

Flood shall mean the rising, overflowing or breaking of boundaries of rivers, lakes, streams, ponds or similar natural or man-made bodies of water, or from waves, tidal waves, tidal waters, wave wash, or spray from any of the foregoing, surface waters, rain accumulation run off, all whether driven by wind or not.

2. CONTAMINANTS OR POLLUTANTS:

Contaminants and/or Pollutants shall mean any material which after its release or discharge can cause or threaten damage to human health and/or human welfare, or causes or threatens damage, deterioration, loss of value, marketability and/or loss of use to Insured Property; including, but not limited to, bacteria, virus, or hazardous substances as listed in the Federal Water Pollution Control Act, Clean Air Act, Resource Conservation and Recovery Act of 1976, and/or Toxic Substances Control Act, or as designated by the U.S. Environmental Protection Agency.

3. LAND MOVEMENT:

Land Movement shall mean all land movement however caused, whether by natural event or man-made including but not limited to, earthquake, volcanic eruption, tsunami, subsidence, landslide, mudflow, or rockfall.

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4. OCCURRENCE:

Occurrence shall mean any one loss, disaster, or casualty, or series of losses, disasters, or casualties arising out of one event. With respect to the perils of Flood, Land Movement, or riots, one event shall be construed to be all losses arising during a continuous period of seventy-two (72) hours. With respect to the peril of Water Damage, one event shall be construed to be all losses arising during a continuous period of ninety-six (96) hours.

The Insured may choose the time from which any such period shall be deemed to have commenced, provided it shall not be earlier than the time of the first loss sustained by the Insured during the Occurrence.

5. WATER DAMAGE:

All water damage excluding flood, however caused, whether by natural event or man-made, including but not limited to interior water damage, damage due to water from pipe breakage or sprinkler leakage, damage from rainfall and/or resulting runoff; all whether wind driven or not.

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PROJECTS EXCLUDED AND/OR MUST BE UNDERWRITTEN SEPARATELY. THESE PROJECTS MAY BE SUBJECT TO DIFFERENT RATES, DEDUCTIBLES, TERMS AND CONDITIONS.

(A) Construction Cost exceeds:

- \$150 Million regardless of Construction Type (Standalone project-specific policy may apply on projects over \$100 Million)
- \$25 Million for Wood Frame (Standalone project-specific policy may apply on projects over \$10 Million)
- \$25 Million for Joisted Masonry
- \$50 Million for Structural Renovations

(B) Project involves the following:

- Construction occurring outside of the State of California
- Co-Generation Facility
- Stadium or arena
- Bridge
- Tunnel
- Excavations greater than 1,000 feet in length or 40 feet in depth
- Transmission and/or distribution lines extending greater than 1,000 feet in length from the perimeter project site including cable, telecom, wires, poles, towers, and electrical
- Directional Drilling
- Gas Turbine
- Power Plants

(C) Project involves the following, without being delivered in combination with other new "ground-up" construction:

- Water or Sewer Pipelines, Cut and Cover, Open Trench, Utility Relocations (exceeding \$25M in value), Central Utility Plants, Waste Water, or Water Treatment Facilities. (Standalone projects means when the scope of work is not included in the estimated Construction Cost of a building project).

(D) Project requires coverage for:

- Land Movement (e.g. Earthquake)
- Flood
- Terrorism
- Delay in Completion/Business Interruption

EXHIBIT 15

BID PACKAGE CERTIFICATION

The CM/Contractor, _____, certifies the following regarding,
Bid Package number _____:

- 1) That bids listed below represent all bids received;
- 2) That the CM/Contractor has determined that bidder number one, listed below, is the lowest bidder that is both responsive and responsible, and that bid number one represents the entire scope of work called for by the Bid and Contract Documents;
- 3) That the CM/Contractor has followed all competitive bidding requirements of the Contract Documents for this Bid Package and that all determinations regarding responsiveness or responsibility have been made in accordance with such requirements;
- 4) That the Bid Documents used for bidding Bid Package are the same as those approved by University, without modification;
- 5) That the Bid Documents used for bidding Bid Package do not include any General Conditions work covered by Scope of Work or General Conditions Provided to Subcontractors;
- 6) That the CM/Contractor has notified all bidders of the determination of lowest responsive, responsible bidder listed in this Bid Package Certification below;
- 7) That the attached updated CM/Contractor Expanded List of Subcontractors accurately reflects all current subcontractors and that it contains no changes to previously listed subcontractors;
- 8) That the cost of Subcontractor payment or performance bond, or insurance purchased in lieu thereof, if any, is not included in this Bid Package price.
- 9) That CM/Contractor has attached the following Exhibits completed by the proposed Subcontractor:
 - a. Self-certification
 - b. Report of Subcontractor Information

CM/Contractor certifies that the bid amount of this Bid Package, when taken in conjunction with the CM/Contractor's General Conditions Work and General Conditions Provided to Subcontractors Exhibit associated with this Bid Package, represents the total cost of all labor, materials, furnishings, equipment and services necessary to complete the work associated with this Bid Package.

The CM/Contractor requests the University incorporate bid number one below into the Work by Contract Amendment as called for in the Contract Documents.

The Bid Package scope is for all items required in the Bid Documents, and in brief is for the following:

Bid results for Bid Package:

	Bidder*	Bid Amount	Responsive	
			Yes	No
1)	_____	\$ _____	<input type="checkbox"/>	<input type="checkbox"/>
2)	_____	\$ _____	<input type="checkbox"/>	<input type="checkbox"/>
3)	_____	\$ _____	<input type="checkbox"/>	<input type="checkbox"/>
4)	_____	\$ _____	<input type="checkbox"/>	<input type="checkbox"/>
5)	_____	\$ _____	<input type="checkbox"/>	<input type="checkbox"/>
6)	_____	\$ _____	<input type="checkbox"/>	<input type="checkbox"/>
7)	_____	\$ _____	<input type="checkbox"/>	<input type="checkbox"/>
8)	_____	\$ _____	<input type="checkbox"/>	<input type="checkbox"/>
9)	_____	\$ _____	<input type="checkbox"/>	<input type="checkbox"/>
10)	_____	\$ _____	<input type="checkbox"/>	<input type="checkbox"/>

*NOTE – Bidder number _____ is the lowest responsive and responsible bidder.

CM/Contractor waives any claim for further adjustments of the Contract Sum or adjustment to the Contract Time related to the above described Bid Package upon issuance by University of a Contract Amendment reflecting bid number one above for this Bid Package.

CM/Contractor check this box for the **final** Bid Package as shown in the Contract Schedule:

By marking this box, CM/Contractor certifies to the University on the Bid Package Certification that all Construction Work, previously approved by the University for insertion into Bid Packages, has been incorporated into the Contract, whether by this final Bid Package or preceding Bid Packages.

Accepted and Certified:

By: _____
 (CM/Contractor Signature)

 (Printed Name - CM/Contractor Name)

Date: _____

EXHIBIT 16

NOTICE OF INTENT

{NAME, ADDRESS OF CM/CONTRACTOR}

You are hereby notified that the University intends to exercise its Option for Phase 2 – Construction for the above referenced Project. This Notice is provided pursuant to the provisions of the Contract and is not a Contract Amendment formally exercising the Option.

The following documents shall be furnished within 10 days of the date of this letter:

1. Three originals of the Payment Bond required under Article 11 of the General Conditions.
2. Three originals of the Performance Bond required under Article 11 of the General Conditions.
3. Copy of written acknowledgement from the UCIP Administrator that CM/Contractor and all Subcontractors that it has subcontracted (unless excluded under General Conditions Article 11.1.5), have successfully enrolled in UCIP.

Failure to timely furnish the above listed documents may result in actions as outlined in the Instructions to Bidders.

This Notice of Intent is not a commitment by the University to exercise its Option and University is under no obligation to issue a Contract Amendment exercising the Option.

Mihai Gavan

EXHIBIT 17

KEY PERSONNEL SCHEDULE

The following personnel have been committed to the Project by the CM/Contractor for the minimum level of effort and contract phases indicated:

The listed individuals have been reviewed by the undersigned on behalf of the named Bidder. Bidder hereby agrees that these individuals will be provided pursuant to the provisions of the contract, if awarded to Bidder, and that such contract will include this exhibit as completed above.

Name and Title

Date

Bidder

EXHIBIT 18

SCOPE OF WORK

GENERAL INFORMATION

The Work shall include all services, labor, material, tools, equipment, excavation, shoring, testing, inspection, commissioning and all necessary General Conditions Work, that is required by or may be reasonably inferred from the Contract Documents to provide Pre-Construction Services and Construction Work for:

At UC Riverside, School of Medicine (SOM) instructional and clinical simulation activities occur primarily in the School of Medicine Education Building. As the SOM increases enrollment, however, the existing space will no longer be sufficient to meet its need. In order to continue to provide a quality learning and working environment for the growing SOM, UCR proposes to undertake a capital project to provide additional high quality instructional and office space.

The project will complete construction of a Clinical Skills and Simulation Suite (CSSS) in approximately 13,000 square feet in Orbach Library basement, which is presently used for library purposes. The CSSS will include mock exam rooms, multiple simulation rooms, wet and dry small instructional spaces, as well as control rooms with heavy Audio/Visual/Telecommunications needs.

Phase 1 – Preconstruction will commence immediately after award and will continue through start of construction.

Phase 2 – Construction is anticipated to begin in 3rd quarter of 2019. The phases will overlap with a phased buy-out.

The following is a brief overview of the services the CM will be required to perform if awarded both the preconstruction phase contract and the construction phase contract:

1. Review the initial cost estimate and provide continuous cost management to assure the design is within the budgeted cost estimate.
2. Participate in the development of the design and provide constructability reviews and analysis. Offer suggestions to improve the quality of the Project.
3. Provide construction planning, phasing, and scheduling during design and through construction completion.
4. Develop and maintain a Project schedule that incorporates all tasks and approvals of all involved parties necessary to complete the Project within the contract durations.
5. Incorporate LEAN practices and tools into the process.
6. Incorporate integrated project management practices into the Project.
7. Provide quality assurance.
8. Provide cost estimating and value engineering. Reconcile CM cost estimates with Architect's cost estimates at various milestones.
9. Coordinate with and provide information as required to regulatory agencies. Schedule and monitor required agency approvals.
10. Prequalify trade contractors to comply with University's standards.
11. Develop Trade Contractor Bid Packages, competitively bid and receive bids in the most logical, competitive, and seamless manner in accordance with the applicable provisions of the California Public Contract Code and University Policy.
12. Warrant the completeness and constructability of the construction documents and ensure that trade bid packages include a complete scope of work.

- 13. Manage and administer the Project construction phase to achieve construction completion within the contract time and budget and with high quality workmanship.

ARTICLE 1

GENERAL PROVISIONS/CM/CONTRACTOR GENERAL PROJECT PROVISIONS

1.1.1 Staffing: The CM/Contractor shall provide a full-time Project Manager for the Work with the authority to commit resources of the firm to monitor, manage and administer all phases of the Project activities and to help achieve the completion of all construction. CM/Contractor shall provide all necessary qualified personnel to perform CM/Contractor services under this Contract. If the CM/Contractor's personnel fail to perform to the University's satisfaction, the University may, upon 15 days written notice, require the CM/Contractor to remove such person(s) from the project and replace them with personnel acceptable to the University.

1.1.2 All General Requirements, Division 1 shall be provided by CM/Contractor as part of its CM/Contractor Option Sum, except General Requirements listed in 1.1.2.1. CM/Contractor shall also include as part of its CM/Contractor Option Sum any portion of the General Requirements listed in 1.1.2.1 otherwise specified by either this Exhibit or the CM/Contractor Provided General Conditions to Subcontractors Exhibit.

1.1.2.1 Section { e.g. 01nnn - Section Title }
{ e.g. 01nnn - Section Title } { e.g. 01nnn - Section Title }

1.1.3 The provisions of 1.1.2.1 shall not limit the responsibility of the CM/Contractor to provide the services required to coordinate and manage all General Requirements, Division 1 and the Work, including but not limited to the requirements in Paragraphs 3.15, 3.16 and 3.17. The CM/Contractor shall include in its Option Sum all costs for such services.

1.1.4 Any Work required herein, including but not limited to Work in the CM/Contractor Provided General Conditions to Subcontractors Exhibit, shall not be included in a Bid Package.

ARTICLE 2

PHASE 1 – PRE-CONSTRUCTION SERVICES PHASE

2.1 UPON UNIVERSITY'S WRITTEN NOTICE TO PROCEED, CM/Contractor shall commence the services listed in this Article. Phase 1 services may continue into Phase 2 dependent on when the University exercises the Option for Phase 2.

2.2. CM/CONTRACTOR PRE-CONSTRUCTION SERVICES

2.2.1 CM/Contractor shall provide other services that are reasonable and necessary to assist the University in the maintenance of the Project budget and schedule.

2.2.2 CM/Contractor, its officers, agents, employees, Subcontractors, consultants and any persons or entities for whom CM/Contractor is responsible, shall provide all services pursuant to the Contract Documents in a manner consistent with the standard of care under California law applicable to those who specialize in providing such services for projects of the type, scope, and complexity of this Project.

2.3 PROJECT CONTROL/ESTIMATING

2.3.1

2.3.2 Upon University Design Professional's 50%, 100% and final back check completion of construction documents of each Design Package, the CM/Contractor shall prepare and submit for University approval, an independent written Project Construction Cost Estimate. CM/Contractor shall meet with Design Professional to reconcile discrepancies between its estimate and Design Professionals estimate. The estimate shall be based on detailed quantity takeoffs of the design Drawings and Specifications. The CM/Contractor shall obtain University's Representative's written approval of estimate format and structure prior to proceeding with estimate.

2.3.3

2.3.4 The CM/Contractor shall prepare a comprehensive critical path schedule, Preliminary Contract Schedule, showing all project related construction activities; including sequencing and durations for work tasks of the Subcontractors. The Preliminary Contract Schedule shall be able to be filtered per each Subcontractor to illustrate their planned basic construction sequence and interface with other Subcontractors. The Preliminary Contract Schedule shall identify the proposed Bid Packages the CM/Contractor recommends as appropriate to complete the Work per the Contract Documents and Contract Time. In the preparation of the Preliminary Contract Schedule, the CM/Contractor shall investigate the procurement lead-time required for delivery of time-critical items and incorporate these into the Preliminary Contract Schedule.

2.4 CM/CONTRACTOR DESIGN COORDINATION SERVICES

2.4.1 At the same time the CM/Contractor performs cost estimates as called for by this exhibit, it shall conduct thorough plan check reviews. Its plan check reviews shall determine and identify items that the CM/Contractor feels in its professional opinion could lead to a higher cost of bids for the Bid Packages; and/or change orders resulting from ambiguities, coordination of Design Work for various trades, errors, and/or omissions in the Contract Documents prepared during the Design Work by the Design Professionals. The CM/Contractor shall present its plan check reviews in both a written report to the University's Representative; and meet with both the University's Representative and the Design Professional(s) to present and explain its findings.

2.5 CM/CONTRACTOR BID PHASE SERVICES

2.5.1 Unless otherwise provided in General Conditions, CM/Contractor shall perform the services hereunder.

2.5.2 The CM/Contractor shall be responsible, with the assistance of the Design Professional and the University's Representative, for sequencing, assembly, scope definition and preparation of Bid Packages and all cover information for individual packages to assure that all items as indicated in Contract Documents, including coordination of details and Subcontractor required General Conditions Work are included with bid documents. The CM/Contractor shall not create or permit duplication of work between Bid Packages and/or General Conditions through scope descriptions, or by any other means. The CM/Contractor shall analyze the Bid Packages, identify elements of uncertainty or risk prior to the bidding, verify government permits and approvals, endeavor to eliminate conflicts, duplications and omissions and mitigate the University's exposure to bidding error through instructions to bidders.

2.5.3 Prior to preparing and assembling the Bid Packages, the CM/Contractor shall submit pro forma Bidding Documents to University for review and approval. This submittal shall include the CM/Contractor's proposed Instructions to Bidders, Bid Form, and all other proposed Bidding Documents except Drawings and Specifications Divisions 2 and above.

2.5.4 The CM/Contractor shall assemble Bid Packages in a complete, coordinated and most cost-effective manner for the University. CM/Contractor shall obtain all necessary design

documents from the Design Professional and with the assistance of the University's Representative, arrange for printing, binding, wrapping and delivery to the bidders, and shall maintain a list of bidders receiving the Bid Documents. The University shall be responsible for all postage, delivery and printing costs; such cost shall be included in the Contract Sum by Change Order.

2.5.5 The CM/Contractor shall review, recommend, develop and estimate allowances, alternates, unit prices and other requirements for inclusion in the Bid Packages. If the CM/Contractor elects to require Subcontractor performance or payment bonds, it may include such item as an alternate that shall not be used as the basis of award. The cost of Subcontractor payment or performance bond, or insurance purchased in lieu thereof, if any, will not be included by University in Contract Amendment(s) for Bid Package(s).

2.5.6 The CM/Contractor shall develop lists of possible bidders to solicit bids for the Bid Package(s), provide pre-bid Subcontractor prequalification criteria, and conduct prequalification of Subcontractors when directed by the University's Representative. The CM/Contractor shall conduct an outreach effort to attract broad interest among qualified bidders. The CM/Contractor shall contact potential bidders to develop a sufficient pool of bidders. The CM/Contractor shall secure the commitment to bid from a minimum of 3 bidders for each Bid Package. CM/Contractor shall bid the Bid Packages as required by the General Conditions, after University's Representative reviews Bid Package and issues Letter of Bid Package Review. Such review will confirm that CM/Contractor has complied with the provisions of this section. CM/Contractor shall make any changes to Bid Packages as directed by University in its sole discretion.

2.5.7 The CM/Contractor shall, as directed by the University's Representative, respond to bid questions during the bid period and at pre-bid conferences, pre-construction conferences and walk-throughs.

2.5.8 The CM/Contractor shall evaluate the bids received in detail for technical deficiencies. The CM/Contractor shall analyze the bid results for potential error, review the apparent low bids for responsiveness and compliance with this Contract, and shall recommend award or other action. The CM/Contractor shall determine if potential bidder(s) are not responsive or if bid(s) are non-responsive; CM/Contractor shall provide a debriefing of its decision regarding bidder(s)/bid(s) and provide Bid Package Certification to the University. The CM/Contractor shall notify all bidders of the bid results at the same time CM/Contractor submits Bid Package Certification to University. The CM/Contractor shall review the bid results for such bidding climate issues as bid responsiveness, adequacy in the number of bidders and the spreading or grouping of bid results. CM/Contractor shall make recommendations as to which add or delete alternatives to award.

2.5.9 The CM/Contractor shall record bids received. The CM/Contractor shall prepare spreadsheet analyses comparing the lowest responsible bids with the cost estimate for that Bid Package.

ARTICLE 3

PHASE 2 – CONSTRUCTION PHASE

3.1 GENERAL

3.1.1 The CM/Contractor shall provide all materials, labor, and services required by the Contract Documents to construct the Work for the Contract Sum and within the Contract Time during Phase 2, also described as the Construction Phase. The Contract Sum will be adjusted by Contract Amendment after each Bid Package in Phase 2 has been bid and certified by the CM/Contractor and approved by the University.

3.2 GENERAL CONDITIONS WORK

3.2.1 The CM/Contractor shall provide all items identified in this section and in the CM/Contractor Provided General Conditions to Subcontractors Exhibit in its Option Sum - Phase 2; in addition CM/Contractor shall provide, and include in its Option Sum - Phase 2 all other items required by the Contract Documents and any other General Conditions Work items not included in the CM/Contractor's Base Fee or this section, required to complete the Work.

3.3 ENVIRONMENTAL IMPACT REPORT (EIR) – The CM/Contractor shall be responsible to comply with all mitigation measures set forth in the forthcoming CEQA documents.

3.4 PERSONNEL

3.4.1. FIELD STAFF

3.4.2. The following Field Personnel shall be provided as a minimum on a full time basis for the Construction Phase duration; unless otherwise noted any additional Field Personnel that the CM/Contractor determines that is necessary to manage, implement, and supervise the Work shall be included in its Option Sum – Phase 2:

Quantity	Title/Function	% Time (if not 100%)	Construction Phase(s)
1	Project Manager		All Contract Time
1	Superintendent		All Contract Time
1	Project Engineer		
1	Safety Coordinator		

3.5 OFFICE STAFF

3.5.1 Provide all necessary effort and staff to supplement the Field Personnel listed above. See the General Conditions for Work to be covered as part of CM/Contractor's Base Fee.

3.6 JOB SITE OFFICE(S)

3.6.1 In addition to those requirements set forth in the Contract, CM/Contractor shall include in its Option Sum – Phase 2 all Field Office expenses, including but not limited to postal costs, office supplies, maintenance of office equipment, office furniture, telephone service and utility service for CM/Contractor facilities, plan reproduction, and office drinking water. In addition, the CM/Contractor shall provide as a minimum the following equipment and/or facilities (all additional equipment and/or facilities that the CM/Contractor determines necessary to manage, implement, and supervise the Work shall be included in the its Option Sum – Phase 2). All cost for installing and removing such equipment and/or facilities shall be included in CM/Contractors Option Sum – Phase 2.

Quantity	Equipment/Facility	% Time (f not 100%)	Construction Phase(s)

Quantity	Equipment/Facility	% Time (f not 100%)	Construction Phase(s)

3.7 TEMPORARY CONSTRUCTION

3.7.1 Provide all Temporary Construction items listed in CM/Contractor Provided General Conditions to Subcontractors Exhibit throughout the Project as the Work requires, for the benefit of the Project and the CM/Contractor’s Subcontractors. CM/Contractor Provided General Conditions to Subcontractors shall be included with all Bid Packages to Subcontractors so that all bidding Subcontractors understand what General Conditions Work items are being provided by the CM/Contractor for the benefit of the Project and its Subcontractors.

3.7.2 Project Sign (see specifications)

3.8 SAFETY

3.8.1 The CM/Contractor shall be responsible for job site safety and shall follow all applicable laws, Specifications, and furnish all items specified in CM/Contractor Provided General Conditions to Subcontractors Exhibit for the duration of the Work for the benefit of the Project and the CM/Contractor’s Subcontractors.

3.8.2 Safety signage throughout Project.

3.8.3 Personal protective gear for CM/Contractor’s personnel and job site visitors.

3.9 TEMPORARY PROTECTION

3.9.1 Provide all Temporary Protection items listed in CM/Contractor Provided General Conditions to Subcontractors Exhibit, throughout the Project as the Work requires, for the benefit of the Project and the CM/Contractor’s Subcontractors.

3.10 TEMPORARY UTILITIES

3.10.1 Provide all Temporary Utilities items listed in CM/Contractor Provided General Conditions to Subcontractors Exhibit, throughout the Project as the Work requires, for the benefit of the Project and the CM/Contractor’s Subcontractors. Temporary Utilities shall include all labor and materials for hook-up and disconnection, relocation as the Work requires, and utility usage-

3.11 CONSTRUCTION EQUIPMENT

3.11.1 Provide all Construction Equipment items listed in CM/Contractor Provided General Conditions to Subcontractors Exhibit, throughout the Project as the Work requires, for the benefit of the Project and the CM/Contractor’s Subcontractors. Construction Equipment shall include all labor and materials for mobilizing and demobilizing, maintaining, storing, rental, usage, operating cost.

3.12 MATERIAL HANDLING & HOISTING

3.12.1 Provide all Material Handling & Hoisting items listed in CM/Contractor Provided General Conditions to Subcontractors Exhibit, throughout the Project as the Work requires, for the benefit of the Project and the CM/Contractor’s Subcontractors. Material Handling & Hoisting shall include all labor and materials for mobilizing and demobilizing, maintaining, storing, rental, usage, operating cost.

3.13 CLEAN UP

3.13.1 CM/Contractor to be responsible for all clean up. CM/Contractor may transfer some of the continuous clean up responsibilities to its Subcontractors, but the University shall still hold CM/Contractor responsible for continuous clean up in the event it feels the Project is not being maintained in a clean manner or meeting the requirements of the Specifications. All other clean up and items listed in CM/Contractor Provided General Conditions to Subcontractors Exhibit such as but not limited to: final clean up, trash and debris disposal, glass cleaning, trash chutes, street cleaning shall be the direct responsibility of the CM/Contractor and not transferred to its Subcontractors.

3.14 SMALL TOOLS

3.14.1 Provide all small tools to required for the portion of Construction Work to be performed by the CM/Contractor and reasonable for CM/Contractor to support the Construction Work associated with the Bid Packages. Small Tools shall be defined as small tools, small equipment, and accessories required in connection with the Work, including, but not limited to, hammers, ladders, ropes, adzes, blocks, brooms, wire brushes, goggles, gloves, raincoats, boots, capes, tarpaulins, bits, chisels, pliers, bolt cutters, picks, hoes, scrapers, shovels, sledges, bars, wheelbarrows, dollies, wrenches, hoses (other than air hoses rented with compressors) and all similar tools. CM/Contractor at all times shall furnish an adequate quantity of all such tools, appliances and equipment required for the Work. Such tools, appliances and equipment shall remain the property of the CM/Contractor following completion of the Work.

3.15 OTHER

3.15.1 The CM/Contractor shall include in its Option Sum - Phase 2 all other costs for labor and materials for items required by the Contract Documents and reasonably expected for the scope of this Project for implementing, supervising, and managing the Work which is not included in CM/Contractor's Base Fee; including, but not limited to warranty, punch list, field personnel, supervision and management of the Work, meetings, inspections, observing the Work, coordinating the Work, scheduling and planning the Work, shop drawing and submittal review/coordination, safety, clean up and other items as described in the applicable Specifications Division 1.

3.16 COORDINATION/MANAGEMENT OF SUBCONTRACTORS AND CONSTRUCTION WORK

3.16.1 The CM/Contractor's control of the Work shall include the immediate direction of the specific means and methods of Subcontractors' activities or forces, or their scheduling of individual work tasks; including that required to create, update or revise the Contract Schedule per the Contract Documents and to assure the project is completed within the Contract Time.

3.16.2 The CM/Contractor's responsibility shall include timely coordination of the Contract Schedule between Subcontractors to resolve and expedite resolutions of any work that may be disputed between Subcontractors.

3.16.3 The CM/Contractor shall determine the adequacy of Subcontractors' personnel, equipment, safety programs and availability of materials and supplies. If these items are determined inadequate, the CM/Contractor shall develop a plan of recovery with the Subcontractor(s) and shall enforce the applicable provisions of the Contract Documents within its authority given by this Contract.

3.16.4 The CM/Contractor shall conduct and record regular Mechanical/Electrical/Plumbing coordination meetings to review Coordination Drawings and other coordination issues with all related Subcontractors.

3.16.5 CM/Contractor shall conduct regular walk-throughs of the project with University management and project personnel, including at least 2 formal reviews by University Facilities Maintenance staff at appropriate comment periods.

3.16.6 CM/Contractor shall coordinate the delivery, storage and inventory of University-supplied materials and equipment to the Subcontractor.

3.16.7 The CM/Contractor shall continuously require and follow up with Subcontractors about their job site maintenance and their conformance in providing a safe work place. CM/Contractor shall enforce all safety-related requirements in the Contract Documents. CM/Contractor shall assure that at all times, access to the site in case of fire or other campus emergency shall be maintained. The CM/Contractor shall monitor security of site for safety and impacts on neighboring facilities adjacent to the site and take immediate action, if required, when non-compliant conditions are discovered.

3.16.8 CM/Contractor shall develop and monitor an overall Safety Program for the Project. The program shall be in compliance with applicable Federal, State and University regulations, Campus Standards and the Contract Documents. The CM/Contractor shall review, monitor and coordinate the implementation of individual Subcontractors' Safety Programs. The CM/Contractor shall confirm that Subcontractors' Safety Programs include, but are not limited to, weekly formal safety tours, weekly Safety Toolbox Meetings (with documented minutes), and daily check of safety of the Project. The CM/Contractor's Project Superintendent, or his/her designated representative, shall be responsible for implementing, controlling and monitoring the CM/Contractor's own Safety Program and reviewing and monitoring the Subcontractors' Safety Programs.

3.16.9 The CM/Contractor shall direct the initial startup and testing of utilities, building, electrical and mechanical systems and equipment. The CM/Contractor shall coordinate Subcontractor's training of University's facilities maintenance and other personnel in conjunction with the University's Representative. The CM/Contractor shall videotape the Subcontractors' training sessions for future reference and provide a copy of the videotape to University with other project closeout documents.

3.17 PROJECT/CONTRACT ADMINISTRATION

3.17.1 The CM/Contractor shall, through University's Representative, or as directed by University's Representative, coordinate its efforts between Subcontractors and Design Professional to clarify interpretation of drawings and specifications; work with Design Professional on the interpretation of plans and specifications; review all requests for clarification and appropriateness prior to forwarding to Design Professionals.

3.17.2 The CM/Contractor shall, through University's Representative, or as directed by University's Representative, coordinate and administer the shop drawing review and approval process and advise Design Professionals of any unusual site conditions or Contract Document requirements affecting shop drawing approvals; and review submittals for format, compliance and general completeness prior to forwarding to Design Professional for review. The CM/Contractor's Contract Schedule shall establish submittal schedules that allow sufficient time for review and interpretation. The CM/Contractor shall verify and document that the shop drawing process is adhering to the submittal schedule.

EXHIBIT 19

CM/CONTRACTOR PROVIDED GENERAL CONDITIONS TO SUBCONTRACTORS

Notes:

1

The following listed items shall be provided by the CM/Contractor, and made available throughout the Project as indicated, as the Work requires, for the benefit of the Project and the CM/Contractor's Subcontractors. Unless otherwise noted, all items references shall include set up, maintenance, removal, rental or usage charges, operation, and all associated labor. In addition to the items listed, the CM/Contractor and its Subcontractors shall provide all General Conditions Work items necessary to complete the Work, and/or called for by the Contract Documents. Other specific items to be provided by the CM/Contractor, for the benefit of the CM/Contractor and the Project are listed in the Scope of Work Exhibit. Subcontractors shall be responsible for all General Conditions Work incurred as part of their respective scope of work and not addressed in this exhibit. This exhibit shall be required to be included with all Bid Package(s). If "Applicable Phase(s)" not identified in column of table below, General Conditions task applies to "All" Contract Time.

General Conditions Category	CM/Contractor Responsibility Equipment/Service Item	Applicable Phase(s)	Note(s)
Layout/Survey			
Offices			
Temporary Construction			
Safety			
Temporary Protection			

General Conditions Category	CM/Contractor Responsibility Equipment/Service Item	Applicable Phase(s)	Note(s)
Temporary Utilities			
Construction Equipment			
Material Handling & Hoisting			
Clean Up			

EXHIBIT 20

LETTER OF BID PACKAGE REVIEW

{Date}

{CM/Contractor Name}
{CM/Contractor Address}

The University of California has completed its review of Bid Package number 958091 for the School of Medicine Clinical Skills and Simulation Suite Project. Since the review is now complete, you should proceed as follows:

Bid this scope of work. After completion of bidding you must provide the University's Representative with a "Bid Package Certification" and an updated "Expanded List of Subcontractors." University will not issue a Contract Amendment until these documents are submitted and approved.

Prepare to submit a bid to self-perform this scope of work. University will be bidding this scope of work.

Should you have any questions related to this letter, please direct them to the University's Representative, Mihai Gavan.

Sincerely,

Carmen Long
Construction Contracts Manager

EXHIBIT 21

BID PROTEST PROCEDURES

The CM/Contractor shall include the following provisions in the bidding documents issued for all Bid Packages:

BID PROTEST**1.0 FILING A BID PROTEST**

1.1 For purposes of a bid protest, the address of University's Facility office is:

**University of California, Riverside
900 University Avenue
Riverside, CA 92521**

1.2 Any Bidder, person, or entity may file a Bid protest. The protest must state the specific reasons and facts upon which the protest is based and shall be filed in writing with the Facility office issuing the bidding documents, not later than 5:00 pm on the 3rd business day after:

- .1 if the Bid Form does not contain any Alternate(s), the date of the Bid opening;
- .2 if the Bid Form contains any Alternate(s), the date of posting in a public place of Bid results.

1.3 If a Bid is rejected by the Facility, and such rejection is not in response to a Bid protest, any Bidder, person or entity may dispute that rejection by filing a Bid protest (limited to the rejection) within 3 business days of the rejected Bidder's receipt of the notice of rejection.

2.0 RESOLUTION OF BID CONTROVERSY

2.1 Facility will investigate the basis for the Bid protest and analyze the facts. Facility will notify Bidder whose Bid is the subject of the Bid protest of evidence presented in the Bid protest and evidence found as a result of the investigation, and, if deemed appropriate, afford Bidder an opportunity to rebut such evidence, and permit Bidder to present evidence that it should be allowed to perform the Work. If deemed appropriate by Facility, an informal hearing will be held. Facility will issue a written decision within 15 days following receipt of the Bid protest, unless factors beyond Facility's reasonable control prevent such a resolution, in which event such decision will be issued as expeditiously as circumstances reasonably permit. The decision will state the reasons for the action taken by Facility. A copy of the decision will be furnished to the protestor, the Bidder whose Bid is the subject of the Bid protest, and all Bidders affected by the decision. As used in this Article 7, a Bidder is affected by the decision on a Bid protest if a decision on the protest could have resulted in the Bidder not being the lowest responsible and responsive Bidder for the Contract.

2.2 Notwithstanding the provisions of Article 7.2.1, at the election of Facility, a Bid protest may be referred directly to University's Construction Review Board without prior investigation and review by Facility. The Chair of the Construction Review Board will either decide the Bid protest or appoint a Hearing Officer. If a Hearing Officer is appointed, the Hearing Officer will review the Bid protest in accordance with the provisions of Article 7.2.4.

2.3 Bidder whose Bid is the subject of the protest, all Bidders affected by the Facility's decision

on the protest, and the protestor have the right to appeal to the Construction Review Board if not satisfied with Facility's decision. The appeal must be in writing and shall specify the decision being appealed and all the facts and circumstances relied upon in support of the appeal. The appeal must be received by the Chair, Construction Review Board, no later than 5:00 pm on the 3rd business day following appellant's receipt of the written decision of Facility, at the following address:

Chair, Construction Review Board
University of California
Office of the President
1111 Franklin Street, 6th Floor
Oakland, CA 94607-5200
Attention: Associate Director, Construction Services

And, by email to:

constructionreviewboard@ucop.edu

2.4 A copy of the appeal shall be sent to all parties involved in the Bid protest and to Facility. An appeal received after close of business is considered received as of the next business day. If the final date for receipt of an appeal falls on a Saturday, Sunday, or University holiday, the appeal will be considered timely only if received by close of business on the following business day.

2.5 The Chair of the Construction Review Board will review the Facility's decision and the appeal, and issue a written decision, or if appropriate, appoint a Hearing Officer to conduct a hearing and issue a written decision. If a hearing is held, the hearing shall be held not later than the 10th day following the appointment of the Hearing Officer unless the Hearing Officer for good cause determines otherwise. The written decision of the Chair or Hearing Officer will state the basis of the decision, and the decision will be final and not subject to any further appeal to University. The Chair or Hearing Officer may consult with the University's Office of the General Counsel on the decision as to legal form. The University will complete its internal Bid protest procedures before award of the Contract.

EXHIBIT 22

Project Schedule

Completion Instructions:

1. Create a Project Schedule that illustrates all schedule requirements for the Work. The Project Schedule should show any required sequence of work or phasing of the Work, relationship of key submittals to the Construction Work. The Project Schedule should be presented with a cardinal time line, i.e. – week 1, week 2, versus using actual dates. The Facility should indicate any other significant or unique approval processes; any durations should be conservative or footnoted as minimum durations. Overall durations should be consistent with Contract Time and Option Time stated in the bidding documents.
2. Utilize a CPM format for the Project Schedule, if relationships are to be shown.
3. It is extremely important that the Project Schedule be coordinated with the requirements of the Contract. The Project Schedule should be consistent with, or based on the current Project Schedule associated with the EDPA for CM At-Risk delivery method. The Project Schedule should clearly delineate work activities in Phase 1 vs. Phase 2 consistent with the Scope of Work, and properly depict the Design/Construction Overlap Duration (if any is planned). The Project Schedule should indicate what Design Packages will be provided by the Design Professional(s), and when they will be available. Any special phases defined by the Facility in the Scope of Work Exhibit related to General Conditions Work should be clearly shown on the Project Schedule.
4. Notes, suggested text, instructions and other information is formatted using the following methods:
 - Hidden text within brackets. 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. {This is an example of the format.} The instructions and shading will disappear when the required information is typed.
 - Suggested text is shaded in gray without brackets (see Modifications and Additions below.)

Modifications and Additions:

1. Areas shaded in gray, without brackets, represent suggested text that may be modified by the Facility to meet the needs of the Project. This is an example of the format. Ensure that any modified or added text is consistent with the Contract Documents.
2. Areas not highlighted in gray, without brackets, shall not be altered without approval of the Office of the President.

Comments:

None

EXHIBIT 23

SELF-CERTIFICATION

For the Contractor and each Subcontractor indicated on the Report of Subcontractor Information, the following must be completed.

Indicate all Business category(ies) that apply by initialing next to the applicable category(ies):

(Initial, if applicable) **Small Business Enterprise (SBE)** - an independently owned and operated concern certified, or certifiable, as small business by the Federal Small Business Administration (SBA). (Size standards by Standard Industrial Classification codes required by the Federal Acquisition Regulations, Section 19.102, may be found at <http://www.sba.gov/content/table-small-business-size-standards>.) The eligibility requirements for California contracting purposes is on the [Department of General Services website](http://www.dgs.ca.gov/pd/Programs/OSDS/SBEeligibilityBenefits.aspx) at <http://www.dgs.ca.gov/pd/Programs/OSDS/SBEeligibilityBenefits.aspx>. The University may rely on written representation by the vendors regarding their status.

(Initial, if applicable) **Disabled Veteran Business Enterprise (DVBE)** - a business that is at least 51% owned by one or more disabled veterans or, in the case of any publicly owned business, at least 51% of the stock of which is owned by such individuals and whose management and daily business operations are controlled by one or more of such individuals. A Disabled Veteran is a veteran of the military, naval, or air service of the United States with a service connected disability who is a resident of the State of California. To qualify as a veteran with a service connected disability, the person must be currently declared by the United States Veterans Administration to be 10% or more disabled as a result of service in the armed forces.

(Initial, if applicable) **Disadvantaged Business Enterprise (DBE)** - a business concern that is at least 51% owned by one or more socially and economically disadvantaged individuals or, in the case of any publicly owned business, at least 51% of the stock of which is owned by such individuals and whose management and daily business operations are controlled by one or more of such individuals. Socially disadvantaged individuals are those who have been subjected to racial or ethnic prejudice or cultural bias because of their identity as members of a group without regard to their individual qualities. Economically disadvantaged individuals are those socially disadvantaged individuals whose ability to compete in the free private enterprise system has been impaired due to diminished capital and credit opportunities as compared to others in the same business area who are not socially disadvantaged. Business owners who certify that they are members of named groups (Black Americans, Hispanic Americans, Native Americans, Asian-Pacific Americans, Asian-Indian Americans) are to be considered socially and economically disadvantaged.

(Initial, if applicable) **Women-Owned Business Enterprise (WBE)** - a business that is at least 51% owned by a woman or women who also control and operate it. "Control" in this context means exercising the power to make policy decisions. "Operate" in this context means being actively involved in the day-to-day management.

(Initial, if applicable) **None of the above categories apply.**

I hereby certify under penalty of perjury under the laws of the State of California that I have read this certification and know the contents thereof, and that the business category indicated above reflects the true and correct status of the business in accordance with Federal Small Business Administration criteria

and Federal Acquisition Regulations, FAR 19 pertaining to small, disadvantaged, women-owned, and disabled veteran business enterprises. I understand that falsely certifying the status of this business, obstructing, impeding or otherwise inhibiting any University of California official who is attempting to verify the information on this form may result in suspension from participation in University of California business contracts for a period up to five (5) years and the imposition of any civil penalties allowed by law.

INFORMATION FURNISHED BY:

 (Print or Type Name of Owner and/or Principal)

 (Name of Business or Firm)

a

 (Insert type of business e.g. corporation, sole proprietorship, partnership, etc.)

By:

 (Print Name)

 (Title)

 (Signature)

 (Date)

PRIVACY NOTICE

The State of California Information Practices Act of 1977 (effective July 1, 1978) requires the University of California to provide the following information to individuals who are asked to supply personal information about themselves. Information furnished on the Self-Certification form may, in some cases, identify personal information of an individual.

- The University of California, {FACILITY}, is requesting the information contained in this form and the accompanying Report of Subcontractor Information.
- The Small Business Outreach Program Manager at the University of California, {FACILITY}, is responsible for maintaining the requested information. The contact information for the Small Business Outreach Program Manager may be found at: [http://www.ucop.edu/procurement-services/ files/sbdmgr.xlsx](http://www.ucop.edu/procurement-services/files/sbdmgr.xlsx)
- The maintenance of information is authorized in part by Public Contract Code section 10500.5.
- Furnishing the information requested on this form is mandatory. If SBE, DBE, WBE and/or DVBE status is applicable, furnishing such information is mandatory.
- Failure to provide the information may be a violation of bidding procedures and/or breach of the contract and the University may pursue any and all remedies permitted by the provisions of the Contract Documents.
- The information on this form is collected for monitoring and reporting purposes in accordance with state law and University policy.
- The individual may access information contained in this form and related forms by contacting the Small Business Outreach Program Manager(s).

EXHIBIT 24
CM/CONTRACTOR EXPANDED LIST OF SUBCONTRACTORS
(to be submitted as soon as each subcontractor is selected – see General Conditions)

Provide in the spaces below:

- (a) Enter Design Package designation. If subcontractor is identified as part of original CM/Contractor Bid, enter N/A.
- (b) Enter Bid Package designation. If subcontractor is identified as part of original CM/Contractor Bid, enter N/A.
- (c) The portion of the work which will be done by each subcontractor, the CM/Contractor shall list only one subcontractor for each such portion,
- (d) The name of each subcontractor who will perform work or labor or render service to the CM/Contractor in or about the construction of the work or improvement, or a subcontractor licensed by the state of California who, under subcontract to the CM/Contractor, specifically fabricates and installs a portion of the work or improvement according to detailed drawings contained in the plans and specifications, in an amount in excess of 1/2 of 1 percent of the CM/Contractor’s total bid. As used in this form, the word “Subcontractor” shall mean a contractor, within the meaning of the provisions of Chapter 9 (commencing with Section 7000) of Division 3 of the Business and Professions Code, State of California, who contracts directly with the CM/Contractor.
- (e) Type of license,
- (f) Verified license number,
- (g) Location of the place of business (full street address, city, state and zip code).

			Subcontractor Information				
Design Package (a)	Bid Package (b)	Portion of the Work Activity (c)	Full Name (d)	Type of License (e)	Verified License No. (f)	Street Address (g)	City, State, Zip Code (h)

(Note: Add additional pages if required.)



EXHIBIT 25
REPORT OF SUBCONTRACTOR/SUBCONSULTANT INFORMATION
 (NOTE: THIS EXHIBIT IS NOT TO BE SUBMITTED WITH BID)

Completed By: _____ Date: _____
 (Signature) (Print Name) (Title)

Provide the following information for each contracting party including the prime Contractor and each subcontractor regardless of tier*. Sheet No. _____ of _____
 Attach additional sheets if necessary.

1 Full Name of Business	2 Street Address City, State & Zip Code	3 Telephone # & Fax #	4 Contact Name	5 Type of Ownership	6 Business Categories* (Check all that apply [X])					7a Portion of the Work	7b Amount \$	8 License Information**		
					SBE	DVBE	DBE	WBE	N/A			License Classification	License #	
Prime:														
Sub:														
Sub:														
Sub:														
					Column 5 – Type of Ownership									
					C = Corporation									
					JV = Joint Venture									
					P = Partnership									
					SP = Sole Proprietorship									
					O = Other									
										Column 6 – Business Categories				
										SBE = Small Business Enterprise				
										DVBE = Disabled Veteran Business Enterprise				
										DBE = Disadvantaged Business Enterprise				
										WBE = Women-Owned Business Enterprise				
										N/A = Not Applicable				

*Regardless of tier, a completed Self-Certification form must be submitted for the prime Contractor and each subcontractor shown on this Exhibit.

**List only those license classifications and numbers relevant to this Project.



School of Medicine Clinical Skills and Simulation Suite
Project Number: 958091
Contract Number: 958091-CMAR-2019-67
Addendum No. A, January 4, 2019

EXHIBIT 25

EXHIBIT 26 FINAL DISTRIBUTION OF CONTRACT DOLLARS

Completed By: _____ (Signature) _____ (Printed Name) _____ (Title) Date: _____

Provide the following information for each contracting party including the prime Contractor/Consultant/Design Professional and each subcontractor/subconsultant regardless of tier.* Attach additional sheets if necessary. Sheet No. _____ of _____

1	2	3	4	5	6					7a	7b	7c
Full Name of Business	Street Address City, State & Zip Code	Telephone # & Fax #	Contact Name	Type of Owner- ship	Business Categories (Check all that apply [X])					Portion of the Work	Amount \$	Percent %
					SBE	DVBE	DBE	WBE	N/A			
Prime:												
Sub:												
Sub:												
Sub:												
			Column 5 – Type of		Column 6 – Business Categories					Subtotals		
Total Contract Amount: \$ _____			C = Corporation		SBE = Small Business Enterprise							
			JV = Joint Venture		DVBE = Disabled Veteran Business Enterprise							
			P = Partnership		DBE = Disadvantaged Business Enterprise							
			SP = Sole Proprietorship		WBE = Women-Owned Business Enterprise							
			O = Other		N/A = Not Applicable							

*Regardless of tier, a completed Self-Certification form must be submitted for the prime Contractor/Consultant/Design Professional and each subcontractor/subconsultant shown on this Exhibit.



School of Medicine Clinical Skills and Simulation Suite
Project Number: 958091
Contract Number: 958091-CMAR-2019-67
Addendum No. A, January 4, 2019

**If a prime Contractor, refer to the Report of Subcontractor Information for license and other information.

Value Engineering Process

Cover Sheet and Instructions

APPROVED DOCUMENT – This document is approved by the Office of the President and Office of the General Counsel for use by the Facility and is available on computer diskette.

PURPOSE OF DOCUMENT:	Describe the value engineering process to which the project is subject.				
CROSS-REFERENCE TO FACILITIES MANUAL:	FM3[I]:1,FM3[II]				
CONTENTS:	Value Engineering Process				
FOR USE WITH: (Not applicable to Some Documents)		Long Form (LF)		Brief Form (BF)	Mini Form (BF)
COMPLETED BY:		Filling in	√	Adding Text	No Data Required
ITS USE IS:		Required	√	Optional	

Completion Instructions:

1. Insert the completed Value Engineering document submitted as an attachment to the Executive Design Professional Agreement (EDPA), modify as necessary to reflect current status of value engineering effort.

Modifications and Additions:

None.

Comments:

None.

**EXHIBIT 28
CERTIFICATE OF SUBSTANTIAL COMPLETION**

Project Name: _____
CM/Contractor: _____
Project Number: _____
Date of Issuance: _____

The Construction Work has been reviewed and the date of Substantial Completion is hereby established as of the date of issuance above.

A Certificate of Occupancy has been issued by the University's Building Official {NAME} on {MONTH} {DAY}, {YEAR}.

A list of items to be completed or corrected is included herein. The failure to include any items on such list does not alter the responsibility of CM/Contractor to complete all of the Work in accordance with the Contract Documents.

In accordance with the Contract Documents, CM/Contractor is notified as follows:

1. Without limitation of CM/Contractor's obligation to fully complete the Work within the Contract Time, CM/Contractor shall complete or correct the Construction Work on the list of items attached hereto within {NUMBER} days from the date of Substantial Completion.
2. University will be responsible for {INSERT "NONE" OR STATE ANY UNIVERSITY RESPONSIBILITIES AFTER SUBSTANTIAL COMPLETION: security, maintenance, utilities (e.g. water, sewer, electrical, gas, etc.)}
3. CM/Contractor shall be responsible for all Contract requirements except items or responsibilities of University set forth in Paragraph 2 above.
4. List of items to be completed or corrected: {INSERT "SEE ATTACHED LIST" OR IDENTIFY ITEMS TO BE COMPLETED/CORRECTED}

UNIVERSITY'S REPRESENTATIVE:

(Name of Firm)

(Signature)

(Typed or Printed Name)

(Title)

(Date)

UNIVERSITY: THE REGENTS OF THE UNIVERSITY OF CALIFORNIA

(Signature)

(Typed or Printed Name)

(Title)

February 1, 2004

CM/Contractor:EX-CertSC

(Date)

cc: Office of Risk Management

February 1, 2004

CM/Contractor:EX-CertSC

Exhibit
Certificate of Substantial Completion

EXHIBIT 29

GENERAL CONTRACTOR CLAIM CERTIFICATION

Pursuant to Article 4.3.3 of the General Conditions, I certify as follows:

1. The Claim to which this certification is attached is made in good faith.
2. Amounts claimed for costs, expenses and damages incurred by CM/Contractor are accurate and complete. Supporting data for amounts incurred by CM/Contractor is accurate and complete. Any such supporting data, including any such new amounts, submitted after the execution of this certification, will be accurate and complete.
3. To the best of my knowledge and belief, amounts claimed, and supporting data submitted by CM/Contractor on behalf of any and all subcontractors or suppliers, of all tiers, or any person or entity under CM/Contractor, are accurate and complete. CM/Contractor will not submit, after the date of execution of this certification, any such supporting data, including any such new amounts that, to the best of my knowledge and belief, is not accurate and complete.
4. The amount requested accurately reflects the adjustment of the Contract Sum for which the CM/Contractor believes the University is liable.
5. Attached hereto is a certification that has been executed by each Subcontractor claiming not less than 5% of the total monetary amount sought by the claim to which this certification is attached.
6. I am duly authorized to certify the Claim on behalf of the CM/Contractor.

I declare under penalty of perjury under the laws of the State of California that the foregoing is true and correct and that this declaration was executed at:
_____ (Name of City if within a City, otherwise Name of County), in the
State of _____, on _____.
(State) (Date)

(Signature)

(Print Name)

(Name of CM/Contractor)

EXHIBIT 30

SUBCONTRACTOR CLAIM CERTIFICATION

Pursuant to Article 4.3.3 of the General Conditions, I certify as follows:

1. The portion of the Claim made on behalf of the Subcontractor to which this certification is attached is made in good faith.
2. Amounts claimed for costs, expenses and damages incurred by the Subcontractor are accurate and complete. Supporting data for amounts incurred by the Subcontractor is accurate and complete. Any such supporting data, including any such new amounts, submitted to CM/Contractor after the execution of this certification, will be accurate and complete.
3. To the best of my knowledge and belief, amounts claimed, and supporting data submitted to CM/Contractor by the Subcontractor on behalf of any and all subcontractors or suppliers to Subcontractor, of all tiers, or any person or entity under Subcontractor, are accurate and complete. Subcontractor will not submit, after the date of execution of this certification, any such supporting data, including any such new amounts that, to the best of my knowledge and belief, is not accurate and complete.
4. The amount requested accurately reflects the amount for which the Subcontractor believes the University is liable to CM/Contractor.
5. I am duly authorized to certify the Claim on behalf of the Subcontractor.

I declare under penalty of perjury under the laws of the State of California that the foregoing is true and correct and that this declaration was executed at:

_____ (Name of City if within a City, otherwise Name of County), in the State
of _____, on _____.
(State) (Date)

(Signature)

(Print Name)

(Name of Subcontractor)

Exhibit 31
**CONDITIONAL WAIVER AND
RELEASE ON FINAL PAYMENT**

NOTICE:

THIS DOCUMENT WAIVES THE CLAIMANT'S LIEN, STOP PAYMENT NOTICE, AND PAYMENT BOND RIGHTS EFFECTIVE ON RECEIPT OF PAYMENT. A PERSON SHOULD NOT RELY ON THIS DOCUMENT UNLESS SATISFIED THAT THE CLAIMANT HAS RECEIVED PAYMENT.

Identifying Information

Name of Claimant: _____
Name of Customer: _____
Job Location: _____
Owner: _____

Conditional Waiver and Release

This document waives and releases lien, stop payment notice, and payment bond rights the claimant has for labor and service provided, and equipment and material delivered, to the customer on this job. Rights based upon labor or service provided, or equipment or material delivered, pursuant to a written change order that has been fully executed by the parties prior to the date that this document is signed by the claimant, are waived and released by this document, unless listed as an Exception below. This document is effective only on the claimant's receipt of payment from the financial institution on which the following check is drawn:

Maker of Check: _____
Amount of Check: \$ _____
Check Payable to: _____

Exceptions

This document does not affect any of the following: Disputed claims for extras in the amount of:
\$ _____

Signature

Claimant's Signature: _____
Claimant's Title: _____
Date of Signature: _____

Exhibit 32
**UNCONDITIONAL WAIVER AND
RELEASE ON FINAL PAYMENT**

NOTICE TO CLAIMANT: THIS DOCUMENT WAIVES AND RELEASES LIEN, STOP PAYMENT NOTICE, AND PAYMENT BOND RIGHTS UNCONDITIONALLY AND STATES THAT YOU HAVE BEEN PAID FOR GIVING UP THOSE RIGHTS. THIS DOCUMENT IS ENFORCEABLE AGAINST YOU IF YOU SIGN IT, EVEN IF YOU HAVE NOT BEEN PAID. IF YOU HAVE NOT BEEN PAID, USE A CONDITIONAL WAIVER AND RELEASE FORM.

Identifying Information

Name of Claimant: _____
Name of Customer: _____
Job Location: _____
Owner: _____

Unconditional Waiver and Release

This document waives and releases lien, stop payment notice, and payment bond rights the claimant has for all labor and service provided, and equipment and material delivered, to the customer on this job. Rights based upon labor or service provided, or equipment or material delivered, pursuant to a written change order that has been fully executed by the parties prior to the date that this document is signed by the claimant, are waived and released by this document, unless listed as an Exception below. The claimant has been paid in full.

Exceptions

This document does not affect the following: Disputed claims for extras in the amount of:
\$ _____

Signature

Claimant's Signature: _____
Claimant's Title: _____
Date of Signature: _____

EXHIBIT 33

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{ADD ANY ADDITIONAL DOCUMENTS NEEDED}

**SUBCONTRACT BIDDING DOCUMENTS
FOR**

{FACILITY NAME}

{*PROJECT NAME*}

{*PROJECT NUMBER*}

ADVERTISEMENT FOR BIDS

Sealed bids for a {ENTER "LUMP SUM" OR "DESIGN/BUILD" AS APPLICABLE} subcontract are invited from {ENTER APPLICABLE TRADE(S)} subcontractors (hereinafter "Subcontractors") for the following work:

{FACILITY NAME} {PROJECT NAME}
Project Number {PROJECT #}

DESCRIPTION OF WORK:

General Description: {ENTER GENERAL SCOPE DESCRIPTION OF PROJECT}

The University has bid and awarded a CM at Risk Contract to {CM/CONTRACTOR'S FIRM NAME} (hereafter "CM/Contractor"). CM/Contractor is responsible for bidding and awarding all subsequent subcontractor packages, including this package. The successful Subcontractor Bidder shall sign a Subcontract Agreement directly with CM/Contractor, and shall be bound by all the terms of the contract between University and CM/Contractor. Refer to "{ENTER NAME OF APPLICABLE ATTACHED DOCUMENT}," which contains the contract between University and CM/Contractor, attached to the subcontract bidding documents and incorporated by this reference.

Bid Package {ENTER BID PACKAGE # & NAME AS APPLICABLE} (this contract): This Bid Package consists of {ENTER BRIEF DESCRIPTION OF BID PACKAGE WORK SCOPE}.

The estimated construction cost of this bid package is \${ENTER \$}.

BIDDING DOCUMENTS:

Bidding Documents will be available beginning on {ENTER DATE} and will be issued at:

{ENTER PHYSICAL LOCATION OR WEBSITE, AS APPLICABLE}

BID DEADLINE: Bids will be received only at the following location:

{ENTER PHYSICAL LOCATION}

and must be received at or before:

{ENTER TIME, MONTH, DATE, YEAR}

MANDATORY PRE-BID CONFERENCE: A mandatory Pre-Bid Conference will be conducted on {ENTER DATE}, beginning promptly at {ENTER TIME} Only Subcontractor bidders who participate in both the Conference in its entirety will be allowed to bid on the Project as {ENTER TRADE} subcontractors. Participants shall meet at {ENTER PHYSICAL LOCATION}. For further information, contact {ENTER NAME} at {ENTER PHONE# OR EMAIL ADDRESS}.

LICENSE REQUIREMENTS: The successful Bidder will be required to have the following California current and active contractor's license at the time of submission of the Bid:

{ENTER LICENSE CLASSIFICATION(S)}

Every effort will be made to ensure that all persons have equal access to contracts and other business opportunities with the University within the limits imposed by law or University policy. Each Bidder may be required to show evidence of its equal employment opportunity policy. The successful Bidder and its subcontractors will be required to follow the nondiscrimination requirements set forth in the contract between the University and the CM/Contractor, and to pay prevailing wage at the location of No contractor or subcontractor, regardless of tier, may be listed on a Bid for, or engage in the performance of, any portion of this project, unless registered with the Department of Industrial Relations pursuant to Labor Code section 1725.5 and 1771.1.

This project is subject to compliance monitoring and enforcement by the Department of Industrial Relations.

END OF ADVERTISEMENT FOR BIDS

INSTRUCTIONS TO BIDDERS

ARTICLE 1 DEFINITIONS

- 1.1 Except as otherwise specifically provided, definitions set forth in the contract between the University and the CM/Contractor are applicable to all Bidding Documents.
- 1.2 The term "Addenda" means written or graphic instruments issued by CM/Contractor prior to the Bid Deadline which modify or interpret the Bidding Documents by additions, deletions, clarifications, or corrections.
- 1.3 The term "Alternate" means a proposed change in the Work, as described in the Bidding Documents which, if accepted, may result in a change to either the Contract Sum or the Contract Time, or both.
- 1.4 The term "Bid Deadline" means the date and time on or before which Bids must be received, as designated in the Advertisement for Bids and which may be revised by Addenda.
- 1.5 The term "Bidder" means a person or firm that submits a Bid.
- 1.6 The term "Bidding Documents" means the construction documents prepared and issued for bidding purposes including all Addenda thereto.
- 1.7 The term "Estimated Quantity" means the estimated quantity of an item of Unit Price Work.
- 1.8 Not Used.
- 1.9 The term "Lump Sum Base Bid" means the sum stated in the Bid for which Bidder offers to perform the Work described in the Bidding Documents, but not including Unit Price items or Alternates.
- 1.10 Not Used.
- 1.11 The term "Unit Price" means an amount stated in the Bid for which Bidder offers to perform an item of Unit Price Work for a fixed price per unit of measurement.
- 1.12 Not Used.
- 1.13 The term "CM/Contractor" means {ENTER CM FIRM NAME}, who has signed a CM at Risk Contract agreement with University for the work of the {FACILITY} {ENTER PROJECT NAME} project, of which this {ENTER TRADE PACKAGE NAME} package is a part.
- 1.14 The California State General Prevailing Wage Determination for this Project is {ENTER APPLICABLE DETERMINATION (i.e. "2015-1")}. Bidder is required to refer to the California Department of Industrial Relations website (<http://www.dir.ca.gov/OPRL/DPreWageDetermination.htm>) and confirm the correct Prevailing Wage Determination for this Project.

ARTICLE 2 BIDDER'S REPRESENTATIONS

- 2.1 Bidder, by making a Bid, represents that:
- 2.1.1 Bidder has read, understood, and made the Bid in accordance with the provisions of the Bidding Documents.
- 2.1.2 Bidder has visited the Project site and is familiar with the conditions under which the Work is to be performed and the local conditions as related to the requirements of the Contract Documents.
- 2.1.3 The Bid is based upon the materials, equipment, and systems required by the Bidding Documents without exception.
- 2.1.4 At the time of submission of the Bid, Bidder and all Subcontractors, regardless of tier, have the appropriate current and active licenses issued by the State of California Contractors State License Board for the Work to be performed and any licenses specifically required by the Bidding Documents. If Bidder is a joint venture, at the time of submission of the Bid, Bidder shall have

the licenses required by the preceding sentence in the name of the joint venture itself. The State of California Business and Professions Code, Division 3, Chapter 9, known as the "Contractor's License Law," establishes licensing requirements for contractors.

- 2.1.5 Bidder has read and shall abide by the nondiscrimination requirements contained in the contract between the University and the CM/Contractor.
- 2.1.6 Bidder has the expertise and financial capacity to perform and complete all obligations under the Bidding Documents.
- 2.1.7 The person executing the Bid Form is duly authorized and empowered to execute the Bid Form on behalf of Bidder.
- 2.1.8 Bidder is aware of and, if awarded the Contract, will comply with Applicable Code Requirements in its performance of the Work.
- 2.1.9 Successful Bidder shall pay all persons providing construction services and/or any labor on site, including any University location, no less than the UC Fair Wage (defined as \$13 per hour as of 10/1/15, \$14 per hour as of 10/1/16, and \$15 per hour as of 10/1/17) and shall comply with all applicable federal, state and local working condition requirements.
- 2.20 Bidder, and Bidder's subcontractors of all tiers, meet the following minimum occupational safety and health qualifications:
 - .1 Bidder has had no serious and willful violations of Part 1 (commencing with Section 6300) of Division 5 of the Labor Code during the five-year period prior to bid opening.
 - .2 Bidder has maintained a workers' compensation Experience Modification Rate (EMR) that averages below 1.15 for the past five years. (If Bidder has been in business for less than five years, and is not otherwise prohibited from bidding by the terms of other Bid qualification documents, then Bidder must have maintained a workers' compensation Experience Modification Rate (EMR) that averages below 1.15 for all years Bidder has been in business.)
 - .3 Bidder has instituted an injury prevention program pursuant to Section 3201.5 or 6401.7 of the Labor Code.

After contract award, Bidder will verify that each of its Subcontractors at all tiers meet the requirements in 2.1.9 above by furnishing a fully executed "Declaration of Contractor or Subcontractor Minimum Occupational Safety and Health Qualifications" form (Exhibit 1B to the contract between the University and the CM/Contractor) prior to each Subcontractor's commencement of Work.

ARTICLE 3 **BIDDING DOCUMENTS**

3.1 COPIES

- 3.1.1 Bidders may obtain complete sets of the Bidding Documents as indicated in the Advertisement for Bids.
- 3.1.2 Bidders shall use a complete set of Bidding Documents in preparing Bids.
- 3.1.3 Not Used.

3.2 INTERPRETATION OR CORRECTION OF BIDDING DOCUMENTS

- 3.2.1 Bidder shall, before submitting its Bid, carefully study and compare the components of the Bidding Documents and compare them with any other work being bid concurrently or presently under construction which relates to the Work for which the Bid is submitted; shall examine the Project site, the conditions under which the Work is to be performed, and the local conditions; and shall at once report to CM/Contractor errors, inconsistencies, or ambiguities discovered. If Bidder is awarded the Subcontract Agreement, Bidder waives any claim arising from any errors, inconsistencies or ambiguities, that Bidder, its subcontractors or suppliers, or any person or entity under Bidder on the Subcontract Agreement became aware of, or reasonably should have become aware of, prior to Bidder's submission of its Bid.
- 3.2.2 Requests for clarification or interpretation of the Bidding Documents shall be addressed only to:
(ENTER NAME AND CONTACT INFO (PHONE OR FAX OR EMAIL))
- 3.2.3 Clarifications, interpretations, corrections, and changes to the Bidding Documents will be made by Addenda issued as provided in Article 3.5. Clarifications, interpretations, corrections, and changes to the Bidding Documents made in any other manner shall not be binding and Bidders shall not rely upon them.

3.3 PRODUCT SUBSTITUTIONS

3.3.1 No substitutions will be considered prior to award of Contract. Substitutions will only be considered after award of the Contract and as provided for in the Contract Documents.

3.4 NOT USED

3.5 ADDENDA

3.5.1 {ENTER AS NEEDED DEPENDING ON HOW ADDENDA WILL BE ISSUED}Addenda will be issued only by CM/Contractor and only in writing. Addenda will be identified as such and will be mailed or delivered to all Planholders. At its sole discretion, the CM/Contractor may elect to deliver Addenda via facsimile to Planholders who have provided a facsimile number for receipt of Addenda.

3.5.2 Not Used.

3.5.3 Not Used.

3.5.4 Each Bidder shall be responsible for ascertaining, prior to submitting a Bid, that it has received all issued Addenda.

3.6 BUILDER'S RISK PROPERTY INSURANCE AND UNIVERSITY CONTROLLED INSURANCE PROGRAM

3.6.1 University will provide builder's risk property insurance subject to the deductibles in the policy as required by the General Conditions if the Contract Sum exceeds \$200,000 at the time of award and the requirements of the Project are not excluded by such coverage. A summary of the provisions of the policy is included as an Exhibit to the Contract; the policy may be reviewed at the Facility office. Bidder agrees that the University's provision of builder's risk property insurance containing said provisions meets the University's obligation to provide builder's risk property insurance under the Contract and, in the event of a conflict between the provisions of the policy and any summary or description of the provisions contained herein or otherwise, the provisions of the policy shall control and shall be conclusively presumed to fulfill the University's obligation to provide such insurance.

3.6.2 Refer to Article 11.1 of the General Conditions in the contract between the University and the CM/GC:

- .1 The University shall pay for, obtain and maintain a University Controlled Insurance Program ("UCIP") providing workers' compensation and employer's liability insurance coverage, commercial general liability insurance coverage, and excess liability insurance coverage, to persons and entities enrolled in the UCIP, for Work performed on or at the Project site ("UCIP Coverages"). A summary of the UCIP Coverages is included as an Exhibit to the Contract. The summary descriptions of the UCIP Coverages in the Exhibit, the General Conditions, or elsewhere, are not intended to be complete or to alter or amend any provision of the actual UCIP Coverages. In the event that any provision of this Article, the Contract Documents, or elsewhere, conflicts with the UCIP insurance policies, the provisions of the actual UCIP insurance policies shall govern. A copy of the policy is available for review at <https://AonLine.Aon.com>. The user name and password will be provided to potential bidders at the pre-bid conference. The University's provision of its standard UCIP insurance policies meets the University's obligation to provide UCIP insurance under the Contract and, in the event of a conflict between the provisions of the policies and any summary or description of the provisions contained herein or otherwise, the provisions of the policy shall control and shall be conclusively presumed to fulfill the University's obligation to provide UCIP insurance.
- .2 Parties eligible to participate in the UCIP (generally Contractor and all Subcontractors of all tiers who perform Work at the Project site, unless excluded under General Conditions Article 11.1.5) shall not include in their bids for any Work to be performed at the Project site any projected or actual cost to provide the workers' compensation and employer's liability insurance, commercial general liability insurance, and excess liability insurance that is being provided under the UCIP. The University may reduce the Contract Sum by an amount commensurate with any projected or actual costs included contrary to the requirements of this Article 3.6.2.2.
- .3 Notwithstanding the UCIP, Contractor and all Subcontractors are required to provide insurance as set forth in General Conditions Article 11.1.10 (including certificates of insurance evidencing the required coverages).
- .4 UCIP Workers' Compensation Insurance will be primary for all covered occurrences within the 50 United States, except that this insurance does not apply in any monopolistic workers' compensation state.

ARTICLE 4 **PRE-BID CONFERENCE**

4.1 {IF THERE IS NO PRE-BID CONFERENCE, RETAIN THE NUMBER AND DELETE THE ARTICLE AND REPLACE WITH "NOT USED"}Bidder shall attend the Pre-Bid Conference at which the requirements of the Bidding Documents are reviewed

by CM/Contractor, comments and questions are received from Bidders. Any Bidder not attending the Pre-Bid Conference in its entirety will be deemed to have not complied with the requirements of the Bidding Documents and its Bid will be rejected.

ARTICLE 5 **BIDDING PROCEDURES**

5.1 FORM AND STYLE OF BIDS

5.1.1 Bids shall be submitted on the Bid Form included with the Bidding Documents. Bids not submitted on the CM/Contractor's Bid Form shall be rejected.

5.1.2 The Bid Form shall be filled in legibly in ink or by typewriter. All portions of the Bid Form must be completed and the Bid Form must be signed before the Bid is submitted. Failure to comply with the requirements of this Article 5.1.2 will result in the Bid being rejected as nonresponsive.

5.1.3 Bidder's failure to submit a price for any Alternate or Unit Price will result in the Bid being considered as nonresponsive. If Alternates are called for and no change in the Lump Sum Base Bid is required, indicate "No Change" by marking the appropriate box.

5.1.4 Bidder shall make no stipulations on the Bid Form nor qualify the Bid in any manner.

5.1.5 The Bid Form shall be signed by a person or persons legally authorized to bind Bidder to a contract. Bidder's Representative shall sign and date the Declaration included in the Bid Form. Failure to sign and date the declaration will cause the Bid to be rejected.

5.2 BID SECURITY

5.2.1 Each Bid shall be accompanied by Bid Security in the amount of 10% of the Lump Sum Base Bid as security for Bidder's obligation to enter into a Subcontract Agreement with CM/Contractor on the terms stated in the Bid Form and to furnish all items required by the Bidding Documents. Bid Security shall be a Bid Bond on the form provided by CM/Contractor and included herein. Failure to use CM/Contractor's Bid Bond form will result in the rejection of the Bid.

5.2.2 If the apparent lowest responsible Bidder fails to sign the Subcontract Agreement and furnish all items required by the Bidding Documents within the time limits specified in these Instructions to Bidders, CM/Contractor may reject such Bidder's Bid and select the next apparent lowest responsible Bidder until all Bids have been exhausted or CM/Contractor may reject all Bids. The Bidder whose Bid is rejected for such failure(s) shall be liable for and forfeit to CM/Contractor the amount of the difference, not to exceed the amount of the Bid Security, between the amount of the Bid of the Bidder so rejected and the greater amount for which CM/Contractor procures the Work.

5.2.3 The signature of the person executing the Bid Bond must be notarized. If an attorney-in-fact executes the Bid Bond on behalf of the surety, a copy of the current power of attorney bearing the notarized signature of the appropriate corporate officer shall be included with the Bid Bond.

5.2.4 Bid Security will be returned after the Subcontract Agreement has been signed by the successful Bidder and the CM/Contractor. Notwithstanding the preceding, if a Bidder fails or refuses, within 10 days after receipt of notice of selection, to sign the Subcontract Agreement or submit to CM/Contractor all of the items required by the Bidding Documents, the CM/Contractor will retain that Bidder's Bid Security. The Bid Security will be retained until the CM/Contractor has been appropriately compensated.

5.3 SUBMISSION OF BIDS

5.3.1 The Bid Form, Bid Security, and all other documents required to be submitted with the Bid shall be enclosed in a sealed opaque envelope. The envelope shall be addressed to the office designated in the Advertisement for Bids for receipt of Bids. The envelope shall be identified with the Project name, Bidder's name and address, and, if applicable, the designated portion of the Project for which the Bid is submitted. If the Bid is sent by mail, the sealed envelope shall be enclosed in a separate mailing envelope with the notation "SEALED BID ENCLOSED" on the face thereof.

5.3.2 Bids shall be deposited at the designated location on or before the Bid Deadline. A Bid received after the Bid Deadline will be returned to Bidder unopened.

5.3.3 Bidder shall assume full responsibility for timely delivery at the location designated for receipt of Bids.

5.3.4 Oral, telephonic, electronic mail (e-mail), facsimile, or telegraphic Bids are invalid and will not be accepted.

5.4 MODIFICATION OR WITHDRAWAL OF BID

- 5.4.1 Prior to the Bid Deadline, a submitted Bid may be modified or withdrawn by notice to the CM/Contractor at the location designated for receipt of Bids. Such notice shall be in writing over the signature of Bidder and, in order to be effective, must be received on or before the Bid Deadline. A modification so made shall be worded so as not to reveal the amount of the original Bid.
- 5.4.2 A withdrawn Bid may be resubmitted on or before the Bid Deadline, provided that it then fully complies with the Bidding Requirements.
- 5.4.3 Bid Security shall be in an amount sufficient for the Bid as modified or resubmitted.
- 5.4.4 Bids may not be modified, withdrawn, or canceled within 60 days after the Bid Deadline.

ARTICLE 6 **CONSIDERATION OF BIDS**

6.1 OPENING OF BIDS

6.1 OPENING OF BIDS

- 6.1.1 Bids which have the required identification as stipulated in Article 5.3.1 and are received on or before the Bid Deadline will be opened publicly.

6.2 REJECTION OF BIDS

- 6.2.1 CM/Contractor will have the right to reject all Bids.
- 6.2.2 CM/Contractor will have the right to reject any Bid not accompanied by the required Bid Security or any other item required by the Bidding Documents, or a Bid which is in any other way incomplete or irregular.

6.3 AWARD

- 6.3.1 CM/Contractor will have the right, but is not required, to waive nonmaterial irregularities in a Bid. If the CM/Contractor awards the Subcontract Agreement, it will be awarded to the responsible Bidder submitting the lowest responsive Bid as determined by CM/Contractor and who is not rejected by CM/Contractor for failing or refusing, within 10 days after receipt of notice of selection, to sign the Subcontract Agreement or submit to CM/Contractor all of the items required by the Bidding Documents.
- 6.3.2 CM/Contractor will have the right to accept Alternates in any order or combination, unless otherwise specifically provided in the Bidding Documents.
- 6.3.3 CM/Contractor will determine the low Bidder on the basis of the sum of the Lump Sum Base Bid plus all Unit Prices multiplied by their respective Estimated Quantities as stated in the Bid Form, if any, plus the amounts of all Alternates to be included in the Contract Sum at the time of award. The Contract Sum will be the sum of the Lump Sum Base Bid and the additive or deductive amounts for all Alternates that University has selected to be included in the Contract Sum as of the time of award.
- 6.3.4 CM/Contractor will post the Bid results in a public place at the address where the Bids are received (unless another address is specified in the Bidding Documents).
- 6.3.5 CM/Contractor will select the apparent lowest responsive and responsible Bidder and such Bidder will be notified by CM/Contractor on CM/Contractor's form within 50 days after the Bid Deadline or CM/Contractor will reject all Bids. Within 10 days after receipt of notice of selection as the apparent lowest responsive and responsible Bidder, Bidder shall submit to CM/Contractor all items listed in the Subcontract Agreement, including the following items:
- .1 Two originals of the Subcontract Agreement signed by Bidder.
 - .2 Fully executed "Declaration of Contractor or Subcontractor Minimum Occupational Safety and Health Qualifications" form (Exhibit 1B in the Contract Documents for Agreement between University and CM/Contractor completed by Bidder.
- 6.3.6 Not Used.
- 6.3.7 If Bidder submits two originals of the signed Subcontract Agreement and all other items required to be submitted to CM/Contractor within 10 days after receipt of notice of selection as the apparent lowest responsive and responsible Bidder, and if all

such items comply with the requirements of the Bidding Documents and are acceptable to CM/Contractor, CM/Contractor will award the Subcontract Agreement to Bidder by signing the agreement and returning a signed copy of the agreement to Bidder.

6.3.8 If CM/Contractor consents to the withdrawal of the Bid of the apparent lowest responsive and responsible Bidder, or the apparent lowest responsive and responsible Bidder fails or refuses to sign the Subcontract Agreement or submit to CM/Contractor all of the items required by the Bidding Documents, within 10 days after receipt of notice of selection, or that Bidder is not financially or otherwise qualified to perform the Contract, CM/Contractor may reject such Bidder's Bid and select the next apparent lowest responsible Bidder, until all Bids are exhausted, or reject all Bids. Any Bidder whose Bid is rejected because the Bidder has failed or refused, within 10 days after receipt of notice of selection, to sign the Subcontract Agreement or submit to CM/Contractor all of the items required by the Bidding Documents, shall be liable to the CM/Contractor for all resulting damages.

ARTICLE 7 **BID PROTEST**

7.1 FILING A BID PROTEST

7.1.1 For purposes of a bid protest, the address of University's Facility office is:

University of California, {FACILITY}
{Address}
{City}, {State} {Zip}

7.1.2 Any Bidder, person, or entity may file a Bid protest. The protest must state the specific reasons and facts upon which the protest is based and shall be filed in writing with the Facility office issuing the bidding documents, not later than 5:00 pm on the 3rd business day after:

- .1 if the Bid Form does not contain any Alternate(s), the date of the Bid opening;
- .2 if the Bid Form contains any Alternate(s), the date of posting in a public place of Bid results.

7.1.3 If a Bid is rejected by the CM/Contractor and such rejection is not in response to a Bid protest, any Bidder, person or entity may dispute that rejection by filing a Bid protest (limited to the rejection) in writing and received by the Facility not later than 5:00 pm on the 3rd business day following the rejected Bidder's receipt of the notice of rejection.

7.1.4 For the purpose of computing any time period in this Article 7, the date of receipt of any notice shall be the date on which the intended recipient of such notice actually received it. Delivery of any notice may be by any means, with verbal or written confirmation of receipt by the intended recipient.

7.2 RESOLUTION OF BID CONTROVERSY

7.2.1 Facility will investigate the basis for the Bid protest and analyze the facts. Facility will notify Bidder whose Bid is the subject of the Bid protest of evidence presented in the Bid protest and evidence found as a result of the investigation, and, if deemed appropriate, afford Bidder an opportunity to rebut such evidence, and permit Bidder to present evidence that it should be allowed to perform the Work. If deemed appropriate by Facility, an informal hearing will be held. Facility will issue a written decision within 15 days following receipt of the Bid protest, unless factors beyond Facility's reasonable control prevent such a resolution, in which event such decision will be issued as expeditiously as circumstances reasonably permit. The decision will state the reasons for the action taken by Facility. A written copy of the decision will be furnished to the protestor, the Bidder whose Bid is the subject of the Bid protest, and all Bidders affected by the decision. As used in this Article 7, a Bidder is affected by the decision on a Bid protest if a decision on the protest could have resulted in the Bidder not being the lowest responsible and responsive Bidder for the Contract. A written copy of the Facility's decision must be received by the protestor, the Bidder whose Bid is the subject of the Bid protest, and all Bidders affected by the decision no later than 3 business days prior to award of the contract.

7.2.2 Notwithstanding the provisions of Article 7.2.1, at the election of Facility, a Bid protest may be referred directly to University's Construction Review Board without prior investigation and review by Facility. The Chair of the Construction Review Board will either decide the Bid protest or appoint a Hearing Officer. If a Hearing Officer is appointed, the Hearing Officer will review the Bid protest in accordance with the provisions of Article 7.2.5.

7.2.3 Bidder whose Bid is the subject of the protest, all Bidders affected by the Facility's decision on the protest, and the protestor have the right to appeal to the Construction Review Board if not satisfied with Facility's decision. The appeal must be in writing and shall specify the decision being appealed and all the facts and circumstances relied upon in support of the appeal. A copy of the

appeal must be received by the Chair, Construction Review Board, no later than 5:00 pm on the 3rd business day following appellant's receipt of the written decision of Facility, at the following address:

Chair, Construction Review Board
University of California
Office of the President
1111 Franklin Street, 6th Floor
Oakland, CA 94607-5200
Attention: Director, Construction Services

And, by email to:

constructionreviewboard@ucop.edu

7.2.4 A copy of the appeal shall be sent to all parties involved in the Bid protest and to Facility and to the CM/Contractor, to the same address and in the same manner as the original protest. An appeal received after 5:00 pm is considered received as of the next business day. If the final date for receipt of an appeal falls on a Saturday, Sunday, or University holiday, the appeal will be considered timely only if received by 5:00 pm on the following business day. The burden of proving timely receipt of the appeal is on the appealing party.

7.2.5 The Chair of the Construction Review Board will review the Facility's decision and the appeal, and issue a written decision, or if appropriate, appoint a Hearing Officer to conduct a hearing and issue a written decision. If a hearing is held, the hearing shall be held not later than the 10th day following the appointment of the Hearing Officer unless the Hearing Officer for good cause determines otherwise. The written decision of the Chair or Hearing Officer will state the basis of the decision, and the decision will be final and not subject to any further appeal to University. The Chair or Hearing Officer may consult with the University's Office of the General Counsel on the decision as to legal form. The University will complete its internal Bid protest procedures before award of the Contract.

END OF INSTRUCTIONS TO BIDDERS INFORMATION AVAILABLE TO BIDDERS

The following information is made available for the convenience of bidders and is not a part of the Contract.

{REQUIRED: PROVIDE INFORMATION APPROPRIATE TO THE SPECIFIC PROJECT—All relevant data, e.g., current Record Drawings and/or as-builts, utility plans/maps, geotechnical data and other contracts performed at or near the Project site.}

The University of California has contracts for materials, equipment and/or services with the suppliers listed on the Office of the President Procurement Services website at <http://www.ucop.edu/procurement-services/supplier-information/ucop-designated-construction-agreements.html> .

Bidders submitting bids for University construction projects may enter into agreements with these suppliers that utilize the pricing and terms contained in the University-supplier agreements. The university does not represent or warrant that materials/equipment/services of these suppliers meet the requirements of the University's construction contracts.

Use of such suppliers shall not relieve subcontractor from its obligation to meet all contractual requirements. The university will not be a party to any agreements with such suppliers and accepts no performance obligations or liability with respect to such agreements.

END OF INFORMATION AVAILABLE TO BIDDERS

BID FORM

FOR: {FACILITY} {PROJECT NAME}

{MONTH, YEAR}

BID TO: {ENTER CM/CONTRACTOR'S FIRM NAME & FULL ADDRESS}

BID FROM:

(Name of Firm Submitting Bid)

(Address)

(City, State, Zip Code)

(Telephone No.)

(Date Bid submitted)

Note: All portions of this Bid Form must be completed and the Bid Form must be signed before the Bid is submitted. Failure to do so will result in the Bid being rejected as non-responsive.

1.0 BIDDER'S REPRESENTATIONS

Bidder, represents that a) Bidder and all Subcontractors, regardless of tier, have the appropriate current and active Contractor's license required by the State of California and the Bidding Documents; b) it has carefully read and examined the Bidding Documents for the proposed Work on this Project; c) it has examined the site of the proposed Work and all information available to bidders; d) it has become familiar with all the conditions related to the proposed Work, including the availability of labor, materials, and equipment ; e) Bidder and all Subcontractors, regardless of tier, are currently registered with the California Department of Industrial Relations pursuant to California Labor Code Section 1725.5 and 1771.1. Bidder hereby offers to furnish all labor, materials, equipment, tools, transportation, and services necessary to complete the proposed Work on this project in accordance with the Contract Documents for the sums quoted. Bidder further agrees that it will not withdraw its Bid within 60 days after the Bid Deadline, and that, if it is selected as the apparent lowest responsive and responsible Bidder, that it will, within 10 days after receipt of notice of selection, sign and deliver to CM/Contractor the Subcontract Agreement and furnish to CM/Contractor all items required by the Bidding Documents. If awarded the Subcontract Agreement, Bidder agrees to complete the proposed Work within the time frame established in the construction schedule. Refer to the contract between the University and CM/Contractor.

2.0 ADDENDA

Bidder acknowledges that it is Bidder's responsibility to ascertain whether any Addenda have been issued and if so, to obtain copies of such Addenda from CM/Contractor as specified in the Instructions to Bidders. Bidder therefore agrees to be bound by all Addenda that have been issued for this Bid.

3.0 NOT USED.

4.0 LUMP SUM BASE BID

\$

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(Place figures in appropriate boxes.)

5.0 SELECTION OF APPARENT LOW BIDDER

Refer to the Instructions to Bidders for selection of apparent low bidder.

6.0 UNIT PRICES

The quantities set forth in the unit prices are estimates. CM/Contractor does not represent that the actual quantity of any Unit Price item will equal the Estimated Quantity stated below. CM/Contractor will perform the extension of the Unit Price times the respective Estimated Quantity. Unit Prices will be used for quantities in excess of those currently shown or specified as base bid work.

Unit Price Number 1: {ENTER BRIEF DESCRIPTION}

Estimated Quantity of units: {ENTER QUANTITY}

\$

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 per {ENTER UNIT OF MEASURE (SF; ETC.)}

(Place figures in appropriate boxes.)

7.0 DAILY RATE OF COMPENSATION FOR COMPENSABLE DELAYS

Refer to contract between University and CM/Contractor.

8.0 ALTERNATES

In order for a Bid to be responsive, Bidder must submit an additive bid, a deductive bid, or a "no change" bid, for each Alternate listed below. The failure to do so shall result in the Bid being rejected as non-responsive. The failure to quote an amount, unless the bidder marks the "no change" box, will result in the bid being rejected as non-responsive.

ALTERNATE NUMBER: 1

Description: {ENTER BRIEF DESCRIPTION}

Bid for Alternate No. 1

If "Add" or "Deduct" is intended, indicate by placing figures in the corresponding boxes. If "No Change" is intended, indicate by marking the "No Change" box.

Add	\$,		,		.	
Deduct	\$,		,		.	

No Change Bidder will perform this Alternate without change to Contract Sum.

9.0 NOT USED.

10.0 NOT USED.

11.0 BIDDER INFORMATION

TYPE OF ORGANIZATION: _____
 (Corporation, Partnership, Individual, Joint Venture, etc.)

IF A CORPORATION, THE CORPORATION IS ORGANIZED UNDER THE LAWS OF THE STATE OF:
 THE STATE OF: _____
 (State)

NAME OF PRESIDENT OF THE CORPORATION: _____
 (Insert Name)

NAME OF SECRETARY OF THE CORPORATION:

_____ (Insert Name)

IF A PARTNERSHIP, NAMES OF ALL GENERAL PARTNERS:

_____ (Insert Names)

CALIFORNIA CONTRACTORS LICENSE(S):

_____ (Classification) _____ (License Number) _____ (Expiration Date)

(For Joint Venture, list Joint Venture's license and licenses for all Joint Venture partners.)

12.0 REQUIRED COMPLETED ATTACHMENTS

The following documents are submitted with and made a condition of this Bid:

- 1. Bid Security in the form of _____ (Bid Bond or Certified Check)

{ADD ADDITIONAL ITEMS AS APPLICABLE}

13.0 DECLARATION

I, _____, hereby declare that I am the
(Printed Name)

_____ of _____
(Title) (Name of Bidder)

submitting this Bid Form; that I am duly authorized to execute this Bid Form on behalf of Bidder; and that all information set forth in this Bid Form and all attachments hereto are, to the best of my knowledge, true, accurate, and complete as of its submission date.

I further declare that this bid is not made in the interest of, or on behalf of, any undisclosed person, partnership, company, association, organization, or corporation; that the bid is genuine and not collusive or sham; that the Bidder has not directly or indirectly induced or solicited any other bidder to put in a false or sham bid, and has not directly or indirectly colluded, conspired, connived, or agreed with any bidder or anyone else to put in a sham bid, or that anyone shall refrain from bidding; that the Bidder has not in any manner, directly or indirectly, sought by agreement, communication, or conference with anyone to fix the bid price of the Bidder or any other bidder, or to fix any overhead, profit, or cost element of the bid price, or of that of any other bidder, or to secure any advantage against the public body awarding the contract of anyone interested in the proposed contract; that all statements contained in the bid are true; and, further, that the Bidder has not, directly or indirectly, submitted his or her bid price or any breakdown thereof, or the contents thereof, or divulged information or data relative thereto, or paid, and will not pay, any fee to any corporation, partnership, company association, organization, bid depository, or to any member or agent thereof to effectuate a collusive or sham bid.

I declare, under penalty of perjury, that the foregoing is true and correct and that this

declaration was executed at: _____
(Name of City if within a City, otherwise Name of County),

in the State of _____, on _____
(State) (Date)

(Signature)

END OF BID FORM

BID BOND

KNOW ALL PERSONS BY THESE PRESENTS:

That we, _____, as Principal,
 and _____, as Surety,

are held and firmly bound unto {ENTER CM/CONTRACTOR FIRM NAME}, hereinafter called CM/CONTRACTOR, in the sum of 10% of the Lump Sum Base Bid amount for payment of which in lawful money of the United States, well and truly to be made, we bind ourselves, our heirs, executors, administrators, successors, and assigns, jointly and severally, firmly by these presents.

THE CONDITION OF THE ABOVE OBLIGATION IS SUCH THAT, WHEREAS, Principal has submitted a Bid for the work described as follows:

NOW, THEREFORE, if Principal shall not withdraw said Bid within the time period specified after the Bid Deadline, as defined in the Bidding Documents, or within 60 days after the Bid Deadline if no time period be specified, and, if selected as the apparent lowest responsible Bidder, Principal shall, within the time period specified in the Bidding Documents, do the following:

- (1) Enter into a written agreement, in the prescribed form, in accordance with the Bid.
- (2) File two bonds with CM/CONTRACTOR, one to guarantee faithful performance and the other to guarantee payment for labor and materials, as required by the Bidding Documents.
- (3) Furnish certificates of insurance and all other items as required by the Bidding Documents.

In the event of the withdrawal of said Bid within the time period specified, or within 60 days if no time period be specified, or the disqualification of said Bid due to failure of Principal to enter into such agreement and furnish such bonds, certificates of insurance, and all other items as required by the Bidding Documents, if Principal shall pay to CM/Contractor an amount equal to the difference, not to exceed the amount hereof, between the amount specified in said Bid and such larger amount for which CM/Contractor procures the required work covered by said Bid, if the latter be in excess of the former, then this obligation shall be null and void, otherwise to remain in full force and effect.

In the event suit is brought upon this bond by CM/Contractor, Surety shall pay reasonable attorneys' fees and costs incurred by CM/Contractor in such suit.

IN WITNESS WHEREOF, we have hereunto set our hands this _____ day of _____, 20____.

Principal: _____
 (Name of Firm)

Surety: _____
 (Name of Firm)

By: _____
 (Signature)

By: _____
 (Signature)

 (Printed Name)

 (Printed Name)

Title: _____

Title: _____

Addresses for Notices:

NOTE: Notary acknowledgement for Surety and Surety's Power of Attorney must be attached.

END OF BID BOND

NOTICE OF COMPLETION, UNIVERSITY OWNS LAND AND IMPROVEMENTS

WHEN RECORDED, MAIL TO:

NOTICE OF COMPLETION

NOTICE IS HEREBY GIVEN that on the _____ day of _____, 20__, the Work on the School of Medicine Clinical Skills and Simulation Suite Project was completed. The name of the owner is THE REGENTS OF THE UNIVERSITY OF CALIFORNIA, hereinafter referred to as "The Regents." The address of The Regents is University of California, Office of the President, 1111 Franklin St. 6th Floor, Oakland, California, 94607-5200. The Regents is the owner in fee simple of the real property commonly known as: School of Medicine, {Building number i.e. CAAN}, {Names of streets abutting project, if any, and street address, if any}, {Facility name e.g. campus, laboratory, etc.}, {City in which project is located}, {County in which project is located} and of all improvements and buildings thereon including the above-named Project. The name of the original Contractor is: {Insert name of original Contractor}.

THE REGENTS OF THE UNIVERSITY OF CALIFORNIA:

By: _____

I, _____, say that I am the _____ of the {Facility} of the University of California, and as such, make this verification on behalf of The Regents, a corporation; and that I have read the above Notice of Completion and know the contents thereof and that the facts stated therein are true. I declare under penalty of perjury that the foregoing is true and correct. Executed on _____, 20 , at _____.

(Signature)

(Note: See attached optional Notary Acknowledgment)

Note: California Civil Code section 9208 provides that a Notice of Completion in the form required by Civil Code secs. 8100-8118, 8182 "shall be accepted by the recorder for recording and is deemed duly recorded without acknowledgment." Nevertheless, clerks in the county recorder's office may be unused to accepting any document without an acknowledgment, so it may be easier to have the document acknowledged, even though unnecessary.

STATE OF CALIFORNIA)
COUNTY OF _____)

On _____, before me, _____, Notary Public, personally appeared _____, personally known to me (or proved to me on the basis of satisfactory evidence) to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity on behalf of the person(s) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

IN WITNESS WHEREOF, my hand and official seal.

Signature

My Commission expires: _____

NOTICE OF COMPLETION, UNIVERSITY IS LESSEE

WHEN RECORDED, MAIL TO:

NOTICE OF COMPLETION

NOTICE IS HEREBY GIVEN that on the _____ day of _____, 20__, the Work on the {Insert Project Name} Project was completed. The name of the lessee is THE REGENTS OF THE UNIVERSITY OF CALIFORNIA, hereinafter referred to as "The Regents." The address of The Regents is University of California, Office of the President, 1111 Franklin St. 6th Floor, Oakland, California, 94607-5200. The Regents has the following interest in the real property upon which the above-named Work of improvement has been constructed: {e.g pursuant to a lease with e.g. State of California}. The location of the work of improvement is commonly known as: {Building name, if any}, {Building number i.e. CAAN}, {Names of streets abutting project, if any, and street address, if any}, {Facility name e.g. campus, laboratory, etc.}, {City in which project is located}, {County in which project is located}. The name of the original Contractor is: {Insert name of original Contractor}.

The name and address of all other persons and entities who hold an ownership interest in the real property are: {Insert name(s) and address(es) e.g., State of California}.

THE REGENTS OF THE UNIVERSITY OF CALIFORNIA:

By: _____

I, _____, say that I am the _____ of the University of California {insert Facility} for the leased space at {insert address of the leased space} and as such, make this verification on behalf of The Regents, a corporation; and that I have read the above Notice of Completion and know the contents thereof and that the facts stated therein are true. I declare under penalty of perjury that the foregoing is true and correct. Executed on _____, 20 , at _____.

(Signature)

(Note: See attached optional Notary Acknowledgment)

Note: California Civil Code section 9208 provides that a Notice of Completion in the form required by Civil Code secs. 8100-8118, 8182 "shall be accepted by the recorder for recording and is deemed duly recorded without acknowledgment." Nevertheless, clerks in the county recorder's office may be unused to accepting any document without an acknowledgment, so it may be easier to have the document acknowledged, even though unnecessary.

STATE OF CALIFORNIA)
COUNTY OF _____)

On _____, before me, _____, Notary Public, personally appeared _____, personally known to me (or proved to me on the basis of satisfactory evidence) to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity on behalf of the person(s) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

IN WITNESS WHEREOF, my hand and official seal.

Signature

My Commission expires: _____

NOTICE OF COMPLETION, UNIVERSITY OWNS LAND BUT NOT IMPROVEMENTS

(Note: This situation is rare. Consult the Office of General Counsel for guidance.)

SPECIFICATIONS

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		01630	Product Options and Substitutions
		01 1100	Summary of Work
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		01 2300	Alternates
		01 2613	Requests for Information & Instructions (RFI) Procedures
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<u>Initial Issue</u>	<u>Revision</u>	<u>Section #</u>	<u>Title</u>
		01 5500	Vehicular Access and Parking
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END OF SPECIFICATIONS
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SECTION 01325 - SCHEDULES

PART 1 - GENERAL

1.1 DEFINITIONS

A. PRELIMINARY CONTRACT SCHEDULE

1. The schedule submitted and developed by CM/Contractor's prior to bidding any Bid Packages during Phase 1 which represents all Work for the Project. It is intended that the Preliminary Contract Schedule once received, reviewed and approved by University, would become the Contract Schedule. The Preliminary Contract Schedule shall reflect the requirements and information provided in the Project Schedule Exhibit.

B. CONTRACT SCHEDULE

1. The schedule submitted by CM/Contractor representing the sole work plan for accomplishing the Work. Once the submitted Preliminary Contract Schedule is reviewed and accepted by University, it shall be the base line schedule document that forms the basis of all measurements of Contract Time in the Contract Documents. The Contract Schedule may not be modified other than as called for in this section. The Contract Schedule shall be incorporated with all Bid Packages.

C. UPDATED CONTRACT SCHEDULE

1. A periodically submitted schedule reflecting the progress of the Work for all Work Activities including 1) the portion of the Work Activities comprising the As-Built Schedule and 2) that portion of the Work Activities which are incomplete or not yet commenced.

D. RECOVERY SCHEDULE

1. If requested by the University, a schedule produced by the CM/Contractor upon receipt by University of an updated Contract Schedule forecasting the CM/Contractor will not finish the Work within the tolerances of the Contract Time.

E. AS-BUILT SCHEDULE

1. The portion of the updated Contract Schedule maintained by the CM/Contractor that records the actual work activities, their durations, and their dependencies to all other work activities.

F. FLOAT/NEGATIVE FLOAT

1. Float for any Work Activity, will be calculated as the difference in Days between the Latest Finish and its Earliest Finish. Any such calculated float, which results in a "negative" number, is considered Negative Float.

G. CONSTRAINED WORK ACTIVITY

1. Shall be any earliest start or finish; or latest start or finish date of a Work Activity or Milestone date that is set and is not calculated in the CPM forward or backward pass calculation. No work activities or milestones on the Contract Schedule, or any other submitted schedule shall utilize Constrained Work Activities, unless expressly approved in writing by University. The only exception is that the schedule start date may be set to reflect the Phase 1 Notice to Proceed date.

H. WORK ACTIVITY

1. Any individual task of work shown on a submitted schedule which requires time and resources (manpower, equipment, materials, etc.) to be completed in a continuous operation.

I. MILESTONE

1. An element on the schedule that reflects the planned point in time for the start or finish of one or more Work Activities.

J. LOOK AHEAD SCHEDULE

1. A schedule based on the updated Contract Schedule which shows the current portion of the schedule. The current portion of the schedule is typically 3 weeks both before and beyond the date the schedule is presented, or as reasonably requested by the University's Representative.

K. CHANGE ORDER SCHEDULE

1. A schedule submitted anytime there is a request by the CM/Contractor for the adjustment in the Contract Time. Change Order Schedule shall be based on the applicable portion of the Contract Schedule, which is claimed to be impacted, necessitating an extension of the Contract Time. All modifications to the Contract Schedule Work Activities, and their associated information (including duration, logic, manpower, etc) shall be clearly identified, but the Contract Schedule information shall be left for clear comparison. Change Order Schedule shall have starting and ending Work Activities or Milestones from the Contract Schedule which are unchanged, (same logic constraints, duration, and resources) and shall clearly identify them.

L. CRITICAL WORK ACTIVITY

1. Work Activity which, if delayed, will delay the scheduled completion of the Work (i.e. Work Activities which comprise the path of least total float). All other Work Activities are defined as non-critical and considered to have float.

M. CONTRACT TIME

1. For the purposes of this specification only, it will be understood that Contract Time represents both the Contract Time allowed for Phase 1 as may be modified by Change Order, and the Option Time allowed for Phase 2 as may be modified by Change Order. If the University exercises its Option, Contract Time will have the same meaning as defined in the Agreement.

1.2 REQUIREMENTS

A. GENERAL REQUIREMENTS

1. The CM/Contractor's personnel which prepares the schedules called for by this section shall be qualified and experienced in Critical Path Method (CPM) scheduling with the specified products of this section; and capable of fulfilling the requirements of this section. The CM/Contractor shall hire a qualified consultant to prepare and maintain the Contract Schedule, or if qualified, the CM/Contractor may perform these services with his own organization. CM/Contractor shall provide documentation of scheduling experience for the University's Representatives approval.
2. The Contract Schedule shall be used by the University in review of request by the CM/Contractor for modification of the Contract Time in accordance with the Contract Documents. Responsibility for developing the Contract Schedule and monitoring of actual progress in relation to the Contract Time rest solely with the CM/Contractor. Failure of the CM/Contractor to schedule any element of the Work, or any inaccuracy in the Contract Schedule, regardless if the University has reviewed and approved such schedule, will not relieve CM/Contractor from its obligation to complete the Work within the Contract Time. The CM/Contractor warrants that the Contract Schedule is the CM/Contractor's committed work plan to complete the Work within the Contract Time, and that the CM/Contractor assumes full responsibility for the execution of the Work. The University's review of and response to schedule submissions shall not be construed as relieving the CM/Contractor of its complete and exclusive control over the means, methods, sequences and techniques for execution of the Work.
3. Any submitted schedule showing negative float will be rejected by the University.
4. All cost for preparing, printing, mailing of any schedules called for by this section, or the Contract Documents shall be part of the Contract Sum.
5. All requirements of the Contract Schedule shall also apply to the Preliminary Contract Schedule, the Recovery Schedule, updated Contract Schedule, and Fragnet Schedule.
6. Acceptance of the Contract Schedule will be a condition precedent to making any progress payment for Work performed. All Work Activities shall be of sufficient detail to provide identification of all components utilized in executing, monitoring and evaluating progress of the Work.
7. Work Activity descriptions shall briefly cover the scope of work indicated. Work Activities shall be discrete items of Work that must be accomplished under the Contract and constitute definable, recognizable entities within the Project. All Work Activities shall have defined duration. All durations shall be in multiples of working days.
8. All Work Activities shall have appropriate durations allowing measurement of their progress. In general, if a reasonable estimate of progress against a proposed Work Activity cannot be reasonably measured, a Work Activity shall be broken into multiple Work Activities such that monitoring of actual progress versus planned progress can be ascertained. All Work Activities shall be of sufficient detail to provide identification of all components utilized in executing, monitoring and evaluating progress of the Work.
9. Work Activities shall have duration of 14 working days or less. University's Representative may approve use of longer Work Activity durations on non-construction activities, including the procurement and fabrication of materials and equipment, and review period for submittals.

10. Work Activities shall include all Design Work, Phase 1 and Construction Work deliverables, including all submittals called for in the Scope of Work; and shall include the submittal and approval of permit applications (as necessary), samples of materials, shop drawings, working drawings, testing and inspections, safety and security plans, worksite control plans, utility company point-of connection installations and applications. In addition, Work Activities shall be included for procurement of materials and equipment potentially impacting the critical path, fabrication of special materials and equipment and their installation and testing, and delivery of University-furnished items. Work Activities of the University, that may become Critical Work Activities of the Work shall be reflected, as well as Work Activities by utilities and other similarly involved third parties associated with the Work. The Contract Schedule shall include Work Activities or Milestones, but not be limited to the following: all design and pre-construction activities; specific Milestones for the start and completion for each stage of the Design Work; specific Milestones for when State and State agency information and reviews are required; submittal dates; production Milestones; early purchasing; key deliverables in Scope of Work; start of tenant programming (as applicable); Milestone for each Contract Phase; mobilization of personnel and equipment when required; sequence of operations; commissioning Work Activities; procurement of materials and equipment; and all contract close Work Activities such as Punch List and Operation Manuals.
11. The Critical Work Activities shall be identified, including critical paths for Contract interim and final completion Milestone dates.
12. All Work Activities shall be coded as called for in the Execution section. All Work Activities shall be coded at a minimum to reflect which Contract Phase they are associated with. Any Work Activity that may be involved in multiple Phases shall be broken into separate Work Activities to reflect each Phase such work occurs in, allowing Work Activities to be grouped by Contract Phase.
13. CM/Contractor shall not sequester float through strategies including extending Work Activity duration estimates to consume available float, using preferential logic, using extensive or insufficient crew/resource loading, use of float suppression techniques, special lead/lag logic constraints (unless specifically requested in writing to University's Representative and approved). Use of float time disclosed or implied by the use of alternate float suppression techniques shall not be for the exclusive use or benefit of either University or CM/Contractor. It is acknowledged that University-caused or CM/Contractor-caused time savings to Work Activities on or near the critical path will increase float. Such increase in float shall not be for the exclusive use or benefit of either University or CM/Contractor.
14. For all schedule submittals other than Look Ahead Schedules (paper copy only), CM/Contractor shall submit both paper copy as instructed by University's Representative; and provide a electronic file copy on 3.5 inch, 1.44MB floppy disk clearly labeled as to submittal description and date; and containing an exact copy of paper submittal. All file information shall be written to disk via utilizing the Primavera Project Planner back-up utility tools.

PART 2 - PRODUCTS

2.1 SCHEDULING SOFTWARE

- A. All Preliminary Contract Schedule, the Recovery Schedule, update Contract Schedule, and Fragnet Schedule shall be prepared utilizing **Primavera SureTrak Version (latest version for Windows), or**

Primavera Project Planner (latest version for Windows), or equal (no known equal) which is 100% compatible with Primavera.

PART 3 - EXECUTION

3.1 SUBMITTALS

A. PROPOSED CONTRACT SCHEDULE

1. The initial Preliminary Contract Schedule shall be submitted within 30 days after of the Phase 1 Notice to Proceed; and shall be based on durations provided in the Bid Documents and Project Schedule Exhibit.
 - a. The final submittal of the Preliminary Contract Schedule shall be submitted in time to allow University review and approval 45 days prior to required date for the University it exercise its Option for Phase 2 and 30 days prior to the desired date to release the first Bid Package for bidding.
 - b. At any time the University's Representative determines that the CM/Contractor is not currently following an acceptable Contract Schedule, the CM/Contractor shall submit within 10 days of notification by the University's Representative updated Contract Schedule.

B. MONTHLY STATUS REPORT/UPDATED CONTRACT SCHEDULE

1. CM/Contractor shall submit an updated Contract Schedule with a draft Monthly Status Report on the 25th day of each month, along with Variance Report and Status Narrative (described below).
2. CM/Contractor shall review the draft Monthly Status Report with the University's Representative upon submittal, the purpose of this joint review is to reach agreement on the job status shown in the draft Monthly Status Report.
3. Variance Report shall be submitted based on the updated Contract Schedule. The report shall include a description of all Work Activities completed during the preceding month, a description of progress made, and planned Work Activities listed as started but not completed on the updated Contract Schedule, and shall report all Work Activities that have been delayed 5 or more working days. The format of this report shall include:
 - a. Work Activity code and description
 - b. Scheduled early start/finish dates
 - c. Current anticipated early start/finish dates
 - d. Working days remaining to complete unfinished Work Activities
 - e. Percentage complete of started Work Activities
 - f. Total float for each Work Activity

4. Status Narrative Report shall identify the Work actually completed and reflects the progress of all Work Activities within 10 working days of the critical path. The Status Narrative Report shall indicate forecasted progress in relation to interim and/or final completion Milestone dates as specified in the Contract Documents, in terms of calendar days behind or ahead. Specific requirements of the Status Narrative Report are as follows:
 - a. Actual completion dates for Work Activities completed during the report period
 - b. Actual start dates for Work Activities started during the report period
 - c. Estimated start dates for Work Activities scheduled to start during the month following the report period.
 - d. Changes in the duration(s) of any Work Activities and/or logic changes to Work Activities, or Work Activities done in a different sequence from the Contract Schedule.
 - e. Identification of the current critical path(s) to the interim and/or final completion milestones.
 - f. Work Activities proposed to be added to the Contract Schedule.
 - g. Identification of any University approved Fagnet Schedule the CM/Contractor proposes to incorporate into the Contract Schedule.
 - h. Shall identify any variances or changes in the direct labor hour allocation, the cause, and the Work Activities affected, and shall provide an explanation of proposed corrective action to meet the planned allocation called for in the Contract Schedule.
2. Within 5 days of meeting with University's Representative to review draft Monthly Status Report, CM/Contractor shall submit Monthly Status Report reflecting any agreed modifications. Any revisions agreed to by University's Representative resulting in changes to the propose work plan of the CM/Contractor to the Contract Schedule, shall make the revised updated Contract Schedule a Preliminary Contract Schedule, and upon review and approval shall become the Contract Schedule.

C. RECOVERY SCHEDULE

1. If at any time it is determined by the University's Representative that the progress of the Work, based on the Contract Schedule, reflects progress that would complete any interim and/or final Contract Milestone dates later than called for in the Contract Documents, the University may require the CM/Contractor shall prepare and submit a Recovery Schedule within 14 days from notification from the University's Representative, or such shorter time period as may be reasonably requested by University's Representative. The Recovery Schedule shall address a new work plan to accomplish the Work within the Contract Time, and shall include and identify additional concurrent operations, logic and sequence changes, additional manpower, additional shifts, or overtime work.

D. FRAGNET SCHEDULE

1. At any time that the CM/Contractor requests an extension of the Contract Time, in addition to other requirements in the Contract Documents, the CM/Contractor shall submit a Fagnet Schedule.

2. All other requirements of Contract Schedule shall apply to a Fragnet Schedule.

E. LOOK AHEAD SCHEDULES

1. Shall be submitted at each progress meeting of the Work as outlined in the Scope of Work or as reasonably requested by the University's Representative.
2. Look Ahead Schedules shall be a time scaled bar chart based on the updated Contract Schedule showing the comparison planned work and actual work, and indicating the percentage complete for all Work Activities schedule **within 4 weeks (or as requested by University's Representative) of both before and after the date of report/meeting.**

F. AS-BUILT SCHEDULE

1. The As-Built schedule shall be submitted with the Monthly Status Report; and shall reflect the information the CM/Contractor and University's Representative have agreed has occurred as actual as-built sequence of the Work.

G. SCHEDULE UPDATING

1. CM/Contractor shall update and review the updated Contract Schedule on a weekly basis.

3.2 SCHEDULE FORMAT/DATA

A. WORK ACTIVITY CODING

1. The following activity codes and structure sequence shall be applied at a minimum for all Work Activities and Milestones; additional codes may be added/utilized by the CM/Contractor for its requirements:

- a. Contract Phase
- b. Work/Bid Package
- c. Design Package
- d. Specification Group
- e. Responsibility/Subcontractor
{Include University, University's Representative, and third parties}
- f. Project Area
- g. Floor Area Change Order number

2. Project Phase

3. Cost Breakdown item

B. RESOURCE LOADING

1. All Work Activities involving labor or major equipment shall be resource loaded indicating what is required to accomplish the Work Activity. Labor shall be defined to show crew type and size, so that total manpower is identified. Resource Loading information shall be updated after each Bid Package for University's review and approval.

C. COST LOADING

1. Provide unit cost for all resources identified in the Resource Loading; and provide cost for materials for the Work Activity. Any other cost should be added in accordance with the Cost Breakdown on a prorated basis such that when the schedule is grouped and totaled based on the Cost Breakdown that they match in cost per Cost Breakdown category. Cost Loading information shall be updated after each Bid Package for University's review and approval.

D. SCHEDULE CALENDARS

1. All holidays and non-work periods shall be identified in the Contract Schedule's calendar. Two calendars shall be used; a defined work week; and a 24 – hour, 7 – day per week (for such continuous events like concrete curing, etc.).

E. REPORT FORMAT/DISTRIBUTION

1. The University's Representative shall provide format/distribution requirements for printing the Contract Schedule, Preliminary Contract Schedule, the Recovery Schedule, updated Contract Schedule, Fragnet Schedule, and As-Built Schedule; which the University's Representative may revise during the Project, but will not change the information requirements contained herein.

END OF SECTION 01325

SECTION 01630

PRODUCT OPTIONS AND SUBSTITUTIONS

1.1 General Provisions Regarding Specification Of Products, Material or Equipment By Brand Or Trade Name.

1.1.1 Products, material or equipment specified by both brand or trade name and model number are approved for use, provided that CM/Contractor complies with all Contract requirements. Specification of a product, material or equipment by brand or trade name and model number is not a representation or warranty that the product, material or equipment can be used without modification, to meet the requirements of the plans and specifications; CM/Contractor shall, at its sole cost, modify such products, material, or equipment so that they comply with all requirements of the plans and specifications.

1.1.2 The first-named product, material or equipment specified by brand or trade name and model number is the basis for the Project design and the use of any item other than the first-named one may require modifications of that design. If CM/Contractor uses any product, material or equipment other than the first-named one, CM/Contractor shall, at its sole cost:

.1 Make all revisions and modifications to the design and construction of the Work necessitated by the use the product, material or equipment.

.2 Be responsible for all costs of any changes resulting from the use of the product, material or equipment including without limitation, costs or changes which affect other parts of the Work, the work of Separate Contractors, or any other property or operations of the University.

1.1.3. When a product, material or equipment specified by brand or trade name is followed by the words "or equal," a substitution may be permitted if the substitution is equal to or superior to the first-named product, material or equipment in quality, utility and appearance and if the substitution complies with all other requirements of the plans and specifications.

1.1.4 A product, material or equipment specified by brand or trade name followed by the words "or equal, no known equal," signifies that University does not have sufficient knowledge to specify a product, material or equipment, other than the one specified by brand or trade name, that is suitable for use on the Project. The use of the words "no known equal" is not intended to discourage substitution requests in accordance with the requirements specified herein.

1.1.5 When catalog numbers and specific brands or trade names not followed by the designation "or equal" are used in conjunction with a product, material or equipment required by the specifications, substitutions will not be allowed and the named product, material or equipment must be used.

1.1.6 Specification of a product, material or equipment by brand or trade name and model number is not a representation or warranty that the product, material or equipment is available; CM/Contractor should confirm, prior to submitting its Bid, the availability of any product, material or equipment specified by brand or trade name and model number.

1.2. Special Requirements For Products, Material Or Equipment, Other Than The First-Named Product, Material Or Equipment, Specified By Both Brand Or Trade Name And Model Number.

1.2.1 In addition to complying with all other submittal requirements of the Contract, submit within 70 days after the date of commencement specified in the Notice to Proceed for Phase 1, for review and approval by the University's Representative, CM/Contractor prepared specifications and drawings, including design and engineering calculations, prepared by an appropriate licensed professional, depicting all revisions and modifications to the design and construction of the Work necessitated by the use of the product, material or equipment. If no revisions or modifications are necessary, submit within 70 days after the date of commencement specified in the Notice to Proceed for Phase 1, a written representation that no revisions or modifications to the design or construction of the Work are necessitated by the use of the product, material or equipment. CM/Contractor shall utilize the first-named product, material or equipment if CM/Contractor fails to make the appropriate required submittal pursuant to this paragraph within the 70-day period.

1.2.2 A product, material or equipment, other than the first-named product, material or equipment, specified by both brand or trade name and model number may be used if no revisions or modifications to the design or construction of the Work are necessitated by the use of the product, material or equipment. If such revisions or modifications are necessary, the product, material or equipment may be used only if the revisions or modifications are approved in writing by the University's Representative. CM/Contractor has the burden of demonstrating, through the procedures specified herein, that any such revisions or modifications will not be detrimental to the quality, utility or appearance of the Project or any portion of the Project. The University's Representative may refuse to approve any such proposed revisions or modifications where, in the reasonable opinion of the University's Representative, CM/Contractor has failed to demonstrate, through the procedures specified herein, that the revisions or modifications are not detrimental to the quality, utility or appearance of the Project or any portion of the Project.

1.3. Special Requirements For Substitutions.

1.3.1 In addition to complying with all other submittal requirements of the Contract, submit written data demonstrating that the proposed substitution is equal to or superior to the first-named product, material or equipment in quality, utility and appearance and otherwise complies with all requirements of the plans and specifications, including:

- .1 Complete technical data including drawings, performance specifications, samples, and test reports of the article proposed for substitution.
- .2 Statement by CM/Contractor that the proposed substitution is in full compliance with the requirements of the Contract Documents and Applicable Code Requirements.
- .3 List of Subcontractors, if any, that may be affected by the substitution.
- .4 CM/Contractor prepared specifications and drawings, including design and engineering calculations, prepared by an appropriately licensed professional, depicting all revisions and modifications to the design and construction of the Work necessitated by the use of the substitution. If no revisions or modifications are necessary, submit a written representation

that no revisions or modifications to the design or construction of the Work are necessitated by the use of the product, material or equipment.

1.3.2 At the request of and within the timeframes specified by the University's Representative:

.1 Submit samples as deemed necessary by the University's Representative to evaluate the proposed substitution.

.2 Submit proposed substitution to tests deemed necessary by the University's Representative to evaluate the proposed substitution. Such tests shall be made by an independent Testing Laboratory and at the sole expense of CM/Contractor, after review and approval of the test procedures by University's Representative. If re-testing is deemed necessary by the University's Representative to evaluate the proposed substitution, such re-testing shall be made by an independent Testing Laboratory at the sole expense of the CM/Contractor.

.3 Provide any additional information deemed necessary by the University's Representative to evaluate the proposed substitution.

1.3.3 If University's Representative, in reviewing a proposed substitution, requires revisions or corrections to be made to previously accepted shop drawings and supplemental supporting data to be resubmitted, CM/Contractor shall do so within the time period specified by the University's Representative. A proposed substitution may be rejected if CM/Contractor fails to submit such revisions, corrections, or supplemental supporting data within the specified time period.

1.3.4 Except for products, material or equipment designated in the Bidding Documents for evaluation of substitutions prior to award, requests for substitution, including the data required by Paragraph 1.3.1, must be submitted to the University's Representative not later than 35 days after the date of commencement specified in the Notice to Proceed for Phase 1. No requests for substitutions of products, material or equipment subject to the 35-day deadline shall be considered unless the request and supporting data is submitted on or before the deadline, except those deemed, in University's Representative's sole opinion, to be necessary because (i) previously specified or approved manufactured products, material or equipment are no longer manufactured, (ii) of University initiated change orders, or (iii) it is in the best interest of University to accept such substitution.

1.3.5 If a product, material or equipment is designated in the Bidding Documents for evaluation of substitutions prior to award, then a request for substitution of the product, material or equipment, including the data required by Paragraph 1.3.1, must be submitted by the deadline specified in the Bidding Documents. Because of time constraints, only one submittal will be allowed for each such substitution request. Requests for substitutions of products, material or equipment designated for evaluation prior to award may not be made after the deadline specified in the Bidding Documents, and such requests shall not be considered unless the request and supporting data is submitted on or before the deadline specified in the Bidding Documents. Notwithstanding the forgoing, the University may consider, after award of the Contract, requests for substitution of a product, material or equipment designated for evaluation prior to award where, in University's Representative's sole opinion, a substitution is necessary because (i) previously specified or approved manufactured products, material or equipment are no longer manufactured, (ii) of University initiated change orders, or (iii) it is in the best interest of University to accept such substitution.

1.3.6 In reviewing the supporting data submitted for substitutions, University's Representative will use, for purposes of comparison, all the characteristics of the specified material or equipment as they appear in the manufacturer's published data even though all the characteristics may not have been particularly mentioned in the Specifications. If more than 2 submissions of supporting data are required, the cost of reviewing the additional supporting data shall be at CM/Contractor's expense.

1.3.7 CM/Contractor has the burden of demonstrating, through the procedures specified herein, that its proposed substitution is equal to or superior to the first-named product, material or equipment in quality, utility and appearance and complies with all other requirements of the plans and specifications. If revisions or modifications to the design or construction of the work are necessitated by the use of the substitution, CM/Contractor also has the burden of demonstrating, through the procedures specified herein, that the use of the substitution will not be detrimental to the quality, utility or appearance of the Project or any portion of the Project.

1.3.8 The University's Representative may refuse to approve any requested substitution where, in the reasonable opinion of the University's Representative, CM/Contractor has failed to demonstrate, through the procedures specified herein, that the proposed substitution is equal to, or superior to, the first-named product, material or equipment, in quality, utility and appearance and that the proposed substitution complies with all other requirements of the plans and specifications.

1.3.9 University's Representative may reject any substitution not proposed in the manner and within the time limits prescribed herein.

1.3.10 Substitutions are not allowed unless approved in writing by the University's Representative. Any such approval shall not relieve CM/Contractor from the requirements of the Contract Documents.

1.3.11 The 35-day and 70-day submittal periods do not excuse CM/Contractor from completing the Work within the Contract Time or excuse CM/Contractor from paying liquidated damages if Final Completion is delayed.

1.3.12 If revisions or modifications to the design or construction of the Work are necessitated by the use of a substitution, the substitution may be used only if the revisions and modifications are approved in writing by the University's Representative. The University's Representative may refuse to approve any such proposed revisions or modifications where, in the reasonable opinion of the University's Representative, CM/Contractor has failed to demonstrate, through the procedures specified herein, that the revisions or modifications are not detrimental to the quality, utility and appearance of the Project or any portion of the Project.

1.3.13. If a substitution request is finally rejected by the University Representative, CM/Contractor shall furnish and install:

- .1 the first-named product, material, or equipment; or
- .2 a product, material, or equipment, other than the first-named product, material or equipment, specified by both brand or trade name and model number, provided CM/Contractor complies with the submittal requirements (including deadlines) of specification section 01630-1.2

1.4. Special Requirements for Bid Packages

1.4.1 CM/Contractor understands and agrees that a Subcontractor may submit to CM/Contractor a request for product substitution within the specified time after the Notice to Proceed for its Bid Package(s). Subject to approval of University's Representative, CM/Contractor may elect to require Subcontractor to submit product substitution requests prior to Bid Deadline for a Bid Package. If CM/Contractor elects to require any submittal of such product substitution requests prior to the Bid Deadline for a Bid Package, CM/Contractor shall:

- .1 Insert in the Contract Schedule for the Bid Package a time for review of such product substitution request by University's Representative. Such time for review shall not be less than 10 days;
- .2 Insert appropriate language in the Advertisement for Bids for the Bid Package; and
- .3 Establish a deadline for submittal of product substitution requests in the Bidding Documents for the Bid Package.

1.4.2 CM/Contractor shall include the following provisions in each Bid Package and CM/Contractor shall insert in these provisions deadlines that allow sufficient time for transmittal of submittals to University's Representative within the required 35-day and 70-day submittal periods:

SECTION 01630

PRODUCT OPTIONS AND SUBSTITUTIONS

1.4.2.1 General Provisions Regarding Specification Of Products, Material or Equipment By Brand Or Trade Name.

1.4.2.1.1 Products, material or equipment specified by both brand or trade name and model number are approved for use, provided that Subcontractor complies with all Contract requirements. Specification of a product, material or equipment by brand or trade name and model number is not a representation or warranty that the product, material or equipment can be used without modification, to meet the requirements of the plans and specifications; Subcontractor shall, at its sole cost, modify such products, material, or equipment so that they comply with all requirements of the plans and specifications.

1.4.2.1.2 The first-named product, material or equipment specified by brand or trade name and model number is the basis for the Project design and the use of any item other than the first-named one may require modifications of that design. If Subcontractor uses any product, material or equipment other than the first-named one, Subcontractor shall, at its sole cost:

- .1 Make all revisions and modifications to the design and construction of the Work necessitated by the use the product, material or equipment.
- .2 Be responsible for all costs of any changes resulting from the use of the product, material or equipment including without limitation, costs or changes which affect other parts of the Work, the work of Separate Contractors, or any other property or operations of the University.

1.4.2.1.3. When a product, material or equipment specified by brand or trade name is followed by the words "or equal," a substitution may be permitted if the substitution is equal to or superior

to the first-named product, material or equipment in quality, utility and appearance and if the substitution complies with all other requirements of the plans and specifications.

1.4.2.1.4 A product, material or equipment specified by brand or trade name followed by the words "or equal, no known equal," signifies that University does not have sufficient knowledge to specify a product, material or equipment, other than the one specified by brand or trade name, that is suitable for use on the Project. The use of the words "no known equal" is not intended to discourage substitution requests in accordance with the requirements specified herein.

1.4.2.1.5 When catalog numbers and specific brands or trade names not followed by the designation "or equal" are used in conjunction with a product, material or equipment required by the specifications, substitutions will not be allowed and the named product, material or equipment must be used.

1.4.2.1.6 Specification of a product, material or equipment by brand or trade name and model number is not a representation or warranty that the product, material or equipment is available; Subcontractor should confirm, prior to submitting its Bid, the availability of any product, material or equipment specified by brand or trade name and model number.

1.4.2.2. Special Requirements For Products, Material Or Equipment, Other Than The First-Named Product, Material Or Equipment, Specified By Both Brand Or Trade Name And Model Number.

1.4.2.2.1 In addition to complying with all other submittal requirements of the Contract, submit to CM/Contractor within {65} days after the date of commencement specified in the Notice to Proceed, for review and approval by the University's Representative, Subcontractor prepared specifications and drawings, including design and engineering calculations, prepared by an appropriate licensed professional, depicting all revisions and modifications to the design and construction of the Work necessitated by the use of the product, material or equipment. If no revisions or modifications are necessary, submit within {65} days after the date of commencement specified in the Notice to Proceed, a written representation that no revisions or modifications to the design or construction of the Work are necessitated by the use of the product, material or equipment. Subcontractor shall utilize the first-named product, material or equipment if Subcontractor fails to make the appropriate required submittal pursuant to this paragraph within the {65}-day period.

1.4.2.2.2 A product, material or equipment, other than the first-named product, material or equipment, specified by both brand or trade name and model number may be used if no revisions or modifications to the design or construction of the Work are necessitated by the use of the product, material or equipment. If such revisions or modifications are necessary, the product, material or equipment may be used only if the revisions or modifications are approved in writing by the University's Representative. Subcontractor has the burden of demonstrating, through the procedures specified herein, that any such revisions or modifications will not be detrimental to the quality, utility or appearance of the Project or any portion of the Project. The University's Representative may refuse to approve any such proposed revisions or modifications where, in the reasonable opinion of the University's Representative, Subcontractor has failed to demonstrate, through the procedures specified herein, that the revisions or modifications are not detrimental to the quality, utility or appearance of the Project or any portion of the Project.

1.4.2.3. Special Requirements For Substitutions.

1.4.2.3.1 In addition to complying with all other submittal requirements of the Contract, submit to CM/Contractor written data demonstrating that the proposed substitution is equal to or superior to the first-named product, material or equipment in quality, utility and appearance and otherwise complies with all requirements of the plans and specifications, including:

- .1 Complete technical data including drawings, performance specifications, samples, and test reports of the article proposed for substitution.
- .2 Statement by Subcontractor that the proposed substitution is in full compliance with the requirements of the Contract Documents and Applicable Code Requirements.
- .3 List of Subcontractors, if any, that may be affected by the substitution.
- .4 Subcontractor prepared specifications and drawings, including design and engineering calculations, prepared by an appropriately licensed professional, depicting all revisions and modifications to the design and construction of the Work necessitated by the use of the substitution. If no revisions or modifications are necessary, submit a written representation that no revisions or modifications to the design or construction of the Work are necessitated by the use of the product, material or equipment.

1.4.2.3.2 At the request of and within the timeframes specified by the University's Representative:

- .1 Submit to CM/Contractor samples as deemed necessary by the University's Representative to evaluate the proposed substitution.
- .2 Submit proposed substitution to tests deemed necessary by the University's Representative to evaluate the proposed substitution. Such tests shall be made by an independent Testing Laboratory and at the sole expense of Subcontractor, after review and approval of the test procedures by University's Representative. If re-testing is deemed necessary by the University's Representative to evaluate the proposed substitution, such re-testing shall be made by an independent Testing Laboratory at the sole expense of the Subcontractor.
- .3 Provide to CM/Contractor any additional information deemed necessary by the University's Representative to evaluate the proposed substitution.

1.4.2.3.3 If University's Representative, in reviewing a proposed substitution, requires revisions or corrections to be made to previously accepted shop drawings and supplemental supporting data to be resubmitted, Subcontractor shall do so within the time period specified by the University's Representative. A proposed substitution may be rejected if Subcontractor fails to submit such revisions, corrections, or supplemental supporting data to CM/Contractor within the specified time period.

1.4.2.3.4 Except for products, material or equipment designated in the Bidding Documents for evaluation of substitutions prior to award, requests for substitution, including the data required by Paragraph 1.4.2.3.1, must be submitted to CM/Contractor not later than {30} days after the date of commencement specified in the Notice to Proceed. No requests for substitutions of products, material or equipment subject to the {30}-day deadline shall be considered unless the request and supporting data is submitted on or before the deadline, except those deemed, in University's

Representative's sole opinion, to be necessary because (i) previously specified or approved manufactured products, material or equipment are no longer manufactured, (ii) of University initiated change orders, or (iii) it is in the best interest of University to accept such substitution.

1.4.2.3.5 If a product, material or equipment is designated in the Bidding Documents for evaluation of substitutions prior to award, then a request for substitution of the product, material or equipment, including the data required by Paragraph 1.4.2.3.1, must be submitted to CM/Contractor by the deadline specified in the Bidding Documents. Because of time constraints, only one submittal will be allowed for each such substitution request. Requests for substitutions of products, material or equipment designated for evaluation prior to award may not be made after the deadline specified in the Bidding Documents, and such requests shall not be considered unless the request and supporting data is submitted on or before the deadline specified in the Bidding Documents. Notwithstanding the foregoing, the University may consider, after award of the Contract, requests for substitution of a product, material or equipment designated for evaluation prior to award where, in University's Representative's sole opinion, a substitution is necessary because (i) previously specified or approved manufactured products, material or equipment are no longer manufactured, (ii) of University initiated change orders, or (iii) it is in the best interest of University to accept such substitution.

1.4.2.3.6 In reviewing the supporting data submitted for substitutions, University's Representative will use, for purposes of comparison, all the characteristics of the specified material or equipment as they appear in the manufacturer's published data even though all the characteristics may not have been particularly mentioned in the Specifications. If more than 2 submissions of supporting data are required, the cost of reviewing the additional supporting data shall be at Subcontractor's expense.

1.4.2.3.7 Subcontractor has the burden of demonstrating, through the procedures specified herein, that its proposed substitution is equal to or superior to the first-named product, material or equipment in quality, utility and appearance and complies with all other requirements of the plans and specifications. If revisions or modifications to the design or construction of the work are necessitated by the use of the substitution, Subcontractor also has the burden of demonstrating, through the procedures specified herein, that the use of the substitution will not be detrimental to the quality, utility or appearance of the Project or any portion of the Project.

1.4.2.3.8 The University's Representative may refuse to approve any requested substitution where, in the reasonable opinion of the University's Representative, Subcontractor has failed to demonstrate, through the procedures specified herein, that the proposed substitution is equal to, or superior to, the first-named product, material or equipment, in quality, utility and appearance and that the proposed substitution complies with all other requirements of the plans and specifications.

1.4.2.3.9 University's Representative may reject any substitution not proposed in the manner and within the time limits prescribed herein.

1.4.2.3.10 Substitutions are not allowed unless approved in writing by the University's Representative. Any such approval shall not relieve Subcontractor from the requirements of the Contract Documents.

1.4.2.3.11 If revisions or modifications to the design or construction of the Work are necessitated by the use of a substitution, the substitution may be used only if the revisions and modifications

are approved in writing by the University's Representative. The University's Representative may refuse to approve any such proposed revisions or modifications where, in the reasonable opinion of the University's Representative, Subcontractor has failed to demonstrate, through the procedures specified herein, that the revisions or modifications are not detrimental to the quality, utility and appearance of the Project or any portion of the Project.

1.4.2.3.12. If a substitution request is finally rejected by the University Representative, Subcontractor shall furnish and install:

- .1 the first-named product, material, or equipment; or
- .2 a product, material, or equipment, other than the first-named product, material or equipment, specified by both brand or trade name and model number, provided Subcontractor complies with the submittal requirements (including deadlines) of specification section 01630-1.4

END OF SECTION

SECTION 01 1100 SUMMARY OF WORK

PART 1 – GENERAL

1.1. SUMMARY

A. Section includes:

1. Work Covered by Contract Documents
2. Work Sequence – Not Used
3. Work by University
4. University Furnished Products – Not Used

B. In case any Sections contain conflicting requirements, refer to General Conditions, Paragraph 4.1.8.

1.2. WORK COVERED BY CONTRACT DOCUMENTS

A. The University of California, Riverside (UCR) intends to procure the services of a General Contractor (Contractor) to construct approximately 13,000 square feet in Orbach Library basement, which is presently used for library purposes.

The construction for the CSSS will include mock exam rooms, multiple simulation rooms, wet and dry small instructional spaces, as well as control rooms with heavy Audio/Visual/Telecommunications needs. Work consists of, but not limited to the following: demolition of existing improvements, addition/alterations of walls, alterations/additions to the mechanical, electrical, plumbing, fire life safety and fire suppression, telecommunication and audio/video systems.

B. The Contract Time to complete the Work of this Contract is specified in the Supplemental Instructions to Bidders.

C. Project Location: Orbach Library – Basement and associated spaces on the interior and exterior of the building.

D. The University has specified that the requirements and procedures for compliance with certain U.S. Green Building Council's (USGBC) LEED (Leadership in Energy and Environment Design) New Construction (NC) Version 3 (v3) prerequisites and credits will be used to target the Project to obtain the goal of LEED Gold certification. See Section 01 8113 "Sustainability Design Requirements" for additional information.

1.3. WORK SEQUENCE – Not Used

1.4. WORK BY UNIVERSITY

Connects, disconnects, and all shut downs by the Contractor of MEP and other building systems shall be coordinated through the University's IOR, Facilities Services and SOM.

Orbach Library will be occupied in adjacent spaces by faculty, staff, students, and possibly visitors. Contractor shall coordinate all work activity to eliminate and minimize all disruptions to the occupied areas. Communication on a daily basis between all parties will be required.

1.5. UNIVERSITY FURNISHED PRODUCTS – Not Used

PART 2 – PRODUCTS (Not Applicable)

PART 3 – EXECUTION (Not Applicable)

END OF SECTION

SECTION 01 1400 WORK RESTRICTIONS

PART 1 – GENERAL

1.1. SUMMARY

A. Section includes:

1. Access to Site
2. Coordination with Occupants
3. Use of Site
4. Scheduling of Work and Work Hours
5. Neighbor Complaint Hotline – Not Used
6. Site Decorum

1.2. ACCESS TO SITE

A. Special Requirements

1. Existing Site Conditions and Restrictions:
 - a. Maintain access and code required exiting to and from surrounding buildings during construction.
2. Contractor shall be responsible for safely securing the work areas, with at a minimum, trench plates, fencing, signage, safety lighting, traffic and pedestrian coordinators.
3. Trench plates shall be provided and safely secured at all roadway, parking lots, and walkways.
4. Trenches shall be protected from vehicles by utilizing trench plates, and from pedestrians by utilizing fully installed galvanized fencing. Excavations and holes shall be protected by utilizing fully installed galvanized fencing, safety lighting, and other methods to safely secure the site. Establishment of the work area in any space requiring the University's vacating shall not commence before notification to University's Representative. Refer to Section 01 1400 - CONTRACTOR'S USE OF THE PROJECT SITE, Notifications.
5. Individual work areas shall not be established until Contractor has labor, materials and equipment ready to commence and complete the Work in that area.
6. Work shall not commence in any area until barriers and other protections are in place.

B. Use of Public Thoroughfares and University Roads

1. Contractor shall make its own investigation of the condition of available public thoroughfares and University roads, and of the clearances, restrictions, bridge load limits, and other limitations affecting transportation and ingress and egress at the Project site.
2. Where materials are transported in the prosecution of the Work, do not load vehicles beyond the capacity recommended by manufacturer of the vehicles or prescribed by any applicable state or local law or regulation.
3. Use only established roads on the campus; provided, however, that such temporary haul roads as may be required in the work shall be constructed and maintained by Contractor, subject to the approval of University's Representative. Refer to Section 01 3540 Environmental Mitigation for description of the approved haul route to and from

the campus.

4. Provide protection against damage whenever it is necessary to cross existing sidewalks, curbs, and gutters in entering upon the University roads and public thoroughfares. Repair and make good immediately at the expense of Contractor all damages thereto, including damage to existing utilities and paving, arising from the operations under the Contract.
5. Truck staging is not allowed on campus or on any residential street surrounding the campus.

C. See also Section 01 5500, Vehicular Access and Parking.

1.3. COORDINATION WITH OCCUPANTS

- A. The University reserves the right to occupy and to place and install equipment in completed areas of the Work prior to Notice of Completion, provided such occupancy does not interfere with completion of the Work and subject to the General Conditions. Such placing of equipment and partial occupancy shall not constitute acceptance of the total Work.
 1. Partial occupancy of the Work may occur upon University's approval, in which case the University's Representative will prepare a Certificate of Beneficial Occupancy for each specific portion of the Work to be occupied prior to Final Completion of the entire Work.
 2. Refer to Article 9.6 of the General Conditions.

1.4. USE OF SITE

- A. Confine operations to areas within contract limits indicated. Do not disturb portions of the site beyond the areas in which the Work is indicated.
 1. Driveways and Entrances: Keep driveways and entrances serving adjacent buildings clear and available to the University, and its employees, students, faculty, visitors, and emergency vehicles at all times. Do not use these areas for parking or storage of materials. Schedule deliveries to minimize space and time requirements for use of these areas.
 2. Contractor's use of the Project site for the work, staging, deliveries, and storage is restricted to the project limits on the Drawings, or as directed by the University's Representative.
 3. All material for construction operations shall be brought in and the work conducted so as to avoid any interference with existing University facilities or their normal operations.
 4. Noise from job equipment shall be kept to a minimum by use of adequate mufflers and other appropriate means.
 5. Delivery of Materials: Arrange for delivery of materials and equipment to minimize length of on-site storage prior to installation. Delivery route shall be from South Campus Circle Drive to Big Springs Road to the project site, or as designated by the University's Representative.
 6. The Contractor shall take appropriate steps throughout the term of the project to prevent airborne dust due to work under this contract. Water shall be applied wherever practical to settle and hold dust to a minimum, particularly during excavation and moving of materials. No chemical palliatives shall be used.

1.5. SCHEDULING OF WORK AND WORK HOURS

- A. Normal **Interior** Construction Hours: All Contractors shall ensure that all construction activities will occur between 6:00 a.m. and 4:00 p.m. Monday through Saturday, or as approved by the University Representative. University Representative shall approve all construction shifts. Overtime hours for construction shall require University Representative's approval. The University will not allow for work to be performed on days as designated as University Holidays without the University's Representative's approval. Work outside of regular work hours required to accomplish work of this contract shall be included in the contract sum.
- B. Restrict Construction Hours: All contractors, and overseen by the General Contractor, shall ensure that all construction contracts will limit **EXTERIOR** construction activities to occurring between 6:00 a.m. and 4:00 p.m. Monday through Friday, and 8 a.m. and 5 p.m. on Saturday, unless otherwise approved by the University's Representative. Construction will not be allowed on Sunday or federal holidays.
- C. Overtime work requests must be submitted to the University's Representative three working days before the work is to commence.
 - 1. Additional overtime operating hours may be approved at the University's Representative sole discretion and only without change to the contract sum.
 - 2. Contractor shall pay all the inspectors (in-house inspectors and University's testing laboratory inspectors) and University's Representative's costs if the overtime request is approved by University's Representative.

1.6. NEIGHBOR COMPLAINT HOTLINE – Not Used

1.7. SITE DECORUM

- A. Contractor shall control the conduct of its employees (including subcontractor's employees) so as to prevent unwanted interaction initiated by Contractor's employees with University of California Riverside (UCR) students, UCR staff, UCR Faculty or other individuals (except those associated with the Project), adjacent to the Project site. Without limitation, unwanted interaction by Contractor employees would include whistling at or initiating conversations with passersby. In the event that any Contractor employee initiates such unwanted interaction, or utilized profanity, Contractor shall, either upon request of University's Representative or on its own initiative, replace said employee with another of equivalent technical skill, at no additional cost to the University. No radios, other than two-way communication type, will be allowed on the Project site. No smoking is allowed in any University Building.
- B. Contractor shall control the conduct of its employees (including subcontractor's employees) to prevent unwanted interaction initiated by Contractor's employees with UCR students, staff, Faculty or other individuals, adjacent to the Project site. Unwanted interaction by Contractor employees includes whistling at, or initiating conversations with, passersby. If any contractor employee initiates such unwanted interaction, or utilizes profanity, Contractor shall, upon request of University's Representative or on its own initiative, replace said employee with another of equivalent technical skill, at no additional cost to University. No radios, other than two-way communication type, will be allowed on the Project site. No smoking is allowed in any existing University Building or University Building under Construction.

PART 2 – PRODUCTS (Not Applicable)

PART 3 – EXECUTION (Not Applicable)

END OF SECTION

**SECTION 01 2300
ALTERNATES****PART 1 – GENERAL****1.1. SUMMARY**

- A. This Section includes:
 - 1. Procedures
 - 2. Alternate Descriptions
- B. This Section identifies each Alternate and describes basic changes to the Work only when that Alternate is made a part of the Work by specific provision in the Agreement.
- C. Definition: Refer to the Instructions to Bidders, 1.2 for the term “Alternate.”

1.2. PROCEDURES

- A. The Lump Sum Base Bid and Alternates shall include the costs of all supporting elements required, so that the combination of the Lump Sum Base Bid and any Alternates shall be complete. The scope of Work for all Alternates shall be in accordance with applicable Drawings and Specifications.
- B. Except as otherwise specifically provided by University, the Work described in Alternates shall be completed with no increase in Contract Time.
- C. This Section includes only the non-technical descriptions of the Alternates. Refer to the specific Sections of Divisions 2-33 of the Specifications for technical descriptions of the Alternates.
- D. Coordinate related Work and modify surrounding Work as required to properly and completely integrate the Alternates into the Work.

1.3. ALTERNATE DESCRIPTIONS

- A. Alternate No. 1: Add, Provide pre-construction services for Phase 2B: SOM ED Building & Office Conversion

University reserves the right to accept this Alternate within 200 calendar days after the commencement date per the Notice to Proceed.

- B. Alternate No. 2: Add, Provide Option Sum for Phase 2C: SOM ED Building & Office Conversion

University reserves the right to accept this Alternate within 200 calendar days after the commencement date per the Notice to Proceed.

PART 2 – PRODUCTS (Not Applicable)

PART 3 – EXECUTION (Not Applicable)

END OF SECTION

REQUEST FOR INFORMATION

DATE: mm/dd/yy

RFI #:

TO:

Cc:

FROM:

Subject/Title:

- Architectural Civil Mechanical Electrical Plumbing Structural
- Fire Protection Landscape Other:

Reason(s) for RFI:

<input type="checkbox"/> Clarification/Interpretation	<input type="checkbox"/> Conflict in CD's
<input type="checkbox"/> Coordination Issue	<input type="checkbox"/> Information Not Shown on CD's
<input type="checkbox"/> Cost Impact: <u> </u>	<input type="checkbox"/> Safety
	<input type="checkbox"/> Work/Time Impact: <u> </u>

Issue/Question:
(Reference Attachments)

Specification #: Paragraph #: Sheet #: Detail #:
 Other Reference: Schedule Activity:

Proposed Solution:
(Reference Attachments)

Signed by Contractor: **Response Required by Date:** mm/dd/yy

RESPONSE TO CONTRACTOR:

From Design Professional:
(Reference Attachments)

Date Received RFI: mm/dd/yy **Response Date:** mm/dd/yy **Signed:**

From University's Rep.:
(Reference Attachments)

Date Received RFI: mm/dd/yy **Response Date:** mm/dd/yy **Signed:** _____

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SECTION 01 2613 REQUESTS FOR INFORMATION & INSTRUCTIONS (RFI) PROCEDURES

PART 1 – GENERAL

1.1. SUMMARY

- A. This Section contains the procedures to be followed by Contractor upon discovery of any apparent conflicts, omissions, or errors in the Contract Documents or upon having any question concerning interpretation.

1.2. PROCEDURES

A. Notification by Contractor:

1. Submit all requests for clarification or additional information in writing to Design Professional and University's Representative concurrently using the **Request for Information (RFI) form attached to this Section.**

- a. All RFI's, and any attachments thereto, must be submitted in PDF format with Optical Character Recognition (OCR) Text.
- b. When submitting RFIs the Contractor shall include in the email Subject Line the following information:

Project Number, Project Name, and RFI Number:
Example: 958091 SOM CSSS – RFI #1

The Contractor will forward the email to the following:

Design Professional
University's Representative
Project Specialist
Inspector of Record
And others as requested by the University's Representative.

2. Limit each RFI to one subject and number RFI's sequentially. For each resubmission, follow the RFI number with suffix "R" sequentially numbered as necessary. For example, the first RFI would be "1." The second RFI would be "2." The first resubmittal of RFI "2" would be "2R1."
3. Submit a RFI if one of the following conditions occurs:
- a. Contractor discovers an unforeseen condition or circumstance that is not described in the Contract Documents.
- b. Contractor discovers an apparent conflict or discrepancy between portions of the Contract Documents that appears to be inconsistent or is not reasonably inferred from the intent of the Contract Documents.
- c. Contractor discovers what appears to be an omission from the Contract Documents that cannot be reasonably inferred from the intent of the Contract Documents.
4. Contractor shall not submit a RFI:
- a. As a request for substitution.

- b. As a submittal.
 - c. Under the pretense of a Contract Documents discrepancy or omission without thorough review of the Contract Documents.
 - d. In a manner that suggests that specific portions of the Contract Documents are assumed to be excluded or by taking an isolated portion of the Contract Documents in part rather than whole.
 - e. In an untimely manner without proper coordination and scheduling of Work of related trades.
 - f. As a request for approval of Contractor's means and methods.
5. If Contractor submits a RFI contrary to 1.2. A.4. above, Contractor shall pay the cost of any review, which cost shall be deducted from the Contract Sum.
 6. Contractor shall submit a RFI immediately upon discovery. Contractor shall submit RFI's within a reasonable time frame so as not to delay the Contract Schedule while allowing the full response time described below.
- B. Response Time:
1. Design Professional shall send its RFI response to University's Representative within a reasonable time so that University's Representative can send a final RFI response to Contractor within the time frames in 1.2. B.2. below.
 2. University's Representative, or his/her designee, whose decision will be final and conclusive, shall resolve such questions and issue instructions or issue approval of instructions or information from Design Professional, to Contractor within a reasonable time frame. In most cases, RFI's will receive a response within **7 days for architectural issues and within 14 days for issues that require review and response from Design Professional's consultants**. In some cases, the response time may be lengthened for complex issues or shortened for emergencies as approved by University's Representative in writing. If in the opinion of University's Representative more than **14 days** is required to prepare a response to a RFI, Contractor will be notified in writing.
 3. Should Contractor proceed with the Work affected before receipt of a response from University's Representative within the response time described above, any portion of the Work which is not done in accordance with University's Representative's interpretations, clarifications, instructions, or decisions is subject to removal or replacement and Contractor shall be responsible for all resultant losses.
 4. Failure to Agree: In the event of failure to agree as to the scope of the Contract requirements, Contractor shall follow procedures set forth in Article 4 of the General Conditions.

PART 2 – PRODUCTS (Not Applicable)

PART 3 – EXECUTION (Not Applicable)

END OF SECTION

**SECTION 01 3113
COORDINATION****PART 1 – GENERAL****1.1. SUMMARY**

A. This Section includes administrative and supervisory requirements necessary for coordinating construction operations including, but not necessarily limited to, the following:

1. Administrative Requirements
2. Facilities Services Coordination and Service Continuity

1.2. ADMINISTRATIVE REQUIREMENTS

A. Coordinate construction operations including, but not limited to, the following:

1. Coordinate the Work and do not delegate responsibility for coordination to any Subcontractor.
2. Anticipate the interrelationship of all Subcontractors and their relationship with the Work.
3. Resolve differences or disputes between Subcontractors and their relationship with the Work.
4. Coordinate the Work of Subcontractors so that portions of the Work are performed in a manner that minimizes interference with the progress of the Work.
5. Do not obstruct spaces and installations that are required to be clear by Applicable Code Requirements.
6. Do not cover any piping, wiring, ducts, or other installations until they have been inspected and approved and required certificates of inspection issued.
7. Remove and replace all Work, which does not comply with the Contract Documents. Repair or replace any other Work or property damaged by these operations with no adjustment of Contract Sum.

B. Coordinate construction operations included in various Sections of these Specifications to assure efficient and orderly installation of each part of the Work. Coordinate construction operations included under different Sections that depend on each other for proper installation, connection, and operation. Coordinate all portions of the Work requiring careful coordination in order to fit in space available. Before commencing such portions of the Work, prepare supplementary Drawings for review by University's Representative and Design Professional. Non-conformance of this task will result in the delay of applications for payment and the contractor responsibility for any remedial works requested by University Representative.

1. Schedule construction operations in the sequence required to obtain the best results where installation of one part of the Work depends on installation of other components, before or after its own installation.
2. Coordinate installation of different components to assure maximum accessibility for required maintenance, service, and repair.
3. Make provisions to accommodate items scheduled for later installation, including, but not limited to, coordination of furnishing and placing embedded items, sleeves, and block-outs with formwork and reinforcing steel for cast-in-place concrete.
4. Resolve conflicts and coordinate access to, and utilization of, spaces available for construction activities on the site and within structures, and delivery, storage, and installation of materials and equipment.

5. Implement a quality assurance program designed to ensure completion of the Work in accordance with requirements of the Contract Documents.
- C. Where necessary, prepare memoranda for distribution to each party involved, outlining special procedures required for coordination. Include such items as required notices, reports, and attendance at meetings.
1. Prepare similar memoranda for the University and separate contractors where coordination of their work is required.
- D. Administrative Procedures: Coordinate scheduling and timing of required administrative procedures with other construction activities to avoid conflicts and assure orderly progress of the Work. Such administrative activities include, but are not limited to, the following:
1. Preparation of schedules.
 2. Installation and removal of temporary facilities.
 3. Delivery and processing of submittals.
 4. Progress meetings.
 5. Project closeout activities.
 6. Obtaining required permits and approvals from authorities having jurisdiction.
 7. Utility company approvals and installations.
- E. Conservation: Coordinate construction operations to assure that operations are carried out with consideration given to conservation of energy, water, and materials.
1. Salvage materials and equipment involved in performance of, but not actually incorporated in, the Work.
- F. Clean and protect construction in progress and adjoining materials in place, during handling and installation. Apply protective covering where required to assure protection from damage or deterioration at Substantial Completion.
- G. Clean and provide maintenance on completed construction as frequently as necessary through the remainder of the construction period. Adjust and lubricate operable components to assure operability without damaging effects.

1.3. FACILITIES SERVICES COORDINATION AND SERVICE CONTINUITY

- A. Maintain continuous services to all existing facilities during the period of construction except for the following conditions:
1. Perform Work that involves "shut-down" of existing facilities at such times as will cause the least inconvenience to the University activities, performing at night, on Saturdays, Sundays, holidays and at the discretion of University's Representative. Furnish University's Representative written notice of exact date and time of "shut-down" at least **thirty (30) working days** in advance, unless a longer period is specified or shown on the Drawings. On jobs with short performance time, Contractor shall verify with University's Representative the number of days required in advance for shut-down.
 2. The University's preference would be for the contractor to try to coordinate the high voltage utility shut down simultaneously with the Student Recreation Center's shut down to avoid unnecessary inconvenience to the campus. However this preference is not a mandatory requirement if it doesn't fit in with the contractor's schedule.

3. The Contractor's bid shall include the cost of overtime necessary for the Work. No extra payment will be allowed for overtime to meet this requirement or the Contract Schedule.

B. Service Continuity:

1. Within the areas of the Work, investigate and uncover all drainage lines, sewers, electrical ducts, and other piping in use or forming continuations or utility systems required for other buildings or improvements upon the campus, and maintain such services in operation during performance of the Work of the Contract.

- C. Notify University's Representative at least 30 days in advance of all utility shutdowns including date, time and expected duration.

PART 2 – PRODUCTS (Not Applicable)

PART 3 – EXECUTION (Not Applicable)

END OF SECTION

SECTION 01 3119 PROJECT MEETINGS

PART 1 – GENERAL

1.1. SUMMARY

- A. This Section includes administrative and procedural requirements for the following project meetings:
1. Preconstruction Meeting
 2. Pre-Installation Meetings
 3. Progress Meetings
 4. Billing Meetings
 5. 11-Month Warranty Meeting

1.2. PRECONSTRUCTION MEETING

- A. The University's Representative will schedule a preconstruction conference before starting construction, at a time convenient to the University and the University's Representative, but no later than 10 days after execution of the Agreement. The conference will be held at the Project Site or another convenient location. The meeting will review responsibilities and personnel assignments.
1. Distribute written notice of agenda, meeting time, and location a minimum of five calendar days in advance.
- B. Attendees: The University's Representative and authorized representatives of the Architect, and its consultants; the Contractor and its superintendent; major subcontractors; manufacturers; suppliers; Contractor's designated safety manager; and other concerned parties shall attend the conference. All participants at the conference shall be familiar with the Project and authorized to conclude matters relating to the Work.
- C. Agenda: Items of significance that could affect progress, including the following:
1. Tentative construction schedule.
 2. Critical work sequencing.
 3. Designation of responsible personnel.
 4. Procedures for processing field decisions and Change Orders.
 5. Procedures for processing Applications for Payment.
 6. Distribution of Contract Documents.
 7. Submittal of Shop Drawings, Product Data, and Samples.
 8. Preparation of record documents.
 9. Use of the premises.
 10. Parking availability.
 11. Office, work, and storage areas.
 12. Equipment deliveries and priorities.
 13. Safety procedures, including emergency notification procedures.
 14. First Aid.
 15. Security.
 16. Housekeeping.
 17. Working hours.
 18. Sustainability requirements, including Contractor staffing.

1.3. PRE-INSTALLATION MEETINGS

- A. The Contractor shall conduct a pre-installation conference at the Project Site before each construction activity that requires coordination with other construction, and as required by other sections of the specifications.
 - 1. The Contractor shall distribute written notice of agenda, meeting time, and location a minimum of five calendar days in advance.

- B. Attendees: The Installer and representatives of manufacturers and fabricators involved in or affected by the installation, and its coordination or integration with other materials and installations that have preceded or will follow, shall attend the meeting. Advise the University's Representative of scheduled meeting dates.
 - 1. Review the progress of other construction activities and preparations for the particular activity under consideration at each pre-installation conference, including requirements for the following:
 - a. Contract Documents
 - b. Options
 - c. Related Change Orders
 - d. Purchases
 - e. Deliveries
 - f. Shop Drawings, Product Data, and quality-control samples
 - g. Possible conflicts
 - h. Compatibility problems
 - i. Time schedules
 - j. Weather limitations.
 - k. Manufacturer's recommendations
 - l. Warranty requirements
 - m. Compatibility of materials
 - n. Acceptability of substrates
 - o. Temporary facilities
 - p. Space and access limitations
 - q. Governing regulations
 - r. Safety
 - s. Inspecting and testing requirements
 - t. Required performance results
 - u. Recording requirements
 - v. Protection.
 - 2. Record significant discussions and agreements and disagreements of each conference, and the approved schedule. Promptly distribute the record of the meeting to everyone concerned, including the University and the University's Representative.
 - 3. Do not proceed with the installation if the conference cannot be successfully concluded. Initiate whatever actions are necessary to resolve impediments to performance of Work and reconvene the conference at the earliest feasible date.

1.4. PROGRESS MEETINGS

- A. The Contractor shall conduct progress meetings at the Project Site at regular intervals. Notify the University's Representative and the Design Professional of scheduled meeting dates. Coordinate dates of meetings with preparation of the payment request. Document meetings with meeting minutes to be distributed to the University's Representative, the Design Professional and all other attendees.

- B. Attendees: In addition to representatives of the University and the Architect, each subcontractor, supplier, or other entity concerned with current progress or involved in

planning, coordination, or performance of future activities shall be represented at these meetings. All participants at the conference shall be familiar with the Project and authorized to conclude matters relating to the Work.

- C. Agenda: Review and correct or approve minutes of the previous progress meeting. Review other items of significance that could affect progress. Include topics for discussion as appropriate to the status of the Project.
 - 1. Contractor's Construction Schedule: Review progress since the last meeting. Determine where each activity is in relation to the Contractor's Construction Schedule, whether on time or ahead or behind schedule. Determine how construction behind schedule will be expedited; secure commitments from parties involved to do so. Discuss whether schedule revisions are required to insure that current and subsequent activities will be completed within the Contract Time.
 - 2. Review the present and future needs of each entity present, including the following:
 - a. Interface requirements
 - b. Time
 - c. Sequences
 - d. Status of submittals
 - e. Status of RFI's
 - f. Deliveries
 - g. Off-site fabrication problems
 - h. Access
 - i. Site utilization
 - j. Temporary facilities and services
 - k. Hours of work
 - l. Contractor's Safety Program (including any special hazards and risks)
 - m. Housekeeping
 - n. Quality and work standards
 - o. Contractor's two week "look ahead" schedule and issues
 - p. Change Orders
 - q. Documentation of information for payment requests
 - r. Sustainability review, including tracking and status.
- D. Schedule Updating: Revise the Contractor's Construction Schedule after each progress meeting where revisions to the schedule have been made or recognized. Issue the revised schedule concurrently with the report of each meeting.

1.5. BILLING MEETINGS

- A. Attend a meeting monthly 5 days prior to submittal of the Application for Payment, at a location acceptable to University's Representative.
- B. Attendees:
 - 1. University's Representative.
 - 2. Design Professional and Consultants, as appropriate.
 - 3. Contractor's Project Manager.
 - 4. Superintendent.
 - 5. Others as directed by University's Representative.
- C. Agenda:
 - 1. Determination of current schedule progress.

2. Review of work completed based on the cost loaded schedule to be billed in the Application for Payment.

D. Schedule Updating: Revise the Contract Schedule prior to the meeting based on information determined at prior progress meetings. Review schedule revisions and prepare a final revised schedule for submission 10 days prior to the application for payment.

1.6. 11-MONTH WARRANTY MEETING

A. Attend a meeting eleven months following the date of Notice of Completion.

B. Attendees:

1. University's Representative
2. Design Professional and Consultants, as appropriate
3. Contractor's Project Manager
4. Subcontractors, as appropriate
5. Others as directed by Responsible Administrator.

C. Agenda: Review of guarantees, bonds, service and maintenance contracts for materials and equipment.

PART 2 – PRODUCTS (Not Applicable)

PART 3 – EXECUTION (Not Applicable)

END OF SECTION

SECTION 01 3200 DOCUMENT CONTROL

PART 1 – GENERAL

1.1. SUMMARY

- A. This Section includes the requirements for Contractor provided electronic document control system(s):
 - 1. General Requirements
 - 2. Submittals
 - 3. Software
 - 4. System Maintenance

1.2. GENERAL REQUIREMENTS

- A. Contractor shall provide a web accessible system for electronic document control designed for use during pre-construction and construction to manage documents including RFIs and submittals.
- B. Contractor shall provide an electronic document control system(s) that is accessible via a web browser (including IE version 7.7) from any geographical location.
- C. Contractor shall provide access to University's Representative, University's Inspector of Record, Design Professional, and at least 7 other individuals identified by University's Representative.
- D. The electronic document control system must use the University numbering system specified in the applicable Specification Section.
- E. Hours of Operation: The electronic document control system shall be available 24 hours a day, 7 days a week except for short periods of planned system maintenance.

1.3. SUBMITTALS

- A. Contractor shall submit a narrative description and outline of the proposed electronic document control system for review and approval by University's Representative.
- B. Contractor shall submit an example of the electronic log for both RFIs and Submittals for review and approval by University's Representative.
- C. Contractor shall establish a commercially available web based RFI and submittal processing system capable of posting RFI's and submittals with the following capabilities:
 - 1. Password secured access with varying levels of "write" or action capability, with multiple user defined stamps for action taken.
 - 2. Accessible from any computer with Internet access, whether in the office or the field.
 - 3. Notification of submittal status based on user profile.
 - 4. Automatic Transmittal generation when submittal is released.
 - 5. Extensive and user friendly mark-up tools and capability.
 - 6. Ability to hide mark-up comments based on user profile.
 - 7. Status of submittal and responsible party.
 - 8. Download in PDF format based on user profile.
 - 9. Tracking of resubmittal process, including University designated numbering system.

PART 2 – PRODUCTS

2.1. SOFTWARE

- A. Primavera, Prolog or equal is acceptable as the electronic document control system used for RFIs and submittals.

2.2. SYSTEM MAINTENANCE

- A. University shall be notified at least 48 hours in advance of planned system maintenance of the electronic document control system(s). Planned system maintenance should be scheduled not to interfere with construction activities whenever possible. The system uptime shall be at least 95% based on a rolling monthly average.
- B. Contractor is responsible for installation, maintenance, and backup activities of the electronic document control system(s).

PART 3 – EXECUTION (Not Applicable)

1.1. UPDATES

- A. Every two (2) weeks, Contractor shall export or otherwise generate electronic logs of all RFIs and submittals that can be imported into the University's enterprise system. The format of the electronic logs shall be a spreadsheet in MS-Excel format of all the structured data from each RFI or submittals. The exported or otherwise generated log for RFIs shall be separate from the log for submittals. Samples shall be included in the log of submittals.
- B. Contractor shall also allow, at any time, the University's Representative or designee, to download electronic copies of such RFI and submittal documents in a format that is searchable such as printed PDFs. Scanned PDFs are not acceptable except in the case of drawings.
- C. At least 7 days before the date scheduled for Final Inspection, Contractor shall provide University's Representative a complete electronic copy of all electronic files from the electronic document control system for the project.
 - 1. The electronic files shall be executable on CD or DVD.
 - 2. Each disc shall be fully labeled with the project name, contract number, date, and the sequence number of the disc 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 digital form.

END OF SECTION

SECTION 01 3280 ELECTRONIC DATA TRANSFER

PART 1 – GENERAL

1.1. SUMMARY

- A. Section includes Terms and Conditions for the transfer of Electronic Data to Contractor for use in preparation of Submittals, Record Documents, coordination drawings, and related documents to be produced by Contractor and submitted to University:

1. CONTRACTOR'S ACCEPTANCE OF ELECTRONIC DATA IN ANY FORM SHALL CONSTITUTE ACCEPTANCE OF THE TERMS AND CONDITIONS OF THIS SECTION, INCLUDING PAYMENT OF INDICATED FEES.

- B. The University and the Contractor acknowledge that established administrative procedures for management of construction Projects anticipate paper documentation and methods for the exchange of such documents. To the extent the administrative and procedural requirements of the Contract Documents are predicated on established practices the University and the Contractor agree to accept reasonable modifications to certain procedural requirements to facilitate electronic exchange of information and the use of digital media.
- C. Submittals: Only a material original stamped and signed by the University's Representative shall be acceptable as an official record of the processed submittal. When directed, quantities of document submittals specified in the Contract Documents may be adjusted as permitted to facilitate utilization of electronic transfer of information.

1.2. TERMS AND CONDITIONS

- A. In consideration of Contractor's request to the University to deliver certain Electronic Data for use on the Project, Contractor agrees to the following:
1. Electronic Data includes but is not limited to, computer-aided design (CAD) files including native file formats (DWG) and drawing exchange formats (DXF), and files produced by word processing, spread sheet, scheduling, data base and other software programs. The Electronic Data may be provided in an original format produced by Design Professional or other University consultant, or an alternate, "translated" format as requested by other parties to this Agreement.
 2. The means by which the Electronic Data is transferred may include but are not limited to, electronic mail, File Transfer Protocol (FTP) sites, project websites, and disk copies transmitted between the parties to this Agreement. Contractor acknowledges that Electronic Data transferred in any manner or translated from the system and format used by Design Professional or other University consultant, to an alternate system or format is subject to errors that may affect the accuracy and reliability of the data and that the data may be altered, whether inadvertently or otherwise. Accordingly, the University and Design Professional make no warranty, express or implied, as to the accuracy of the information transferred. The Electronic Data are not the Bidding Documents and differences may exist between these electronic files and corresponding hard-copy Bidding Documents. University reserves the right to retain hard copy originals in addition to electronic copies of the Electronic Data transferred, which originals shall be referred to and shall govern.
 3. As consideration to University for the transfer of the Electronic Data, Contractor agrees that the University, University's Design Professional, and University's agents and consultants shall not be liable for and hereby waives all claims and agrees to indemnify and hold University harmless from all liabilities, losses, damages or expenses

(including attorneys' fees) arising out of, or connected with: (1) the transfer of Electronic Data by any means; (2) the use, modification or misuse by parties other than University and Design Professional of the Electronic Data; (3) the limited life expectancy and decline of accuracy or readability of the Electronic Data due to storage; (4) any use of the Electronic Data by any third parties receiving the data from other parties to this Agreement; or (5) the incompatibility of software or hardware used by University and Design Professional and the other parties participating in the Work.

4. The Electronic Data provided under the terms of this Agreement are the proprietary information of University. All Electronic Data shall be treated as confidential and shall not be disclosed to or shared with others without express, written consent from the University's.
5. The University shall issue the most current information available, but does not undertake the responsibility for providing updated information as the Project proceeds. Contractor may make a specific written request for such updated information as Contractor deems necessary, which University will then provide subject to the Terms and Conditions hereof.

PART 2 – PRODUCTS (Not Applicable)

PART 3 – EXECUTION (Not Applicable)

END OF SECTION

**SECTION 01 3300
SUBMITTALS**

PART 1 – GENERAL

1.1. SUMMARY

A. Section includes:

1. Certificates
2. Shop Drawings, Product Data, and Samples
3. LEED Documentation
4. Refrigerant Management Documentation
5. Contractor Certification Form
6. Subcontractor Certification Form
7. Submittal Schedule

B. Definitions:

1. Mockups are full-size assemblies for review of construction, coordination, testing, or operation, appearance, and finish by which the Work will be judged; they are not Samples.
2. The terms "Shop Drawings" and "Product Data" are defined in Article 3.12 of the General Conditions.
3. As used herein, the term "manufactured" applies to standard units usually mass-produced. The term "fabricated" means items specifically assembled or made out of selected materials to meet individual design requirements. Shop drawings shall establish the actual detail of all manufactured or fabricated items, indicate proper relation to adjoining Work, and amplify design details of mechanical and electrical equipment in proper relation to physical spaces in the structure.
4. The terms "Shop Drawings" and "Product Data" are defined in Article 3.12 of the General Conditions.

C. Manufacturers' Instructions: Where any item of Work is required by the Contract Documents to be furnished, installed, or performed in accordance with a specified product manufacturer's instruction, Contractor shall procure and distribute the necessary copies of such instructions to University's Representative and all other concerned parties, and Contractor shall furnish, install, or perform the Work in strict accordance therewith.

OR

Manufacturer's Instructions: Where it is required in the specifications that materials, products, processes, equipment or the like to be installed or applied in accordance with manufacturer's instructions, directions or specification, or words to this effect, it shall be construed to mean that said application or installation shall be in strict accordance with printed instructions furnished by the manufacturer of the material concerned for use under conditions similar to those at the job site. Three (3) copies of such instructions shall be furnished to the University's Representative and his/her approval thereof obtained before work is begun.

D. The University's Representative or its Design Professional reserves the right to review and request the removal or redesign of manufacturers' trade marks and names on items of materials and equipment which will be exposed to view in the completed Work. Such removal or redesign shall be at no increase in Contract Sum.

- E. Materials and equipment, for which Underwriters' Laboratories, Inc. standards have been established and their label service is available, shall bear the appropriate UL label.

1.2. CERTIFICATES

- A. Certifications of Review and Coordination: Within 10 days of Notice to Proceed, submit completed Contractor Certification of Review and Coordination and all Subcontractor Certifications of Review and Coordination.
- B. Certifications of Review and Coordination: As required by the General Conditions, perform a thorough review of the Contract Documents prior to commencing the Work. If there are no exceptions, write "NO EXCEPTIONS" in the space provided.
 - 1. Complete a copy of the Contractor Certification of Review and Coordination Form following this Section.
 - 2. Require all subcontractors to perform a thorough review of the Contract Documents and complete a copy of the Subcontractor Certification of Review and Coordination Form following this Section.
 - 3. Review all completed Forms and resolve conflicting comments, if any, among the various parties so as to present a clear, concise view of items noted.
 - 4. Submitting the required certifications does not relieve the Contractor from responsibility to continue to immediately report new discrepancies, errors, omissions, conflicts, code violations, and improper use of materials discovered in the Contract Documents during the course of construction.
 - 5. Applications for Payment will not be processed by the University's Representative until all certificates have been received.

1.3. SHOP DRAWINGS, PRODUCT DATA, AND SAMPLES

- A. Shop drawings, product data, and samples, other than in connection with proposed substitutions, shall be submitted to University's Representative only when specifically required; and University's Representative will not review any other such submittals. Product data and samples for proposed substitutions shall be submitted to University's Representative in accordance with Section 01 2500. Contractor shall be responsible for obtaining such copies of shop drawings, product data, and samples as it may require for its own use. Submittals Not Required: No shop drawings of supplemental data are required unless specifically requested by the University or specified herein. No shop drawings shall be submitted unless specifically requested.

1. Submittal Schedule:

- a. Refer to Specific Specification Sections for the list of submittals required under each section and indicate the required submittals on the attached Submittal Schedule for review by University's Design Professional. A schedule of submission of shop drawings, product data, and samples by Contractor ("Submittal Schedule"), and their processing and return by the University's Design Professional shall be agreed upon by both parties in order that the items covered by these submittals will be available when needed by the construction process and so that each party can plan its workload in an orderly manner. Submit Submittal Schedule no later than 30 days after Award of Contract.
- b. Contractor shall prepare the Submittal Schedule in the form as attached or similar form acceptable to the University's Representative, and coordinate it with the Contract Schedule. No submittals will be processed before the Submittal Schedule has been submitted to and accepted by University's Representative, except in such cases where the processing of submittals is required to maintain job progress before the acceptance of the Submittal Schedule.

- c. In preparing the Submittal Schedule, Contractor must first determine from the Contract Schedule the date a particular item is needed for the Work. Working backwards, Contractor will establish the number of days required for fabrication, shipment, placement, and similar activities to determine the date required for the first submittal.
 - d. Allow 14-28 day duration for the University's Design Professional's initial review of submittals depending on the submittal/shop drawing and specification section. Allow 7 days for Design Professional to re-review revised or unapproved submittal/shop drawings.
 - e. Contractor to indicate whether the submittal is a "Full" or "Partial" submittal on the schedule and on the submittal.
2. Material List: Provide complete material list of products proposed for use. Submit Material Safety Data Sheets (MSDS) for Owner's use. Neither the University Representative nor its Design Professional will review MSDS.
 3. Contractor's Review:
 - a. Contractor Review: The shop drawings and supplemental data, when called for, shall be submitted as the instruments of the Contractor, even though they may have been prepared by a subcontractor, supplier, dealer, manufacturer, or by any other person, firm or organization. Prior to submission, the Contractor shall undertake his/her own review and stamp with his/her acceptance those shop drawings and supplemental data he/she is requested to submit to the University's Architect/Design Professional for his/her review. By accepting and submitting shop drawings and supplemental data, the Contractor represents that the Contractor has determined and verified all field measurements, the physical construction, the quality of materials, the applicability of catalog numbers, and similar data, or will do so, and that the Contractor has checked and coordinated each shop drawing with the requirements of the work and of the Contract Documents. Conflicts with other trades shall be resolved by the Contractor in the shop drawings, if possible, but in any event prior to the actual construction. Drawings submitted in response to a request of the University's Architect shall show rearrangements, if any, made necessary by the use of materials or equipment other than those specified. Review, mark-up as appropriate, and stamp show drawings, product data, and samples prior to submission. Submittals shall clearly show that they have been reviewed and approved by Contractor for conformance with the requirements of the Contract Documents and for coordination with other Sections.
 - b. Submittals not stamped and signed by Contractor will be returned without review.
 - c. Determine and verify:
 - (1) Field measurements.
 - (2) Field construction criteria.
 - (3) Catalog numbers and similar data.
 - (4) Conformance with Contract Documents.
 - d. Coordinate each submittal with requirements of the Work and of the Contract Documents.
 - e. Notify University's Representative and its Design Professional in writing, at time of submission, of any changes in the submittals from requirements of the Contract Documents. Contractor is responsible to correct the deficiencies from the requirements of the contract documents when any changes are not made in writing to the University Representative or its Design Professional at the time of submission. The approval of submittals will be deemed null and void.
 - f. Begin no fabrication or Work which requires submittals until the return of the University's Design Professional's final reviewed submittals.

4. Coordination Drawings: Prepare coordination drawings where careful coordination is needed for installation of products and materials fabricated by separate entities as specified in Section 01 3300. Prepare coordination drawings where limited space availability necessitates maximum utilization of space for efficient installation of different components.
 - a. Show the relationship of components shown on separate Shop Drawings.
 - b. Indicate required installation sequences.
 - c. Comply with requirements contained in this Section.

5. BIM Procedures:
 - a. Contractor shall establish procedures for coordinating work using BIM methods and protocols.
 - b. Format and Development: Prepare coordination drawings according to the following requirements:
 - (1) Prepare BIM files for the project based on original hard copy documents as received from the University.
 - (2) Prepare all files using BIM software program, version, and operating system as approved by University.
 - (3) Prepare BIM Execution Plan establishing BIM protocols for project, including standards, responsibilities of Contractor and sub-contractors, schedules, clash detection, and quality control.
 - (4) Designate a specific staff person as Contractor's BIM Coordinator.
 - (5) Submit or post coordination drawing files using format same as file preparation format or Portable Data File (PDF) format.
 - c. Clash Detection:
 - (1) Using BIM procedures perform clash detection as part of preparation of coordination drawings.
 - (2) Include clash detection protocol in the BIM execution plan.
 - (3) BIM Coordinator will review and assemble the various design and trade models, create clash reports and conduct coordination meetings with University's Representative as defined by the BIM execution plan.
 - (4) Run Parameters: Clash detection, at minimum, shall be set to report any hard clashes within a 1 /4 inch tolerance. Clearance tolerances shall be used to account for additional material applied to modeled elements, such as fire proofing or required clearances.
 - (5) At a minimum, review Clash Detection documents on a weekly basis. Identify conflicts requiring document modifications and review with University's Representative.
 - (6) Update model elements based on field verification of dimensions and orientation.
 - d. Following resolution of conflicts and clash detection, prepare coordination drawings for review as follows:
 - (1) Comply with shop drawing requirements for sheet size and submittal methods specified in Section 01 3300 "Submittals".
 - (2) Refer to Specifications in Divisions 2-33 technical specification sections for specific Coordination Drawing requirements.
 - (3) Provide composite coordination drawings for equipment and system installations in mechanical and electrical rooms and spaces where two or more entities will provide the work.

- (4) Provide composite coordination drawings showing planned locations of core cuts, sleeves, and other penetrations intended for placement in concrete decks, slabs, and structural components. Indicate intended use such as openings for conduit, piping, ducts, and utility services.
 - (5) Provide composite coordination drawings showing planned locations of fire and sound rated wall penetrations, including dampers. Indicate intended use such as openings for conduit, piping, ducts, and utility services.
 - (6) Prepare above-ceiling coordination drawings showing all above-ceiling work including structural members and required clearances and dimensions.
- e. At the end of the project as part of the close out submittals the Contractor shall provide an “as-built” BIM model to be given to the University in addition to the hard copy as built drawings.
6. Submission Requirements:
- a. Make submittals promptly in accordance with the Specifications and in such sequence as to cause no delay in the Work.
 - (1) Coordination: Coordinate preparation and processing of submittals with performance of construction activities. Transmit each submittal sufficiently in advance of performance of related construction activities to avoid delay.
 - (a) Coordinate each submittal with fabrication, purchasing, testing, delivery, other submittals and related activities that require sequential activity.
 - (b) Coordinate transmittal of different types of submittals for related elements of the work so processing will not be delayed by the need to review submittals concurrently for coordination.
 - (c) The University's Representative reserves the right to withhold action on a submittal requiring coordination with other submittals until related submittals are received.
 - (2) Processing: Allow sufficient review time so that installation will not be delayed as a result of the time required to process submittals, including time for resubmittals.
 - (a) Allow sufficient time from receipt by University's Representative, for initial review and comment. Allow additional time if processing must be delayed to permit coordination with subsequent submittals. The University's Representative will promptly advise the Contractor when a submittal being processing must be delayed for coordination.
 - (b) If an intermediate submittal is necessary, process the same as the initial submittal.
 - (c) Allow additional time for reprocessing each submittal.
 - (d) No extension of Contract Time will be authorized because of failure to transmit submittals to the University's Representative sufficiently in advance of the Work to permit processing.
 - b. Number of Submittals Required: Refer to Specification Section 01 3500 “Document Control” for distribution of Shop Drawings and Product Data submittals. After each submittal has been reviewed by the Design Professional and returned to the Contractor. The Contractor shall make (two) 2 hard copies of all approved submittals and shall submit the hard copies to the University's Representative for project record filing.

- (1) Samples: Contractor to submit a minimum of (five) 5 physical samples each of products and or samples for Design Professional's review and approval. After review and approval one sample will be retained by the architect, two (2) for the contractor and its subcontractor and two (2) for the University's Representative.
- (2) Shop drawings and supplemental data, where called for, shall be prepared and submitted as per General Conditions. Final corrected copies of schedules and shop drawings or supplemental data to University's Design Professional for review shall be such as to provide one (1) for University's Architect's files, two (2) for the University and two (2) to the Contractor's job files and for distribution by the Contractor to subcontractors or vendors. Exceptions shall be as noted in Specifications sections.

c. Submittals shall contain:

- (1) Identification data number assigned by the Contractor, consisting of the specification section number followed with the number 001 and continuing in sequence.
 - (a) Resubmittals: Add a letter to the previous identification, for instance 01 3400/005/R1 would be a first resubmittal.
 - (b) Use a separate number for each product, assembly, or system. Similar or related items may be grouped only if compatible with review process as approved.
- (2) Date of submission and dates of any previous submissions.
- (3) Project name and number, and contract identification.
- (4) Names of Contractor, Subcontractor, Supplier and Manufacturer.
- (5) Identification of item, with Specification Section number and article/paragraph references.
- (6) Field dimensions, clearly identified as such.
- (7) Relation to adjacent or critical features of the Work or materials.
- (8) Reference standards, such as ASTM or Federal Specification numbers.
- (9) Identification of changes from requirements of the Contract Documents.
- (10) Identification of revisions on resubmittals.
- (11) An 8-inch x 3 inch blank space for review stamps, as necessary.
- (12) Contractor's stamp, initialed or signed, certifying to the review of the submittal; verification of materials and field measurements and conditions; and compliance of the information within the submittal with requirements of the Work and of the Contract Documents.

d. Interpretation of Terms:

- (1) "As directed", "as required", "as permitted", "acceptable", "satisfactory", means by or to the University's Architect. The term "equal" means "equal in the opinion of the University's Architect after submittal data is reviewed". The term "favorable review" means that the submittals for material list, shop drawings, material substitutions, schedules, etc., will be reviewed by the University's Architect and copies returned to the Contractor marked as "Review Completed", "No Exceptions Taken" or "Make Corrections Noted" in which case no further submittals are needed.
- (2) Submittals returned marked "Resubmit", "Amend and Resubmit" or "Rejected - Resubmit" shall be corrected to comply with project requirements and shall be resubmitted for review

7. Resubmission Requirements:
- a. Shop Drawings and Product Data:
 - (1) Revise shop drawings or product data, and resubmit as specified for the initial submittal, only if required by University's Design Professional.
 - (2) Identify any changes which have been made other than those requested.
 - (3) Note any departures from the Contract Documents or changes in previously reviewed submittals which were not commented upon by University's Design Professional.
 - b. Samples: Submit new samples as required for initial submittal.
 - c. University's Design Professional's Review: The University's Design Professional will review shop drawings and supplemental data submitted by the Contractor only for general design conformance with the concept of the Project and compliance with the information given in the Contract Documents. Review of such submittals is not conducted for the purpose of determining the accuracy and completeness of other details such as dimensions and quantities, or for substantiating instructions for installation or performance of equipment or systems, all of which remain the responsibility of Contractor as required by the Contract Documents.
8. Distribution:
- a. Reproduce and distribute copies of Submittals including Shop Drawings and Product Data, which carry the University's Design Professional's review stamp, to the following locations:
 - (3) Contractor's Project site file.
 - (4) Record documents file maintained by Contractor.
 - (5) Separate Contractors.
 - (6) Subcontractors.
 - (7) Supplier or manufacturer.
 - (8) Other involved parties as directed by University's Representative.
9. Design Professional's or Design Professional's designee's or University Representative's Review will be under the following conditions.
- a. Review of submittals is only for general conformance with the design concept of the Project and general compliance with the information given in the Contract Documents. Review of such submittals is not conducted for the purpose of determining the accuracy and completeness of other details such as dimensions and quantities, or for substantiating instruction for installation for performance or equipment or systems, all of which remain the responsibility of contractor as required by the Contract Documents.
 - b. The review does not affect the Contractor's responsibility to perform all Contract requirements with no change in Contract Sum or Contract Time. Any actions shown are subject to the requirements of the Drawings, Specifications and other Contract Documents. The Contractor is responsible to confirm and correlate dimensions at the site, for information that pertains to the fabrication processes, for the means, methods, techniques, procedures, sequences and quantities necessary to complete the Contract and for coordination of the work of all trades and satisfactory performance of his work. The review is undertaken solely to satisfy Consultant's obligations, if any to the University and shall not give rise to any claim by the Contractor or other parties against the University's Representative, his/her Consultants or University.

B. Shop Drawings

1. Present information required on shop drawings in a clear and thorough manner. Identify details by reference to drawings and detail, schedule, or room numbers shown and specified.
2. Shop drawings shall be original drawings by the Contractor. Direct reproductions of the Contract Drawings will not be acceptable as shop drawings.
3. Shop Drawings Delineation: The Shop Drawings shall be drawn to scale and shall be completely dimensioned, giving the plan together with such sections as are necessary to clearly show construction detail.
4. Responsibility: These Shop Drawings and all supporting data, catalogs, etc., shall be prepared by the Contractor or his/her suppliers, but shall be submitted as the instruments of the Contractor. Therefore, the Contractor shall review and approve the drawings of his/her suppliers as well as his/her own drawings before submitting them to the University's Representative. In particular, the Contractor shall ascertain that the drawings meet all requirements of the Drawings and Specifications and also conform to the structural and space conditions. Each Shop Drawing submitted for review shall bear a stamp certifying that it has been reviewed and approved by the Contractor in accordance with the Contract Documents. If such Shop Drawings show variations from Contract Documents, whether because of standard shop practice or other reasons, the Contractor shall make special mention thereof in his/her letter of transmittal. The Contractor shall be fully responsible for observing the need for and making any changes in the arrangement of piping, connections, wiring, manner of installation, etc., which may be required by the equipment he/she proposes to supply both as pertains to his/her own work and any work affected under other parts, heading or divisions of Drawings and Specifications.
5. Identification: Shop Drawings shall be entitled with the name of the project on each sheet and shall otherwise be identified by listing the particular division, section, article or reference of the work pertaining. Submit different items on separate sheets. All submittals shall be numbered sequentially.
6. Manner: Furnish for University's Design Professional's approval separate sheets of submittal of each specialty item in the following manner:
 - a. Catalog cuts shall be photocopied or reproduced in some other acceptable manner and submitted on one (1) side only of an 8-1/2" x 11" sheet, noting only the items in question, together with the descriptive (specification) data complete. Once the Design Professional has reviewed the submittal provide two (2) hard copies of each approved, stamped shop drawing and other supporting data to the on-site University's Representative.
 - b. Each sheet shall be identified with the division, section, article or reference in the Contract Documents which covers the item submitted for approval.
 - c. Each sheet shall be identified with the project name, the University's Representative and the project's Design Professional.
 - d. Each sheet shall bear the Contractor's stamp and signature of approval.
7. All shop drawings shall be drawn accurately suitable for duplicate copying by black line, blue line printing processes or photocopy.
8. Supplemental Data: Supplemental data shall include information as noted in the specification paragraphs requiring them, or as requested by the University.

9. Review Required: Shop drawings, if requested, must be submitted to and favorably reviewed by the University's Architect/Design Professional before being used by the Contractor on the job.

C. Product Data

1. Clearly mark each copy to identify pertinent Products or models.
2. Show performance data consisting of capabilities, rpm, kw pressure drops, design and operating pressures, temperatures, performance curves, noise level curves, power characteristics and consumption; conforming as closely as possible to the test methods referenced in the plan and specifications.
3. Show dimensions, weights and clearances required.
4. Show wiring or piping diagrams and controls.
5. Modify the standard schematic drawings and other diagrams to delete information, which is not applicable to the Work.
6. Supplement standard information to provide information specifically applicable to the Work.

D. Samples

1. Office samples shall be of sufficient size and quality to clearly illustrate the following:
 - a. Functional characteristics of the products, with integrally related parts and attachment devices.
 - b. Full ranges of color, texture, and pattern.
 - c. Provide a minimum of 5 samples plus any additional number for Contractor needs.
2. Samples herein referred to shall include all materials, equipment, surface textures, colors, fabrics, etc., as required by Drawings and Specifications or as requested by the University's Design Representative. They shall be submitted as required by the Specifications or requested by the University's Representative or its Design Professional.
3. Submittal: Samples, properly identified and described, shall be submitted as noted herein, or as may be required by the University's Representative. They shall be submitted and resubmitted until approved. No approval of a sample shall be taken in itself to change or modify any contract requirement. Finishes, materials, or workmanship in the completed building shall match the approved samples.
4. Manner: Contractor shall forward all samples under cover letter in five (5) copies, including a complete listing of such samples designated for use on the project, with complete identification on each sample by project name, ultimate destination of material, manufacturer, brand, lot, style, model, etc., Contract Document reference as well as the names of the Contractor, Supplier, Project, Design Professional and University's Representative. All submittals shall be numbered sequentially.
5. Return: Samples of value will be returned to the Contractor for use in the project after review, analysis, comparison and/or testing as may be required by the University's Architect.
6. Test Sample: Test samples, as the University's Representative designates, will be selected from the materials or equipment delivered by the Contractor for use in the work. If any test sample fails to meet the specification requirements, all previous approvals will be withdrawn and such materials or equipment which fail the testing shall be subject to removal and replacement by the Contractor with materials or equipment meeting the specification requirements.

E. Mockups

1. Provide mock-ups as described in Specification Section 01 4339 and on the following drawings:
2. Material List: Provide complete material list of products proposed for use. Submit Material Safety Data Sheets (MSDS) for Owner's use. Neither the University Representative nor its Design Professional will review MSDS.
3. Contractor's Review: Review, mark-up as appropriate, and stamp show drawings, product data, and samples prior to submission. Submittals shall clearly show that they have been reviewed and approved by Contractor for conformance with the requirements of the Contract Documents and for coordination with other Sections.

1.4. LEED DOCUMENTATION

- A. Sustainable Design and LEED submittals are in addition to other submittals. If submittal item is identical to that submitted to comply with other requirements, submit duplicate electronic copies as a separate submittal to verify compliance. Any discrepancies shall be referred to the Universities Representative for clarification.
- B. LEED documentation submittals shall be prepared and submitted using the LEED-Online credit website.
- C. Refer to Section 01 8113 "Sustainability Design Requirements" item 1.5 Submittals; for the complete listing of all LEED documentation and submittals required for the project.

1.5. REFRIGERANT MANAGEMENT DOCUMENTATION

- A. UCR has instituted a requirement to comply with end-of-year refrigerant inventory for reporting to UCOP and with the South Coast Air Quality Management District's policies to account for the use of refrigerant gas delivery, recovery and charging installed with new HVAC and any other equipment using gas refrigerant on UCR projects.
- B. To provide accurate accounting for the reporting of the refrigerant charge in a mechanical system and/or equipment, the actual quantity must be known in order to document gas lost from leaks etc. when repairs are done.
- C. HVAC and other equipment utilizing gas refrigerant that are delivered to the site intact with the factory charge quantity listed on the nameplate or in literature submitted for the design professional's review, can sometimes be charged in the field according to various indications. Therefore the contractor who delivers and installs any system and/or equipment which uses refrigerant shall provide startup reports that list the exact quantity of gas charged into each system and submit these reports to the University's Representative who will provide to UCR EH&S.

PART 2 – PRODUCTS (Not Applicable)

PART 3 – EXECUTION (Not Applicable)

END OF SECTION

CONTRACTOR CERTIFICATION

COMPLETE THIS CERTIFICATE, INCLUDING SIGNATURE BY PERSON DIRECTLY RESPONSIBLE FOR WORK ON THIS PROJECT. REVIEW EACH SUBCONTRACTOR CERTIFICATION FOR COMPLETENESS AND COORDINATION WITH COMMENTS MADE ON THIS CERTIFICATE AND OTHER SUBCONTRACTOR CERTIFICATES. SUBMIT THIS CERTIFICATE AND ALL SUBCONTRACTOR CERTIFICATES TO THE UNIVERSITY'S REPRESENTATIVE WITHIN 10 DAYS OF RECEIVING NOTICE TO PROCEED.

1. As required by the General Conditions of the Contract for Construction, the undersigned certifies that a thorough review has been made of all of the Contract Documents, including, but not limited to the Agreement, General and Supplementary conditions, Drawings, specifications, and Addenda (if any) for the Work. The undersigned also acknowledges each subcontractor has been required to perform a similar thorough review and that Contractor and subcontractors have related and coordinated requirements of individual units of Work to requirements for the entire Work.
2. The undersigned acknowledges his/her obligation to identify below discrepancies, errors, omissions, conflicts, code violations, and improper use of materials discovered in the Contract Documents. Except as noted below and on subcontractor certificates, the undersigned certifies, to the best of his/her knowledge, information, and belief that the Work can be completed in a workmanlike manner without extensive modifications or additional expense.

EXCEPTIONS: _____

NAME, ADDRESS, TELEPHONE OF CONTRACTOR: _____

AUTHORIZED SIGNATURE: _____ DATE: _____

NAME (PRINTED CLEARLY OR TYPED): _____

TITLE: _____

END OF CONTRACTOR CERTIFICATION

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SUBMITTAL SCHEDULE									
Section	Shop Dwgs	Prod. Data/List	Samples Mock-ups	Extend. Guarantee	Op/Maint. Manuals	Tests	Extra Mat'l	Certs.	Other
01325									
01630									
01 1100									
01 1400									
01 2300									
01 2613									
01 3113									
01 3119									
01 3200									
01 3280									
01 3300									
01 3520									
01 3543									
01 3546									
01 4100									
01 4200									
01 4300									
01 4500									
01 4516									
01 4520									
01 5100									
01 5200									
01 5300									
01 5400									
01 5500									
01 5600									
01 5700									
01 6000									
01 7100									
01 7329									
01 7400									
01 7700									
01 7839									
01 8113									
01 9113									

END OF SECTION

NOTE: Should a discrepancy arise between this schedule's requirements and individual requirements, the most stringent requirement shall prevail.

SUBCONTRACTOR CERTIFICATION

COMPLETE THIS CERTIFICATE, INCLUDING SIGNATURE BY PERSON DIRECTLY RESPONSIBLE FOR WORK ON THIS PROJECT, AND SUBMIT TO THE GENERAL CONTRACTOR WITHIN 5 DAYS OF RECEIVING NOTICE TO PROCEED FROM GENERAL CONTRACTOR.

1. As required by the General Conditions of the Contract FOR construction, the undersigned certifies that a thorough review has been made of all of the Contract Documents, including, but not limited to the Agreement, General and Supplementary Conditions, Drawings, Specifications, and Addenda (if any) for the Work. The undersigned also certifies that Contractor and subcontractor have related and coordinated requirements for the entire Work.
2. The undersigned acknowledges his/her obligation to identify below discrepancies, errors, omissions, conflicts, code violations, and improper use of materials discovered in the Contract Documents. Except as noted below, the undersigned certifies, to the best of his/her knowledge, information, and belief that no such discrepancies, errors, omissions, conflicts, code violations, or improper use of materials occur in the Contract Documents.
3. Except as noted below, the undersigned has no objection to, or reservation about, the materials to be furnished or the conditions under which they will be installed, and is satisfied that contractual responsibilities for units of Work for which undersigned is responsible can be completed in a workmanlike manner without extensive modifications or additional expense.

EXCEPTIONS: _____

UNITS OF WORK FOR WHICH UNDERSIGNED IS RESPONSIBLE:

NAME, ADDRESS, TELEPHONE OF
SUBCONTRACTOR: _____

AUTHORIZED
SIGNATURE: _____ DATE _____

NAME (PRINTED CLEARLY OR TYPED) _____

TITLE: _____

END OF SUBCONTRACTOR CERTIFICATION

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SECTION 01 3520 DESIGN ASSIST PROCEDURES

1.1 SUMMARY

- A. Section includes requirements of Contractor for design-assist work including, but not necessarily limited to, those identified in the various Sections of the Specifications and the following:
 - 1. Contractor's Responsibility
 - 2. Coordination with Architectural Design Intent
- B. The following require design assistance:
 - 1. Fire sprinkler system.
 - 2. Fire alarm system.
- C. Design-assist procedures are specified to assist Contractor in coordinating design-assist work.

1.2 CONTRACTOR'S RESPONSIBILITY

- A. Contractor acknowledges that it shall be responsible for the design, method of construction, and coordination and integration with other trades to achieve the architectural design intent of the Contract Documents, of those portions of the design-assist work including sizing, sequence, placement and details of construction.
- B. Contractor guarantees the following:
 - 1. Design-assist work shall be constructed in compliance with building codes and ordinances in effect and shall be fit and proper for its intended use.
 - 2. Where relevant, design and method of construction of the design-assist work shall not incorporate or employ the use of any product, process or technique which may be protected by common law or statutory patent, copyright or trade secret rights unless Contractor or subcontractor shall be the lawful owner or licensee of same.
- C. Contractor shall indemnify and hold harmless University, University's Representative, Architect and its consultants, and agents and employees of any of them from and against claims, damages and expenses resulting from breach or failure by Contractor to perform fully any of the forgoing obligations and specifically agrees to indemnify and hold University harmless from any and all claims of the Contractor's employees, agents, subcontractors, suppliers or third parties and to make good any damages to the Work, and attorneys' fees and costs of additional work by University's Design Professional resulting from the inadequacies of the design, techniques or methods of construction of the design-assist Work.
- D. The design and the drawings and specifications for the techniques and method of construction of the design-assist work shall be prepared and shall result in work which is fit to perform its intended purpose.
- E. For design-assist work, Contractor shall provide plans, specifications, and calculations that are prepared, stamped, and signed by qualified, registered, licensed engineers authorized to practice their professions under the laws of the State of California. The plans, specifications, and calculations shall be acceptable to the University's Representative.

- F. Prior to commencement of the design-assist work at the Project Site, Contractor shall provide the University with copies of current insurance policies covering the errors or omissions of persons designing the design-assist work with maximum deductibles and limits per occurrence as mutually agreed by the University and Contractor, together with an endorsement providing for a 30-day notice to University prior to cancellation or material reduction in coverage.
- G. Maintain insurance at least the period equal to the applicable statute of limitations for claims arising out of latent defects in works of improvement to real property, if such insurance is not written on an "occurrence" basis during the time the design-assist work is designed and constructed.

1.3 COORDINATION WITH ARCHITECTURAL DESIGN INTENT

- A. Ceilings:
 - 1. Coordinate the work of all trades involved to ensure clearances for fixtures, ducts, piping, ceiling suspension systems and other above-ceiling work as necessary to maintain finished ceiling heights.
 - 2. Paint all exposed items at ceilings. Paint air grilles to match adjacent ceiling finish.
 - 3. Locate light fixtures, sprinkler heads, and diffuser grilles in the center of ceiling panels.
- B. Areas Where Structure Is Exposed:
 - 1. Install sprinkler lines, ductwork, conduit, plumbing, process piping, lighting and all other overhead items at regular intervals, parallel to and/or perpendicular with building column grid lines.
 - 2. Align all hangers, wires, braces, struts, chains, junction boxes, etc. in any given line aligned with one another, and install in the same fashion, for a neat, uniform appearance.
- C. Review proposed layouts with University's Representative and other trades in the field prior to commencing work. Layouts which have not been so reviewed will be subject to change at no additional expense to the University if found unsatisfactory. Areas subject to such review include but are not necessarily limited to exposed structure areas.

END OF SECTION

SECTION 01 3543 ENVIRONMENTAL PROCEDURES

PART 1 – GENERAL

1.1. SUMMARY

- A. This Section includes:
 - 1. Hazardous Materials Procedures
 - 2. Toxic Materials Procedures
 - 3. University of California – Approved TSDFs (Attached to end of Section.)
- B. Submittals:
 - 1. Submit Material Safety Data Sheets (MSDS) for all materials, whether existing or incorporated into the work, which are identified as potentially hazardous but not required to be abated.

1.2. HAZARDOUS MATERIALS PROCEDURES

- A. Except as otherwise specified, in the event Contractor encounters on the Project site material reasonably believed to be asbestos, polychlorinated biphenyl (PCB), or other hazardous materials which have not been rendered harmless, Contractor shall immediately stop Work in the area affected and report the condition to University and University's Representative in writing. The Work in the affected area shall not thereafter be resumed except by written agreement of University and Contractor if in fact the material is asbestos, PCB, or other hazardous materials and has not been rendered harmless. The Work in the affected area shall be resumed in the absence of asbestos, PCB, or other hazardous materials, or when such materials have been rendered harmless.
- B. If material has been encountered on site and the Contractor has reported the condition to the University's Representative, then the University Representative shall contact UCR Environmental Health and Safety office (EH&S) and **Ambient Environmental**, the University's hazardous material consultant to conduct an on-site assessment of the material and if it is found to be hazardous then **Ambient Environmental** shall prepare a plan to remove it off site and dispose of it at a University of California approved Treatment, Storage, and Disposal Facility (TSDF). See the list of University of California – Approved TSDFs attached to the end of this Section.

1.3. TOXIC MATERIALS PROCEDURES

PART 2 – PRODUCTS (Not Applicable)

PART 3 – EXECUTION (Not Applicable)

END OF SECTION

University of California - Approved TSDFs

This document is a list of permitted treatment, storage, and disposal facilities (TSDFs) that have been deemed acceptable for use in managing hazardous waste generated by the University of California (UC) or at UC facilities. Neither UC nor any of its employees makes any warranty, express or implied, as to the merchantability or fitness for a particular purpose of the goods or services provided by the TSDFs listed above. Except as stated above, reference to the TSDFs in this document does not necessarily constitute or imply its endorsement or recommendation by UC and UC expresses no opinion as to any TSDF that does not appear in this document. This document shall not be used for advertising or product endorsement purposes or for any other use not expressly authorized in writing by UC.

TSDF name	Street	City	State	Zip phone	EPA ID
Altamont Landfill	10840 Altamont Pass Road	Livermore	CA	94550 (925) 455-7306	CAD981382732
AERC INC (MTI)	30677 Huntwood Avenue	Hayward	CA	94544 (510) 429-1129	CAD982411993
Azusa Land Reclamation Co.	1201 W. Gladstone	Azusa	CA	91702 (626) 334-0719	CAD009007626
Bethlehem Apparatus	890 Front Street	Hellertown	PA	18055 (610) 838-7034	PAD002390961
Chemical Waste Management (CWM) - Kettleman Hills	35251 Old Skyline Roac	Kettleman	CA	93239 (559) 386-9711	CAT000646117
Chemical Waste Management (CWM) - TWI	7 Mobile Drive	Sauget	IL	62201 (618)271-2804	ILD098642424
Chem-Nuclear Systems, Inc (Barnwell)	140 Stoneridge Drive	Columbia	SC	29210 (803) 758-1826	SCD048372429
Clean Harbors (Aragonite), LOC Inc.	P.O. Box 22890	Aragonite	UT	84122 (801) 323-8100	UTD981552177
Clean Harbors (Chicago)	11800 S. Stony Island Ave.	Chicago	IL	60617 (800)678-4844	ILD000608471
Clean Harbors (Deer park), Inc	2027 Battleground Road	Deer Park	TX	77536 (713) 930-2300	TXD055141378
Clean Harbors (Kimball, Incinerator Facility)	2247 S. Highway 71	Kimball	NE	69145 (308)235-4012	NED981723513
Clean Harbors (Lokern)	2500 West Lokern Rd.	Buttonwillow	CA	93206 (805) 762-6200	CAD980675276
Clean Harbors (Los Angeles), Inc.	5756 Alba Street	Los Angeles	CA	90058 (213) 585-5063	CAD050806850
Clean Harbors (Phoenix)	1340 West Lincoln Street	Phoenix	AZ	85007 (602)258-6155	AZD049318009
Clean Harbors (Sacramento)	6000 - 88th Street	Sacramento	CA	95828 (916) 386-4999	CAD000084517
Clean Harbors (San Jose)	1040 Commercial St. Suite 109	San Jose	CA	95112 (408) 453-6046	CAD059494310
Clean Harbors (Spring Grove Resources Recovery)	4829 Spring Grove Ave.	Cincinnati	OH	45232 (513)681-5738	OHD000816629
Crosby & Overton, Inc.	1630 W 17th Street	Long Beach	CA	98013 (562) 432-5445	CAD028409019
DeMenno/Kerdoon	22000 N. Alameda Street	Compton	CA	90222 (310)537-7100	CAT080013352
Diversified Scientific Services (DSSI)	P.O. Box 863	Kinston	TN	37831 (615) 376-0084	TND982109142
Duratek	1560 Bear Creek Road	Oak Ridge	TN	37831 (423) 481-0222	TND982157570
ENSCO	309 American Circle	El Dorado	AR	71730 (870) 862-0272	ARD069748192
ENSCO West	1737 East Denni Street	Wilmington	CA	90744 (310) 835-9997	CAD044429835
Envirocare of Utah, Inc	US I-80, Exit 49	Clive	UT	84029 (801) 532-1330	UTD982598898
Environmental Management & Controls (EMC)	3106 South Faith Home Road	Turlock	CA	95380 (209)-667-1102	Radioactive Material License # 3546-5C
Envirosafe	hwy 78 Missile Base Roac	Grand View	ID	82624 (208)834-2275	IDD073114654
Heritage Environmental Services, Inc	7901 West Morris Street	Indianapolis	IN	46231 (317) 243-0811	IND093219012
Heritage Environmental Services, LLC	5122 East Story Road	Coolidge	AZ	85228 (520)723-4167	AZD081705402
Heritage Landfill	4370 W.CR 1275N	Roachdale	IN	46172 (317)243-0811	IND980503890
Kinsbursky Brothers Incorporated	1314 Lemon Street	Anaheim	CA	92801 (714)738-8516	CAD088504881
Mercury Waste Solutions, Inc.	21211 Durand Avenue	Union Grove	WI	53182 414-878-2599	WIR 000 000 356
Merry X-Ray	131 South Maple #1	S. San Fran	CA	94080 (650)6742-6630	CAL000512065
ONYX (formerly AETS)	1125 Hensley Street	Richmond	CA	94801 (510) 233-8001	CAT080014079
Onyx (formerly CWM OSCO)	1704 W. First Street	Azusa	CA	91702 (626) 815-2215	CAD008302903
Onyx (Superior Special Services, Inc.)	5736 West Jefferson	Phoenix	AZ	85043 (602) 233-2955	AZD983473539
Perma-Fix (Quadrex)	1940 NW 67th Street	Gainesville	FL	32653 (405) 468-2000	FLD980711071
Philip Environmental (Burlington)	20245 - 77th Avenue, south	Kent	WA	98032 (206) 872-8030	WAD991281767
Philip Environmental (Georgetown)	734 Lucile Street	Seattle	WA	98108 (206) 762-3362	WAD000812909
Philip Environmental (Rho-Chem)	425 Isis Avenue	Inglewood	CA	90301 (213) 776-6233	CAD008364432
Photo Waste Recycling Co., Inc.	2980 Kerner Boulevard	San Rafael	CA	94901 (415)459-8807	CAD981429673
Photo Waste Recycling Co., Inc.	12898 Bradley Avenue, Suite B	Sylmar	CA	91342 (818)362-0668	CAD000121946
Ramos Environmental Services Inc.	1515 South River Road	W. Sacramento	CA	95691 (916)-371-5747	CAD044003556
Romic Environmental Technologies Corp	2081 Bay Road	East Palo Alto	CA	94303 (650)-324-1638	CAD009452657
Romic Environmental Technologies Corp (Southwest)	6760 West Allison Road	Chandler	AZ	85226 (602) 796-1040	AZD009015389
Ross Environmental Services	36790 Giles Road	Grafton	OH	44044 (440) 748-5800	OHD 048415665
Stericycle, Inc. (Formerly BFI)	4135 West Swift Avenue	Fresno	CA	93722 (559)275-0991	None
Stericycle, Inc. (Formerly BFI)	90 North 1100 West	North Salt Lake	UT	84054 (801) 295-1555	UTD988078150
Systech Environmental Corp.	South Cement Road	Fedonia	KS	66736 (316) 378-4451	KSD980633259
SET Environmental INC. (Treatment One)	5743 Chestwood	Houston	TX	77087 (713)645-8710	TXD055735388
U.S. Filter Recovery Services (Norris Environmental)	5375 South Boyle Ave.	Los Angeles	CA	90058 (213) 277-1500	CAD097030993
Von Roll America (WTI)	1250 Saint George Street	East Liverpool	OH	43920 (800) 403-4888	OHD980613541
Waste Control Specialists (WCS)	1710 West Broadway	Andrews	TX	79714 (713) 944-5900	TXD988088464

Pacific Resource Recovery Services Big Bear CA CAD008252405
 Yellow Highlight indicates TSDF pending approval.

SECTION 01 3546 INDOOR AIR QUALITY (IAQ) PROCEDURES

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. This Section includes, without limitation, the following:
 - 1. IAQ Submittals
 - 2. Quality Assurance
 - 3. IAQ Management During Construction
 - 4. Sequence of Finish Installation
- B. Drawings and general provisions of Contract, including General and Supplementary Conditions and other Division-1 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. Indoor Air Quality Procedures include:
 - 1. IAQ Management Plan During Construction:
 - a. Prepare plan to comply with the requirements for LEED EQ 3.1 as specified in Section 01 8113, "Sustainable Design Requirements" and in this Section.
 - b. Procedures to prevent indoor air quality problems resulting from the construction/renovation process in order to help sustain the comfort and well-being of construction workers and building occupants.
 - 2. Sequence of Finish Installation: Scheduling/sequencing requirements and procedures necessary to optimize Indoor Air Quality (IAQ) levels for the completed Project.
- B. Related Work Specified in Other Sections:
 - 1. Section 01 8113, "Sustainable Design Requirements (for LEED Certification)" for additional requirements.
 - 2. Section 01 5000, "Construction Facilities and Temporary Controls" for environmental-protection measures during construction and location of waste containers at Project site.
 - 3. Section 01 7419, "Construction Waste Management" for handling requirements of construction waste.
 - 4. Application Sections for indoor air sampling prior to occupancy. (Sections to be identified)

1.3 IAQ SUBMITTALS

- A. IAQ Construction Management Plan. Submit 5 copies of plan within 30 days of date established for commencement of the Work.
 - 1. Include a schedule of all IAQ-related construction activities in the IAQ Construction Management Plan submittal.
 - 2. Update plan as required during the construction process to reflect Project conditions.
- B. Meeting Minutes: Submit minutes from Contractor meetings related to the execution and verification of the IAQ Construction Management Plan.
- C. Project Photographs: Submit to document IAQ measures implemented.

- D. Product Data: Submit cut sheets of filtration media proposed for use.
- E. LEED Submittal: LEED letter template for Credit EQ 3.1, signed by Contractor, with copy of plan and a statement that requirements for the credit have been met.

1.4 QUALITY ASSURANCE

- A. Comply with the requirements of LEED Credit EQ 3.1, "Construction IAQ Management Plan During Construction."
- B. Contractor's Plan shall meet or exceed the recommended design approaches of SMACNA's "IAQ Guidelines for Occupied Buildings Under Construction," (1995 Edition, Chapter 3).
- C. IAQ Management Conference: Conduct conference at Project site to comply with requirements in Division 1 Section "Project Management and Coordination."
 - 1. Review methods and procedures related to IAQ management during construction.
 - 2. Review IAQ management requirements for each trade.

PART 2 - PRODUCTS

PART 3 - EXECUTION

3.1 IAQ MANAGEMENT DURING CONSTRUCTION

- A. General: Contractor's IAQ Construction Management Plan shall include procedures to prevent indoor air quality problems resulting from the construction/renovation process in order to help sustain the comfort and well-being of construction workers and building occupants.
 - 1. Prepare and submit an Indoor Air Quality (IAQ) Management Plan to comply with the requirements for LEED EQ 3.1, as specified in Section 01 81 13, "Sustainable Design Requirements" and in this Section.
 - 2. Contractor's detailed plan shall be based on the particular characteristics of the Project, and include the items listed in this Section as a minimum.
 - 3. The IAQ Management Plan shall highlight the five requirements of the Sheet Metal and Air Conditioning National Design/Builders Association (SMACNA), "IAQ Guidelines for Occupied Buildings Under Construction," 1995, Chapter 3 and shall embody the principles and practices set forth hereinafter.
 - 4. Subcontractors and their employees shall be provided instruction and training in the IAQ Management Plan.
- B. Plan Implementation:
 - 1. Implement waste management plan. Provide handling, containers, storage, signage, transportation, and other items as required to implement waste management plan during the entire duration of the Contract.
 - 2. Comply with Section 01 5000 for operation, termination, and removal requirements.

C. Monitoring of IAQ Plan:

1. Hold weekly Contractor Site Co-ordination Meetings with the superintendents of all trade contractors. Review the appropriate components of the IAQ Construction Management Plan as a regular action topic at these meetings, and update the Plan as required. Document the implementation of the Plan in the meeting minutes. As a recording format, use SMACNA IAQ Guidelines Appendix C (Planning Checklist) and Appendix D (Inspection Checklist) as a guide.
2. Take a specific series of record photographs at the appropriate stages to document adherence with the IAQ requirements. Submit at least 18 photographs (six photos taken on three different occasions during construction) along with identification of the SMACNA approach featured by each photo, in order to show consistent adherence to the LEED Credit requirements.

D. HVAC Protection:

1. Store HVAC equipment in a clean, dry location. Until HVAC equipment (ducting, registers, air handler VAV boxes components, fans, and motors) has been installed, it shall be kept covered and secured with plastic film or in a location where it will not be exposed to moisture, dust, or other contaminants.
2. Seal off all louvers and air intake/discharge points to prevent construction dust and debris from entering.
3. Seal off all ductwork openings and air outlets with plastic sheeting to protect the duct system from dust and debris. Do not re-open until the end of activities that produce dust or pollution, such as drywall sanding, concrete cutting, masonry work, wood sawing, and so forth.
4. Seal all HVAC inlets and outlets. Use of the HVAC system shall be avoided during construction until drywall construction is complete. Temporary ventilation may be installed to remove contaminants. All air inlets and outlets shall be sealed securely with tape during construction. These include, but not limited to, outside air inlets, grilles, diffusers, supply ducts, return ducts, ceiling plenums, VAV (variable-air volume) plenum intakes, exhaust ducts, and window ventilator or air conditioning units. Openings shall be sealed with plastic film and tape that can be removed cleanly.
5. Seal HVAC components during installation. For ducting runs that require several days to install, sections shall be sealed off as they are completed. Seals shall be removed prior to continuing the ducting run. Other components of the HVAC system shall be subjected to the same requirements to protect them from contamination.
6. Use temporary filtration media. If the HVAC system is to be used while construction work is being done, temporary filtration media shall be installed on all intakes. Such filtration media shall have a minimum filtration efficiency (Minimum Efficiency Reporting Value-MERV per ASHRAE 52.2) of 8 or higher. For air intakes into parts of a building that are very sensitive to dust contamination, such as computer rooms, filtration media with a MERV rating of 13 or higher is required. New filtration with a MERV rating of 13 or higher shall be installed after construction.
7. If, for some unforeseen reason, there should arise a circumstance wherein the return air system is required to be used during the construction phase, install temporary MERV 8 filters or higher (as determined by ASHRAE Standard 52.2-1999) at each return air opening and provide frequent inspection and maintenance. If inspections by University Representatives reveal that the ductwork has become contaminated due to inadequate protection, the ductwork shall be cleaned professionally prior to the first phase of occupancy, using procedures established in ACR 2005 published by the National Air Duct Cleaners Association.
8. Under no circumstances shall air be returned from a construction area and then re-circulated through the permanent supply ductwork, unless and until the level of construction in the relevant area involves final finishes and trim and the construction has reached a point of complete building dry-in with no sanding and is free from dust, debris, and contaminants.

9. Do not use fan rooms to store construction or waste materials, and keep them clean and neat.
10. Inspect filters regularly. When the HVAC system is being used during construction and temporary filters are installed, filters shall be inspected weekly and replaced as needed.
11. Avoid contaminated air entry into enclosed parts of the building. When outdoor construction activities generate dust, combustion emissions, or other contaminants, operable windows and outside air supplies to enclosed portions of the building shall be closed.

E. Source Control:

1. Limit construction traffic and motor idling in the vicinity of air intake louvers when the HVAC systems are activated. Restrict motor vehicles to the loading dock area, well-removed from air intakes, preventing emissions from being drawn into the building.
2. Use electric or natural gas alternatives for gasoline and diesel equipment where possible and practical.
3. Cycle equipment off when not being used or needed.
4. Avoid the use of materials and products with high VOC and/or particulate levels. Use products and installation methods with low VOCs such as paints, sealers, sealants, filler materials, insulation, adhesives, caulking and cleaners. Comply with the requirements in other specification sections.
5. Keep containers of wet products closed as much as possible. Cover and seal waste materials which can release odor or dust.
6. Protect all materials, especially absorbent materials such as insulated ductwork, against moisture during delivery to and storage at the job site. Store materials inside the structure in a dry and clean environment pending installation. Building materials shall be kept dry to avoid the introduction of moisture into the building interior.
7. Avoid the use of moisture-damaged materials. Any porous materials that have been wetted shall be dried thoroughly before installation. Any porous materials that have been damaged, remained wet longer than 48 hours, or show signs of visible mold shall be discarded.
8. Ensure that the construction process will not result in moisture intrusion. In the event of rain or groundwater gaining entry to the building interior during construction, notify the University.
9. Avoid tracking pollutants into work areas.
 - a. Once the framing and mechanical system installation starts, access to the building interior shall be controlled to minimize the tracking in of contaminants.
 - b. Material deliveries and construction waste removal shall be routed via the most direct route to the building exterior of the building rather than through the space.
 - c. Provide rough track-off grates or matting at the entryway to remove moisture and contaminants from workers shoes.
 - d. Prevent the ingress of rodents and pests.
 - e. Use procedures to ensure that there is no smoking inside the building.

F. Pathway Interruption:

1. Use dust curtains or temporary enclosures to prevent dust from migrating to other areas when applicable. During construction, isolate areas of work to prevent contamination of clean or occupied areas.
2. Keep pollutant sources as far away as possible from ductwork and areas occupied by workers when feasible.
3. Isolate work areas and/or create pressure differentials to prevent the migration of contaminants.
4. Use portable fan systems to exhaust contaminated air directly to the outside of the building, and discharge the air in a means to prevent it from re-entering.

G. Housekeeping:

1. Minimize accumulation of dust and other contaminants. Construction practices shall be used that minimize the production of dust and other contaminants from construction activities. Use integral dust-collection systems on drywall sanders, cut-off saws, and routers. Confine dust-generation activities to areas where clean-up can be carried out easily and contaminants will not be tracked to other areas.
2. Suppress Dirt. Wetting agents or sweeping compounds shall be used to deep dust from becoming airborne.
3. Clean up dust. Wet clothes, damp mops, wet scrubbers, and vacuum cleaners with high-efficiency particulate (HEPA) filters shall be used to clean up dust generated by construction activities.
 - a. Cleaning frequency shall be increased when dust accumulation is noted.
 - b. Institute cleaning activities of building areas on a daily basis, and of HVAC equipment as required.
4. Keep all coils, air filters, dampers, fans, and ductwork clean during installation, and clean them as required prior to performing the testing, adjusting and balancing of the systems.
5. Clean up spills. All spills and excess applications of solvent-containing products should be cleaned up using approved methods as soon as practicable. Water spills shall be mopped up promptly.
6. Keep work area dry. Avoid accumulations of water inside the building, and promptly remove any that may occur.
 - a. Especially protect porous materials such as insulation and ceiling tiles from exposure to moisture.
 - b. The entire area shall be kept as dry as practicable by promptly repairing any leaks that allow rainwater entry and mopping up any water accumulation.
 - c. Use dehumidification if necessary for prompt drying of wetted spaces. Unvented combustion (e.g., propane or diesel "salamander" space heaters) shall not be used.
7. Seal containers containing volatile liquids. Containers of fuel, paints, finishes, and solvents shall be kept tightly sealed and preferably stored outside of the building when not in use.

H. Scheduling:

1. Comply with the scheduling requirements of Article, "Sequence of Finish Installation" of this Section.
 - a. Schedule the installation of porous materials only after closing in building.
 - b. Porous materials, such as insulation, fireproofing, and drywall shall not be installed in a building open to the weather.
 - c. To avoid potential contamination of porous or absorbent materials such as ceiling tiles, install furnishings after interior finishes (drywall, paint, and floor finishing) have cured.
2. Phased Completion: Implement IAQ control measures in each tenant area until construction in that area is complete. Do not allow contaminants from an area under construction to enter the HVAC ductwork systems or to migrate to completed areas.
3. Filters:
 - a. Install new MERV 13 filters at the central fan system, immediately prior to the first phase of building occupancy.
 - b. Install new MERV 13 filters at fan systems serving limited areas immediately prior to occupancy for each respective area.

I. Ventilation:

1. Provide adequate ventilation during curing period. To aid in curing of interior finishes and other products used during construction and to remove pollutants after drywall installation is complete, provide adequate ventilation with 100% outside air, and proper filtration. In humid periods or when very high-moisture materials are present, supplementary dehumidification may be required during this curing period.

2. Flush-Out: Comply with the requirements of LEED credit EA 3.2.

3.2 SEQUENCE OF FINISH INSTALLATION

- A. Sequence of Finish Installation: Project schedule shall address construction scheduling/sequencing requirements and procedures necessary to optimize Indoor Air Quality (IAQ) levels for the completed Project.
 1. Scheduling: Contractor's Project Schedule for finish applications should allow for:
 - a. Dissipation of high emissions from finishes that off-gas perceptible quantities of deleterious material during curing.
 - b. Separation of off-gassing effects from the installation of adsorptive materials that would act as a "sink" for storage and subsequent release of these unwanted substances into building spaces and mechanical systems after project occupancy.
 2. When Contractor's "Project Schedule" requires less than optimal sequencing of finish installation, related to IAQ, provide supplemental filtered "fresh air" ventilation of work areas during construction and restrict / control the use of permanent building mechanical systems prior to Owner acceptance of building to prevent contamination of systems by construction wastes and other deleterious substances.
- B. Finish Types:
 1. Type 1 Finishes: Materials and finishes which have a potential for short-term levels of off-gassing from chemicals inherent in their manufacturing process, or which are applied in a form requiring vehicles or carriers for spreading which release a high level of particulate matter in the process of installation and/or curing. Type 1 Finishes include, but are not limited to the following:
 - a. Composite wood products, specifically including particleboard from which millwork, wood paneling, doors or furniture may be fabricated.
 - b. Adhesives, sealants, and glazing compounds, specifically those with petrochemical vehicles or carriers.
 - c. Wood preservatives, finishes, and paint.
 - d. Control and/or expansion joint fillers.
 - e. All hard finishes requiring adhesive installation.
 - f. Gypsum board and associated finish processes.
 - g. Sealants and associated filler materials.
 2. Type 2 Finishes: "Fuzzy" materials and finishes which are woven, fibrous, or porous in nature and tend to adsorb chemicals off-gassed by Type 1 finishes or may be adversely affected by particulates. These materials become "sinks" for deleterious substances which may be released much later, or collectors of contaminants that may promote subsequent bacterial growth. Type 2 Finishes include, but are not limited to the following:
 - a. Carpet and padding.
 - b. Fabric wallcovering.
 - c. Insulation exposed to the airstream.
 - d. Acoustic ceiling materials.
 - e. Fabric covered acoustic wall panels.
 - f. Upholstered furnishings.
 3. Materials that can be categorized as both Type 1 and Type 2 materials shall be considered to be Type 1 materials.
- C. Optimal Order of Installation: Apply all Type 1 interior finishes throughout the entire controlled air zone of each enclosed building or building segment and allow such finishes to completely cure according to intervals and times stated in respective finish manufacturer's printed instructions before commencing installation of any Type 2 materials in the same area.

1. Do not store any Type 2 materials in areas where installation or curing of Type 1 materials is in progress.
- D. Materials Test Data - Required For Substitutions Only:
1. All manufacturers/producers of materials listed below that are proposed for substitution on this Project are required to provide test data for their materials which show permanent, in-place Indoor Air Quality performance in accordance with requirements of this Specification.
 2. Material Safety Data Sheets: Review all MSDS's of materials to be submitted for testing as well as MSDS's for other products where specifically requested in this Project Manual and identify those classified as "Prohibited Materials".
 3. Prohibited Materials:
 - a. Any building materials or products that emit pollutants included on the International Agency for Research on Cancer (IARC) "List of Chemical Carcinogens", the "Carcinogen List" of the National Toxicology Program, and the "Reproductive Toxin List" of the "Catalog of Teratogenic Agents" must have approval in writing from the Owner's Representative before that building material or product may be used on this Project.
 - b. Carcinogens: Use of materials emitting carcinogens will not be permitted unless a suitable substitute is not available. Do not proceed with procurement of any carcinogen emitting product or material without prior review and written approval of the University's Representative.

END OF SECTION

SECTION 01 4100 REGULATORY REQUIREMENTS

PART 1 – GENERAL

1.1. SUMMARY

- A. Section includes:
 - 1. Applicable Codes, Regulations, and Authorities
 - 2. Regulatory Notifications
 - 3. Permit Requirements, Notifications, and Certificates
 - 4. Fees – Not Used
- B. References in the Specifications to "code" or to "building code," not otherwise identified, shall mean the foregoing specified codes, together with the additions, changes, amendments, and interpretations adopted by the enforcing agency and in effect on the date of these Contract Documents. Nothing on the Drawings or in the Specifications shall be interpreted as requiring or permitting work that is contrary to these rules, regulations, and codes.
- C. Where other regulatory requirements are referenced in these Specifications, the affected work shall meet or exceed the applicable requirements of such references.
- D. Nothing stated in this Section of the Specifications or other Sections of the Specifications, the other Contract Documents or shown on the Drawings shall be construed as allowing Work that is not in strict compliance with all applicable Federal, State, regional, and local statutes, laws, regulations, rules, ordinances, codes and standards.
- E. Regulatory requirements referred to shall have full force and effect as though printed in these Specifications.
- F. Discrepancies between these codes/rules/etc. and the Contract Documents shall be brought to the attention of the University's Representative for resolution. Unless otherwise directed by the University's Representative, if a conflict exists between referenced regulatory requirements and the Contract Documents, comply with the one establishing the more stringent requirements.

1.2. APPLICABLE CODES, REGULATIONS, AND AUTHORITIES

- A. All applicable federal, state, and local laws and the rules and regulations of governing utility districts and the various other authorities having jurisdiction over the construction and completion of the Project, including the latest rules and regulations of the state fire marshal, OSHA, and the California Labor Code, shall apply to the Contract throughout, and they shall be deemed to be included in the Contract the same as though printed in these Specifications.
- B. Codes and regulations that apply to this Project include, but are not limited to, the following including additions, changes, and interpretations adopted by the enforcing agency in effect as of the date of these Contract Documents.
 - 1. California Code of Regulations (CCR):
 - a. Title 8, Industrial Relations
 - b. Title 17, Public Health
 - c. Title 19, Public Safety
 - d. Title 20, Public Utilities and Energy

- e. Title 21, Public Works
 - f. Title 22, Environmental Health
 - g. Title 24: Building Standards Code
 - (1) Part 2, California Building Code
 - (2) Part 3, California Electric Code
 - (3) Part 4, California Mechanical Code
 - (4) Part 5, California Plumbing Code
 - (5) Part 6, California Energy Code
 - (6) Part 7, California Elevator Safety Construction Code
 - (7) Part 9, California Fire Code
 - (8) Part 11, California Green Building Standards Code
 - (9) Part 12, California State Reference Standards
2. In addition to the above, work shall comply with the following:
- a. California Environmental Quality Act (CEQA).
 - b. California Health and Safety Code.
 - c. California Occupational Safety and Health Act Standards (Cal-OSHA).
 - d. California Department of Transportation (Caltrans): Standard Specifications, latest edition.
 - e. National Fire Protection Association (NFPA): Standards 13, 24, 72, and 80.
 - f. Americans with Disabilities Act - Title II (ADA).
 - g. Federal Occupational Safety and Health Act (OSHA).
 - h. Federal Environmental Protection Agency – Clean Air Act.
 - i. Storm Water Pollution Prevention Act.
3. All work shall meet or exceed code and regulatory requirements.
- C. Copies of Regulations: Obtain copies of the following regulations and retain at the Project site to be available for reference by parties who have a reasonable need:
- 1. California Code of Regulations, Title 8, 9 and 19
 - 2. California Code of Regulations, Title 24, including:
 - a. Part 1, California Administrative Code
 - b. Part 2, California Building Code, Volumes 1 and 2
 - c. Part 3, California Electrical Code
 - d. Part 4, California Mechanical Code
 - e. Part 5, California Plumbing Code
 - f. Part 6, California Energy Code
 - g. Part 7, California Elevator Safety Construction Code
 - h. Part 9, California Fire Code
 - i. Part 11, California Green Building Standards Code
 - i. Part 12, California Referenced Building Standards Code
 - 3. California Health and Safety Code regulations as referenced in the specifications.
 - 4. CAL/OSHA Construction Safety Orders.
 - 5. City of Riverside “Department of Public Works Standards and Specifications.
 - 6. ~~National Electrical Code.~~ Covered by Part 3
 - 7. National Fire Protection Association standards as referenced within the specifications
 - 8. State of California, Department of Transportation, Division of Highways, “Materials Specifications.” [should keep this in]
 - 9. State of California, Department of Transportation, Division of Highways, “Standard Specifications.” [should keep this in]
 - 10. ~~State of California, Office of State Fire Marshal~~ Covered by Title 19 and Part 9
 - 11. California Industrial Accident Commission, Safety Bulletins .
 - ~~12. Uniform Building Code~~
 - ~~13. Uniform Mechanical Code~~
 - ~~14. Uniform Plumbing Code~~

15. Standard Specifications for Public Works, (Greenbook), with local agency amendments.

D. 2010 ADA Accessibility Standards for Accessible Design

1.3. REGULATORY NOTIFICATIONS

A. Submit all required notifications to Federal, State of California, State in which disposal facility is located if not in California, regional, and local agencies with regulatory responsibilities associated with the Work activities that are included in the Contract. All notifications shall be served in writing, in the form required by the agency requiring notification, and in a timely manner so as not to negatively impact the Project schedule. Serve notifications at least 10 business days in advance (or earlier if required by agency) of activity requiring notice. The Contractor shall serve all required notifications in writing to all governmental and quasi-government agencies having notification requirements pertaining to any portion of the Work included in the Project.

B. Contractor shall file a Notice of Intent for coverage under State General Construction Activity Storm water Permit National Pollutant Discharge Eliminate System (NPDES). Contractor shall comply with applicable permit requirements including the project Storm Water Pollution Prevention Plan.

1.4. PERMIT REQUIREMENTS, NOTIFICATIONS, AND CERTIFICATES

A. Permits, Licenses, and Certificates: For the University's records, submit copies of permits, licenses, certifications, inspection reports, releases, jurisdictional settlements, notices, receipts for fee payments, judgment, correspondence, records, and similar documents, established for compliance with standards and regulations bearing on performance of the Work.

B. Underground Service Alert (USA) Notifications: Prior to commencing clearing, excavation and trenching, coordinate with Underground Service Alert of Southern California for field verification and marking of utilities within the limits of Project site. Contractor shall be responsible for outlining limits of excavation with white chalk paint prior to coordination with USA. Coordination shall require 2 business days advance notification prior to start of excavation work. Provide USA notification permit number to the University's Representative prior to starting site Work.

C. In no event, shall the Contractor install materials that contain asbestos, PCB, lead or other known hazardous materials unless prior approval is obtained from the University.

D. Regulated Carcinogens by Title 8 California Code of Regulations (CCR), Subchapter 7, Group 16 (Control of Hazardous Substances), Article 110 (Regulated Carcinogens).

1. Products containing chemicals regulated as carcinogens by the State of California are not allowed for use on University projects.

2. Case-by-case exceptions may be considered for products containing the following Cal/OSHA recognized carcinogens:

Methylene Chloride, 5202
Cadmium, 1532, 5207
Inorganic Arsenic, 5214
Formaldehyde, 5217
Benzene, 5218

3. Case-by-case exceptions may only be made when suitable alternative products are not available. Such exceptions are subject to written approval by the University's Representative.
4. Exceptions require that the Contractor shall have an established carcinogen program as required by Cal/OSHA (§5203. Carcinogen Report of Use Requirements) and shall submit to University's Representative, a copy of the Cal/OSHA Confirmation of Report for Cal/OSHA carcinogens.
5. When exceptions are granted, the Contractor is responsible for providing to the University's Representative a copy of the semi-annual Confirmation of Report received from Cal/OSHA or, in lieu of that, a copy of the Contractor's semi-annual report as submitted to Cal/OSHA at periods not to exceed 6 months, or at project closeout, whichever occurs first.

E. Fire Department and Additional Notifications, Manifests, and Requirements: As required by University and coordinated by Contractor with the University's Representative.

1.5. FEES – Not Used

PART 2 – PRODUCTS (Not Applicable)

PART 3 – EXECUTION (Not Applicable)

END OF SECTION

SECTION 01 4200 REFERENCES

PART 1 – GENERAL

1.1. SUMMARY

A. Section includes:

1. Specification Format and Content Explanation
2. Definitions
3. Reference Standards
4. Abbreviations and Acronyms

1.2. SPECIFICATION FORMAT AND CONTENT EXPLANATION

A. Specification Format: These Specifications are organized into Divisions and Sections based on the 49-division format and CSI/CSC's "Master Format" numbering system.

B. Specification Content: These Specifications use certain conventions for the style of language and the intended meaning of certain terms, words, and phrases when used in particular situations. These conventions are as follows:

1. Abbreviated Language: Language used in the Specifications and other Contract Documents is abbreviated. Words and meanings shall be interpreted as appropriate. Words implied, but not stated, shall be interpolated as the sense requires. Singular words shall be interpreted as plural and plural words interpreted as singular where applicable as the context of the Contract Documents indicates.
2. Imperative mood and streamlined language are generally used in the Specifications. Requirements expressed in the imperative mood are to be performed by the Contractor. At certain locations in the Text, subjective language is used for clarity to describe responsibilities that must be fulfilled indirectly by the Contractor or by others when so noted.
 - a. The words "shall," "shall be," or "shall comply with," depending on the context, are implied where a colon is used within a sentence or phrase.

1.3. DEFINITIONS

A. "Indicated": The term "indicated" refers to graphic representations, notes, or schedules on the Drawings; or to other paragraphs or schedules in the Specifications and similar requirements in the Contract Documents. Terms such as "shown," "noted," "scheduled," "detailed" and "specified" are used to help the user locate the reference. Location is not limited.

B. "Directed": Terms such as "directed," "requested," "authorized," "selected," "approved," "required," and "permitted" mean directed by the University's Representative or University, requested by the University's Representative or University, and similar phrases.

C. "Approved": The term "approved," when used in conjunction with the University Representative's action on the Contractor's submittals, applications, and requests, is limited to the University Representative's duties and responsibilities as stated in the Conditions of the Contract.

D. "Regulations," "building code," "code": The terms "regulations," "building code", and "code" include laws, ordinances, statutes, and lawful orders issued by authorities having jurisdiction, as well as rules, conventions, and agreements within the construction industry that control performance of the Work.

- E. “Furnish”: The term “furnish” means to supply and deliver to the Project site, ready for unloading, unpacking, assembly, installation, and similar operations.
- F. “Install”: The term “install” describes operations at the Project site including the actual unloading, temporary storage, unpacking, assembling, erecting, placing, anchoring, applying, working to dimension, finishing, curing protecting, cleaning, and similar operations.
- G. “Provide”: The term “provide” means to furnish and install, complete in place, operating, tested, approved, and ready for the intended use.
- H. “Installer”: An installer is the Contractor or another entity engaged by the Contractor, either as an employee, subcontractor, or contractor of lower tier, to perform a particular construction activity, including installation, erection, application, or similar operations. Installers are required to be experienced in the operations they are engaged to perform.
 - 1. Unless specified otherwise in other Sections, the term “experienced,” when used with the term “installer,” means having successfully completed a minimum of five previous projects similar in size and scope to this Project; being familiar with the special requirements indicated; and having complied with requirements of authorities having jurisdiction.
 - 2. Trades: Using a term such as “carpentry” does not imply that certain construction activities must be performed by accredited or unionized individuals of a corresponding generic name, such as “carpenter.” It also does not imply that requirements specified apply exclusively to tradespersons of the corresponding generic name.
- I. “Project site” is the space available to the Contractor for performing construction activities, either exclusively or in conjunction with others performing other work as part of the Project. The extent of the Project site is shown on the Drawings and may or may not be identical with the description of the land on which the Project is to be built.
- J. “Testing Agencies”: A testing agency is an independent entity engaged to perform specific inspections or tests, either at the Project site or elsewhere, and to report on and, if required, to interpret results of those inspections or tests.
- K. “Similar”: The term “similar” means in the general sense and not necessarily identical.
- L. See also the Instructions to Bidders and General Conditions.

1.4. REFERENCE STANDARDS

- A. Applicability of Standards: Unless the Contract Documents include more stringent requirements, applicable construction industry standards have the same force and effect as if bound or copied directly into the Contract Documents to the extent referenced. Such standards are made a part of the Contract Documents by reference.
 - 1. Requirements for packaging, packing, marking, and preparation for shipment or delivery included in referenced federal specifications are not mandatory for products provided for this Work.
- B. Publication Dates: Comply with the standards in effect as of the date of the Contract Documents except where a specific publication date or issue is included with the reference in other Sections of these Specifications.
 - 1. When a named or proposed product complies with a referenced standard of different publication date or issue than required by these Specifications, submit the product as a substitute under provisions of Division 1 Section “Substitutes.” Provide a detailed written summary of changes in product or workmanship quality and performance as a

result of the product complying with a different version of a standard from the version referenced.

- C. **Conflicting Requirements:** Where compliance with two or more standards is specified and the standards establish different or conflicting requirements for minimum quantities or quality levels, comply with the most stringent requirement. Refer uncertainties and requirements that are different but apparently equal to the University's Representative for a decision before proceeding.
 - 1. **Minimum Quantity or Quality Levels:** The quantity or quality level shown or specified shall be the minimum provided or performed. The actual installation may comply exactly with the minimum quantity or quality specified, or it may exceed the minimum within reasonable limits. To comply with these requirements, indicate numeric values are minimum or maximum, as appropriate, for the context of the requirements. Refer uncertainties to the University's Representative for a decision before proceeding.
 - 2. Where a product is specified by both brand name and reference to 1 or more standards, provide that product only if it actually complies with the required standards. Listing of a product by brand or trade name in these Specifications is not a warranty that the product complies with the standards which may also be listed. If a named product does not comply with 1 or more of the required standards and no alternative product is listed which does comply, submit a substitute product under provisions of Division 1 Section "Substitutes" which complies with the required standards.

- D. **Copies of Standards:** Each entity engaged in construction on the Project must be familiar with industry standards applicable to its construction activity. Copies of applicable standards are not bound with the Contract Documents.
 - 1. Where copies of standards are needed to perform a required construction activity, the Contractor shall obtain copies directly from the publication source and make them available on request.

1.5. **ABBREVIATIONS AND ACRONYMS**

- A. **Trade Abbreviations and Association Names:** Trade association names and titles of general standards are frequently abbreviated. The following abbreviations and acronyms, as referenced in the Contract Documents, mean the associated names. Names and addresses are subject to change and are believed, but not assured, to be accurate and up-to-date as the date of the Contract Documents.

- B. **Federal Government Agencies:** Names and titles of Federal Government standards- or specification-producing agencies are often abbreviated. The following abbreviations and acronyms referenced in the Contract Documents indicate names of standards- or specification-producing agencies of the Federal Government. Names and addresses are subject to change and are believed, but are not assured, to be accurate and up-to-date as of the date of the Contract Documents.

- C. The following are commonly used abbreviations which may appear in the Project Manual. Refer to Construction Specifications Institute Document TD-2-4 "Abbreviations" for explanation of other abbreviations.

C	degree Centigrade
Co.	Company
Corp.	Corporation
F	degree Fahrenheit
ft.	foot (feet)
ga.	gage or gauge

gal.	gallon(s)
in.	inch(es)
Inc.	Incorporated
HVAC	Heating, Ventilating and Air Conditioning
lb(s).	pound(s)
o.c.	on center
psi	pounds per square inch
psf	pounds per square foot
sq.	square
yd.	yard(s)

PART 2 – PRODUCTS (Not Applicable)

PART 3 – EXECUTION (Not Applicable)

END OF SECTION

SECTION 01 4300 INSPECTION OF WORK

PART 1 - GENERAL

1.1 SUMMARY

- A. This Section includes, without limitation, the following:
 - 1. Access to the Work
 - 2. Testing and Approval
 - 3. University's Inspectors
 - 4. Inspection Requests
 - 5. Inspection Request Form
 - 6. Nonconforming Work Notice
- B. The University will provide a Project Inspector or Inspector of Record (IOR) for this project. Contractor shall not cover any work requiring inspection until the IOR has inspected and approved the subject work. For uncovering of work, refer to General Conditions, Article 12.

1.2 ACCESS TO THE WORK

- A. In addition to the requirements of the General Conditions, University, University's Representative and their representatives shall at all times have access to the Work wherever it is in preparation or progress and Contractor shall provide safe and proper facilities for such access and for inspection. The inspection and written acceptance of material and workmanship, unless otherwise stated in these Specifications, shall be final except as provided in Article 12.2 of the General Conditions.

1.3 TESTING AND APPROVAL

- A. In addition to the requirements of the General Conditions, if any law, ordinance or public authority or the Specifications or University's Representative's instructions require any work to be specially tested or approved (including use of ionizing radiation for radiography), Contractor shall give University's Representative timely notice of its readiness for inspection, and if the inspection is by another authority, other than University's Representative, of the date fixed for such inspection.
- B. Re-examination of questioned work may be ordered by University's Representative.

1.4 UNIVERSITY'S INSPECTORS

- A. The IOR shall report to University's Representative. The IOR shall observe construction in progress and shall have the following responsibilities and limitations on authority.
 - 1. Act under the direction of University's Representative.
 - 2. Observe installation and work in progress as a basis for determining conformance of the work, materials and equipment with the Contract Documents. IOR will report any discrepancies observed to University's Representative and Contractor. Only University's Representative has the final authority to make approvals or rejections.
 - 3. Only University's Representative shall interpret the requirements of the Contract Documents. If any item is ambiguous, University's Representative shall make a written interpretation. If Contractor requests changes or modifications to the Contract Documents, University's Representative shall make a written determination on the requested changes or modifications.

4. Prepare and submit an inspection report to University's Representative for each inspection performed.
 5. Review application for payments.
 6. Assist University's Representative in reviewing the test and inspection results of testing laboratories.
 7. The IOR is not authorized to permit deviations from the requirements of the Contract Documents unless such deviation has been approved by University's Representative in writing.
 8. The IOR shall not supervise, coordinate, or direct the Work. The IOR has no responsibility or control over Contractor's construction means, methods, techniques, sequences, procedures, or coordination of any portions of the Work, or over any safety programs in connection with the Project.
- B. The failure of University, University's Representative and its representatives and consultants, or University's IOR to observe or inspect the Work, or to detect deficiencies in the Work, or to inform Contractor of any deficiencies which may be discovered, shall not relieve Contractor, its subcontractors regardless of tier, or suppliers from their responsibility for construction means, methods, techniques, sequences and procedures, construction safety, nor from their responsibilities to carry out the work in accordance with the Contract Documents and to detect and correct defective work as defined in the General Conditions.

1.5 INSPECTION REQUESTS

- A. Contractor shall request inspection of completed portions of the Work through University's Representative. Contractor shall submit a request for inspection using University's Inspection Request Form attached to the end of this Section.
1. Contractor shall submit an Inspection Request **at least 3 working days prior** to the time the work will be ready for inspection.
 2. For work to be inspected by a third party testing laboratory, whether Contractor's or University's, Contractor shall submit an Inspection Request **at least 3 working days prior** to the time the work will be ready for inspection.
 3. For work not in conformance with the Contract Documents, the IOR shall submit to the Contractor a Nonconforming Work Notice.

PART 2 - PRODUCTS (NOT USED)

PART 3 - EXECUTION

- 2.1 Refer to the Inspection Request Form attached at the end of this Section.
- 2.2 Refer to the Nonconforming Work Notice form attached at the end of this Section.

END OF SECTION

NONCONFORMING WORK NOTICE
NUMBER: _____
DATE: _____

TO:

FROM:

SPEC. SEC. REF.: _____ PARA: _____ DWG REF: _____ DETAIL: _____

DESCRIPTION OF DEFECTIVE CONDITION (IOR): _____

REPORTED BY (IOR): _____

CORRECTIVE ACTION SHOULD BE TAKEN AS SOON AS POSSIBLE AND COORDINATED WITH THE INSPECTOR OF RECORD (IOR). IF FURTHER INFORMATION IS NEEDED, ADVISE THE UNIVERSITY'S REPRESENTATIVE IMMEDIATELY.

DESCRIPTION OF CORRECTIVE ACTION TAKEN (CONTRACTOR): _____

ACCEPTED BY (CONTRACTOR): _____ **DATE:** _____

UCR USE ONLY

ACCEPTANCE OF CORRECTED DEFECTIVE CONDITION (IOR): _____

ACCEPTED BY (IOR): _____ **DATE:** _____

COPIES: UNIVERSITY CONSULTANT CONTRACTOR

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INTENTIONALLY

INSPECTION REQUEST

NUMBER: _____

DATE: _____

TO: _____

FROM: _____

DWG: _____

REF: _____

DETAIL: _____

SHOP DWG: _____

PROJECT SCHEDULE ACTIVITY ID NO. _____

DATE OF REQUESTED INSPECTION: _____

TIME REQUESTED: _____

TYPE OF REQUESTED INSPECTION: _____

SPECIFIC LOCATION OF REQUESTED INSPECTION (I.E. FLOOR AND/OR COLUMN LINE, ETC.):

ALL WORK INCLUDED IN THIS **REQUEST FOR INSPECTION** HAS BEEN REVIEWED BY THE CONTRACTOR'S SUPERINTENDENT AND THE CONTRACTORS QUALITY CONTROL MANAGER FOR READINESS AND FOR COMPLIANCE WITH ALL OF THE CONTRACT DOCUMENTS. THIS HAS BEEN DONE PRIOR TO THE INSPECTION BEING REQUESTED.

SIGNED (CONTRACTOR) _____

DATE: _____

UCR USE ONLY

DATE REQUEST RECEIVED: _____

DATE OF ACTUAL INSPECTION: _____

SCHEDULING INSPECTOR: _____

TIME OF ACTUAL INSPECTION: _____

INSPECTOR REPORT ATTACHED:

COMMENTS

INSPECTION RESULTS/DISPOSITION: _____

INSPECTOR SIGNATURE: _____

DATE: _____

***REQUIRED-** ALL "AS-BUILT" PLANS ARE UPDATED AND MAINTAINED IN ACCORDANCE WITH THE CONTRACT DOCUMENTS AND PROJECT ACTIVITY INSPECTOR: _____ DATE: _____

COPIES: UNIVERSITY CONSULTANTS _____ _____ File

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SECTION 01 4500 QUALITY CONTROL

PART 1 - GENERAL

1.1 SUMMARY

- A. This Section includes administrative and procedural requirements for quality-control services, without limitation, the following:
 - 1. Contractor's Responsibilities
 - 2. Tests and Inspections
 - 3. Test Reports
 - 4. Geotechnical Engineer and Other Inspection and Testing – Not Used
 - 5. Repair and Protection
- B. Quality-control services include inspections, tests, and related actions, including reports performed by Contractor, by independent agencies, and by governing authorities. They do not include contract enforcement activities performed by University's Representative.
- C. Inspection and testing services are required to verify compliance with requirements specified or indicated. These services do not relieve Contractor of responsibility for compliance with Contract Document requirements.
- D. Requirements of this Section relate to customized fabrication and installation procedures, not production of standard products.
 - 1. Specific quality-control requirements for individual construction activities are specified in the Sections that specify those activities. Requirements in those Sections may also cover production of standard products.
 - 2. Specified inspections, tests, and related actions do not limit Contractor's quality-control procedures that facilitate compliance with Contract Document requirements.
 - 3. Requirements for Contractor to provide quality-control services, required by University's Representative, are not limited by provisions of this Section.
- E. Related Sections: The following Sections contain requirements that relate to this Section:
 - 1. Division 1 Section "Cutting and Patching" specifies requirements for repair and restoration of construction disturbed by inspection and testing activities.

1.2 DEFINITIONS

- A. The term "University's Testing Laboratory" means a testing laboratory retained and paid for by the University for the purpose of performing the testing services required by the Contract Documents except where specifically noted to be done by contractor, reviewing material and product reports, and performing other services as determined by University's Representative.
- B. The term "Contractor's Testing Laboratory" means a testing laboratory retained and paid for by Contractor to perform the testing services which are required by the Contract Documents to be performed by Contractor. Contractor's Testing Laboratory shall be an organization other than University's Testing Laboratory and shall be acceptable to University's Representative. It may be a commercial testing organization or the testing laboratory of a trade association. Contractor's Testing Laboratory shall have performed testing of the type specified for at least five (5) years and shall maintain a separate General

and Professional Liability Insurance, (Errors and Omissions,) in amount not less than one million dollars (\$1,000,000) each.

- C. Tests, inspections, and acceptances of portions of the Work required by the Contract Documents or by Applicable Code Requirements shall be made at the appropriate times. Contractor shall give University's Representative timely notice of when and where tests and inspections are to be made and/or required regardless whose Testing Laboratory will perform the tests and inspections.
- D. If such procedures for testing, inspection, or acceptance reveal failure of the portions of the Work to comply with requirements established by the Contract Documents, Contractor shall bear all costs made necessary by such failure including those of repeated procedures and compensation for University's Representative's services and expenses.
- E. If University's Representative is to observe tests, inspections, or make acceptances required by the Contract Documents, University's Representative will do so promptly upon 3 days advance written notice and, where practicable, at the normal place of testing.
- F. Tests or inspections conducted pursuant to the Contract Documents shall be made promptly to avoid unreasonable delay in the Work.

1.3 CONTRACTOR'S RESPONSIBILITIES

- A. Secure and deliver to Contractor's Testing Laboratory adequate quantities of representative samples of materials proposed for use as specified.
- B. Submit to University's Testing Laboratory the preliminary design mixes proposed to be used for concrete and other materials which require review by University's Testing Laboratory.
- C. Submit copies of product test reports as specified.
- D. Furnish incidental labor and facilities, as required:
 - 1. To provide University's Testing Laboratory access to the Work to be tested.
 - 2. To obtain and handle samples at the Project site or at the source of the product to be tested.
 - 3. To facilitate inspections and tests.
 - 4. For storage and curing of test samples.
- E. Provide written notice to University's Representative sufficiently in advance (a minimum of 3 days) of operations to allow for University's Testing Laboratory assignment of personnel and scheduling of tests.
- F. When tests or inspections are not performed after such notice, Contractor shall reimburse University for University's Testing Laboratory personnel and travel expenses incurred.

1.4 TESTS AND INSPECTIONS

- A. Certain portions of the Work will be tested, inspected, or both, at various stages. Nothing in any prior acceptance or satisfactory test result shall govern, if at any subsequent time the Work, or portion thereof, is found not to conform to the requirements of the Contract Documents.
- B. If initial tests or inspections made by University's Testing Laboratory's Geotechnical Engineer reveal that any portion of the Work does not comply with Contract Documents, or if University's Representative determines that any portion of the Work requires additional testing or inspection, additional tests and inspections shall be made as directed.

- C. If such additional tests or inspections establish that such portion of the Work fails to comply with the Contract Documents, all costs of such additional tests and inspections, and all other costs resulting from such failure, including compensation for University's Representative and University Representative's Consultants shall be deducted from the Contract Sum.
 - D. Fixtures, equipment, materials, and other items removed, demolished, abandoned, or capped and left in place, shall be tested to verify that there is no damage caused after the items have been covered by construction.
- 1.5 TEST REPORTS
- A. University's Testing Laboratory and Contractor's Testing Laboratory shall submit five (5) copies of all reports to University's Representative, indicating observations and results of tests and indicating compliance or non-compliance with the Contract Documents.
- 1.6 GEOTECHNICAL ENGINEER AND OTHER INSPECTION AND TESTING – NOT USED
- A. The University shall retain and pay the expenses of a Geotechnical Engineer and materials testing, inspection and observation services consultant ("TIO Consultant") to perform inspection, testing, and observation functions specified by the University. Geotechnical Engineer and such other TIO Consultant shall communicate only with University and University's Representative. University's Representative shall then give notice to Contractor, with a copy to the University, of any action required of Contractor.

PART 2 - PRODUCTS – Not Used

PART 3 - EXECUTION

3.1 REPAIR AND PROTECTION

- A. General: Upon completion of inspection, testing, sample taking and similar services, repair damaged construction and restore substrates and finishes. Comply with Contract Document requirements for Division 1 Section "Cutting and Patching."
- B. Protect construction exposed by or for quality-control service activities, and protect repaired construction.
- C. Repair and protection is Contractor's responsibility, regardless of the assignment of responsibility for inspection, testing, or similar services.

END OF SECTION

**SECTION 01 4516
CONTRACTOR'S QUALITY CONTROL PROGRAM**

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. This Section includes, without limitation, the following:
 - 1. Quality Control Program
 - 2. Submittals
 - 3. Qualifications of Quality Control Manager
 - 4. Reporting Procedures
 - 5. Implementation
- B. Drawings and general provisions of Contract, including General and Supplementary Conditions and other Division 1 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. This Section describes the requirements for implementation of a Quality Control Program by the Contractor to assure performance of the Work in conformance with the provisions of the Contract Documents.
- B. Related Work Specified Elsewhere:
 - 1. Testing and Inspection Services of Quality Control are specified in Section 01 4500, "Quality Control."

1.3 QUALITY CONTROL PROGRAM

- A. The Contractor shall prepare and submit within thirty (30) days after the issuance of Notice to Proceed, the Quality Control Program (QCP) they intend to implement for the Work for approval by the University. This Program shall be tailored to the specific requirements of the Work and shall become an active part of the construction procedures. The Quality Control Program shall include the procedures, instructions, reports and forms to be used throughout the performance of the Work. The University reserves the right to review and reject all or part of the Quality Control Program as proposed by the Contractor. The Contractor shall revise and resubmit as appropriate until satisfactory to the University. The basic objectives of the Quality Control Program are as follows:
 - 1. To ensure that all Work adheres strictly to all provisions of the Contract Documents and governing agencies.
 - 2. To produce good quality workmanship.
 - 3. To prevent deficiencies through pre-construction quality control coordination.
 - 4. To detect and correct deficiencies in a timely manner.
 - 5. To provide an auditable record of all tests, inspections, procedures, non-compliance and corrections, and any other pertinent data as required by the University.
- B. The Contractor shall notify the University in writing of any proposed change to their Quality Control system and changes shall not be permitted if they would, in the opinion of the University, result in nonconformance with the Contract requirements.
- C. The Contractor may select either an outside "agency" or in-house personnel to administer the program. In either case, the Quality Control staff on-site shall be responsible only for Quality Control and the Quality Control Manager shall report directly to the Contractor's highest ranking

Corporate Officer involved in the Work. Quality Control staff members shall interface with the University, its Inspectors and Consultants, as required and appropriate.

1.4 SUBMITTALS

- A. The Quality Control Program submittal shall include, as a minimum, the following:
 1. The Quality Control organization chart, beginning with the Quality Control Manager, shall include Quality Control personnel as may be necessary to accomplish complete and adequate inspection of the Work.
 2. Names and qualifications of personnel and firms selected to implement the Quality Control Program on-site and off-site.
 3. Authority and responsibility of the Quality Control Staff.
 4. Methods of Quality Control inspection including subcontractor's work and describing name of qualified testing laboratory to be used, if applicable.
 5. Documents to be used to record inspections and tests, including those specified in the Contract.
 6. Formats for documentation and reports.
 7. Model agenda for Quality Control Meetings
 8. A letter signed by the Responsible Managing Officer of the Contractor's firm outlining the authority of the Quality Control Manager to include, among other things, the authority as described herein. Clerical personnel sufficient to accomplish timely submittal of Quality Control Reports and other required documentation shall be provided.

1.5 QUALIFICATION OF QUALITY CONTROL MANAGER

- A. The minimum qualifications required of the Quality Control Manager are as follows:
 1. Has recent construction experience in projects of similar size and nature.
 2. Has ten (10) years' experience performing construction-related work on Type I or II buildings.

- B. Responsibilities and Duties of the Quality Control Staff:
 1. The Quality Control Manager shall have the authority to stop work, reject work, order work removed, initiate remedial work, propose solutions, and reject material not in compliance with the Contract Documents.
 2. Responsibilities of the Quality Control Manager shall include, but are not limited to the following:
 - a. Present on-site during all working hours and assigned "full time" to this Project. Contractor shall designate alternate individual(s) to assume responsibilities in the temporary absence of the Quality Control Manager or when overtime work is being performed.
 - b. Have complete familiarity with the Drawings and Specifications.
 - c. Establish and implement Quality Control Programs for the Contractor and with the various Subcontractors and monitor their conformance.
 - d. Present samples, mock-ups and test panels to be used as standards of quality for review by the University and their Consultants.
 - e. Inspect existing conditions prior to the start of new work segments.
 - f. Perform in-progress and follow-up inspections on each work segment to ensure compliance with the Contract Documents. Accompany the University and their Consultants on such inspections.
 - g. Coordinate required tests, inspections, and demonstrations with the University's IOR inspectors, consultants and any other authority having jurisdiction.
 - h. Inspect all materials and equipment arriving at the job site to ensure conformance to the provisions of the Contract Documents. Prepare and submit to the University written reports as required by the Contract Documents.
 - i. Identify, report and reject defective Work or Work not in conformance with the Contract Documents. Monitor the repair or reconstruction of rejected Work.

- j. Develop checklists to be used for the inspection of each Division of the Work.
- k. Retain specialists or outside firms for inspection of Work in areas where additional technical knowledge is required (mechanical, electrical, electronics, controls, communications, security, welding, structural, security hardware, etc.).
- l. Schedule additional site visits where appropriate.
- m. Verify and report that all materials and equipment manufactured off-site are in conformance with the Contract Documents.
- n. Prior to the start of each Division, Section and/or major item of Work required by the Contract Documents, conduct a preconstruction Quality Control meeting with responsible field and office representative and the University and their Consultants. Provide the University and their Consultants minutes of these meetings within forty-eight (48) hours.
- o. Work closely with the University to ensure optimum Quality Control. Attend Project meetings as required by the University.

1.6 REPORTING PROCEDURES

- A. As a minimum, develop forms, logs and reporting procedures consisting of the following:
 - 1. A Quality Control meeting shall be held at least monthly between the University, Consultants and the Quality Control Manager during which only Quality related topics will be reviewed.
 - 2. A monthly written report published at month end providing an overview of Quality Control activities, problems found and/or solved, status of remedial work, status of mock-ups, anticipated problems and planned activities for the coming month, etc.
 - 3. Deficiency reports: Plan of action by the Contractor for correcting any known contract deficiencies including delay in scheduled progress.
 - 4. Weekly reports (including reports from Contractor and Subcontractors) to the University describing:
 - a. Equipment and material received.
 - b. Tests and inspections performed with submittal information.
 - c. Deficiencies noted and/or corrected.
 - d. Quality Control concerns and problems.
 - e. Record keeping (as required).

1.7 IMPLEMENTATION

- A. The Contractor's Quality Control program shall be adequate to cover all operations, including both on-site and off-site and will be keyed to the proposed sequence of work and shall include as a minimum at least three (3) phases of inspection for all definable items or segments of work, as follows:
 - 1. Preparatory inspection shall be performed prior to beginning any work on any definable segment of the Work and shall include a review of Contract requirements; verification that all materials and/or equipment have been tested, submitted, and accepted; verification that provisions have been made to provide required control testing; examination of the work area to ascertain that all preliminary work has been completed; and a physical examination of materials and equipment to assure that they conform to accepted shop drawings or submittal data and that all material and/or equipment are available. As a part of this preparatory work, Contractor's Quality Control organization will review and verify that all documents, including but not limited to; shop drawings, submittal data, method of Quality Control, product data sheets, test reports, affidavits, certification and manufacturer's instructions have been submitted and accepted by the University as required herein. Each submittal to the University shall bear the date and the signature of the Contractor's Quality Control Manager indicating that he has reviewed the submittal and certified it to be in compliance with Drawings and Specifications or showing the required changes.
 - 2. Initial Inspection: To be performed as soon as a representative segment of the particular item of work has been accomplished and to include examination of the quality or

- workmanship and a review of control testing for compliance with Contract requirements, exclusion of defective or damaged materials, omissions, and dimensional requirements.
3. Follow-up Inspection: To be performed daily or as frequently as necessary to ensure continuing compliance with Contract requirements, including control testing, until completion.
 4. The Contractor shall maintain daily current records with information as described above, in an appropriate format of all inspections and tests that the required inspection or tests have been performed. These records must cover both conforming and defective items and must include a statement that all supplies and materials, incorporated in the Work, are in full compliance with the terms of the Contract. Two legible copies must be furnished to the University. The report will cover all work performed or completed subsequent to the previous report.

END OF SECTION

SECTION 01 4520 CONCRETE MOISTURE TESTING

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:

1. Administrative Requirements
2. Information Submittals
3. Quality Assurance
4. Field Conditions
5. Materials for Test Procedures
6. Preparation
7. Testing: Testing for moisture vapor emission at concrete floors scheduled to receive applied floor coverings. Testing required at:
 - a. New concrete floor slabs on grade.
 - b. New elevated concrete floors where floor coverings are to be installed.
 - c. New wood flooring over concrete sub floor.
8. Installation Control Measures

1.2 ADMINISTRATIVE REQUIREMENTS

- A. Submittal Procedures: In accordance with Section 01 3300, "Submittals."

1.3 INFORMATIONAL SUBMITTALS

A. Quality Control:

1. Qualifications of personnel or laboratory to perform testing.
2. Results of substrate moisture testing for each location and maximum allowable levels specified in respective Specification Sections for the intended floor finish.

1.4 QUALITY ASSURANCE

- A. If areas of concrete are not within the floor covering manufacturer's maximum allowable emission rate and slab area fails the moisture test, do not proceed with installation and notify the University's Representative.

1.5 FIELD CONDITIONS

A. Ambient Conditions:

1. Area to be tested shall match that of the finished floor covering.
9. Doors, windows, and roofing shall be installed and the temperature of the building interior environment shall be controlled.
10. Interior temperature shall be 75 degrees F, plus or minus 10 degrees F (23.9 degrees C plus or minus 5.5 degrees C).
4. Relative humidity shall be 50 percent, plus or minus 10 percent.
5. Maintain the above conditions for 48 hours prior to and throughout the duration of the tests.

PART 2 - PRODUCTS

2.1 MATERIALS FOR TEST PROCEDURES

- A. Acceptable MVER Tests:
 - 1. Calcium chloride test kits shall be pre-packaged and of commercial consistency; American Moisture Test, Inc., Tustin, CA, or equal. Kit shall include sealed dish of anhydrous calcium chloride, a metering dome with gasket, and instructions.
 - 2. Relative humidity (RH) probe that has been verified for accuracy within the past year.
- B. Alkalinity Tests: Test kit by American Moisture Test, Inc., Tustin, CA, or equal pH meter.

PART 3 – EXECUTION

3.1 PREPARATION

- A. Clean concrete surfaces of any residues resulting from pour of concrete which will affect the moisture vapor drive.
- B. Plastic dome of test kit shall be sealed airtight to prevent ambient humidity from influencing the test results.

3.2 TESTING

- A. Perform tests on concrete slabs to determine moisture vapor emission based on the Moisture Vapor Emission Rate (MVER) content in accordance with ASTM F1869 or F2170, and alkalinity in accordance with ASTM F710. No testing shall be performed during non-acclimated periods. Results of these tests will be used to determine suitability of substrate to receive flooring materials. Perform two sets of tests, at 60 days and again at 14 days before the start of flooring installation.
- B. Test Kit: Comply with ASTM F1869 and the following.
 - 1. Verify temperature of slab is up to service temperature.
 - 2. Duration of MVER test shall be 60 to 72 hours.
 - 3. Dish shall be measured one-hour before and one-hour after testing with weight calculated within 0.1 grams.
- C. RH Probe: Comply with ASTM F2170 and the following.
 - 1. Verify concrete slabs are up to service temperature at least 48 hours prior to testing.
 - 2. Depth of probes shall be 40 percent on slabs drying from the top only and 20 percent for slabs drying from both sides.
 - 3. Probe shall be allowed to acclimate and checked for drift less than 1 percent relative humidity over a 5 minute period.
 - 4. Elapsed time for test shall be 72 hours.
- D. Alkalinity Testing: Comply with ASTM F710 and the following.
 - 1. Verify that concrete surfaces are clean and that curing and sealing compounds have been removed.
 - 2. Place a 1 inch diameter amount of manufacturer's recommended liquid on concrete surface and allow to settle for 60 seconds.
 - 3. Insert meter into liquid and allow to calculate results.
- E. Unless otherwise approved in writing by University's Representative, tests shall be performed by an independent testing agency.

- F. Number of test kits shall be determined by the square footage of each flooring material. Provide minimum of three test kits for the first 1,000 square feet (93 square meters), and one test kit per each additional 1,000 square feet (93 square meters), with consideration to separation of test areas. At slab on grade conditions test within 2 feet of toilet rough-in's to determine any piping penetration failures.
- G. Where calcium chloride test results are satisfactory but there is reason to suspect that unacceptable moisture levels below the upper two centimeters of the concrete may still exist, a relative humidity probe shall be used to test the full depth of the slab.

3.3 INSTALLATION OF CONTROL MATERIALS

- A. If areas of concrete are not within the floor covering manufacturer's maximum allowable emission rate and slab area fails the moisture test, comply with the requirements specified in Section 07 2620, "Concrete Vapor Emission Control".

END OF SECTION

SECTION 01 5100 TEMPORARY UTILITIES

PART 1 – GENERAL

1.1. SUMMARY

A. Section includes:

1. Installation
2. Temporary Electricity
3. Temporary Water
4. Temporary Lighting
5. Temporary Heating, Cooling, and Ventilating
6. Temporary Telecommunications

1.2. INSTALLATION

A. Use qualified personnel for installation of temporary utilities. Locate utilities where they will serve the Project adequately and result in minimum interference with performance of the Work. Relocate and modify utilities as required.

B. Provide each utility ready for use when needed to avoid delay. Maintain and modify as required. Do not remove until utilities are no longer needed or are replaced by authorized use of completed permanent facilities.

C. Utility Service Connection: Engage the appropriate local utility company to install temporary service or connect to existing service. Where company provides only part of the service, provide the remainder with matching, compatible materials and equipment. Comply with company recommendations.

1. Arrange with company and existing users for a time when service can be interrupted, if necessary, to make connections for temporary services.
2. Provide adequate capacity at each stage of construction. Prior to temporary utility availability, provide trucked-in services.
3. Obtain easements to bring temporary utilities to the site where the University's easements cannot be used for that purpose.
4. Use Charges: Cost or use charges for temporary facilities are not chargeable to the University or University's Representative. Neither the University nor University's Representative will accept cost or use charges as a basis of claims for Change Orders.

D. Submittals:

1. Submit reports of tests, inspections, meter readings, and similar procedures performed on temporary utilities.
2. Implementation and Termination Schedule: Within 15 days of the date established for commencement of the Work, submit a schedule indicating implementation and termination of each temporary utility. Temporary Utilities: Prepare a schedule indicating dates for taking over the responsibility of the existing temporary utilities that the University already has in place from the first phase and termination of each temporary utility. At the earliest feasible time, when acceptable to the University, change over from use of temporary service to use of permanent service.

E. Quality Assurance:

1. Comply with industry standards and applicable laws and regulations of the University including, but not limited to, the following:
 - a. Potentially hazardous materials.
 - b. Health and safety regulations.
 - c. Utility company regulations.
 - d. Police, fire department, and rescue squad rules.
 - e. Environmental protection regulations.

2. Standards: Comply with NFPA 241 "Standard for Safeguarding Construction, Alterations, and Demolition Operations," ANSI A10 Series standards for "Safety Requirements for Construction and Demolition," and NECA Electrical Design Library "Temporary Electrical Facilities."
 - a. Electrical Service: Comply with NEMA, NECA, and UL standards and regulations for temporary electric service. Install service in compliance with NFPA 70 "National Electric Code."

3. Inspections: Arrange for authorities having jurisdiction to inspect and test each temporary utility before use. Obtain required certifications and permits.

4. Construction Facilities and general construction activities shall comply with the energy use guidelines in Title 24 of the California Administrative Code.

1.3. TEMPORARY ELECTRICITY

- A. Temporary Electric Power Service: Electric power will be furnished by the University at cost of \$0.087/KWH. Provide weatherproof, grounded electric power service and distributions system of sufficient size, capacity, and power characteristics during construction period. Include meters, transformers, overload-protected disconnects, automatic ground-fault interrupters, and main distribution switch gear.
 1. Contractor Responsibilities:
 - a. The University is providing temporary power equipment for the Contractor's use at the management trailer compound. The equipment includes; power skid, meter, quad-plex wire, panel board and Nema enclosure. Install project site electric power service with a meter at the point of connection designated by the University's Representative. Refer to the diagram for locating temporary power connections at the end of this section.
 - b. Maintain connections and extensions in a safe manner and utilize so as to not constitute a hazard to persons or property.
 - c. Connections and extensions will be subject to OSHA regulatory requirements. Immediately remove or remedy connections and extensions that represent safety hazards or cause undue interruption of University's normal operations.

1.4. TEMPORARY WATER

- A. Water Service: Water for use in construction, testing, and irrigation will be furnished by the University at a cost of \$1.12/CCF (748 gallons).
 1. Contractor Responsibilities:
 - a. Provide meter and all connections and extensions required.
 - b. Maintain connections and extensions in a safe manner and utilize so as to not constitute a hazard to persons or property.

- c. Connections and extensions will be subject to approval of the University. Immediately remove or remedy connections and extensions that represent safety hazards or cause undue interruption of University's normal operations.

1.5. TEMPORARY LIGHTING

- A. Temporary Lighting: Provide temporary lighting with local switching as required to supplement existing lighting.
- B. Temporary Exterior Lighting: Install exterior yard and sign lights so signs are visible when Work is being performed.

1.6. TEMPORARY HEATING, COOLING, AND VENTILATING

- A. Temporary Heat: Provide temporary heat required by construction activities. Select safe equipment that will not have a harmful effect on completed installations or elements being installed. Coordinate ventilation requirements to produce the ambient condition required and minimize consumption of energy.
- B. Maintain temperature at less than 60 degrees F (16 degrees C) in permanently enclosed portions of the building and areas where finished Work has been installed.
- C. Heating Facilities: Except where the University's Representative authorizes use of the permanent system, provide vented, self-contained, LP-gas or fuel-oil heaters with individual space thermostatic control. Use of gasoline-burning space heaters, open flame, or salamander heating units is prohibited.

1.7. TEMPORARY TELECOMMUNICATIONS

- A. Contractors and the University's Representative field trailer/office construction trailers are optional. However if used, temporary telephones and Data Services: Provide temporary telephone and data service at the existing Construction Trailer site throughout the construction period for all personnel engaged in construction activities as described below.
 - 1. Provide Communications Work Order(s) (e.g. voice add and/or data add) for service through UCR Computing & Communications (UCR C&C), Communications Services, contact Sheri Morgan at (951) 827-3979. Contractor is responsible for providing Network Electronics, Telephone Sets and all installation and monthly recurring service charges.
 - 2. Install separate telephone lines (phone numbers) for each temporary trailer/office and first aid station. At each telephone, post a list of important telephone numbers.
 - 3. Provide telephone lines and telephone sets for the following:
 - a. Contractor's field trailer/office: Direct-line telephones (telephone lines and telephone sets) as required.
 - b. University's Representative's field trailer/office: Three (3) Direct-line digital telephones and three (3) telephone sets.
 - 4. Provide data connections for the following:
 - a. Contractor's field trailer/office: as required. NOTE: A signed and approved Memo of Understanding (MOU) between Contractor(s) and UCR C&C will be required for all data services that are to be provided to Contractor(s).

PART 2 – PRODUCTS (Not Applicable)

PART 3 – EXECUTION (Not Applicable)

END OF SECTION

SECTION 01 5200 CONSTRUCTION FACILITIES

PART 1 – GENERAL

1.1. SUMMARY

- A. Section includes:
 - 1. Supervision and Security
 - 2. Maintenance
 - 3. Field Offices and Sheds
 - 4. First Aid Facilities
 - 5. Sanitary Facilities
 - 6. Storage
 - 7. Termination and Removal

1.2. SUPERVISION AND SECURITY

- A. Staff Names: Within 15 days of commencement of construction operations, post a list of the Contractor's principal staff assignments, including the superintendent and other personnel in attendance at the Project Site. Identify individuals and their duties and responsibilities. List their addresses and telephone numbers.
 - 1. Post copies of the list in the Project meeting room, the temporary field office, and each temporary telephone.
- B. Supervision: Enforce strict discipline in use of temporary facilities. Limit availability of temporary facilities to essential and intended uses to minimize waste and abuse.
- C. Security:

1. Protection and security measures required by the University are considered minimum requirements. Provide additional measures as necessary and appropriate to the hazards of this Project. Employ all measures necessary to ensure the security of the Project site. Security measures provided by the University do not relieve the Contractor from responsibility for site security and protection of the work as required by the Contract Documents.
2. Watchman: The University will not be providing security services for the Project. During all hours that Work is not being prosecuted, including weekends and holidays, furnish such watchman's services as Contractor may consider necessary to safeguard materials and equipment in storage on the Project site, including Work in place or in process of fabrication, against theft, acts of malicious mischief, vandalism, and other losses or damages. The University will not be liable for any loss or damage.
3. Security Enclosure and Lockup: Install substantial temporary enclosure of partially completed areas of construction. Provide locking entrances to prevent unauthorized entrance, vandalism, theft, and similar violations of security.
 - a. Where materials and equipment must be stored, and are of value or attractive for theft, provide a secure lockup. Enforce discipline in connection with the installation and release of material to minimize the opportunity for theft and vandalism.

1.3. MAINTENANCE

- A. Maintain facilities in good operating condition until removal. Protect from damage by freezing temperatures and similar elements. Conditions of Use: Keep temporary services and facilities clean and neat in appearance. Operate in a safe and efficient manner. Relocate temporary services and facilities if required, as the Work progresses. Do not overload facilities or permit them to interfere with progress. Take necessary fire-prevention measures. Do not allow hazardous, dangerous, or unsanitary conditions, or public nuisances to develop or persist on-site.
- B. Maintain operation of temporary enclosures, heating, cooling, humidity control, ventilation, and similar facilities on a 24-hour basis where required to achieve indicated results and to avoid possibility of damage.
- C. Protection: Prevent water-filled piping from freezing. Maintain markers for underground lines. Protect from damage during excavation operations.

1.4. FIELD OFFICES AND SHEDS

- A. Field offices are optional. Locate field offices, storage sheds, and other temporary construction and support facilities for easy access, and as approved by the University's Representative, within the area of the site designated as "Limits of Work".
- B. Field Offices: If provided, Contractor shall provide an insulated, weather tight, temporary office of sufficient size to accommodate the required office personnel at the Project Site with adequate lighting, power, heating, and cooling. Contractor to keep the office clean and orderly for use for progress meetings and shall be responsible for providing a cleaning/maintenance service to maintain and clean 2x a week for the duration of the project.
- C. Storage and Fabrication Sheds: Install storage and fabrication sheds sized, furnished, and equipped to accommodate materials and equipment involved, including temporary utility service.

1. Maintain secure storage for tools (including personal tools of individual workers), equipment, and materials. The University will not be responsible for loss or damage to tools, equipment, or materials.

D. Equipment

1. General: Provide new equipment. If acceptable to the University's Representative, the Contractor may use undamaged, previously used equipment in serviceable condition. Provide equipment suitable for use intended.
2. Water Hoses: Provide ¾-inch (19-mm), heavy -duty, abrasion-resistant, flexible rubber hoses 100 feet (30 m) long, with pressure rating greater than the maximum pressure of the water distribution system. Provide adjustable shutoff nozzles at hose discharge.
3. Electrical Outlets: Provide properly configured, NEMA-polarized outlets to prevent insertion of 110- to 120-Volt plugs into higher voltage outlets. Provide receptacle outlets equipped with ground fault circuit interrupters, reset button, and pilot light for connection of power tools and equipment.
4. Electrical Power Cords: Provide grounded extension cords. Use hard-service cords where exposed to abrasion and traffic. Provide waterproof connectors to connect separate lengths will not reach areas where construction activities are in progress. Do not exceed safe length-voltage ratio.
5. Lamps and Light Fixtures: Provide general service incandescent lamps of wattage required for adequate illumination. Provide guard cages or tempered-glass enclosures where exposed to breakage. Provide exterior fixtures where exposed to moisture.
6. Heating Units: Provide temporary heating units that have been tested and labeled by UL, FM, or another recognized trade association related to the type of fuel being consumed.
7. Fire Extinguishers: Provide hand-carried, portable, UL-rated, Class A fire extinguishers for temporary offices and similar spaces. In other locations, provide hand-carried, portable, UL-rated, Class ABC, dry-chemical extinguishers or a combination of extinguishers of NFPA-recommended classes for the exposures.
 - a. Comply with NFPA 10 and NFPA 241 for classification, extinguishing agent, and size required by location and class of fire exposure.
 - b. Comply with requirements of authorities having jurisdiction.

1.5. FIRST AID FACILITIES

- A. First Aid Supplies: Provide types and quantities required by referenced standards, the University's Representative, and as prudent for the conditions existing for the Work.

1.6. SANITARY FACILITIES

1. University's existing sanitary facilities may be used only with the prior approval of University's Representative. Contractor shall maintain sanitary facilities in a clean and sanitary condition.
2. Do not flush construction materials down toilets or sinks.

3. Contractor is solely responsible for repairing damage to existing construction and finishes and for replacing damaged components, which cannot be repaired.

1.7. STORAGE

- A. Contractor's use of the Project site for the Work and storage is restricted to the areas designated on the Drawings or as approved by University's Representative. Use of mechanical and electrical rooms for storage of materials or furniture is prohibited.
- B. Deliver, store, and handle products according to the manufacturer's recommendations, using means and methods that will prevent damage, deterioration, and loss, including theft.
 1. Schedule delivery to minimize long-term storage at the site and to prevent overcrowding of construction spaces.
 2. Coordinate delivery with installation time to assure minimum holding time for items that are flammable, hazardous, easily damaged, or sensitive to deterioration, theft, and other losses.
 3. Deliver products to the site in an undamaged condition in the manufacturer's original sealed container or other packaging system, complete with labels and instructions for handling, storing, unpacking, protecting, and installing.
 4. Inspect products upon delivery to ensure compliance with the Contract Documents and to ensure that products are undamaged and properly protected.
 5. Store products at the site in a manner that will facilitate inspection and measurement of quantity or counting of units.
 6. Store heavy materials away from the Project structure in a manner that will not endanger the supporting construction.
 - a. Concrete slabs on grade and suspended floors have not been designed for heavy loading.
 - b. Slabs on Grade: Do not subject slabs on grade to excessive loading by shoring, storage of materials, or operation of construction equipment unless adequately protected by planking designed to safely distribute loads. Maintain slabs and repair or replace damaged slabs at no additional cost to the University.
 - c. Suspended Floors: Do not subject suspended slabs to construction loads greater than 40 psf unless adequate shoring and protection is provided. Retain a civil or structural engineer experienced in shoring design and registered in the State of California to design necessary temporary support systems.
 7. Store products subject to damage by the elements above ground, under cover in a weathertight enclosure, with ventilation adequate to prevent condensation. Maintain temperature and humidity within range required by manufacturer's instructions.
 8. Immediately remove from the site materials and equipment that are damaged or do not comply with requirements of the Contract Documents.
 9. When handling and moving materials and equipment, protect all finished surfaces.

- C. Keep copies of manufacturer's specifications and instructions on site and available for reference.

1.8. TERMINATION AND REMOVAL

- A. Remove each temporary facility when the need has ended, when replaced by authorized use of a permanent facility, or no later than Substantial Completion. Complete or, if necessary, restore permanent construction that may have been delayed because of interference with the temporary facility. Repair damaged Work, clean exposed surfaces, and replace construction that cannot be satisfactorily repaired.
- B. Materials and facilities that constitute temporary facilities are the Contractor's property. The University reserves the right to take possession of project identification signs.
- C. Repair or replace street paving, curbs, and sidewalks damaged by construction traffic.
- D. At Substantial Completion, clean and renovate any permanent facilities used during the construction period.
- E. After removal of temporary facilities at the management compound in Lot 14 i.e. office trailers, wood patio decks, ramps, fencing, anchorage, electrical equipment, etc. which were placed on portions of the existing site not scheduled for new Work, Contractor shall repair all damage, holes, etc., to the pavement and apply a seal coat to the pavement (see Section 32 1300) and restripe all of the stalls in the three rows of parking (approximately 42 spaces) adjacent to the management compound. A parking stall layout shall be provided by the University Representative.

PART 2 – PRODUCTS (Not Applicable)

PART 3 – EXECUTION (Not Applicable)

END OF SECTION

SECTION 01 5300 TEMPORARY CONSTRUCTION

PART 1 – GENERAL

1.1. SUMMARY

A. Section includes:

1. Temporary Stairs, Scaffold, and Runways
2. Trenching and Shoring – Not Used
3. Temporary Bridges – Not Used
4. Temporary Decking – Not Used
5. Temporary Overpasses – Not Used
6. Temporary Ramps – Not Used
7. Temporary Runarounds – Not Used

1.2. TEMPORARY STAIRS, SCAFFOLD, AND RUNWAYS

- A. Provide all scaffolds, stairs, hoist plant, runways, platforms, and similar temporary construction as may be necessary for the performance of the Contract. Such facilities shall be of the type and arrangement as required for their specific use, substantially constructed throughout and strongly supported, well secured and complying with all applicable rules and regulations of the Industrial Accident Commission of the State of California and all applicable laws and ordinances. Refer to Section 01 41002, Regulatory Requirements.
- B. Arrange for construction equipment access to areas which may be partly blocked by existing obstructions.

1.3. TRENCHING AND SHORING – Not Used

1.4. TEMPORARY BRIDGES – Not Used

1.5. TEMPORARY DECKING – Not Used

1.6. TEMPORARY OVERPASSES – Not Used

1.7. TEMPORARY RAMPS – Not Used

1.8. TEMPORARY RUNAROUNDS – Not Used

PART 2 – PRODUCTS – Not Used

PART 3 – EXECUTION – Not Used

END OF SECTION

**SECTION 01 5400
CONSTRUCTION AIDS**

PART 1 – GENERAL

1.1. SUMMARY

- A. This Section Includes:
1. Temporary Elevators – Not Used
 2. Temporary Lifts and Hoists
 3. Temporary Cranes
 4. Temporary Swing Staging – Not Used

1.2. TEMPORARY ELEVATORS – Not Used

1.3. TEMPORARY LIFTS AND HOISTS

- A. Provide facilities for hoisting materials and employees. Truck cranes and similar devices used for hoisting materials are considered "tools and equipment" and not temporary facilities.

1.4. TEMPORARY CRANES

- A. Provide necessary cranes, rigging equipment and personnel

1.5. TEMPORARY SWING STAGING – Not Used

PART 2 – PRODUCTS – Not Used

PART 3 – EXECUTION – Not Used

END OF SECTION

SECTION 01 5500 VEHICULAR ACCESS AND PARKING

PART 1 – GENERAL

1.1. SUMMARY

A. Section includes:

1. Temporary Access Roads – Not Used
2. Haul Routes – Not Used
3. Temporary Parking Areas
4. Temporary Roads – Not Used
5. Traffic Control
6. Staging Areas

B. Submittals:

1. Submittals shall be submitted in accordance with Section 01 3300, "Submittals."
 - a. Submit Traffic Control Plan for Project Construction prior to the start of construction activities for approval by University's Representative.
 - b. Submit Pedestrian Access Plan for Project Construction prior to the start of construction activities for approval by University's Representative.

1.2. TEMPORARY ACCESS ROADS – Not Used

1.3. HAUL ROUTES – Not Used

1.4. TEMPORARY PARKING AREAS

A. Parking: Limited parking for workers employed on the Work may be provided on the Project Site to the extent that space for that purpose is available without interference with activities of University or activities related to performance of the Work. Refer to Section 01 3540 "Environmental Mitigation".

1. All vehicles are required to display a parking permit while parked on campus. Transportation and Parking Services will sell parking permits to contractors, their employees and sub-contractors in parking lots where spaces are currently available for purchase. 2014-15 monthly permit rates are \$44/Gold, \$53.50/Blue and \$73.50/Red. All rates are subject to change. Monthly permits are available at the Parking Service Building located at 683 Linden Street. Daily permits can be purchased in the Parking Service Building, at information kiosks at campus entrances, and in posted visitor parking lots. Parking permits are lot specific. All vehicles entering the campus are required to adhere to the University's parking policies and the California Vehicle Code. .
2. Contractor may use available space within its Project Site fence limits for parking without a permit.
3. Provide 3 parking spaces within Contractor's Project Site fence limits for University's Representative and its Consultants use.

1.5. TEMPORARY ROADS – Not Used

A.

1.6. TRAFFIC CONTROL

A. Prior to the start of construction activities, determine the routing of construction vehicles and the measures necessary to control traffic during construction. Provide measures including, but not limited to, the following:

1. Contractor is responsible for controlling construction traffic on and adjacent to the site, including public right-of-ways. Comply with requirements of authorities having jurisdiction for traffic controls in public right-of-ways.
 - a. Provide necessary measures including, but not limited to, flag personnel, barricades, sufficient lights, reflectors, warning signals, warning signs indicating closures, directional, and detour instructions.
2. Route construction equipment, trucks, and similar vehicles through the campus to Big Springs Road and existing public streets to and from the site as approved by the University's Representative and as specified in Section 01 3540 Environmental Mitigation.
3. Schedule deliveries to minimize disruption of University traffic and duration of on-site storage.

B. Traffic Control Plan for Project Construction.

1. Contractor and all subcontractors shall ensure that the construction site and access road speed limits are established and enforced during the Contract Time until Substantial Completion. Post and enforce traffic speed limits of 15 miles per hour or less on all unpaved roads.
2. Contractor and all subcontractors shall comply with the Traffic Control Plan for project construction prepared by Contractor and approved by University's Representative prior to the commencement of construction activities.
3. To the extent reasonable, Contractor and all subcontractors shall maintain at least one unobstructed lane in both directions on campus roadways. At any time only a single lane is available, Contractor and all subcontractors shall provide a temporary traffic signal, signal carriers (i.e., flag persons), or other appropriate traffic controls, as approved by University's Representative, to allow travel in both directions. If construction activities require the complete closure of a roadway segment, contractor and all subcontractors shall provide appropriate signage indicating alternative routes as approved by University's Representative.
4. To maintain adequate access for emergency vehicles when construction activities would result in roadway closures, Contractor shall give 14-days notice to the University's Representative, so that the University's Representative can consult with the UCPD, EH&S, and Riverside Fire Dept. as appropriate to disclose closures and identify alternative travel routes.
5. The hauling and disposal of any excess clean soil excavated from or already stockpiled on the site will be the responsibility of the contractor to transport and stockpile it at the UCR Ag Ops area located near Lot 13 as directed by the University Representative. Refer to Section 31 2000 Earth Moving for additional information regarding the collection and disposal of unsatisfactory material and debris.
6. All construction traffic will access the Project Site from the west and through the campus. Construction traffic will avoid using Valencia Hill Drive, Watkins Drive and Big Springs Road. There are two existing, posted construction traffic warning signs at the corner of Watkins Drive and Valencia Hill Drive which shall remain in place and maintained by the

Contractor for the duration of the Project and will be the Contractor's responsibility to remove and dispose of the signs at the completion of the Work.

C. Pedestrian Access Plan for Project Construction.

1. Contractor and all subcontractors shall comply with the Pedestrian Access Plan for project construction prepared by the Contractor and approved by University's Representative, prior to the commencement of construction activities.

1.7. STAGING AREAS

PART 2 – PRODUCTS (Not Applicable)

PART 3 – EXECUTION (Not Applicable)

END OF SECTION

SECTION 01 5600 TEMPORARY BARRIERS AND ENCLOSURES

PART 1 – GENERAL

1.1. SUMMARY

A. This Section includes:

1. General Cleaning and Protection
2. Temporary Fire Protection
3. Temporary Barricades, Warning Signs, Signals and Lights
4. Temporary Fencing
5. Temporary Protective Walkways – Not Used

1.2. GENERAL CLEANING AND PROTECTION

A. Clean and protect construction in progress and adjoining materials in place, during handling and installation. Apply protective covering where required to assure protection from damage or deterioration at Substantial Completion.

B. Clean and provide maintenance on completed construction as frequently as necessary through the remainder of the construction period. Adjust and lubricate operable components to assure operability without damaging effects.

C. Limiting Exposures: Supervise construction operations to assure that no part of the construction completed or in progress, is subject to harmful, dangerous, damaging, or otherwise deleterious exposure during the construction period. Where applicable, such exposures include, but are not limited to, the following:

1. Excessive static or dynamic loading.
2. Excessive internal or external pressures.
3. Excessively high or low temperatures.
4. Thermal shock.
5. Excessively high or low humidity.
6. Air contamination or pollution.
7. Water or ice.
8. Solvents.
9. Chemicals.
10. Light.
11. Radiation.
12. Puncture.
13. Abrasion.
14. Heavy traffic.
15. Soiling, staining, and corrosion.
16. Bacteria.
17. Rodent and insect infestation.
18. Combustion.
19. Electrical current.
20. High-speed operation.
21. Improper lubrication.
22. Unusual wear or other misuse.
23. Contact between incompatible materials.
24. Destructive testing.

25. Misalignment.
26. Excessive weathering.
27. Unprotected storage.
28. Improper shipping or handling.
29. Theft.
30. Vandalism.

1.3. TEMPORARY FIRE PROTECTION

- A. Except for use of permanent fire protection as soon as available, do not change over from use of temporary security and protection facilities to permanent facilities until Substantial Completion, or longer, as requested by the University's Representative.
- B. Temporary Fire Protection: Until fire-protection needs are supplied by permanent facilities, install and maintain temporary fire-protection facilities of the types needed to protect against reasonably predictable and controllable fire losses. Comply with NFPA 10 "Standard for Portable Fire Extinguishers," NFPA 241 "Standard for Safeguarding Construction, Alterations, and Demolition Operations," and requirements of the University.
 1. Locate fire extinguishers where convenient and effective for their intended purpose.
 2. Store combustible materials in containers in fire-safe locations.
 3. Maintain unobstructed access to fire extinguishers, fire hydrants, temporary fire-protection facilities, stairways, and other access routes for fighting fires. Prohibit smoking in all buildings and anywhere on site.
 4. Provide supervision of welding operations, combustion-type temporary heating units, and similar sources of fire ignition.

1.4. TEMPORARY BARRICADES, WARNING SIGNS, SIGNALS AND LIGHTS

- A. Comply with standards and code requirements for erection of structurally adequate barricades. Paint with appropriate colors, graphics, and warning signs to inform personnel and the public of the hazard being protected against. Where appropriate and needed, provide lighting, including flashing red or amber lights.
 1. Enclose excavations and openings with proper barricades.
 2. Clearly identify hazards on and adjacent to the Project site. Maintain clearly visible and, if applicable, audible identification on a continuous 24-hour-per-day basis.
 3. Illuminate barricades, warning signs, obstructions, and other hazards at night. Provide adequate light for clear visibility from sunset to sunrise.
 4. Where appropriate, provide audible warning signals.

1.5. TEMPORARY FENCING

1.6.

- A. As needed, it will be the Contractors responsibility to furnish, design, have installed, maintain, and include all costs included in bid. **Temporary fencing and gate opening plan shall be submitted to the University's Representative and Campus Fire Marshal for approval within 5 days from the Notice to Proceed.**

1.7. TEMPORARY PROTECTIVE WALKWAYS – Not Used

PART 2 – PRODUCTS – Not Used

PART 3 – EXECUTION – Not Used

END OF SECTION

SECTION 01 5700 TEMPORARY CONTROLS

PART 1 – GENERAL

1.1. SUMMARY

A. This Section Includes:

1. Control of Construction Water
2. Dust Control, Air Pollution, and Odor Control
3. Noise Control
4. Temporary Erosion and Sediment Control (SWPPP)
5. Temporary Environmental Controls
6. Temporary Pest Control – Not Used
7. Biological Resources – Not Used
8. Cultural Resources – Not Used
9. Aesthetics – Not Used
10. Air Quality

1.2. CONTROL OF CONSTRUCTION WATER

- ##### A. Provide impermeable floor coverings and suitable dams to prevent damage by water used for the Work. Immediately clean up and remove all surplus water and water spilled in non-working areas. Do not allow water to overflow gutters, flood streets or parking lots.

1.3. DUST CONTROL, AIR POLLUTION, AND ODOR CONTROL

A. The Contractor shall employ measures to prevent the creation of dust, air pollution and odors.

1. Unpaved areas where vehicles are operated shall be periodically wetted down or given an equivalent form of treatment as defined in South Coast Air Quality Management District (SCAQMD) Rule 403 to eliminate dust formation.
2. All volatile liquids including fuels or solvents shall be stored in closed containers.
3. No open burning of debris, lumber or other scrap will be permitted.
4. Equipment shall be maintained in a manner to reduce gaseous emission.
5. Low sulfur fuel shall be used for construction equipment.
6. Stockpiles of excavated materials shall be covered with material approved by University's Representative.
7. Contractor shall provide street sweeping whenever silt from construction site is carried over to adjacent streets.

B. Provide measures, including regular watering, necessary to minimize air-borne dust.

1. Exposed surfaces should be watered twice daily.
2. Stockpiles of excavated materials should be covered.
3. A berm shall be erected on the downslope of the project site to prevent silt-laden water from running off site.

4. Trucks carrying excavated materials from the site shall be covered and shall have their tires and undercarriages washed prior to exiting the site as required to remove material that may fall or blow off later.
 5. Paving of exposed dirt surfaces should be done as quickly as is reasonably possible.
 6. Streets affected by fugitive dust shall be swept regularly.
 7. The Contractor shall assign a person to be responsible for monitoring dust levels, reviewing conditions with the University's Representative, and suggesting appropriate additional control measures when required.
 8. Uncovered soil shall be bound by grass or similar ground cover as soon as is reasonably possible.
 9. Excavation should not be conducted when surface winds exceed 11 miles per hour.
 10. Unnecessary idling of construction vehicles and equipment shall be avoided.
- C. All contractors, and overseen by the General Contractor, shall implement dust control measures consistent with South Coast Air management District (SCAQMD) Rule 403 – Fugitive Dust during the construction phases on the project development.
1. Apply water and/or non-toxic chemical soil stabilizers according to manufacturer's specifications to all inactive construction areas (previously graded areas that have been inactive for 10 or more days).
 2. Replace ground cover in disturbed areas as quickly as possible.
 3. Enclose, cover, water twice daily, or apply approved chemical soil binders to exposed piles with 5 percent or greater silt content.
 4. Water active grading sites at least twice daily.
 5. Suspend all excavating and grading operations when wind speeds (as instantaneous gusts) exceed over 25 mile per hour over a 30-minute period.
 6. All trucks hauling dirt, sand, soil, or other loose material are to be covered or should maintain at least two feet of freeboard (i.e., minimum vertical distance between top of the load and top of the trailer) in accordance with section 23114 of the California Vehicle Code.
 7. Sweep streets at the end of the day if visible soil material is carried over to adjacent roads.
 8. Install wheel washers where vehicles enter and exit unpaved roads onto paved roads, or wash off trucks and any equipment leaving project site for each trip.
 9. Apply water three times daily of chemical soil stabilizers according to manufacturer's specifications to all unpaved parking or staging areas or unpaved road surfaces.

1.4. NOISE CONTROL

- A. Noise control shall be maintained by the contractor in all areas of construction, guarding against any undue noise which may impair proper use of existing facilities. Activities with the highest noise potential shall be scheduled for the times when background ambient noise levels are highest (i.e., during peak commute hours). Contractor shall use noise suppressed equipment available and/or shall muffle/control noise on equipment to the maximum extent possible. Noisy construction-related operations (e.g. mixing concrete) shall be accomplished on-site to the extent feasible. Those noisy, construction-related operations shall be performed on those areas of the site furthest from noise sensitive receptors i.e. residence halls, off-site community, etc.”

OR

Noise control shall be maintained by the contractor in all areas of construction, guarding against any undue noise, which may impair proper use of existing facilities. Contractor shall use noise suppressed equipment available and control noise on equipment to the maximum extent possible.

B. The following noise control procedures shall be employed:

1. Maximum Noise: The Contractor shall use equipment and methods during the course of this work that are least disruptive to adjacent offices or residences. Noise levels for trenchers, graders, trucks and pile drivers shall not exceed 90 dBA at 50 feet as measured under the noisiest operating conditions. For all other equipment, noise levels shall not exceed 85 dBA at 50 feet.

OR

Noise control shall be maintained by the contractor in all areas of construction, guarding against any undue noise, which may impair proper use of existing facilities. Contractor shall use noise suppressed equipment available and control noise on equipment to the maximum extent possible.

2. Equipment: Jack hammers shall be equipped with exhaust mufflers and steel muffling sleeves. All diesel equipment shall have exhaust muffled. Air compressors shall be of a quiet type such as a "whisperized" compressor.

OR

Equipment: Jack hammers shall be equipped with exhaust mufflers and steel muffling sleeves. All diesel equipment shall have exhaust muffled. Air compressors shall be of a quiet type such as a "whisperized" compressor. Require contractors to use the quietest among alternative equipment or to muffle/control noise from available equipment to the maximum extent possible.

AND/OR

Require Mufflers and Other Noise Attenuators on Project Construction Equipment: All contractors, and overseen by the General Contractor, shall ensure that noise-producing construction equipment and vehicles using internal combustion engines will be equipped with mufflers; air-inlet silencers where appropriate; and any other shrouds, shields, or other noise-reducing features in good operating condition that meet or exceed original factory specification. Mobile or fixed "package" equipment (e.g., arc-welders, air compressors) will be equipped with shrouds and noise-control features that are readily available for that type of equipment. Stationary construction equipment, material and vehicle staging shall be placed to direct noise away from sensitive receptors.

AND OR

Require Use of Electrically Powered Equipment: All contractors, and overseen by the General Contractor, shall ensure that work use electrically powered equipment instead of pneumatic or internal combustion-powered equipment, where feasible.

3. Operations: Machines shall not be left idling. Electric power shall be used in lieu of internal combustion engine power wherever possible. Equipment shall be maintained to reduce noise from vibration, faulty mufflers, or other sources.

OR

Operations: Machines shall not be left idling. Electric power shall be used in lieu of internal combustion engine power wherever possible. Equipment shall be maintained to reduce noise from vibration, faulty mufflers, or other sources.

4. Scheduling: Noisy operations shall be scheduled so as to minimize the disturbance and duration to adjacent neighborhoods and nearby student Housing complexes.

OR

Scheduling: Noisy operations shall be scheduled so as to minimum their disturbance to occupied adjacent areas and duration at any given location. Schedule activities with highest noise potential for times when background ambient noise levels are highest.

5. Location: Consider noise sensitive areas around the site when planning locations of operations which cause higher levels of noise, and perform those tasks in less sensitive areas when possible. Schedule work that will generate vibrations, uncontrolled dust, noise levels in excess of 65 dBA, interior- 85 dBA, exterior and potentially hazardous conditions for time periods that are the least disruptive to the University and the surrounding residential neighborhood.
6. Use of High Vibration Construction Equipment near School of Medicine
 - a. All contractors, and overseen by the General Contractor, shall schedule construction activity entailing use of high-vibration generating equipment within 75 feet of Residence Halls during periods when students are not in residence, to the extent feasible.

Prohibit Noise-producing Signals: All contractors, and overseen by the General Contractor, shall prohibit the use of noise-producing signals, including horns, whistles, alarms, and bells, except for safety purposes only. Public address or music systems will also be prohibited.

1.5. TEMPORARY EROSION AND SEDIMENT CONTROL

- A. Exposed earth surfaces shall be watered to minimize dust generation as necessary according to weather conditions.
- B. During winter construction, an erosion and sediment-transport control plan incorporating standard erosion control practices shall be implemented prior to the first day of earth moving activities.
 1. Erosion control shall include retaining sediments within project site by the use of catch basins; using interceptor ditches and benches to prevent gulying of slopes; and preparing and implementing erosion control plans.
- C. Storm Water Pollution Prevention Plan (SWPPP):
 1. This project has an active SWPPP permit and the university has retained a SWPPP management consultant for this project. The contractor shall take over the contract of the SWPPP consultant for the SWPPP management of the project for the duration of the schedule until substantial completion. Contact David Beckwith, President, David Beckwith & Associates at (714) 349-7007. The details of the SWPPP for School of Medicine Clinical Skills and its implementation can be viewed online at the California State Water Resources Board's SMARTS website (type "University of California, Riverside").
 2. Refer to Section 01 2100 Allowances for the description of the SWPPP allowance.
 3. For additional information see Section 31 1000 "Site Clearing".

4. Protection Against Inclement Weather: Brace, secure, and cover all parts of the Work to prevent damage by inclement weather. Refer to Section 3.9 Storm Water Control for SWPPP information.
5. Protect the Work from damage due to nuisance water such as rainwater, surface runoff, and irrigation water. Comply with requirements of the University's Representative regarding routing and disposal of nuisance water.

D. Storm Water Control

1. This project already has an open SWPPP permit on file. Refer to Section 01 1400 "Contractor's Use of the Project Site" for more detailed SWPPP information.
 - a. Provide engineering, drawings, etc., to meet the requirements.
2. Erect berm and other appropriate measures to prevent water from running off site and staging area.
3. Erect berm and other appropriate measures to prevent water from entering the site and staging area.
4. Temporary Storm Water Pollution Control: Provide earthen embankments and similar barriers in and around excavations and subgrade construction, sufficient to prevent flooding by runoff of storm water from heavy rains.

1.6. TEMPORARY ENVIRONMENTAL CONTROLS

- A. Environmental Protection: Provide protection, operate temporary facilities, and conduct construction in ways and by methods that comply with environmental regulations, and minimize the possibility that air, waterways, and subsoil might be contaminated or polluted or that other undesirable effects might result. Avoid use of tools and equipment that produce levels of harmful noise. Restrict use of noise-making tools and equipment to hours that will minimize complaints from persons or firms near the site.
- B. See also Section 01 3543, Environmental Procedures.

1.7. TEMPORARY PEST CONTROL – Not Used

1.8. BIOLOGICAL RESOURCES – Not Used

1.9. CULTURAL RESOURCES – Not Used

1.10. AESTHETICS – Not Used

1.11. AIR QUALITY

- A. All construction vehicles and equipment containing an internal combustion engine and operating on the project site shall meet EPA-certified Tier 2 emission standards or higher. Contractor shall maintain on-going verification records of equipment certification as new equipment is delivered to the site for University Representatives to review for compliance.
 - a. Compliance with all SCAQMD rules and regulations.
 - b. Maintenance programs to assure vehicles remain in good operating condition.

- c. Avoid unnecessary idling of construction vehicles and equipment.
- d. Use of alternative fuel vehicles.

PART 2 – PRODUCTS – Not Used

PART 3 – EXECUTION – Not Used

END OF SECTION

SECTION 01 6000 PRODUCT REQUIREMENTS

PART 1 – GENERAL

1.1. SUMMARY

- A. This Section includes administrative and procedural requirements governing the Contractor's selection of products for use in the Project:
1. Quality Assurance
 2. Product Delivery, Storage, and Handling
 3. Product Selection
 4. Product Installation
- B. Definitions: The Definitions used in this Article are not intended to change the meaning of other terms used in the Contract Documents, such as "specialties," "systems," "structure," "finishes," "accessories," and similar terms. Such terms are self-explanatory and have well-recognized meanings in the construction industry.
1. "Products" are items purchased for incorporation in the Work, whether purchased for the Project or taken from previously purchased stock. The term "product" includes the terms "material," "equipment," "system," and terms of similar intent.
 - a. "Named Products" are items identified by the manufacturer's product name, including make or model number or other designation, shown or listed in the manufacturer's published product literature that is current as of the date of the Contract Documents.
 - b. "Foreign Products," as distinguished from "domestic products," are items substantially manufactured (50 percent or more of value) outside the United States and its possessions. Products produced or supplied by entities substantially owned (more than 50 percent) by persons who are not citizens of, nor living within, the United States and its possessions are also considered to be foreign products.
 2. "Materials" are products substantially shaped, cut, worked, mixed, finished, refined or otherwise fabricated, processed, or installed to form a part of the Work.
 3. "Equipment" is a product with operational parts, whether motorized or manually operated, that requires service connections, such as wiring or piping.

1.2. QUALITY ASSURANCE

- A. Source Limitations: To the fullest extent possible, provide products of the same kind from a single source.
- B. Compatibility of Options: When the Contractor is given the option of selecting between 2 or more products for use on the Project, the product selected shall be compatible with products previously selected, even if previously selected products were also options.
1. Each prime contractor is responsible for providing products and construction methods that are compatible with products and construction methods of other prime or separate contractors.
 2. If a dispute arises between prime contractors over concurrently selectable, but incompatible products, the University's Representative will determine which products shall be retained and which are incompatible and must be replaced.

- C. Foreign Product Limitations: Except under one or more of the following conditions, provide domestic products, not foreign products, for inclusion in the Work:
 - 1. No available domestic product complies with the Contract Documents.
 - 2. Domestic products that comply with the Contract Documents are available only at prices or terms substantially higher than foreign products that comply with the Contract Documents.

- D. Nameplates: Except for required labels and operating data, do not attach or imprint manufacturer's or producer's nameplates or trademarks on exposed surfaces of products that will be exposed to view in occupied spaces or on the exterior.
 - 1. Labels: Locate required product labels and stamps on concealed surfaces or, where required for observation after installation, on accessible surfaces that are not conspicuous.
 - 2. Equipment Nameplates: Provide a permanent nameplate on each item of service-connected or power-operated equipment. Locate on an easily accessible surface that is inconspicuous in occupied spaces. The nameplate shall contain the following information and other essential operating data:
 - a. Name of product and manufacturer.
 - b. Model and serial number.
 - c. Capacity.
 - d. Speed.
 - e. Ratings.
 - 3. UL Label: Provide products bearing appropriate UL label as indicated.

1.3. PRODUCT DELIVERY, STORAGE, AND HANDLING

- A. Refer to Section 01 5200, Paragraph 1.5.

PART 2 – PRODUCTS

2.1. PRODUCT SELECTION

- A. General Product Requirements: Provide products that comply with the Contract Documents, that are undamaged and, unless otherwise indicated, new at the time of installation, except where salvaged materials are indicated.
 - 1. Provide products complete with accessories, trim, finish, safety guards, and other devices and details needed for a complete installation and the intended use and effect.
 - 2. Standard Products: Where available, provide standard products of types that have been produced and used successfully in similar situations on other projects.

- B. Product Selection Procedures: The Contract Documents and governing regulations govern product selection. Procedures governing product selection include the following:
 - 1. Nonproprietary Specifications: When Specifications list products or manufacturers that are available and may be incorporated in the Work, but do not restrict the Contractor to use of these products only, the Contractor may propose any available

- product that complies with Contract requirements. Comply with Contract Document provisions concerning "substitutions" to obtain approval for use of an unnamed product.
2. Compliance with Standards, Codes, and Regulations: Where Specifications only require compliance with an imposed code, standard, or regulation, select a product that complies with the standards, codes, or regulations specified.
 3. Visual Matching: Where Specifications require matching an established Sample, the University Representative's decision will be final on whether a proposed product matches satisfactorily.
 - a. Where no product available within the specified category matches satisfactorily and complies with other specified requirements, comply with provisions of the Contract Documents concerning "substitutions" for selection of a matching product in another product category.
 4. Visual Selection: Where specified product requirements include the phrase "...as selected from manufacturer's standard colors, patterns, textures..." or a similar phrase, select a product and manufacturer that complies with other specified requirements. The University's Representative will select the color, pattern, and texture from the product line selected.

PART 3 – EXECUTION

3.1 PRODUCT INSTALLATION

- A. Comply with manufacturer's instructions and recommendations for installation of products in the applications indicated. Anchor each product securely in place, accurately located and aligned with other Work.
 1. Clean exposed surfaces and protect as necessary to ensure freedom from damage and deterioration at time of Substantial Completion.

END OF SECTION

SECTION 01 7100 EXAMINATION AND PREPARATION

PART 1 – GENERAL

1.1. SUMMARY

A. This Section includes:

1. Mobilization
2. Acceptance of Conditions
3. Construction Layout – Not Used
4. Construction Surveying – Not Used
5. Protection of Adjacent Construction – Not Used
6. Non-Destructive Concrete Examination – Not Used

1.2. MOBILIZATION – Not Used

1.3. ACCEPTANCE OF CONDITIONS

A. Contractor and University Site Review

1. Prior to commencing the Work, the Contractor and University's Representative shall tour together the Project site (and areas immediately surrounding the site) to examine and record damage to existing buildings and improvements constructed under a prior contract. As such the Contractor accepts the work constructed on site "as-is" and must finish what is installed into a complete and functional system.
2. This record shall serve as a basis for determination of subsequent damage due to Contractor's operations and shall be signed by all parties making the tour. Any cracks, sags, or damage to the adjacent buildings, improvements and landscaping elements not noted in the original survey, but subsequently discovered, shall be reported to University's Representative within 15 days from Notice to Proceed.
3. The Contractor shall prepare a report of the survey, including:
 - a. DVD recording of existing conditions.
 - b. 8" x 10" glossy photographs of significant features requested by University's Representative.
 - c. Key plan with references to video/photographs
4. The Contractor and University Representative shall periodically monitor conditions of existing buildings and installations for signs of movement, settlement, or other damage related to construction.
5. Contractor is solely responsible for repairing damage to existing construction and finishes and for replacing damaged components, which cannot be repaired.
6. Contractor is solely responsible for maintaining and watering existing landscaping within the Project site and for replacing landscaping elements, which are damaged or destroyed during the course of the Work.

1.4. CONSTRUCTION LAYOUT – Not Used

1.5. CONSTRUCTION SURVEYING – Not Used

1.6. PROTECTION OF ADJACENT CONSTRUCTION – Not Used

1.7. NON-DESTRUCTIVE CONCRETE EXAMINATION – Not Used

PART 2 – PRODUCTS – Not Used

PART 3 – EXECUTION - Not Used

END OF SECTION

SECTION 01 7329 CUTTING AND PATCHING

PART 1 – GENERAL

1.1. SUMMARY

- A. This Section includes general administrative and procedural requirements for cutting and patching, including without limitation, the following:
1. Submittals
 2. Quality Assurance
 3. Warranty
 4. Materials
 5. Inspection
 6. Preparation
 7. Performance
 8. Cleaning
- B. Requirements of this Section apply to mechanical and electrical installations. Refer to Specification Divisions 20-28 for other requirements and limitations applicable to cutting and patching mechanical and electrical installations.
- C. Refer to other applicable Sections for specific requirements and limitations applicable to cutting and patching individual parts of the Work.
- D. Cutting and Patching, in addition to requirements of the General Conditions, includes removing, altering, and repairing portions of the Work as required to accomplish the following:
1. Make several parts fit properly.
 2. Uncover work to provide for installation of ill-timed work.
 3. Remove and replace defective work.
 4. Remove samples of installed work as specified or requested by the University's Representative for testing.
 5. Install new construction penetrations of or connections to existing construction.

1.2. SUBMITTALS

- A. Cutting and Patching Proposal: Submit written notice to the University's Representative requesting permission to proceed with cutting which could affect structural safety of the project 10 days in advance of starting cutting. Request approval to proceed. Include the following information, as applicable, in the proposal:
1. Describe the extent of cutting and patching required. Show how it will be performed and indicate why it cannot be avoided.
 2. Describe anticipated results in terms of changes to existing construction. Include changes to structural elements and operating components as well as changes in the building's appearance and other significant visual elements.
 3. List products to be used and firms or entities that will perform Work.
 4. Indicate dates when cutting and patching will be performed.
 5. Utilities: List utilities that cutting and patching procedures will disturb or affect. List utilities that will be relocated and those that will be temporarily out-of-service. All utility shut downs shall be kept to a minimum. Contractor shall coordinate for all shut downs to occur during weekend hours without change to the contract sum. Identify date, time and expected duration (no more than 8 hours duration) of all utility shutdowns. There will be no shut downs for sewer services, must do bypass.

6. Approval by the University's Representative to proceed with cutting and patching does not waive the University's Representative right to later require complete removal and replacement of unsatisfactory work.
- B. Changed Conditions Notice: Submit written recommendations to the University's Representative should conditions of work or schedule indicate change of materials or methods, including the following:
 1. Conditions indicating change.
 2. Recommendations for alternative materials and methods.
 3. Information required for substitution.

1.3. QUALITY ASSURANCE

A. Requirements for Structural Work:

1. Obtain approval of the cutting and patching proposal before cutting and patching structural elements including, but not limited to, the following:
 - a. Foundation construction.
 - b. Structural concrete.
 - c. Miscellaneous structural metals.
 - d. Piping and equipment.

B. Operational Limitations: Do not cut and patch operating elements or related components in a manner that would result in reducing their capacity to perform as intended. Do not cut and patch operating elements or related components in a manner that would result in increased maintenance or decreased operational life or safety.

1. Obtain approval of the cutting and patching proposal before cutting and patching the following operating elements or safety related systems
 - a. Primary operational systems and equipment.
 - b. Fire protection systems.
 - c. Communication systems.
 - d. Electrical wiring systems.
 - e. Security systems

C. Visual Requirements: Do not cut and patch construction in a manner that would result in visual evidence of cutting and patching. Remove and replace construction cut and patch in a visually unsatisfactory manner.

1.4. WARRANTY

- #### A. Existing Warranties: Replace, patch, and repair material and surfaces cut or damaged by methods and with materials in such a manner as not to void any warranties required or existing.

PART 2 – PRODUCTS

2.1. MATERIALS

- #### A. Use materials identical to existing materials. For exposed surfaces, use materials that visually match existing adjacent surfaces to the fullest extent possible if identical materials are unavailable or cannot be used. Use materials whose installed performance will equal or surpass that of existing materials.

PART 3 – EXECUTION

3.1 INSPECTION

- A. Examine surfaces to be cut and patched and conditions under which cutting and patching is to be performed before cutting. If unsafe or unsatisfactory conditions are encountered, take corrective action and notify University's Representative before proceeding.
 - 1. Before proceeding, meet at the Project Site with parties involved in cutting and patching, including mechanical and electrical trades. Review areas of potential interference and conflict. Coordinate procedures and resolve potential conflicts before proceeding.
 - 2. Provide drawings and calculations signed by a licensed California Structural Engineer for shoring, bracing and support to maintain structural integrity.
 - 3. Protect other portions of the Project.
 - 4. Protect Project from the element.

3.2 PREPARATION

- A. Temporary Support: Provide temporary support of work to be cut.
- B. Protection: Protect existing construction during cutting and patching to prevent damage. Provide protection from adverse weather conditions for portions of the Project that might be exposed during cutting and patching operations.
- C. Avoid interference with use of adjoining areas or interruption of free passage to adjoining areas.
- D. Avoid cutting existing pipe, conduit, or ductwork serving the building but scheduled to be removed or relocated until provisions have been made to bypass them.

3.3 PERFORMANCE

- A. General: Employ skilled workmen to perform cutting and patching. Proceed with cutting and patching at the earliest feasible time and complete without delay.
 - 1. Cut existing construction to provide for installation of other components or performance of other construction activities and the subsequent fitting and patching required to restore surfaces to their original condition.
- B. Cutting: Cut existing construction using methods least likely to damage elements retained or adjoining construction. Where possible, review proposed procedures with the original Installer; comply with the original Installer's recommendations.
 - 1. In general, where cutting, use hand or small power tools designed for sawing or grinding, not hammering and chopping. Cut holes and slots as small as possible, neatly to size required, and with minimum disturbance of adjacent surfaces. Temporarily cover openings when not in use.
 - 2. To avoid marring existing finished surfaces, cut or drill from the exposed or finished side into concealed surfaces.
 - 3. Cut through concrete and masonry using a cutting machine, such as a Carborundum saw or a diamond-core drill.
 - 4. Comply with requirements applicable Division 2 Sections where cutting and patching requires excavating and backfilling.
 - 5. Where services are required to be removed, relocated, or abandoned, by-pass utility services, such as pipe or conduit, before cutting. Cut-off pipe or conduit in walls or partitions to be removed. Cap, valve, or plug and seal the remaining

portion of pipe or conduit to prevent entrance of moisture or other foreign matter after by-passing and cutting.

- C. Patching: Patch with durable seams that are as invisible as possible. Comply with specified tolerances.
 - 1. Where feasible, inspect and test patched areas to demonstrate integrity of the installation.
 - 2. Restore exposed finishes of patched areas and extend finish restoration into retained adjoining construction in a manner that will eliminate evidence of patching and refinishing.
 - 3. Patch, repair, or rehang existing ceilings as necessary to provide an even-plane surface of uniform appearance.
- 3.4 CLEANING
- A. Clean areas and spaces where cutting and patching are performed. Completely remove paint, mortar, oils, putty, and similar items. Thoroughly clean piping, conduit, and similar features before applying paint or other finishing materials. Restore damaged pipe covering to its original condition.

END OF SECTION

SECTION 01 7400 CLEANING AND WASTE MANAGEMENT

PART 1 – GENERAL

1.1. SUMMARY

- A. This Section includes:
1. Progress Cleaning and Site Maintenance
 2. Construction Waste Management and Disposal
 3. Final Cleaning
 4. Contractor C&D Waste Monitoring Form and Green Waste Monitoring Form, copies of which are attached at the end of this Section.
- B. Cleaning Agents: Use cleaning materials and agents recommended by the manufacturer or fabricator of the surface to be cleaned. Do not use cleaning agents that are potentially hazardous to health or property or that might damage finished surfaces.
- C. Environmental Requirements: Conduct cleaning and waste-disposal operations in compliance with local laws and ordinances. Comply fully with federal and local environmental and antipollution regulations.
1. Do not dispose of volatile wastes, such as mineral spirits, oil, or paint thinner, in streams, storm or sanitary drains.
 2. Burning or burying of debris, rubbish, or other waste material on the premises is not permitted.
 3. Comply with requirements of Southern California Air Quality Management District in effect at the time of construction.
 4. Comply with governing regulations and safety standards for cleaning operations. Remove waste materials from the site and dispose of lawfully.
- D. Submittal: Prior to requesting inspection for Substantial Completion and Final Completion, submit written certification to the University's Representative that final cleaning has been performed in accordance with the Contract Documents.

1.2. PROGRESS CLEANING AND SITE MAINTENANCE

- A. Collection and Disposal of Waste: Contractor shall furnish all labor, equipment, containers, transportation, materials, supplies and related expenses to provide the University with comprehensive waste collection and waste recycling services for the Project. Contractor shall collect waste from construction areas and elsewhere daily. Comply with requirements of NFPA 241 for removal of combustible waste material and debris. Enforce requirements strictly. Do not hold materials more than 7 days during normal weather or 3 days when the temperature is expected to rise above 80 degrees F (27 degrees C). Handle hazardous, dangerous, or unsanitary waste materials separately from other waste by containerizing properly.
1. Do not burn waste materials. Do not bury debris or excess materials on the University's property. Do not discharge volatile, harmful, or dangerous materials into drainage systems or streams. Remove waste materials from the site and dispose of lawfully.
 2. Where extra materials of value remain after completion of associated Work, they become the University's property. Dispose of these materials as directed by the University's Representative.

3. Provide on-site containers for collection of waste materials, debris, and rubbish, and empty at least weekly. Maintain containers in such condition so as to ensure they are clean and sanitary, to prevent odor and insect infestation, and ensure no unsightly presentation. Perform maintenance on the containers as required to ensure proper function for the intended purpose.
 4. Handle waste materials in a controlled manner. Do not drop or throw materials from heights.
 5. Remove combustible debris from the building daily and store in covered, non-combustible containers located not less than 40 feet from any building.
- B. Cleaning During Construction Period: Comply with regulations of the University and safety standards for cleaning.
1. Schedule cleaning operations so that dust and other contaminants resulting from cleaning operations will not settle on wet paint, or other coatings or finishes during their cure period.
 2. Comply with manufacturer's instructions for cleaning the surfaces and parts of finishes and equipment. Use only those cleaning materials and procedures recommended by the manufacturer of the item to be cleaned.
 3. Provide cleaning during construction as necessary to ensure operations can proceed on schedule and that finish materials can be installed properly and viewed for determination of aesthetic characteristics.

1.3. CONSTRUCTION WASTE MANAGEMENT AND DISPOSAL

- A. The University has established that this Project shall generate the least amount of waste possible and that processes that ensure the generation of as little waste as possible shall be employed to enable the University to meet a minimum 95% percent diversion of construction and demolition (C&D) waste (including green waste) from the landfill.
- B. Contractor shall be responsible for monitoring and maintaining a written log using the C&D Waste Monitoring Form and Green Waste Monitoring Form, copies of which are attached at the end of this Section, to report when actual container deliveries and waste pickups occur, the types of C&D waste material included, weight of each type (in Tons) diverted or landfilled and total percentage of waste diverted from landfill, and any other data required to be reported on the respective forms. Contractor shall submit completed forms with the required data to University's Representative, or designee, **with each Application for Payment**. Such written information shall be used as backup to support payment of Contractor's scheduled value for Division 1, General Requirements.
- C. C&D waste is a combination of concrete, lumber, plaster, cardboard, glass, various metals, paper, PVC, ABS, HDPE, PP, PDPE, PET, white foam, paint buckets, carpet, green waste, and dirt.
1. C&D waste accepted for recycling:
 - a. Card Board.
 - b. Mixed metals.
 - c. PVC Pipe.
 - d. ABS Pipe.
 - e. H.D.P.E. Pipe.
 - f. Carpet.
 - g. Carpet Pad.
 - h. Mixed Plastics.

- i. Glass.
- j. Bottles & Cans – CRV.
- k. H.D.P.E Plastics.
- l. H.D.P.E Pipe.
- m. Foam – White.
- n. Paper – Mixed.
- o. Plastic Buckets – Paint (empty) & Landscapers.
- p. Drywall.
- q. Wood.
- r. Particle Board.
- s. Green Waste:
 - (1) Green Waste refers to waste resulting from removal of vegetation; it is a combination of brush, branches, leaves, flowers, shrubs and small trees and other items listed on the Green Waste Monitoring Form.
 - (2) Green Waste accepted for recycling and/or compost:
 - (a) Grass Clippings.
 - (b) Trees – Tree trunks shall be cut into 4' and 10" pieces.
 - (c) Branches – Branches shall be cut into 4' and 10" pieces.
 - (d) Tree Trimmings – All other material other than trunks, branches, and leaves.
 - (e) Wood.
 - (f) Mulch.
 - (g) Brush.
 - (h) Leaves.
 - (i) Flowers.
 - (j) Shrubs.
 - (k) Palm Fronds.
- t. Inert Material – Soil, Asphalt, Brick, Concrete

1.4. FINAL CLEANING

- A. This Section includes the administrative and procedural requirements for final cleaning at Substantial Completion and Final Inspection.
- B. Provide final-cleaning operations when indicated. Employ experienced workers or professional cleaners for final cleaning. Clean each surface or unit of Work to the condition expected from a commercial cleaning and maintenance program. Comply with manufacturer's instructions.
- C. Complete the following cleaning operations before requesting inspection for certification of Substantial Completion for the entire Project or a portion of the Project.
 - 1. Clean the Project Site, yard and grounds, in areas disturbed by construction activities, including landscape development areas, of rubbish, waste material, litter, and foreign substances.
 - 2. Sweep paved areas broom clean. Rake grounds that are neither planted nor paved to a smooth, even-textured surface.
 - 3. Remove petrochemical spills, stains, and other foreign deposits.
 - 4. Remove tools, construction equipment, machinery, and surplus material from the site.
 - 5. Remove snow and ice, if any, to provide safe access to the building.

6. Clean exposed exterior and interior hard-surfaced finishes to a dirt-free condition, free of stains, films, and similar foreign substances. Avoid disturbing natural weathering of exterior surfaces. Restore reflective surfaces to their original condition.
 7. Remove debris and surface dust from limited access spaces, including trenches, equipment vaults, manholes and similar spaces.
 8. Broom clean concrete floors in unoccupied spaces.
 9. Remove labels that are not permanent labels.
 10. Touch up and otherwise repair and restore marred, exposed finishes and surfaces. Replace finishes and surfaces that cannot be satisfactorily repaired or restored or that already show evidence of repair or restoration.
 - a. Do not paint over "UL" and similar labels, including mechanical and electrical nameplates.
 11. Wipe surfaces of electrical equipment, and similar equipment. Remove excess lubrication, paint and mortar droppings, and other foreign substances.
 12. Remove grease, dust, dirt, stains, and other marks from surfaces exposed-to-view.
 13. Leave the Project clean.
- D. Pest Control: Engage an experienced, licensed exterminator to make a final inspection and rid the Project of rodents, insects, and other pests. Comply with regulations of local authorities.
- E. Removal of Protection: Remove temporary protection and facilities installed during construction to protect previously completed installations during the remainder of the construction period.
- F. Where extra materials of value remain after completion of associated Work, they become the University's property. Dispose of these materials as directed by the University's Representative at no additional cost to the University.

PART 2 – PRODUCTS (Not Applicable)

PART 3 – EXECUTION (Not Applicable)

END OF SECTION

Contractor C&D Waste Monitoring Form

Project Name & No.:

Contractor:

Prepared by:

Date/Time of Pick up	Size of Bin	R/L ¹	Bin Makeup: Recycled or Landfill Materials (Provide quantity of each in Tons.)											
			Concrete	Metals	Wood	Glass	Clay/Brick	Paper	Gypsum	Paint	Insulation	Green Waste ²	Dirt ²	Other
Column Totals:														
Total C&D Waste to Landfill:														
% of C&D Waste Recycled:														

¹ Indicate whether R=Recycled or L=Landfill.

² For waste diversion numbers, Green Waste and dirt are not included. Complete Green Waste Monitoring Form.

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Contractor Green Waste Monitoring Form

Project Name & No.:

Contractor:

Prepared by:

Date/Time of Pick up	Size of Bin	R/L ¹	Bin Makeup: Recycled or Landfill Materials (Provide quantity of each in Tons.)											
			Grass Clippings	Small Tree	Tree Trunks	Branches	Tree Trimmings	Wood	Mulch	Brush	Leaves	Flowers	Shrubs	Palm Fronds
Column Totals:														
Total Green Waste to Landfill:														
% of Green Waste Recycled:														

¹ Indicate whether R=Recycled or L=Landfill.

SECTION 01 7700 CONTRACT CLOSEOUT

PART 1 – GENERAL

1.1. SUMMARY

- A. This Section includes administrative and procedural requirements for contract closeout including, but not limited to, the following:
1. Substantial Completion
 2. Final Inspection Acceptance
 3. Closeout Procedures
 4. Instruction and Evaluation of University's Personnel
 5. Training Tools and Materials
 6. Qualifications of Instructors
 7. Operation and Maintenance Manuals and Instructions
 8. Spare Parts and Extra Stock Materials
 9. Warranties
- B. Closeout requirements for specific construction activities are included in the appropriate Sections in Divisions 2 through 33.

1.2. SUBSTANTIAL COMPLETION

- A. Preliminary Procedures: Before requesting inspection for certification of Substantial Completion, complete the following. List exceptions in the request.
1. In the Application for Payment that coincides with, or first follows, the date Substantial Completion is claimed, show 100 percent completion for the portion of the Work claimed as substantially complete.
 - a. Include supporting documentation for completion as indicated in these Contract Documents and a statement showing an accounting of changes to the Contract Sum.
 - b. If 100 percent completion cannot be shown, include a list of incomplete items, the value of incomplete construction, and reasons the Work is not complete.
 2. Advise the University of pending insurance changeover requirements.
 3. Submit specific warranties, workmanship bonds, maintenance and service agreements, final certifications, and similar documents.
 4. Obtain and submit releases enabling the University unrestricted use of the Work and access to services and utilities. Include occupancy permits, operating certificates, and similar releases.
 5. Submit record drawings, operation and maintenance manuals, final project photographs, damage or settlement surveys, property surveys, and similar final record information.
 6. Deliver tools, spare parts, extra stock, and similar items.
 7. Make final changeover of permanent locks and transmit keys and key schedule to the University. Advise the University's personnel of changeover in security provisions.
 8. Complete startup testing of systems and instruction of the University's operation and maintenance personnel. Discontinue and remove temporary facilities from the site, along with mockups, construction tools, and similar elements.
 9. Complete final cleanup requirements, including touchup painting.
 10. Touch up and otherwise repair and restore marred, exposed finishes.
 11. Adjust and balance all systems and adjust all valves.

12. Check fluid and gas carrying pipe systems, roofs, flashings, gutters, and downspouts for leaks. Repair or replace as necessary.
 13. Lubricate all moving parts of machinery and equipment as recommended by the manufacturers of the machinery and equipment.
 14. Submit certification required in Section 01 7400 for "Final Cleaning."
- B. Inspection Procedures: On receipt of a request for inspection, the University's Representative will either proceed with inspection or advise the Contractor of incomplete or incorrect work. The University's Representative will prepare the Punchlist following inspection or advise the Contractor of what must be completed or corrected before the certificate will be issued.
1. The University's Representative will repeat inspection when requested and assured that the Work is substantially complete.
 2. Results of the completed inspection will form the basis of requirements for final acceptance.
 3. Allow 3 weeks for the University's Representative to prepare the list of items to be corrected.

1.3. FINAL INSPECTION ACCEPTANCE

- A. Preliminary Procedures: Before requesting final inspection for certification of final acceptance and final payment, complete the following. List exceptions in the request.
1. Submit the final payment request with releases and supporting documentation not previously submitted and accepted. Include insurance certificates for products and completed operations where required.
 2. Submit an updated final statement, accounting for final additional changes to the Contract Sum.
 3. Submit a certified copy of the University Representative's final inspection list of items to be completed or corrected, endorsed and dated by the University's Representative. The certified copy of the list shall state that each item has been completed or otherwise resolved for acceptance and shall be endorsed and dated by the University's Representative.
 4. Submit final meter readings for utilities, a measured record of stored fuel, and similar data as of the date of Substantial Completion or when the University took possession of and assumed responsibility for corresponding elements of the Work.
 5. Submit consent of surety to final payment.
 6. Submit a final liquidated damages settlement statement.
 7. Submit evidence of final, continuing insurance coverage complying with insurance requirements.
 8. Completed Punchlist.
- B. Reinspection Procedure: The University's Representative will reinspect the Work upon receipt of notice that the Work, including inspection list items from earlier inspections, has been completed, except for items whose completion is delayed under circumstances acceptable to the University's Representative.
1. Upon completion of reinspection, the University's Representative will prepare a certificate of final acceptance. If the Work is incomplete, the University's Representative will advise the Contractor of Work that is incomplete or of obligations that have not been fulfilled but are required for final acceptance.
 2. If necessary, reinspection will be repeated and related costs of University's Representative and University Representative's Consultants will be deducted from final retention payment.

PART 2 – PRODUCTS (Not Applicable)

PART 3 – EXECUTION

3.1 CLOSEOUT PROCEDURES

- A. Operation and Maintenance Instructions: Arrange for each Installer of equipment that requires regular maintenance to meet with the University's personnel to provide instruction in proper operation and maintenance. Provide instruction by manufacturer's representatives if installers are not experienced in operation and maintenance procedures. Include a detailed review of the following items:
1. Operation and Maintenance manuals.
 2. As-Built documents.
 3. Spare parts and materials.
 4. Tools.
 5. Lubricants.
 6. Fuels.
 7. Identification systems.
 8. Control sequences.
 9. Hazards.
 10. Cleaning.
 11. Warranties and bonds.
 12. Maintenance agreements and similar continuing commitments.
- B. As part of instruction for operating equipment, demonstrate the following procedures:
1. Startup.
 2. Shutdown.
 3. Emergency operations.
 4. Noise and vibration adjustments.
 5. Safety procedures.
 6. Economy and efficiency adjustments.
 7. Effective energy utilization.

3.2 INSTRUCTION AND EVALUATION OF UNIVERSITY'S PERSONNEL

- A. Perform hands-on demonstrations and instruction for University's designated personnel in the operation, adjustment and maintenance of products, equipment, and systems, as required and at agreed upon times.
- B. Instruction Before Final Inspection: Before Final Inspection, and after work under this contract is completed, tested and prior to acceptance by the University; and not less than five (5) days after submittal of the Operation and Maintenance Data, operate all the systems for a period of three (3) 8-hour periods during which time a qualified factory trained representative familiar with the items installed shall instruct and supervise the University's Personnel in the operation and maintenance of the equipment and systems. This instruction period is in addition and subsequent to any period of operation, testing and adjustment called for elsewhere in these specifications.
- C. Instruction by Manufacturer's Representatives: Any instructions from manufacturer's representatives required under other sections of this specification shall be conducted during this period. This instruction period shall be conducted after completion of all piping and equipment labeling required by the Contract.
- D. Time of Instructions: Make all arrangements and notices for operation and instruction periods through the University's Representative.
- E. Seasonal Operation: For equipment requiring seasonal operation, perform demonstrations and instructions for each required season and at agreed upon times.

- F. Evaluation: During and after demonstrations and instructions for University's designated personnel, evaluate their ability to perform the necessary maintenance and operation functions required to properly operate and maintain each piece of equipment. Make sure that at the end of the training session, the University's designated personnel are reasonably proficient in the operations and maintenance of products, systems, and equipment.

3.3 TRAINING TOOLS AND MATERIALS

- A. Use operation and maintenance manuals as basis for instruction. Review contents of manual with personnel in detail to explain all aspects of operation and maintenance. For all systems requiring operation and maintenance training from factory representative, written authorization from the University is required. All systems of more than one manufacturer, a factory representative from each will be required.
- B. Prepare and insert additional data in Operation and Maintenance Manual when need for such data becomes apparent during instruction.

3.4 QUALIFICATIONS OF INSTRUCTORS

- A. Instructions for the University's Personnel. For instruction of the University's operating and maintenance personnel, use experienced instructors thoroughly trained and experienced in the operation and maintenance of the building equipment or system involved.

3.5 OPERATION AND MAINTENANCE MANUALS AND INSTRUCTIONS

- A. Assemble and furnish a minimum of 3 complete sets (unless otherwise indicated in a specific section) of all mechanical and electrical systems data, except that noted to be mounted in frames, in three-ring loose-leaf binders, complete with index, with indexed dividers permanently attached and exterior labels on cover and back of binders.
- B. Data Required:
 1. Manufacturers' Manuals: Provide complete installation, operation, maintenance, and service manuals and printed instructions and parts lists for all materials and equipment, where such printed matter is regularly available from the manufacturer. This includes but is not limited to such service manuals as may be sold by the manufacturer covering the operation and maintenance of items, and complete replacement parts lists sufficiently detailed for parts replacement ordering to manufacturer. Bound publications need not be assembled in binders.
 2. Equipment Nameplate Data: A typewritten list of all mechanical and electrical equipment showing all equipment nameplate data exactly. Identify equipment by means of names, symbols, and numbers used in the Contract Documents.
 3. System Operating Instructions: Typewritten instructions covering operation of the entire system as installed (not duplicating manufacturers' instructions for operating individual components). Include schematic flow and control diagrams as appropriate and show, locate, or list system valves, control-elements, and equipment components using identification symbols and numbers. List rooms, area of equipment served, and show proper settings for valves, controls, and switches.
 4. System Maintenance Instructions: Typewritten instructions covering routine maintenance of systems. List each item of equipment requiring inspection, lubrication, or service and briefly describe such maintenance, including types of lubricants and frequency of service. It is not intended that these instructions duplicate manufacturers' detailed instructions. Give name, address, and phone number of nearest firm authorized or qualified to service equipment or provide parts.
 5. Warranty, Bonds, and Service Contracts: Provide a copy of each warranty, bond, and service contract issued. These should be accompanied by a sheet which

outlines procedures to take in the event of failure and the circumstances which might affect the validity of warranties or bonds.

6. Wall Mounted Data: Frame one set of typewritten system instructions and diagrams as required under Paragraphs 3. and 4. above, covered with plexiglass and mount in locations as directed by the University's Representative.

3.6 SPARE PARTS AND EXTRA STOCK MATERIALS

3.7 WARRANTIES

A. General Provisions:

1. This subsection includes administrative and procedural requirements for warranties required by the Contract Documents, including manufacturers' standard warranties on products and special warranties.
 - a. Refer to the General Conditions for terms of the Contractor's period for correction of the Work.
 - b. Refer to Divisions 2 through 33 for specific requirements for warranties on products and installations specified to be warranted.
 - c. Certifications and other commitments and agreements for continuing services to University are specified elsewhere in the Contract Documents.
2. Disclaimers and Limitations: Manufacturer's disclaimers and limitations on product warranties do not relieve the Contractor of the warranty on the Work that incorporates the products. Manufacturer's disclaimers and limitations on product warranties do not relieve suppliers, manufacturers, and subcontractors required to countersign special warranties with the Contractor.
3. Effective Date: Warranties shall begin on the date of Final Acceptance unless specifically designated differently or a different date is mutually agreed upon in writing by the parties involved.
4. General Conditions require all items to be under warranty for a period of one (1) year from date of final completion (Notice of Completion) unless otherwise indicated. Warranties for more than one year required by individual Sections require a written warranty by Contractor and Subcontractor. Refer to individual Section of the Specifications to verify if longer warranties are required.

B. Definitions:

1. Standard product warranties are preprinted written warranties published by individual manufacturers for particular products and are specifically endorsed by the manufacturer to the University.
2. Special warranties are written warranties required by or incorporated in the Contract Documents, either to extend time limits provided by standard warranties or to provide greater rights for the University.

C. Warranty Requirements

1. Related Damages and Losses: When correcting failed or damaged warranted construction, remove and replace construction that has been damaged as a result of such

failure or must be removed and replaced to provide access for correction of warranted construction.

2. **Reinstatement of Warranty:** When Work covered by a warranty has failed and been corrected by replacement or rebuilding, reinstate the warranty by written endorsement. The reinstated warranty shall be equal to the original warranty with an equitable adjustment for depreciation.
3. **Replacement Cost:** Upon determination that Work covered by a warranty has failed, replace or rebuild the Work to an acceptable condition complying with requirements of the Contract Documents. The Contractor is responsible for the cost of replacing or rebuilding defective Work regardless of whether the Regents have benefited from use of the Work through a portion of its anticipated useful service life.
4. **Regents' Recourse:** Expressed warranties made to the Regents are in addition to implied warranties and shall not limit the duties, obligations, rights, and remedies otherwise available under the law. Expressed warranty periods shall not be interpreted as limitations on the time in which the Regents can enforce such other duties, obligations, rights, or remedies.
 - a. **Rejection of Warranties:** The Regents reserve the right to reject warranties and to limit selection to products with warranties not in conflict with requirements of the Contract Documents.
 - b. The Regents reserve the right to refuse to accept Work for the Project where a special guarantee, certification, or similar commitment is required on such Work or part of the Work, until evidence is presented so that entities required to countersign such commitments are willing to do so.
5. Where the Contract Documents require a special warranty, or similar commitment on the Work or part of the Work, the University reserves the right to refuse to accept the Work, until the Contractor presents evidence that entities required to countersign such commitments are willing to do so.
6. **Disclaimers and Limitations:** Manufacturer's disclaimers and limitations on standard product warranties shall not relieve the Contractor of the Contractor's warranty on the Work that incorporates the products, and shall also not relieve suppliers, manufacturers, and subcontractors required to counter-sign special warranties with the Contractor.

D. Warranty Submittals

1. Submit written warranties to the University's Representative prior to the date certified for Substantial Completion. If the University Representative's Certificate of Substantial Completion designates a commencement date for warranties other than the date of Substantial Completion, or a designated portion of the Work, submit written warranties upon request of the University's Representative.
 - a. When a designated portion of the Work is completed and occupied or used by the University, by separate agreement with the Contractor during the construction period, submit properly executed warranties to the University's Representative within 10 days of completion of that designated portion of the Work.
2. Forms for special warranties are included at the end of this Section. Prepare a written document utilizing the appropriate form, ready for execution by the Contractor, or by the Contractor, subcontractor, supplier, or manufacturer. Submit a draft to the University, through the University's Representative, for approval prior to final execution.
 - a. Refer to Divisions 2 through 33 for specific content requirements and particular

requirements for submitting special warranties.

3. Form of Submittal: At Final Completion compile 3 copies of each required warranty, in the form included at the end of this Section, properly executed by the Contractor, or by the Contractor, subcontractor, supplier, or manufacturer. Organize the warranty documents into an orderly sequence based on the table of contents of the Project Manual.
4. Assemble required guarantees, bonds, and service and maintenance contracts.
5. Number of original signed copies required: Three (3) sets, each on 8-1/2 inch x 11 inch sheets, 3-hole punched in 3-ring binders. Fold larger sheets to fit into binders. Submit in commercial quality, 3-ring binders, with durable, cleanable plastic covers. Each set of binders shall include:
 - a. Cover: Identify each binder on the cover with typed or printed title, "WARRANTIES", University's Project Name and Number, Name of General Contractor, and binder number, such as "Set 1, Volume 1 of 2", etc.
 - b. Table of Contents: in a spreadsheet/table format, neatly typed and in orderly sequence by CSI number, based on Specifications Table of Contents in the Bidding-Contract Documents, with the following information:
 - (1) CSI Number.
 - (2) Name of Product or Work item.
 - (3) Brief Scope Description.
 - (4) Firm name, address, telephone number, and name of principal with email address.
 - (5) Date of beginning of guarantee, bond, or service and maintenance contract.
 - (6) Duration and expiration date of warranty or service and maintenance contract.
 - c. When warranted, construction requires operation and maintenance manuals, provide additional copies of each required warranty, as necessary, for inclusion in each required manual.
 - d. Except when a special warranty is required by the provisions of a specific Section of these Specifications, or a standard warranty is not offered as a matter of record by the manufacturer of a specified product, submit the manufacturer's standard warranty for each product incorporated in the Work.
 - e. When a manufacturer does not offer a standard warranty, provide a written form listing the product and indicating "Standard Product Warranty Not Available."
6. Special Warranty Forms: Attached at the end of this Section.

END OF SECTION

GUARANTEE

Project Name: _____ Date: _____

Project Location: _____

Project Number: _____

GUARANTEE FOR _____ (the "Contract"), between
The (Specification SECTION and Contract No.)

The Regents of the University of California ("University") and

("Contractor")

(Name of Contractor or Subcontractor)

hereby guarantees to University that the portion of the Work described as follows:

which it has provided for the above referenced Project, is of good quality; free from defects; free from any liens, claims, and security interests; and has been completed in accordance with Specification SECTION and the other requirements of the Contract.

The undersigned further agrees that, if at any time within _____ months after the date of the guarantee the undersigned receives notice from University that the aforesaid portion of the Work is unsatisfactory, faulty, deficient, incomplete, or not in conformance with the requirements of the Contract, the undersigned will, within 10 days after receipt of such notice, correct, repair, or replace such portion of the Work, together with any other parts of the Work and any other property which is damaged or destroyed as a result of such defective portion of the Work or the correction, repair, or replacement thereof; and that it shall diligently and continuously prosecute such correction, repair, or replacement to completion.

In the event the undersigned fails to commence such correction, repair, or replacement within 10 days after such notice, or to diligently and continuously prosecute the same to completion, the undersigned, collectively and separately, do hereby authorize University to undertake such correction, repair, or replacement at the expense of the undersigned; and Contractor will pay to University promptly upon demand all costs and expenses incurred by University in connection therewith.

SUBCONTRACTOR

Signed: _____ Title: _____
Typed Name: _____
Name of Firm: _____
Contractor License Classification and Number: _____
Address: _____
Telephone Number: _____

CONTRACTOR

Signed: _____ Title: _____
Typed Name: _____
Name of Firm: _____

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SPECIAL WARRANTY FORM

When required in Sections of the Specifications, Special Warranties shall be in the following form and written on Contractor's own letterhead:

"Warrant _____
 (portion of work warranted)

Project: _____

Address: _____

Date: _____

We, the undersigned hereby warrant to the Regents of the University of California ("Regents") that the portion of the work identified, which we have installed in the above-named Project has been performed in accordance with the Contract Documents and that the work, as installed, will fulfill the requirements of the warranty included in this Specification. We agree to repair or replace any or all of our work, together with any other work which may be damaged or displaced by so doing, that may prove to be defective in its workmanship, materials, operation, or failure to conform to Contract provisions and requirements within a period of year(s) from date of Substantial Completion of the stipulated below for the above-named Project, without any expense whatever to the said Regents, ordinary wear and tear and unusual abuse or neglect excepted. In the event of our failure to comply with the above-mentioned conditions within ten (10) calendar days after being notified in writing by the Regents, we collectively or separately do hereby authorize the Regents to proceed to have said defects repaired and made good at our expense, including all collection cost and reasonable attorney fees, and we will honor and pay the costs and charges therefore upon demand."

WARRANTY PERIOD: _____ STARTING: _____ TERMINATING _____

Name of General Contractor

Name of Subcontractor

Signature of General Contractor

Signature of Subcontractor

Address

Address

Phone Number

Phone Number

State License Number

State License Number

Name of Manufacturer

Manufacturer Phone Number

Signature of Manufacturer

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**SECTION 01 7839
AS-BUILT DOCUMENTS**

PART 1 – GENERAL

1.1. SUMMARY

- A. This Section includes administrative and procedural requirements for As-Built Documents, including without limitation, the following:
1. As-Built Drawings
 2. As-Built Specifications
 3. As-Built Product Data
 4. As-Built Sample Submittal
 5. Miscellaneous As-Built Submittals
 6. Recording
- B. As-Built Documents required include the following:
1. Marked-up copies of Drawings.
 2. Marked-up copies of Shop Drawings.
 3. Newly prepared drawings.
 4. Marked-up copies of Specifications, Addenda, and Change Orders.
 5. Marked-up Product Data submittals.
 6. Samples.
 7. Field records for variable and concealed conditions.
 8. Record information on Work that is recorded only schematically.
 9. Operation and Maintenance Data submittals.
 10. Miscellaneous submittals.
- C. Maintenance of Documents and Samples: Store As-Built Documents and Samples in the field office apart from the Contract Documents used for construction. Do not use As-Built Documents for construction purposes. Maintain As-Built Documents in good order, legible condition, and in a clean, dry, secure, fire-safe location. Make As-Built Documents and Samples available at all times for the University's Representative's inspections.
1. Maintain 1 set of all As-Built Documents at the Project site for the entire duration of construction.
 2. Clearly label each document or item "AS-BUILT DRAWING," "AS-BUILT SAMPLE," "AS-BUILT SPECIFICATION," or similarly as appropriate and applicable.
- D. Do not conceal Work requiring verification for As-Built Documents until such information has been verified and recorded.

1.2. AS-BUILT DRAWINGS

- A. Markup Procedure: During construction, maintain a clean, undamaged set of blue- or black-line white prints of Contract Drawings and Shop Drawings for As-Built Document purposes.
1. Mark these Drawings to show the actual installation where the installation varies from the installation shown originally. Give particular attention to information on concealed elements that would be difficult to identify or measure and record later. Items required to be marked include, but are not limited to, the following:
 - a. Dimensional changes to the Drawings.
 - b. Revisions to details shown on the Drawings.
 - c. Depths of foundations below the first floor. Indicate foundation elevations relative to first floor elevation.
 - d. Horizontal locations and vertical depths of underground utilities and appurtenances, including both site utilities and those under buildings and structures, referenced to permanent surface improvements.
 - e. Revisions to routing of piping and conduits.
 - f. Revisions to electrical circuitry.
 - g. Changes made by change order or field order.
 - h. Changes made following the University Representative's written orders and pertinent graphic and written responses to RFI's.
 - i. Details not on original Contract Drawings.
 2. Mark As-Built prints of Contract Drawings or Shop Drawings, whichever is most capable of showing actual physical conditions, completely and accurately. Where Shop Drawings are marked, show cross-reference on Contract Drawings location.
 3. Mark As-Built sets with red erasable colored pencil. Use other colors to distinguish between changes for different categories of the Work at the same location.
 4. Mark important additional information that was either shown schematically or omitted from original Drawings. Mark new information that is important to the University but was not shown on Contract Drawings or Shop Drawings.
 5. Note field order numbers, alternate numbers, change order numbers, RFI numbers, ASI numbers, and similar identification.
 6. Identify and date each drawing; include the printed designation "AS-BUILT DRAWING" in a prominent location on each drawing
- B. Responsibility for Markup: The individual or entity who obtained As-Built data, whether the individual or entity is the installer, subcontractor, or similar entity, shall prepare the markup on As-Built drawings.
1. Accurately information in an understandable drawing technique.
 2. Record data as soon as possible after obtaining it, but within 24 hours maximum. Record and check the markup prior to enclosing concealed installations.
 3. At time of Substantial Completion, submit As-Built drawings to the University's Representative for the University's records. Organize into sets and bind and label sets for the University's continued use. Bind each set with durable-paper cover sheets. Include appropriate identification, including titles, dates, and other information on the cover sheets.
- C. Newly Prepared As-Built Drawings: Prepare new drawings instead of following procedures specified for preparing As-Built drawings where new drawings are required, and the University's

Representative determines that neither original Contract Drawings nor Shop Drawings are suitable to show the actual installation.

- D. Consult with the University's Representative for the proper scale and scope of detailing and notations required to record the actual physical installation and its relation to other construction. When completed and accepted, integrate newly prepared Drawings with procedures specified for organizing, copying, binding and submittal of As-Built drawings.

1.3. AS-BUILT SPECIFICATIONS

- A. During the construction period, maintain 3 copies of the Specifications, including addenda and modifications issued, for As-Built Document purposes.
 - 1. Mark the Specifications to indicate the actual installation where the installation varies from that indicated in Specifications and modifications issued. Note related project record drawing information, where applicable. Give particular attention to substitutions, selection of product options, and information on concealed installations that would be difficult to identify or measure and record later.
 - a. In each Specification Section where products, materials, or units of equipment are specified or scheduled, mark the copy with the proprietary name and model number of the product furnished.
 - b. Record the name of the manufacturer, supplier, installer, and other information necessary to provide a record of selections made and to document coordination with As-Built Product Data submittals and maintenance manuals.
 - c. Note related As-Built Product Data, where applicable. For each principal product specified, indicate whether As-Built Product Data has been submitted in maintenance manual instead of submitted as As-Built Product Data.
 - d. Use pen and black ink so marks will reproduce clearly.
 - 2. Upon completion of markup, submit As-Built Specifications to the University's Representative for the University's records.

1.4. AS-BUILT PRODUCT DATA

- A. During the construction period, maintain one copy of each Product Data submittal for As-Built Document purposes.
 - 1. Mark Product Data to indicate the actual product installation where the installation varies substantially from that indicated in Product Data submitted. Include significant changes in the product delivered to the site and changes in manufacturer's instructions and recommendations for installation.
 - 2. Give particular attention to information on concealed products and installations that cannot be readily identified and recorded later.
 - 3. Note related change orders and markup of As-Built Drawings, where applicable.
 - 4. Upon completion of markup, submit a complete set of As-Built Product Data to the University's Representative for the University's records.
 - 5. Where As-Built Product Data is required as part of maintenance manuals, submit marked-up Product Data as an insert in the manual instead of submittal as As-Built Product Data.

1.5. AS-BUILT SAMPLE SUBMITTAL

- A. Immediately prior to date of Substantial Completion meet with the University's Representative and the University's personnel at the site to determine which of the Samples maintained during the construction period shall be transmitted to the University for record purposes. Comply with the University Representative's instructions for packaging, identification marking, and delivery to the University's Sample storage space. Dispose of other Samples in a manner specified for disposing surplus and waste materials.

1.6. MISCELLANEOUS AS-BUILT SUBMITTALS

- A. Refer to other Specification Sections for miscellaneous record-keeping requirements and submittals in connection with various construction activities. Immediately prior to Substantial Completion, complete miscellaneous As-Built records and place in good order, properly identified and bound or filed, ready for use and reference. Submit to the University's Representative for the University's records.

- 1. Categories of requirements resulting in miscellaneous As-Built Documents include, but are not limited to, the following:
 - a. Field records on excavations and foundations.
 - b. Field records on underground construction and similar work.
 - c. Survey showing locations and elevations of underground lines.
 - d. Invert elevations of drainage piping.
 - e. Surveys establishing building lines and levels.
 - f. Authorized measurements utilizing unit prices or allowances.
 - g. Records of plant treatment.
 - h. Ambient and substrate condition tests.
 - i. Certifications received in lieu of labels on bulk products.
 - j. Batch mixing and bulk delivery records.
 - k. Testing and qualification of tradesmen.
 - l. Documented qualification of installation firms.
 - m. Load and performance testing.
 - n. Inspections and certifications by governing authorities.
 - o. Leakage and water-penetration tests.
 - p. Final inspection and correction procedures.
 - q. Field test reports.

PART 2 – PRODUCTS (Not Applicable)

PART 3 – EXECUTION (Not Applicable)

3.1 RECORDING

- A. Post changes and modifications to the As-Built Documents as they occur. Do not wait until the end of the Project. The University's Representative and IOR will periodically review As-Built Documents to determine compliance with this requirement.
- B. Current updated As-Built Documents shall be made available to the University's Representative and IOR for review at the time of submitting applications for payment.
- C. Per the General Conditions, the University has the right to withhold payment until As-Built Documents are completed and current to date as of the latest application for payment

END OF SECTION

SECTION 01 8113 SUSTAINABLE DESIGN REQUIREMENTS

PART 1 – GENERAL

1.1. SUMMARY

- A. This Section includes: Requirements and procedures for compliance with certain U.S. Green Building Council's (USGBC) LEED (Leadership in Energy and Environment Design) New Construction (NC) Version 3 (v3) prerequisites and credits needed for the Project to obtain at minimum LEED Silver certification with the goal being LEED Gold including:
1. Prerequisites and credits which the Owner intends to achieve.
 2. Requirements for LEED documentation and submittals.
 3. A copy of the LEED Project Checklist, attached at the end of this Section for information only.
- B. Definitions:
1. Agrifiber Product: Products consisting of fibrous material derived from the agricultural industry and typically characterized by rapidly renewable characteristics. Such products may consist of wheat straw, sugar cane, and other agricultural crops.
 2. Chain-of-Custody Certificates: Certificates signed by manufacturers certifying that wood used to make products was obtained from forests certified by an FSC-accredited certification body to comply with FSC 1.2, "Principles and Criteria for Forest Stewardship." Certificates shall include evidence that manufacturer is certified for chain of custody by an FSC-accredited certification body.
 3. Chain of Custody: A tracking procedure to document the status of a product from the point of harvest, extraction, or recovery to the point of ultimate end use.
 4. Chemical Waste: Includes paints, adhesives, sealants, coatings, petroleum products, bituminous materials, salts, acids, alkalis, herbicides, pesticides, organic chemicals, and inorganic wastes.
 5. Chlorofluorocarbons (CFCs): Any of various halocarbon compounds consisting of carbon, hydrogen, chlorine, and fluorine, once used widely as aerosol propellants and refrigerants. Chlorofluorocarbons have been identified to cause depletion of the atmospheric ozone layer.
 6. Construction and Demolition Waste: Includes solid wastes, such as building materials, packaging, rubbish, debris, and rubble resulting from construction, remodeling, repair and demolition operations.
 7. Construction IAQ Management Plan: A document that outlines measures to minimize contamination in a building during construction and to flush the building of contaminants prior to occupancy.
 8. Cost Basis: A basis of calculation wherein the input values are in terms of monetary cost (US Dollar).

9. **Hazardous Materials:** Includes pesticides, biocides, carcinogens, and “wet products” as listed by recognized authorities, such as the Environmental Protection Agency (EPA), International Agency for Research on Cancer (IARC), the State of California, and any special local requirements.
10. **Heat Island Effect:** A condition wherein elevated temperatures are experienced in urban landscapes as a result of solar energy retention within constructed bodies. Principal bodies that contribute to the heat island effect include streets, sidewalks, parking lots, and buildings.
11. **Interior Final Finishes:** Materials and products that will be exposed at interior occupied spaces, including flooring, wall covering finish carpentry, and ceilings.
12. **LEED v3 NC: Leadership in Energy & Environmental Design, version 3 for New Construction.** The LEED Green Building Rating System represents the US Green Building Council’s effort to provide a national standard for what constitutes a green building.
13. **Point of Extraction, Harvest, or Recovery:** The geographic location where the material was extracted, harvested, or recovered.
14. **Point of Final Assembly:** The geographic location where individual components are assembled into the product that is furnished and installed by the tradesmen.
15. **Post-Consumer Material:** Recycled material from consumer waste.
16. **Post-Consumer Recycled Content:** The percentage of material in a product (by weight) that was consumer waste. The recycled material was generated by household, commercial, industrial, or institutional end-users and can no longer be used for its intended purpose. It includes returns of materials collected through recycling programs, discarded products (e.g., furniture, cabinetry, decking), and landscaping waste (e.g., leaves, grass clippings, tree trimmings). (ISO 14021)
17. **Pre-Consumer (Post-Industrial) Material:** Material diverted from the waste stream during the manufacturing process (can also be considered post-industrial). Excluded is reutilization of materials such as rework, re-grind or scrape generated in a process and capable of being reclaimed within the same process that generated it.
18. **Rapidly Renewable Materials:** Materials made from plants that are typically harvested within a 10-year or shorter cycle. Rapidly renewable materials include products made from bamboo, cotton, flax, jute, straw, sunflower seed hulls, vegetable oils or wool.
19. **Recycled Content:** The percentage by weight of constituents that have been recovered or otherwise diverted from the solid waste stream, either during the manufacturing process (pre- consumer), or after consumer use (post-consumer).
 - a. Spills and scraps from the original manufacturing process that are combined with other constituents after a minimal amount of reprocessing for use in further production of the same product are not recycled materials.
 - b. Discarded materials from one manufacturing process that are used as constituents in another manufacturing process are pre-consumer recycled materials.

20. Regionally Extracted, Harvested, or Recovered Materials: Materials that have been extracted, harvested, or recovered, as well as manufactured, within 500 miles of Project site. Manufacturing refers to the final assembly of components into the building product that is installed at the Project site.
21. Sediment: Soil and other debris that has been eroded and transported by storm or well production run-off water.
22. Volatile Organic Compounds (VOCs): Carbon compounds emitted by materials that participate in atmospheric photochemical reactions. VOC's are common in building products and are emitted over time through outgassing. Sources of VOC's may include solvents in paints and other coatings; wood preservatives; strippers and household cleaners; adhesives in particleboard, fiberboard, and some plywoods; and foam insulation. When released, VOC can contribute to the formation of smog and can cause respiratory tract problems, headaches, eye irritations, nausea, and damage to the liver, kidneys, and central nervous system, and possibly cancer.
23. Waste Management Plan: A Project-related plan for the collection, transportation, and disposal of the waste generated at the construction site. The purpose of the plan is to ultimately reduce the amount of material being landfilled.
24. Weight Basis: A basis of calculation wherein the input values are in terms of weight (US Pound).

1.2. GENERAL REQUIREMENTS

- A. Work must be completed in accordance with the requirements of the U.S. Green Building Council's LEED Rating System for achieving the credits shown in the attached Checklist. Changes to the LEED Checklist shall be approved by the LEED Project Administrator.
- B. LEED credits needed to obtain LEED Gold certification are dependent on material selections and may not be specifically identified as LEED requirements. Compliance with requirements needed to obtain LEED prerequisites and credits will be used as one criterion to evaluate substitution requests.
- C. Additional LEED prerequisites and credits needed to obtain the specified LEED certification are dependent on the design and other aspects of the Project that are not part of the Work under this Contract.
- D. LEED rating system applicable to the work shall be USGBC's LEED Rating System for New Construction and Major Renovations (LEED-NC), Version 3.
- E. LEED Registration: The LEED Project Administrator has registered the Project with the internet based LEED Tracking System "LEED-Online".
- F. The General Contractor shall provide a LEED Representative to provide and coordinate Contractor related services for LEED. The General Contractor's LEED Representative shall be a LEED Accredited Professional.

- G. Contractor's LEED® Representative shall be an individual responsible for implementation, coordination, and documentation of LEED® Credit Requirements specified herein. General Contractor's LEED® Representative shall attend LEED® Certification meetings and put together a LEED Action Plan critical showing how LEED prerequisites and credits requirements will be met. General Contractor's LEED® Representative shall be present on site at all times necessary when work is in progress to insure that the LEED Action Plan is being met.
- H. Other Sections in Divisions 02 through 33: Specific information related to sustainable design and in reference to LEED credits.

1.3. REFERENCE STANDARDS

- A. American Society of Heating, Refrigerating and Air Conditioning Engineers, Inc. (ASHRAE).
- B. Carpet and Rug Institute (CRI): Indoor Air Quality Green Label Plus Testing Program.
- C. CARB - California Air Resources Board Suggested Control Measures for Architectural Coatings
- D. Environmental Protection Agency (EPA): Energy Star - Program Requirements for Roof Products
- E. Energy Policy Act (EPACT) of 2005.
- F. Forest Stewardship Council (FSC) "Principles and Criteria." G. Green Seal (GS) Environmental Standards.
- G. LEED Reference Guide for New Construction and Major Renovations, Version 3 (LEED-Cv3).
- H. South Coast Air Quality Management District (SCAQMD).
- I. Sheet Metal and Air Conditioning Contractors' National Association (SMACNA).

1.4. LEED PROJECT GOALS

- A. This project shall incorporate campus-wide credits that were to be approved by the USGBC in March of 2012. The General Contractor shall be required to provide full credit documentation and back-up for each Credit, as required, as part of their Construction Submittal. The Contractor shall refer to the Project Checklist for LEED credits having bearing on the Contractor's scope of work. Any credit documentation required from a listed subcontractor who is unable to provide the required documentation shall then become the General Contractor's responsibility as part of their Construction Submittal.
- B. Contractor shall appoint a LEED Representative to be present on-site to coordinate and insure LEED project goals/credits are achieved. The Contractor's LEED Representative will coordinate with the University's LEED Representative.
 - 1. The University's Representative will designate trades where the Contractor shall designate a LEED® Representative. Contractor's LEED® Representative shall be responsible for implementation, coordination, and documentation of relevant LEED® Credit Requirements specified herein. Contractor's LEED® Representative shall provide the General Contractor with all necessary documentation to insure LEED® prerequisites and credits requirements are met.

2. General Contractor's LEED® Representative shall coordinate of all Contractors and shall insure Contractors not designated by the University to have a LEED® Representative, meet LEED® prerequisites and credits requirements, and provide sufficient documentation for LEED® compliance.
- C. Contractor shall refer to the LEED-NC v3 "Reference Guide" for more detailed information and exact language of the requirements and the exact nature of the submittals, referred to as "credit templates and supporting documentation." The University's LEED Representative shall provide further details as needed.
- D. Contractor shall maintain a copy of the LEED-NC v3 "Reference Guide" on site. Additional information on LEED® and how to purchase copies of the LEED®-NC v3.0 reference guide and how to use LEED®-Letter Templates can be found at www.usgbcv.org and <https://leedonline.usgbc.org>.
- E. The following table summarizes the credits that need full documentation from the Contractor as noted in this LEED specification.

LEED® Certification	
LEED® REFERENCE	Point Description
SSp1: PTC	Construction Activity Pollution Prevention
MR 4.1 – 4.2: PTC	Recycled Content Material
MR 5.1 – 5.2: PTC	Local/Regional Materials
MR 6.0: PTC	Rapidly Renewable Materials
MR 7.0: PTC	Certified Wood
EQ 3.1 – 3.2: PTC	Construction IAQ Management Plan
EQ 4.1 – 4.4: PTC	Low-Emitting Materials

1.5. SUBMITTALS

- A. Sustainable Design and LEED submittals are in addition to other submittals. If submittal item is identical to that submitted to comply with other requirements, submit duplicate electronic copies as a separate submittal to verify compliance. Any discrepancies shall be referred to the Universities Representative for clarification.
- B. LEED Documentation Submittals shall be prepared and submitted using the LEED-Online credit website.
 1. The Contractor is responsible to obtain project access to LEED-Online and join the project using the project's 15 digit project access code.
 - a. Contractor shall assign one representative to coordinate the LEED-Online PDF credit templates and submittal documents assigned to the Contractor.
 - b. Access to the credit templates requires installation of the current version of Adobe software as required by LEED-Online.
 - c. Additional instructions on how to access the project can be provided by the LEED Project LEED Administrator.
 2. Once the Contractor has joined the project through LEED-Online, the LEED Project Administrator will assign the LEED credits that the Contractor is responsible for completing.
 - a. Each credit template is an editable Adobe PDF document.

- b. Each credit template may be completed or updated at any time prior to the LEED Construction Submittal.
 - c. After completion of documentation for each credit, use the “Save Template to LEED- Online” button at the lower right hand corner of the last page of the template to save the data.
 - d. Additional submittal documentation and back-up requirements should be uploaded to the LEED-Online website following the instructions for each credit.
 - 3. LEED-Online submittals require calculations for items such as recycled content materials to be inserted into an online form called a template. Costs and materials need to be broken down and the calculations carried out on the templates.
 - 4. The Contractor is responsible for providing the information, downloading and completing the templates and uploading them on the LEED-Online website. Certain types of backup information such as the material safety data sheets (MSDS) for low-emitting materials, need to be submitted by the Contractor. The LEED-NC v3 “Reference Guide” provides detailed documentation requirements.
 - a. All Sub-Contractors shall provide the Contractor with the necessary cutsheets and MSDS data sheets for the materials used on site.
 - 5. The Contractor is responsible for providing resubmission of any requested information or documentation on the LEED-Online website in response to USGBC review comments to LEED credits previously submitted.
- C. LEED Materials Cost Analysis Sheet: Provide updates and maintain materials’ cost data for recycled content, regional content and certified wood excluding mechanical, electrical, and plumbing components, and specialty items such as elevators and equipment, concurrent with each Application for Payment. The Project Administrator shall provide a template for use by the Contractor.
 - 1. Provide actual material costs which can include shipping costs. Material costs should account for all taxes and transportation costs incurred by the contractor but, exclude labor and equipment costs once the material has been delivered to the site. For each material supplied for Divisions 3-11 specific material cost data for individual components and materials (not including labor) will be required to be provided as part of some LEED® pre-requisite and credit requirements submittals.
 - 2. For assemblies formulated from multiple materials (e.g., a composite wood panel) or a product made up of subcomponents (e.g., a window system), determine the percentage of applicable material content (percentage of weight for recycled content and for FSC wood as a percentage of total weight, volume or cost).
 - 3. Consistent numbers must be applied to various LEED® credits submittals requiring similar material cost data.
- D. LEED Data Sheet: Submit LEED Data Sheets with each submittal and with each change order. Sample form is attached at the end of this Section.
- E. LEED Action Plans: Provide the following plans within 14 days of date established in the Notice to Proceed:
 - 1. Credit SS Prerequisite 1: Erosion and sedimentation control plan. See Sections 01 1400, 01 3540, and 31 1000 for requirements.

2. Prerequisite EA 1.0: Plan for fundamental commissioning complying with the requirements in Section 01 9113.
 3. Credit MR 2.1 and 2.2: Construction and Demolition Debris Recycling (Waste Management) Plan in order to meet 95% construction waste diversion. See Section 01 7419 Construction Waste Management for requirements.
 4. Credit MR 4.1: List of proposed materials with recycled content.
 - a. Indicate cost, post-consumer recycled content, and pre-consumer recycled content for each product having recycled content. Use materials with recycled content such that the sum of postconsumer recycled content plus $\frac{1}{2}$ of the preconsumer content constitutes at least 10% based on cost of the total value of the materials in the project.
 - b. Indicate cost of all products and materials used regardless of recycled content for the purpose of comparison so as to ultimately derive a cost-based percentage of recycled content.
 5. Credit MR 5.1: List of proposed regional materials.
 - a. Identify each regionally extracted, processed, and manufactured material, its source, and cost.
 6. Credit MR 7.0: List of proposed certified wood products.
 - a. Include statement indicating costs for each product containing certified wood. In the case of manufactured products containing non-wood materials, only the new wood portion can contribute to this credit.
 - b. Include statement indicating total cost for wood-based materials used for Project, including non-rented temporary construction.
 7. Credit IEQ 3.1: Provide an Indoor Air Quality Plan for activities during construction following the SMACNA 2007 guidelines.
 8. Credit IEQ 3.2: Create a plan and schedule for building flush-outs to be performed in accordance with credit requirements after all finishes have been installed and the building has been completely cleaned before occupancy.
 9. Credit EQ 4.1, 4.2, 4.3 & 4.4: Low Emitting Materials
- F. LEED Progress Reports: Concurrent with each Application for Payment, submit reports comparing actual construction and purchasing activities with LEED action plans for the following:
1. Prerequisite SSp1 Construction Activity Pollution Prevention.
 2. Credit MR 2.1 and 2.2: Waste reduction progress reports.
 3. Credit MR 4.1 and 4.2: Recycled content.
 4. Credit MR 5.1 and 5.2: Regional material.
 5. Credit MR 7.0: Certified wood.

- 6. Credit IEQ 3.1 and 3.2: Construction IAQ Management Plan: During Construction and Before Occupancy
- G. Within 21 calendar days of Project Substantial Completion, General Contractor shall provide to University's Representative an electronic copy of all LEED required documentation demonstrating compliance with LEED Certification requirements, including but not limited to, documentation provided during the submittal process. This shall be submitted through the Universities LEED Management Software.

1.6. SUBSTITUTIONS

- A. Requests for substitutions shall comply with the provisions of Section 01 2500 Product Options and Substitutions and the following additional requirements specified in this Article for LEED certification related materials and requirements and environmental products and procedures identified in this Section. Submit a description of the differences of the proposed substitution from specified product related to LEED requirements. Include description of environmental advantages of proposed substitution over specified product.
 - 1. No substitutions shall be submitted without the full projected LEED® impact documented.
 - 2. Where LEED® material emission limits are specified, the University shall reject proposed substitutions where:
 - a. Data for VOC's is not provided.
 - b. Emissions of VOC's exceed the material's specified VOC limit.
 - c. There is negative impact on overall system efficiency.
 - d. The total number of LEED® credits will be compromised.
 - e. The intent of the LEED® credits are compromised.
- B. The Contractor is responsible for re-submittal of calculations and documentation of products or material substitutions that affect LEED prerequisites and credits referenced in this Section, and which apply to any credits previously submitted as part of the LEED Design Application Submittal, and credits included in the LEED Construction Submittal Products that do not meet these requirements shall not be submitted for substitution.

1.7. CREDIT REQUIREMENTS

- A. The following is a list of Credit Requirements for which the General Contractor shall contribute LEED® certification documentation demonstrating compliance with the corresponding LEED® Credit Requirements. The LEED BD&C v2009 Reference Guide shall be used along with following requirements.
- B. All Contractors shall provide the General Contractor with their trade's relevant documentation contributing to LEED® certification.
- C. The following Credit Requirements for LEED® compliance are in addition to those requirements specified elsewhere in the Specifications.
- D. Construction Activity Pollution Prevention (SSp1):
 - 1. Contractor shall comply with the Universities Erosion Control Plan.
 - 2. Keep an inspection report or photos to demonstrate compliance.

- E. Building Systems Commissioning: Contractor shall comply with the following requirements of LEED® Energy and Atmosphere Prerequisite 1 – Fundamental Building Systems Commissioning.
 - 1. Refer to Section 01 9113 General Commissioning Requirements.

- F. Construction Waste Management (MRc2): Contractor shall divert at minimum 95% of construction waste from the landfill by weight.

- G. Recycled Content (MRc4): Contractor shall use materials with recycled-content so that the sum of post-consumer recycled content plus one-half of the post-industrial content constitutes at least 10 percent of the total value of the materials in the project. (Mechanical and electrical components shall not be included in this calculation). Documentation includes:
 - 1. Cost of each material or product, excluding cost of labor and equipment for installation.
 - 2. Manufacturer's product data, product literature, or a letter from the manufacturer verifying the percentage of post-consumer and pre-consumer recycled content (by weight) of each material or product.
 - 3. An electronic spreadsheet that tabulates the Project's total materials cost and combined recycled content value (defined as the sum of the post-consumer recycled content value plus one-half of the pre-consumer recycled content value) expressed as a percentage of total materials cost.

- H. Local Regional Material (MRc5): Contractor shall provide a minimum of 10 percent (cost basis) of project materials that are extracted, processed, and manufactured within a radius of 500 miles of the project. Documentation Includes:
 - 1. Cost of each material or product, excluding cost of labor and equipment for installation.
 - 2. Location of product manufacture and distance from point of manufacture to the Project Site.
 - 3. Location of point of extraction, harvest, or recovery for each raw material in each product and distance from the point of extraction, harvest, or recovery to the Project Site.
 - 4. Manufacturer's product data, product literature, or a letter from the manufacturer verifying the location and distance from the Project Site to the point of manufacture for each regional material.
 - 5. Manufacturer's product data, product literature, or a letter from the manufacturer verifying the location and distance from the Project Site to the point of extraction, harvest, or recovery for each regional material or product.
 - 6. An electronic spreadsheet that tabulates the Project's total materials cost and regional materials value, expressed as a percentage of total materials cost.

- I. Certified Wood (MRc6): Contractor shall provide a minimum of 50% (cost basis) of all new non-salvaged wood-based materials that are certified in accordance with the Forest Stewardship Council (FSC) guidelines for wood building components.

1. Track certified wood purchases and retain associated COC (Chain of Custody) documentation. Collect copies of vendor invoices for each certified wood product. Maintain a list that identifies the percentage of certified wood in each purchase. In the case of manufactured products that combine wood and non-wood materials, only the new wood portion can be applied toward the credit.
 2. You will need a letter, cut sheet, or statement from the vendor indicating the type of FSC certification.
 - a. FSC Pure: valued at 100% of product cost.
 - b. FSC Mixed Credit: valued at 100% of product cost.
 - c. FSC Mixed (XX)%: A percentage of FSC content is indicated, and you can claim that percentage of the product's cost.
 - d. FSC Recycled and FSC Recycled Credit: do not count toward this credit at all and can be left out of the baseline wood budget. FSC Recycled can count towards MRc4 Recycled Content.
 3. If FSC wood is part of an assembly, **Request that manufacturers provide assembly information** broken down by weight, volume, or cost.
 - a. If in an assembly, only the portion of FSC certified wood can count towards this credit.
- J. Construction Indoor Air Quality Management Plan During Construction (IEQc3.1): Contractor shall develop and implement an Indoor Air Quality (IAQ) Management Plan for the construction and preoccupancy phases of Project buildings.
1. General Contractor shall submit to University's Representative an electric copy of a Construction IAQ Management Plan within 14 calendar days of Notice to Proceed. Plan shall include, but not be limited to, the following:
 - a. Provision to meet the five requirements of SMACNA IAQ Guideline for Occupied Buildings Under Construction, 2nd Edition 2007, ANSI/SMACNA 008-2008.
 - b. Provision to protect stored on-site or installed absorptive materials from moisture damage. This shall include a description of:
 - (1) Storage of materials on elevated platforms, under cover, and in a dry location.
 - (2) Secure coverage of the tops and sides of material with waterproof sheeting if materials are not stored in an enclosed location.
 - c. Provision to protect HVAC equipment during construction. This shall include a description and commitment to:
 - (1) Shut down the return side of the HVAC system during heavy construction or demolition and cover return air openings air tight to prevent introduction of contaminants.
 - (2) Provide temporary filters that shall be replaced with new media prior to occupancy if the HVAC system is operated during heavy construction.
 - d. Provision to take Construction Photographs demonstrating conformance with the approved Construction Indoor Air Quality Management Plan

measures to insure protection of materials and air-handling equipment from moisture while stored on site.

- (1) A minimum of 6 Construction Photographs shall be taken on three different occasions during Construction for a total minimum of 18. Construction photographs shall be time stamped and shall be taken during those periods' absorptive materials and HVAC equipment is stored on site. Construction Photographs shall include identification of the SMACNA approach featured by each photograph.
- (2) Contractor shall submit Construction Photographs to the University's Representative for approval.
- (3) If permanently installed air handlers are used during construction, filtration media with a minimum efficiency reporting value (MERV) of 8 must be used at each return air grille, as determined by ASHRAE Standard 52.2-1999 (with errata but without addenda). Replace all filtration media immediately prior to occupancy. Project teams wishing to use ASHRAE approved addenda for the purposes of this credit may do so at their discretion. Addenda must be applied consistently across all LEED credits.

K. Construction Indoor Air Quality Management Plan Before Occupancy (IEQc3.2): After construction ends, prior to occupancy and with all interior finishes installed, install new filtration media and perform a building flush-out by supplying a total air volume of 14,000 cubic feet of outdoor air per square foot of floor area while maintaining an internal temperature of at least 60 degrees F and a relative humidity no higher than 60%.

L. If occupancy is desired prior to completion of the flush-out, the space may be occupied following delivery of a minimum of 3,5000 cubic feet of outdoor air per square foot of floor area. Once the space is occupied, it must be ventilated at a rate of 0.30 cubic feet per minute (cfm) per square foot of outside air or the design minimum outside air rate determined in IEQ Prerequisite 1: Minimum Indoor Air Quality Performance, whichever is greater. During each day of the flush-out period, ventilation must begin a minimum of 3 hours prior to occupancy and continue during occupancy. These conditions must be maintained until a total of 14,000 cubic feet per square foot of outside air has been delivered to the space. Provide a written narrative describing the building flush out procedures implemented. Provide Flushout Start Date and End Date for each building.

OR

Conduct baseline IAQ testing after construction ends and prior to occupancy using testing protocols consistent with the EPA Compendium of Methods for Determination of Air Pollutants in Indoor Air "or the ISO method listed in the table below. Testing must be done in accordance with one standard; project teams may not mix requirements from the EPA Compendium of Methods with ISO.

M. Low-Emitting Materials:

1. Credit EQc4.1: Adhesives, Sealants and Sealant Primers must comply with the South Coast Air Quality Management District (SCAQMD) Rule #1168. Volatile organic compound (VOC) limits listed in the table below correspond to an effective date of July 1, 2005 and rule amendment date of January 7, 2005.
 - a. Wood Glues: 30 g/L.
 - b. Metal to Metal Adhesives: 30 g/L.
 - c. Adhesives for Porous Materials (Except Wood): 50 g/L.
 - d. Subfloor Adhesives: 50 g/L.
 - e. Plastic Foam Adhesives: 50 g/L.

- f. Carpet Adhesives: 50 g/L.
- g. Carpet Pad Adhesives: 50 g/L.
- h. VCT and Asphalt Tile Adhesives: 50 g/L.
- i. Cove Base Adhesives: 50 g/L.
- j. Gypsum Board and Panel Adhesives: 50 g/L.
- k. Rubber Floor Adhesives: 60 g/L.
- l. Ceramic Tile Adhesives: 65 g/L.
- m. Multipurpose Construction Adhesives: 70 g/L.
- n. Fiberglass Adhesives: 80 g/L.
- o. Structural Glazing Adhesives: 100 g/L.
- p. Wood Flooring Adhesive: 100 g/L.

- q. Contact Adhesive: 80 g/L.
- r. Special Purpose Contact Adhesive: 250 g/L.
- s. Structural Wood Member Adhesive: 140 g/L.
- t. Sheet Applied Rubber Lining Operations: 850g/L.
- u. Plastic Cement Welding Compounds: 50 g/L.
- v. ABS Welding Compounds: 4325 g/L.
- w. CPVC Welding Compounds: 490 g/L.
- x. PVC Welding Compounds: 510 g/L.
- y. Adhesive Primer for Plastic: 550 g/L.
- z. Architectural Sealants: 250 g/L.
- aa. Non-membrane Roof Sealants: 300 g/L.
- bb. Roadway Sealants: 250 g/L.
- cc. Single-ply Roof Membrane Sealants: 450 g/L.
- dd. Other Sealants: 420 g/L.
- ee. Sealant Primers for Nonporous Substrates: 250 g/L.
- ff. Sealant Primers for Porous Substrates: 775 g/L.
- gg. Other Sealants Primers: 750 g/L.

- 2. Credit EQ 4.2: Paints and coatings used on the interior of the building (i.e., inside of the weatherproofing system and applied on-site) must comply with the following criteria as applicable to the project scope.
 - a. Architectural paints and coatings applied to interior walls and ceilings must not exceed the volatile organic compound (VOC) content limits established in Green Seal Standard GS-11, Paints, 1st Edition, May 20, 1993.
 - b. Anti-corrosive and anti-rust paints applied to interior ferrous metal substrates must not exceed the VOC content limit of 250 g/L established in Green Seal Standard GC-03, Anti- Corrosive Paints, 2nd Edition, January 7, 1997.
 - c. Clear wood finishes, floor coatings, stains, primers, sealers and shellacs applied to interior elements must not exceed the VOC content limits established in South Coast Air Quality Management District (SCAQMD) Rule 1113, Architectural Coatings, rules in effect on January 1, 2004.
 - d. Flat Paints and Coatings: VOC not more than 250 g/L.
 - e. Non-Flat Paints and Coatings: VOC not more than 250 g/L.
 - f. Aromatic Compounds: Paints and coatings shall not contain more than 1.0 percent by weight total aromatic compounds (hydrocarbon compounds containing one or more benzene rings).

g. Restricted Components: Paints and coatings shall not contain any of the following:

- (1) Acrolein.
- (2) Acrylonitrile.
- (3) Antimony.
- (4) Benzene.
- (5) Butyl benzyl phthalate.
- (6) Cadmium.
- (7) Di (2-ethylhexyl) phthalate.
- (8) Di-n-butyl phthalate.
- (9) Di-n-octyl phthalate.
- (10) 1,2-dichlorobenzene.
- (11) Diethyl phthalate.
- (12) Dimethyl phthalate.
- (13) Ethylbenzene.
- (14) Formaldehyde.
- (15) Hexavalent chromium.
- (16) Isophorone.
- (17) Lead.
- (18) Mercury.
- (19) Methyl ethyl ketone.
- (20) Methyl isobutyl ketone.
- (21) Methylene chloride.
- (22) Naphthalene.
- (23) Toluene (methylbenzene).
- (24) 1,1,1-trichloroethane.
- (25) Vinyl chloride.

Product Type	Referenced Standard	VOC Limit (g/L minus water)
Interior Flat Coating or Primer	Green Seal GS-11, 1993	50
Interior Non-Flat Coating or Primer	Green Seal GS-11, 1993	150
Anti-Corrosive/ Anti-Rust Paint	Green Seal GC-03, 2nd Edition, 1997	250
Clear Wood Finish: Lacquer	SCAQMD Rule 1113, 2004	550
Clear Wood Finish: Sanding Sealer	SCAQMD Rule 1113, 2004	350
Clear Wood Finish: Varnish	SCAQMD Rule 1113, 2004	350
Clear Brushing Lacquer	SCAQMD Rule 1113, 2004	680
Floor Coatings	SCAQMD Rule 1113, 2004	100
Sealers and Undercoaters	SCAQMD Rule 1113, 2004	200
Shellac: Clear	SCAQMD Rule 1113, 2004	730
Shellac: Pigmented	SCAQMD Rule 1113, 2004	550
Stain	SCAQMD Rule 1113, 2004	250
Concrete Curing Compounds	SCAQMD Rule 1113, 2004	350
Japans/ Faux Finishing Coatings	SCAQMD Rule 1113, 2004	350
Magnesite Cement Coatings	SCAQMD Rule 1113, 2004	450
Pigmented Lacquer	SCAQMD Rule 1113, 2004	550
Waterproofing Sealers	SCAQMD Rule 1113, 2004	250
Waterproofing Concrete/ Masonry Sealers	SCAQMD Rule 1113, 2004	400
Wood Preservatives	SCAQMD Rule 1113, 2004	350
Low-Solids Coatings	SCAQMD Rule 1113, 2004	120*
*Note: VOC levels for Low-Solids Coatings are measured in grams of VOC per liter of material.		

3. Credit EQ 4.3: All carpet installed in the building interior must meet the testing and product requirements of the Carpet and Rug Institute Green Label Plus program. All carpet cushion installed in the building interior must meet the requirements of the Carpet and Rug Institute Green Label1 program. All hard surface flooring must be certified as compliant with the FloorScore 2 standard (current as of the date of this rating system, or more stringent version) by an independent third-party. Flooring products covered by FloorScore include vinyl, linoleum, laminate flooring, wood flooring, ceramic flooring, rubber flooring and wall base.

IEQc4.3: LOW-EMITTING MATERIALS—FLOORING SYSTEMS REQUIREMENTS	
Option 1	
Carpet	Meet testing and product requirements of the Carpet and Rug Institute's Green Label Plus program.
Carpet cushion	Meet requirements of the Carpet and Rug Institute Green Label program.
Carpet adhesives	Meet VOC limit of 50 g/L (Same as for EQc4.1).
Hard surface flooring (see exceptions below)	Meet the testing and product requirements of FloorScore certification.
Floor finishes	Meet the requirements of South Coast Air Quality Management District (SCAQMD) Rule 1113, Architectural Coatings, rules in effect on January 1, 2004 (Same as for IEQc4.2).
Tile setting adhesives and grout	Meet the South Coast Air Quality Management District (SCAQMD) Rule 1168. VOC limits correspond to an effective date of July 1, 2005 and rule amendment date of January 7, 2005. (Same as for IEQc4.1).
Tile, masonry, terrazzo, cut stone, and solid-wood flooring without coatings or sealants	Qualifies for credit without testing.
Option 2	
All flooring elements installed in the building interior	Meet the testing and product requirements of the California Department of Health Services Standard Practice for the Testing of Volatile Organic Emissions from Various Sources Using Small-Scale Environmental Chambers, including 2004 Addenda.
Tile, masonry, terrazzo, cut stone, and solid-wood flooring without coatings or sealants	Qualifies for credit without testing.

4. Credit EQ 4.4: Composite wood and agrifiber products used on the interior of the building (i.e., inside the weatherproofing system) must contain no added urea-formaldehyde resins. Laminating adhesives used to fabricate on-site and shop-applied composite wood and agrifiber assemblies must not contain added urea-formaldehyde resins.

IEQc4.4: LOW-EMITTING MATERIALS—COMPOSITE WOOD AND AGRIFIBER PRODUCTS REQUIREMENTS	
Composite wood and agrifiber products: <ul style="list-style-type: none"> • Particleboard • Medium density fiberboard (MDF) • Plywood • Wheatboard • Strawboard • Panel substrates • Door cores • Plywood sections of I-beams 	No added urea-formaldehyde resins
Laminating adhesives used for assemblies	No added urea-formaldehyde resins

PART 2 – PRODUCTS

2.1. LEED ACTION PLANS

- A. See list of required plans.

2.2. LEED PROGRESS REPORTS

- A. See list of required progress reports.

2.3. LEED CREDIT DOCUMENTATION

- A. See LEED Data Sheet.

PART 3 – EXECUTION

3.1 CONSTRUCTION INDOOR AIR QUALITY MANAGEMENT

- A. Product Data:

1. MERV ratings for all air filter media used should be provided in compliance with the requirements for Credit IEQ Pr1, Credits IEQ 3.1-3.2, and Credit IEQ 5.
2. Product emissions data and material safety data sheets (MSDS) showing compliance with the requirements for the following materials and credits:
 - a. Adhesives and sealants used on the interior of the building (Credit IEQ 4.1).

- (1) Interior adhesives and sealants shall comply with the VOC limits of SCAQMD Rule #1168.
 - (2) Aerosol Adhesives must comply with Green Seal Standard for Commercial Adhesives GS-36 requirements in effect on October 19, 2000.
- b. Paints and coatings used on the interior of the building. Indicate VOC content in grams per liter (g/l) calculated according to 40 CFR 59, Subpart D (EPA method 24) and chemical components (Credit IEQ 4.2).
- (1) Architectural paints and coatings applied to interior walls and ceilings must not exceed the volatile organic compound (VOC) content limits established in Green Seal Standard GS-11, Paints, 1st Edition, May 20, 1993.
 - (2) Anti-corrosive and anti-rust paints applied to interior ferrous metal substrates must not exceed the VOC content limit of 250 g/L established in Green Seal Standard GC-03, Anti-Corrosive Paints, 2nd Edition, January 7, 1997.
 - (3) Clear wood finishes, floor coatings, stains, primers, sealers, and shellacs applied to interior elements must not exceed the VOC content limits established for those coating types in South Coast Air Quality Management District (SCAQMD) Rule 1113, Architectural Coatings, rules in effect on January 1, 2004.
- c. Flooring products and materials (Credit IEQ 4.3).
- (1) All Carpet and carpet cushion installed in the building must meet the testing and product requirements of the Carpet and Rug Institute Green Label Plus program.
 - (2) All hard surface flooring must meet the requirements of the FloorScore standards as shown with testing by an independent third-party.
 - (3) All flooring adhesives and finishes meeting IEQc4.1 and 4.2 requirements.
- d. Composite wood materials (Credit IEQ 4.4).
- (1) Composite wood and agrifiber products including laminating adhesives used on the interior of the building (i.e., inside the weatherproofing system) must contain no added urea-formaldehyde resins.
- B. Construction Indoor Air Quality Management Plan. During construction Contractor shall meet or exceed the minimum requirements of the Sheet Metal and Air Conditioning National Contractors Association (SMACNA) IAQ Guidelines for Occupied Buildings under Construction, 2nd Edition 2007, ANSI/ SMACNA 008-2008 (Chapter 3). Submit a plan that addresses how SMACNA Guidelines will be met in each of the following five areas:
- 1. Material and equipment protection.
 - 2. Source control and materials emissions.
 - 3. Pathway interruption.
 - 4. Housekeeping.

5. Material scheduling.

- C. Temporary Construction Ventilation-HVAC use and protection during construction: If used during construction, HVAC systems will either run 100 percent outside air or have MERV 8 air filters in place during construction. After construction MERV 13 filters shall be put in place. Contractor shall maintain sufficient temporary ventilation of areas where materials are being used that emit VOC's, and maintain ventilation continuously during installation, and until emissions dissipate after installation. If continuous ventilation is not possible via the building's HVAC system(s) then ventilation shall be supplied via open windows and temporary fans, sufficient to provide no less than three air changes per hour. Contractor shall submit a Pre-Occupancy Indoor Air Quality Management Plan that addresses the following:
 - 1. The period after installation shall be sufficient to dissipate odors and elevated concentrations of VOCs. Where no specific period is stated in these Specifications, a time period of 72 hours shall be used.
 - 2. All areas shall be vented directly to outside. Areas shall not be vented to other enclosed areas.
 - 3. Estimated start and end dates of a building flush-out supplying a total air volume of 14,000 cubic feet of outdoor air per square foot of floor area.
 - 4. Use of MERV 13 filters prior to and after the building flush-out.
 - 5. Use of 100% outside air for the duration of the flush-out period.
- D. During dust producing activities (e.g. drywall installation and finishing) ventilation system shall be off, and openings in supply and return HVAC system shall be protected from dust infiltration. Provide temporary ventilation as required.
- E. Preconditioning: Prior to installation, Contractor shall allow products which have odors and VOC emissions to off-gas in dry, well-ventilated space outside of building for 14 calendar days, in order to allow for reasonable dissipation of odors and emissions.
- F. Signed LEED letters indicating proper completion of work for IEQ 3.1 and 3.2 Construction IAQ Management Plan, during construction and pre-occupancy.
- G. Photographs: Document the implementation of the SMACNA Guidelines during construction with six photographs at three different occasions (total of 18 photographs). Include a brief description of the measures in each photograph, location in the building, and the date the photograph was taken.

3.2 SEQUENCING

- A. Environmental Issues: Contractor shall complete all interior finish material installation no less than 14 days prior to Substantial Completion to allow for building flush out. Submit notification to General Contractor's LEED Representative when all interior finish material installation is complete, highlighting the date of completion.

3.3 FIELD QUALITY CONTROL

- A. Building Flush Out: Prior to Substantial Completion, Contractor shall flush out building continuously (i.e. 24 hours per day, 7 days per week) using 100 percent outside air at standard operational set-point temperatures for at least 14 calendar days. Conduct flush-out with new MERV 13 filtration media, and after flush-out, replace with new MERV 13 filtration media, except the filters solely processing outside air. For air handlers, filtration

media with a Minimum Efficiency Reporting Value (MERV) of 8 must be used at each return air grill, as determined by ASHRAE 52.2-1999. If interruptions of more than 4 hours are required for testing and balancing purposes, extend flush out period by a minimum of 1 day.

1. When touch-up work is performed, Contractor shall provide temporary construction ventilation during installation and extend building flush out by a minimum of 4 days after touch-up installation is complete.
2. Return ventilation system to normal operation following flush-out period to minimize energy consumption.
3. Replace all outside air filtration media prior to occupancy. Filtration media shall have a MERV of 13 as determined by ASHRAE 52.2-1999.

- B. IAQ Testing: If Building Flush Out is not undertaken, Contractor shall conduct a baseline indoor air quality testing procedure consistent with current EPA protocol for Environmental Requirements, Baseline IAQ and Materials.

3.4 PROTECTION

- A. Protect stored on-site and installed absorptive materials from moisture damage. Where absorptive materials not intended for wet applications are exposed to moisture, immediately remove from site and dispose of properly.
- B. Protect installed materials using methods that do not support growth of molds and mildews.
1. Immediately remove from site and properly dispose of materials showing signs of mold and signs of mildew, including materials with moisture stains.
 2. Replace materials showing signs of mold and mildew with new, undamaged materials.
 3. Ducts: Seal ducts during transportation, delivery, and construction to prevent accumulation of construction dust and construction debris inside ducts.
- C. Ducts: Seal ducts during transportation, delivery, and construction to prevent accumulation of construction dust and construction debris inside ducts.

END OF SECTION

SECTION 01 9113 GENERAL COMMISSIONING REQUIREMENTS

PART 1 - GENERAL

1.1 SUMMARY

A. This Section includes general requirements that apply to implementation of commissioning without regard to systems, subsystems, and equipment being commissioned:

1. Commissioning Team
2. University's Responsibilities
3. Contractor's Responsibilities
4. CxA's Responsibilities
5. Commissioning Documentation
6. Submittals
7. Quality Assurance
8. Title 24 Acceptance Testing
9. Start-up, Pre-Functional Checklists and Initial Checkout
10. Functional Performance Testing
11. Operation and Maintenance Training Requirements
12. Costs of Commissioning Work
13. Equipment and System Schedule

B. Related Sections:

- a. Division 1 Section "Sustainable Design Requirements" for LEED Documentation related to commissioning.
- b. Audio visual equipment
- c. Fire suppression systems
- d. Plumbing systems
- e. HVAC systems, including Controls or Integrated Automation.
- f. Lighting and other electrical systems.
- g. Communications and Data systems.
- h. Safety and security systems.

C. Basis of Design (BOD) and Owner's Project Requirements (OPR) documentation prepared by University contains requirements that apply to this Section. This information is available to Bidders upon request.

D. Comply with the Acceptance Testing requirements of Title 24 Energy Code and ACM (Alternative Calculation Method) Approval Manual. Additional requirements are given in Part 3 of this Section.

1.2 DEFINITIONS

A. Commissioning Process: The basic purpose of building commissioning is to provide documented confirmation that building systems function in compliance with criteria set forth in the Project Documents to satisfy the owner's operational needs.

B. Basis of Design (BOD) document: A document that records concepts, calculations, decisions, product selections used to meet the OPR and to satisfy applicable regulatory requirements, standards, and guidelines. The document includes both narrative descriptions and lists of individual items that support the design process.

- C. CxA: Commissioning Authority.
- D. University Project Requirements (OPR): A written document, prepared by the University, that details the functional requirements of Project and expectations of how it will be used and operated. This document includes Project and design goals, measurable performance criteria, budgets, schedules, success criteria, and supporting information.
- E. Systems, Subsystems, and Equipment: Where these terms are used together or separately, they shall mean "as-built" systems, subsystems, and equipment.
- F. TAB: Testing, Adjusting, and Balancing.
- G. Title 24: California Code of Regulations, Title 24, Part 1 - Building Energy Efficiency Standards (latest edition).

1.3 COMMISSIONING TEAM

- A. Members Appointed by Contractor: Individuals, each having authority to act on behalf of the entity he or she represents, explicitly organized to implement the commissioning process through coordinated actions. The commissioning team shall consist of, but not be limited to, representatives of Contractor, including Project superintendent and subcontractors, installers, suppliers, and specialists deemed appropriate by the CxA.
- B. Members Appointed by University:
 - 1. CxA: The designated person, company, or entity that plans, schedules, and coordinates the commissioning team to implement the commissioning process. Owner may engage the independent CxA under a separate contract.
 - 2. Representatives of the facility user and operation and maintenance personnel.
 - 3. Architect and engineering design professionals.

1.4 UNIVERSITY'S RESPONSIBILITIES

- A. Provide the OPR documentation to the CxA and Contractor for use in developing the commissioning plan; systems manual; operation and maintenance training plan; and testing plans and checklists.
- B. Assign operation and maintenance personnel and schedule them to participate in commissioning team activities including, but not limited to the following:
 - 1. Coordination meetings.
 - 2. Training in operation and maintenance of systems, subsystems, and equipment.
 - 3. Testing meetings.
 - 14. Demonstration of operation of systems, subsystems, and equipment.
- B. Provide the BOD documents, prepared by University or its consultants, to the CxA and Contractor for use in developing the commissioning plan, systems manual, and operation and maintenance training plan.

1.5 CONTRACTOR'S RESPONSIBILITIES

- A. Provide utility services required for the commissioning process.
- B. Contractor is responsible for construction means, methods, job safety, and/or management function related to commissioning on the job site.

- C. Contractor shall assign representatives with expertise and authority to act on behalf of the Contractor and schedule them to participate in and perform commissioning team activities including, but not limited to, the following:
 - 1. Participate in construction-phase coordination meetings.
 - 2. Participate in maintenance orientation and inspection.
 - 3. Participate in operation and maintenance training sessions.
 - 4. Participate in final review at acceptance meeting.
 - 5. Certify that Work is complete and systems are operational according to the Contract Documents, including calibration of instrumentation and controls.
 - 6. Evaluate performance deficiencies identified in test reports and, in collaboration with entity responsible for system and equipment installation, recommend corrective action.
 - 7. Review and comment on final commissioning documentation.

- D. Contractor shall integrate all commissioning activities into Contractor's master construction schedule.

- E. Subcontractors shall assign representatives with expertise and authority to act on behalf of subcontractors and schedule them to participate in and perform commissioning team activities including, but not limited to, the following:
 - 1. Participate in construction-phase coordination meetings.
 - 2. Participate in maintenance orientation and inspection.
 - 3. Participate in procedures meeting for testing.
 - 4. Participate in final review at acceptance meeting.
 - 5. Provide schedule for operation and maintenance data submittals, equipment startup, and testing to CxA for incorporation into the commissioning plan. Update schedule on a weekly basis throughout the construction period.
 - 6. Provide information to the CxA for developing construction-phase commissioning plan.
 - 7. Participate in training sessions for University's operation and maintenance personnel.
 - 8. Provide updated Project Record Documents to the CxA on a daily basis.
 - 9. Gather and submit operation and maintenance data for systems, subsystems, and equipment to the CxA, as specified in Division 01 Section "Operation and Maintenance Data."
 - 10. Provide technicians who are familiar with the construction and operation of installed systems, who shall execute the test procedures developed by the CxA, and who shall participate in testing of installed systems, subsystems, and equipment.

1.6 CxA'S RESPONSIBILITIES

- A. Organize and lead the commissioning team.

- B. Conduct a commissioning design review of the OPR, BOD, and design documents prior to mid-construction documents phase and back-check the review comments in the subsequent design submissions, in accordance with LEED credit EA3 "Enhanced Commissioning".

- C. Prepare a construction-phase commissioning plan. Collaborate with design team, University, Contractor and with subcontractors to develop test and inspection procedures. Include design changes and scheduled commissioning activities coordinated with overall Project schedule. Identify commissioning team member responsibilities, by name, firm, and trade specialty, for performance of each commissioning task.

- D. Work with the University to schedule commissioning activities. All parties will address scheduling issues in a timely manner in order to expedite the commissioning process.
- E. Review and comment on submittals from Contractor for compliance with the OPR, BOD, Contract Documents, and construction-phase commissioning plan. Review and comment on performance expectations of systems and equipment and interfaces between systems relating to the OPR and BOD.
- F. Convene commissioning team meetings on a monthly basis for the purpose of coordination, communication, and conflict resolution; discuss progress of the commissioning processes. Responsibilities include arranging for facilities, preparing agenda and attendance lists, and notifying participants. The CxA shall prepare and distribute minutes to commissioning team members and attendees within five (5) workdays of the commissioning meeting.
- G. At the beginning of the construction phase, conduct an initial construction-phase coordination meeting for the purpose of reviewing the commissioning activities and establishing tentative schedules for operation and maintenance submittals; operation and maintenance training sessions; TAB Work; and Project completion.
- F. Observe and inspect construction and report progress and deficiencies. In addition to compliance with the OPR, BOD, and Contract Documents, inspect systems and equipment installation for adequate accessibility for maintenance and component replacement or repair.
- G. Prepare Project-specific test and inspection procedures and checklists.
- H. Schedule, direct, witness, and document tests, inspections, and systems startup.
- I. Compile test data, inspection reports, and certificates and include them in the systems manual and commissioning report.
- J. Certify date of acceptance and startup for each item of equipment for start of warranty periods.
- K. Review Project Record Documents for accuracy. Request revisions from Contractor to achieve accuracy. Project Record Documents requirements are specified in Division 01 Section "Project Record Documents."
- L. Review and comment on operation and maintenance documentation and systems manual outline for compliance with the OPR, BoD, and Contract Documents. Operation and maintenance documentation requirements are specified in Division 01 Section "Operation and Maintenance Data."
- M. Review Contractor's operation and maintenance training program. Operation and maintenance training is specified in Division 01 Section "Demonstration and Training."
- N. Obtain the services of a professional agency to video the training sessions where required by individual Specification Sections.
- O. Video construction progress including hidden shafts.
- P. Prepare commissioning reports.
- Q. Assemble the final commissioning documentation, including the commissioning report and Project Record Documents.

1.7 COMMISSIONING DOCUMENTATION

- A. Index of Commissioning Documents: CxA shall prepare an index to include storage location of each document.
- B. Commissioning Plan: A document, prepared by CxA, that outlines the schedule, allocation of resources, documentation requirements of the commissioning process, and shall include, but is not limited to the following:
 - 1. Plan for delivery and review of submittals, systems manuals, and other documents and reports. Identification of the relationship of these documents to other functions and a detailed description of submittals that are required to support the commissioning processes. Submittal dates shall include the latest date approved submittals must be received without adversely affecting commissioning plan.
 - 2. Description of the organization, layout, and content of commissioning documentation (including systems manual) and a detailed description of documents to be provided along with identification of responsible parties.
 - 3. Identification of systems and equipment to be commissioned.
 - 4. Description of schedules for testing procedures along with identification of parties involved in performing and verifying tests.
 - 5. Identification of items that must be completed before the next operation can proceed.
 - 6. Description of responsibilities of commissioning team members.
 - 7. Description of observations to be made.
 - 8. Description of requirements for operation and maintenance training, including required training materials.
 - 9. Description of expected performance for systems, subsystems, equipment, and controls.
 - 10. Schedule for commissioning activities with specific dates coordinated with overall construction schedule.
 - 11. Identification of installed systems, subsystems, and equipment, including design changes that occurred during the construction phase.
 - 12. Process and schedule for documenting changes on a continuous basis to appear in Project Record Documents.
 - 13. Process and schedule for completing prestart and startup checklists for systems, subsystems, and equipment to be verified and tested.
 - 14. Step-by-step procedures for testing systems, subsystems, and equipment with descriptions for methods of verifying relevant data, recording the results obtained, and listing parties involved in performing and verifying tests.
- C. Pre-Functional Checklists: CxA shall develop pre-functional checklists for all equipment to be commissioned. Further requirements are specified in Part 3 of this Section.
- D. Functional Performance Testing: CxA shall develop functional performance test procedures for all equipment and systems to be commissioned. Further requirements are specified in Part 3 of this Section.
- E. Certificate of Readiness: Certificate of Readiness shall be signed by Contractor, Subcontractor(s), and installer(s) certifying that systems, subsystems, equipment, and associated controls are ready for testing. Completed test checklists signed by the responsible parties shall accompany this certificate.
- F. Test and Inspection Reports: CxA shall record test data, observations, and measurements on test checklists. Photographs, forms, and other means appropriate for the application shall be included with data. CxA shall compile test and inspection reports and test and inspection certificates and include them in systems manual and commissioning report.

- G. Corrective Action Documents: CxA shall document corrective action taken for systems and equipment that fail tests. Include required modifications to systems and equipment and revisions to test procedures, if any. Retest systems and equipment requiring corrective action and document retest results.

- H. Issues Log: CxA shall prepare and maintain an issues log that describes design, installation, and performance issues that are at variance with the OPR, BoD, and Contract Documents. Identify and track issues as they are encountered, documenting the status of unresolved and resolved issues.
 - 1. Creating an Issues Log Entry:
 - a. Identify the issue with unique numeric or alphanumeric identifier by which the issue may be tracked.
 - b. Assign a descriptive title of the issue.
 - c. Identify date and time of the issue.
 - d. Identify test number of test being performed at the time of the observation, if applicable, for cross-reference.
 - e. Identify system, subsystem, and equipment to which the issue applies.
 - f. Identify location of system, subsystem, and equipment.
 - g. Include information that may be helpful in diagnosing or evaluating the issue.
 - h. Note recommended corrective action.
 - i. Identify commissioning team member responsible for corrective action.
 - j. Identify expected date of correction.
 - k. Identify person documenting the issue.

 - 2. Documenting Issue Resolution:
 - a. Log date correction is completed or the issue is resolved.
 - b. Describe corrective action or resolution taken. Include description of diagnostic steps taken to determine root cause of the issue, if any.
 - c. Identify changes to the OPR, BOD, or Contract Documents that may require action.
 - d. State that correction was completed and system, subsystem, and equipment is ready for retest, if applicable.
 - e. Identify person(s) who corrected or resolved the issue.
 - f. Identify person(s) documenting the issue resolution.

- I. Commissioning Report: CxA shall document results of the commissioning process including unresolved issues and performance of systems, subsystems, and equipment. The commissioning report shall indicate whether systems, subsystems, and equipment have been completed and are performing according to the OPR, BOD, and Contract Documents. The commissioning report shall include, but is not limited to, the following:
 - 1. Lists and explanations of substitutions; compromises; variances in the OPR, BOD, and Contract Documents; record of conditions; and, if appropriate, recommendations for resolution. This report shall be used to evaluate systems, subsystems, and equipment and shall serve as a future reference document during University occupancy and operation. It shall describe components and performance that exceed requirements of the OPR, BOD, and Contract Documents and those that do not meet requirements of the OPR, BOD, and Contract Documents. It may also include a recommendation for accepting or rejecting systems, subsystems, and equipment.
 - 2. OPR and BOD documentation.
 - 3. Commissioning plan.
 - 4. Testing plans and reports.

5. Corrective modification documentation.
 6. Issues log.
 7. Completed test checklists.
 8. Listing of off-season test(s) not performed and a schedule for their completion.
- J. Systems Manual: CxA shall gather required information and compile systems manual. Systems manual shall include, but is not limited to, the following:
1. OPR and BOD, including system narratives, schematics, and changes made throughout the Project.
 2. Project Record Documents as specified in Division 01 Section "Project Record Documents."
 3. Final commissioning plan.
 4. Commissioning report.
 5. Operation and maintenance data as specified in Division 01 Section "Operation and Maintenance Data."

1.8 SUBMITTALS

The CxA shall submit the following:

- A. Commissioning Plan Prefinal Submittal: Submit three (3) hard copies of pre-final commissioning plan. Deliver one copy to Contractor, one to Owner, and one to University Consultant. Present submittal in sufficient detail to evaluate data collection and arrangement process. One copy, with review comments, will be returned to the CxA for preparation of the final construction-phase commissioning plan.
- B. Commissioning Plan Final Submittal: Submit three (3) hard copies and two sets of electronically formatted information of final commissioning plan. Deliver one hard copy and one set of discs to University, and one copy to University Consultant. The final submittal must address previous review comments. The final submittal shall include a copy of the pre-final submittal review comments along with a response to each item.
- C. Test Checklists and Report Forms: Submit sample checklists and forms to Contractor quality-control manager and subcontractors for review and comment. Submit three (3) copies of each checklist and report form.
- D. Certificates of Readiness.
- E. Test and Inspection Reports.
- F. Corrective Action Documents.
- G. Pre-final Commissioning Report Submittal: Submit three (3) hard copies of the pre-final commissioning report. Include a copy of the preliminary submittal review comments along with CxA's response to each item. CxA shall deliver one copy to University and one copy to University Consultant. One copy, with review comments, will be returned to the CxA for preparation of final submittal.
- H. Final Commissioning Report Submittal and LEED™ Documentation: Submit three (3) hard copies and three (3) sets of electronically formatted information of the final commissioning report. The final submittal must address previous review comments and shall include a copy of the pre-final submittal review comments along with a response to each item.
- I. Recommissioning Management Manual: Develop an indexed Recommissioning Management Manual to be delivered to the Owner with the final commissioning report. Include all components listed in the LEED Reference Guide.

- J. LEED™ Documentation. Compile LEED™ Documentation. Format as required by USGBC for submittal under LEED™ rating system.

1.9 QUALITY ASSURANCE

- A. Training Instructor Qualifications: Contractor shall provide factory-authorized service representatives, experienced in training, operation, and maintenance procedures for installed systems, subsystems, and equipment.
- B. Test Equipment Calibration: Comply with test equipment manufacturer's calibration procedures and intervals. Recalibrate test instruments (per NIST requirements if applicable) immediately whenever instruments have been repaired following damage or dropping. Affix calibration tags to test instruments. Instruments shall have been calibrated within six months prior to use.

CxA shall coordinate the following:

- A. Coordinating Meetings: Conduct regular coordination meetings of the commissioning team at least monthly to review progress on the commissioning plan, to discuss scheduling conflicts, and to discuss upcoming commissioning process activities.
- B. Pretesting Meetings: Conduct pretest meetings of the commissioning team to review startup reports, pretest inspection results, testing procedures, testing personnel and instrumentation requirements, and manufacturers' authorized service representative services for each system, subsystem, equipment, and component to be tested.
- C. Testing Coordination: Coordinate sequence of testing activities to accommodate required quality-assurance and -control services with a minimum of delay and to avoid necessity of removing and replacing construction to accommodate testing and inspecting.
 - 1. Schedule times for tests, inspections, obtaining samples, and similar activities.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION

1.2 TITLE 24 ACCEPTANCE TESTING

- A. Comply with the requirements of Title 24, and Appendix NJ of the Nonresidential Alternative Calculation Method (ACM) Approval Manual.
 - 1. The installing Contractor shall be responsible for reviewing the plans and specifications to assure they conform to the Acceptance Requirements. This is typically done prior to signing a Certificate of Compliance.
 - 2. The installing Contractor shall be responsible for providing all necessary instrumentation, measurement and monitoring, and undertaking all required acceptance requirement procedures. They shall be responsible for correcting all performance deficiencies and again implementing the acceptance requirement procedures until all specified systems and equipment are performing in accordance with the Standards.
 - 3. The installing Contractor shall be responsible for documenting the results of the acceptance requirement procedures including paper and electronic copies of all measurement and monitoring results. They shall be responsible for performing data analysis, calculation of performance indices and crosschecking results with the requirements of the Standard. They shall be responsible for issuing a Certificate of Acceptance. The University shall not release a final Certificate of Occupancy until a Certificate of Acceptance is submitted that demonstrates that

the specified systems and equipment have been shown to be performing in accordance with the Standards.

4. The installing Contractor upon completion of undertaking all required acceptance requirement procedures shall record their State of California Contractor's License number or their State of California Professional Registration License Number on each Certificate of Acceptance that they issue.

1.3 START-UP, PRE-FUNCTIONAL CHECKLISTS AND INITIAL CHECKOUT

- A. The following procedures apply to all equipment to be commissioned.
- B. General. Pre-functional Checklists are developed and completed for all major equipment and systems being commissioned. The checklist captures equipment nameplate and characteristics data, confirming the as-built status of the equipment or system. These checklists also ensure that the systems are complete and operational, so that the functional performance testing can be scheduled. The checklists are created by the CxA and completed (filled out) by the installing Contractor.
- C. Start-up and Initial Checkout Plan. The CxA shall assist the commissioning team members responsible for startup of any equipment in developing detailed start-up plans for all equipment. The primary role of the CxA in this process is to ensure that there is written documentation that each of the manufacturer-recommended procedures have been completed.
- D. Pre-functional Checklists. The CxA shall create pre-functional checklists, based primarily on the manufacturer's startup and initial checkout procedures are created. Each checkout item shall have a place to document that proper installation has occurred. Once the pre-functional checklist is completed by the installing Contractor, this signifies that the equipment is properly installed per manufacturer's procedures, and the controls and TAB are complete and the equipment is ready for final functional performance testing. The Contractor determines which Sub-contractor is responsible for executing and documenting each of the line item tasks.
- E. Sensor Calibration. Calibration of all sensors shall be included as part of the pre-functional checklists performed by the Contractors.
- F. Execution of Pre-functional Checklists and Startup.
 1. Sub-contractors and vendors schedule startup and checkout with the University, Contractor, and CxA.
 2. The CxA shall observe, at minimum, the procedures for each piece of primary equipment, unless there are repetitive multiple units, (in which case a sampling strategy may be used as approved by the University).
 3. For lower-level components of equipment in non-sensitive areas of the Project, (e.g., VAV boxes, reheat coils), the CxA shall observe a sampling of the pre-functional and start-up procedures.
 4. The Contractor and vendors shall execute startup and provide the CxA with a signed and dated copy of the completed start-up and pre-functional checklists.
 5. Only individuals that have direct knowledge and witnessed that a line item task on the pre-functional checklist was actually performed shall initial or check that item off.
- G. Deficiencies, Non-Conformance and Approval in Checklists and Startup.
 1. The Contractor shall clearly list any outstanding items of the initial start-up and pre-functional procedures that were not completed successfully, at the bottom of the procedures form or on an attached sheet. The procedures form and any

outstanding deficiencies are provided to the CxA within two days of test completion.

2. The CxA reviews the report and recommends approval to the University. The CxA shall work with the Contractor and vendors to correct and retest deficiencies or uncompleted items. The CxA will involve the University and others as necessary.

1.4 FUNCTIONAL PERFORMANCE TESTING

- A. Objectives and Scope. The objective of functional performance testing is to demonstrate that each system is operating according to the documented design intent and Contract Documents. In general, each system should be operated through all modes of operation (seasonal, occupied, unoccupied, warm-up, cool-down, part- and full-load) where there is a specified system response. Verifying each sequence in the sequences of operation is required. Proper responses to such modes and conditions as power failure, freeze condition, low oil pressure, no flow, equipment failure, etc. shall also be tested.
- B. Development of Test Procedures. Before test procedures are written, the CxA shall obtain all requested documentation and a current list of change orders affecting equipment or systems, including an updated points list, program code, control sequences and parameters. The CxA shall develop specific test procedures and forms to verify and document proper operation of each piece of equipment and system. Prior to execution, the CxA shall provide a copy of the test procedures to the Contractor who shall review the tests for feasibility, safety, equipment and warranty protection. The CxA shall review University-contracted or factory testing which the CxA is not responsible to oversee and shall determine what further testing may be required to comply with the Contract Documents. Redundancy of testing shall be minimized.

The test procedure forms developed by the CxA shall include the following information:

1. System and equipment or component name(s).
2. Equipment location and ID number.
3. Date.
4. Project name and University Project Number.
5. Participating parties.
6. Reference to the specification section describing the test requirements.
7. A copy of the specific sequence of operations.
8. Instructions for setting up the test.
9. Special cautions, alarm limits, etc.
10. Specific step-by-step procedures to execute the test.
11. Acceptance criteria of proper performance with a Yes / No check box.
12. A section for comments.
13. Signatures and date block for the CxA.

C. Test Methods.

1. Functional performance testing and verification may be achieved by manual testing (persons manipulate the equipment and observe performance) or by monitoring the performance and analyzing the results using the control system's trend log capabilities or by stand-alone data loggers. The CxA will determine which method is most appropriate.
2. Setup. Each function and test shall be performed under conditions that simulate actual conditions as close as is practically possible. The Contractor executing the test shall provide all necessary materials, system modifications, etc. to produce the necessary flows, pressures, temperatures, etc. necessary to execute the test according to the specified conditions. At completion of the test, the Contractor shall return all affected building equipment and systems, due to these temporary modifications, to their pre-test condition.
3. Sampling. Multiple identical pieces of non-life-safety or non-critical equipment may be functionally tested using a sampling strategy. The sampling strategy will be

developed by the CxA and approved by the University. If, after three attempts at testing the specified sample percentage, failures are still present, then all remaining units are tested at the Contractor's expense.

- D. **Coordination and Scheduling.** The Contractor shall provide sufficient notice to the CxA regarding their completion schedule for the pre-functional checklists and startup of all equipment and systems. The CxA will schedule functional tests through the University Representative and Contractor. The CxA shall direct, witness and document the functional testing of all equipment and systems. The Contractor shall execute the tests.
- E. **Problem Solving.** The CxA will recommend solutions to problems found; however the burden of responsibility to solve, correct and retest problems is with the Contractor and University consultants.

1.5 OPERATION AND MAINTENANCE TRAINING REQUIREMENTS

- A. **Training Preparation Conference:** Before operation and maintenance training, CxA shall convene a training preparation conference to include Owner's operation and maintenance personnel, Contractor, and subcontractors. In addition to requirements specified in Division 01 Section "Demonstration and Training," perform the following:
 - 1. Review the OPR and BoD.
 - 2. Review installed systems, subsystems, and equipment.
 - 3. Review instructor qualifications.
 - 4. Review instructional methods and procedures.
 - 5. Review training module outlines and contents.
 - 6. Review course materials (including operation and maintenance manuals).
 - 7. Inspect and discuss locations and other facilities required for instruction.
 - 8. Review and finalize training schedule and verify availability of educational materials, instructors, audiovisual equipment, and facilities needed to avoid delays.
 - 9. For instruction that must occur outside, review weather and forecasted weather conditions and procedures to follow if conditions are unfavorable.
- B. **Training Modules:** Develop an instruction program that includes individual training modules for each system, subsystem, and equipment as specified in Division 01 Section "Demonstration and Training."

1.6 COSTS OF COMMISSIONING WORK

- A. The cost of the CxA shall be borne by the University.
- B. The cost to the Contractor and Subcontractors to comply with the specified requirements and to support the work of the CxA shall be included in the Contractor's and Subcontractor's bid price.
- C. If a device, piece of equipment, sequence, or system fails a test, corrections shall be made and a second test shall be performed. If the second test is not successful, then the CxA's cost for a third test or subsequent tests shall be reimbursed to the CxA by the Contractor.

1.7 EQUIPMENT & SYSTEM SCHEDULE

- A. The following equipment shall be commissioned in this Project.

System	Equipment	Note	Req'd by LEED
HVAC System	Chillers		X
	Boilers		X

	Pumps		X
	Cooling towers		X
	Variable frequency drives		X
	Air handlers		X
	Packaged AC units		X
	Terminal units for Court Rooms and other high occupancy rooms		X
	Terminal units for Office areas	2	X
System	Equipment	Note	Req'd by LEED
HVAC System	Unit heaters		X
	Heat exchangers		X
	Exhaust fans		X
	Supply fans		X
	Return fans		X
	Chilled beams		X
Building Energy Management System (EMS)	Sequences of Operation, Monitored Points, Control Points, and Alarms		X
	Metering/Monitoring Devices and Equipment		X
	Software Commissioning, GUI presentation commissioning, system access performance criteria, software tools/source code commissioning, instrument data sheets, middleware commissioning, Internet Protocol commissioning		
Lighting and Shade Control System	Sequences of Operation, Monitored points, control points, user controls		X
Electrical System	Sweep or scheduled lighting controls	2	X
	Daylight dimming controls		X
	Lighting occupancy sensors		X
	Electrical grounding		
Plumbing System	Domestic water heaters		X
Security Alarm Systems	Security cameras and monitoring system personal duress alarm system; Intercom system; Paging System.		
Security Electronics	Security plumbing fixture water management system.		
Seminar/Conference Rooms	Door Controls.		
	Fire alarm system.		
	Distributed radio antenna system.		
	Access control system.		
	Room acoustics.		
Fire/Life Safety Systems	Sound masking system.		
	Assisted listening.		
	Video projection.		
	Audio system.		
	Lighting and lighting controls.		X
	All devices		
Communication System	Alarm drivers		
	HVAC/Fire System Integration		
	Event Notifying and Reporting Systems		

Notes:

1. Centralized equipment should be fully commissioned.

PART 2 - Items which represent multiple, identical repetitive equipment may be tested on a "sampling" or "spot-check" basis, 20% of total.

END OF SECTION