

ADDENDUM NO. 4

July 22, 2022

REQUEST FOR DESIGN PROFESSIONAL QUALIFICATIONS

**Master Planning, Programming, Site Studies, & Basis
of Design**

FOR

**OASIS HUB: CLEAN TECHNOLOGY PARK
PROJECT NO. 958133**



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. **Request for Design Professional Qualifications**

Delete the Request for Design Professional Qualifications and **replace** with the one issued in this addendum.

2. **Request for Information**

| BID RFI No. | QUESTIONS / ANSWERS |
|-------------|--|
| 1-1 | <p>Question: Please confirm if there are particular submittal requirements beyond the forms included in the RFQ that should be followed in our submittal.</p> <p>Answer: Please refer to re-issued RFQ in Addendum 4.</p> |
| 1-2 | <p>Question: Please clarify which delivery method we should base the RFQ on?</p> <p>Answer: Design Build; see revisions in Addendum 4.</p> |
| 1-3 | <p>Question: Please confirm that teams that submit for this RFQ will be precluded in the case of either delivery format (DB or CMAR) from pursuing future phases of work beyond the Master Planning/Programming/BOD scopes (Phase 1 and Phase 2 BOD).</p> <p>Answer: Yes, confirmed. If the firm is chosen to proceed with the Basis of Design, then the selected firm will be precluded from participating in the Design Build procurement process. Please also see answer in RFI 1-2.</p> |
| 1-4 | <p>Question: Please confirm if firms that previously worked on the Pre-Feasibility Study will be precluded from this RFQ or not.</p> <p>Answer: Confirmed, they are precluded.</p> |
| 1-5 | <p>Question: If the University decides to proceed with Design Build delivery, it is our understanding that the firm selected for Phase I Services (Programming) may be considered for the Phase II Services (Basis of Design). If the University decides to proceed with CMAR under the second option, will the firm selected for Phase I (Programming) be precluded from pursuing the Phase II (Full Design Services)?</p> <p>Answer: For the purposes of this RFQ, firms should assume Design Build delivery method and as such firms could proceed with Phase 3 services outlined in Addendum 4. Please also see answer in RFI 1-2.</p> |
| 1-6 | <p>Question: We understand that we “shall recommend sub-consultants that would form the proposed consulting team” (Section 2F). Does the University desire a separate Attachment A for each consultant or just the prime consultant (Architect)?</p> <p>Answer: Just the Prime Consultant, but all subconsultants currently known shall complete Section 3 of Attachment A.</p> |

| BID RFI No. | QUESTIONS / ANSWERS |
|-------------|---|
| 1-7 | <p>Question: We understand that the selected Design Professional will not be eligible to participate on a team in the Design-Build selection phase. Are our trade partners/sub-consultants similarly precluded from joining design-build teams in the future?</p> <p>Answer: Yes.</p> |
| 1-8 | <p>Question: Based on the first description of Phase 2 Services: Basis of Design and the subtasks Design-Build Procurement Support and Peer Review Services can you please confirm that if the project proceeds in a design-build delivery that we would be precluded from being on a design-build team?</p> <p>Answer: Yes, confirmed.</p> |
| 1-9 | <p>Question: For Consultants could you please confirm that the University is looking for recommended sub-consultants as part of our RFQ response now, not after selection?</p> <p>Answer: Confirmed.</p> |
| 1-10 | <p>Question: Should construction cost estimating be included?</p> <p>Answer: Yes, cost estimating should be included.</p> |
| 1-11 | <p>Question: With the Addendum issued on July 11 with significantly longer and more in-depth qualification requests, we would need more time to complete the new submission requirements than the original July 25th deadline. Would the university consider extending the submission deadline? Preferably by one week, to account for the Addendum with submission requirements being published one week after the original RFQ?</p> <p>Answer: Please note new submission date for RFQ response outlined in Addendum 4.</p> |
| 1-12 | <p>Question: Please clarify if this DPP team will be excluded from pursuing this project for both CMAR and Design-Build delivery models?</p> <p>Answer: Please see answer in RFI's 1-2, 1-3, and 1-4.</p> |
| 1-13 | <p>Question: Where does Attachment A fall in the "submittal format" and does this count towards our 40-page limit?</p> <p>Answer: No. The total number of pages is excluding University required forms.</p> |
| 1-14 | <p>Question: Do covers and tabs count towards our 40-page limit?</p> <p>Answer: No.</p> |
| 1-15 | <p>Question: Given we just received Addendum 2 with the response format and requirements updated, would you consider a deadline extension?</p> <p>Answer: See Response in RFI 1-11.</p> |

| BID RFI No. | QUESTIONS / ANSWERS |
|-------------|--|
| 1-16 | <p>Question: Please confirm the two phases of the project (150GSF and 105GSF) will both be included in Phase 1/2 of the project scope to complete Programming and Planning, as one holistic project.</p> <p>Answer: Yes. Both phases will be part of the work in response to this RFQ.</p> |
| 1-17 | <p>Question: Please confirm the intent for the three relevant projects in Section 3 given the projects scope: should we focus on providing examples where our team acted as AOR and provided Construction Documents, or should we provide projects relevant to Master Planning, Programming, and Criteria Documentation? Similarly, for Section 4, confirm if AOR role is accurate in the scope of this RFQ.</p> <p>Answer: Provide projects relevant to Master Planning, Programming, and Criteria Documentation as outlined in re-issued RFQ via Addendum 4.</p> |
| 1-18 | <p>Question: Do you want three (3) original copies and one (1) electronic copy on transferable media delivered to you (per RFQ); or one electronic copy emailed to you (per Attachment A)?</p> <p>Answer: Yes, please provide 3 hard copies with 1 copy on a flash drive; e-mail submissions are not acceptable.</p> |
| 1-19 | <p>Question: Which consultant firms are precluded from submitting qualifications to be Prime, Executive Architect or subconsultants for this project?</p> <p>Answer: Any subconsultants that were part of the Pre-Feasibility Study.</p> |
| 1-20 | <p>Question: Are resumes excluded from the page count?</p> <p>Answer: No.</p> |
| 1-21 | <p>Question: For relevant project experience, the RFQ requests we provide "no more than four (2) pages containing the following information..."</p> <ul style="list-style-type: none"> o Can the University clarify whether we're limited to four (4) or two (2) pages? <p>Answer: Please submit no more than 4 pages per project.</p> |
| 1-22 | <p>Question: Please clarify which delivery method we should base the RFQ on?</p> <p>Answer: Refer to answer in RFI 1-2.</p> |
| 1-23 | <p>Question: Does the University have milestone dates in mind for project kick-off and/or move-in?</p> <p>Answer: To be determined once the consultant is selected. Move-in date is not determined yet.</p> |
| 1-24 | <p>Question: Based on the RFQ and programming report, we understand the research laboratory spaces to be primarily dry lab spaces. Can the university confirm and/or clarify if additional lab planning expertise will be needed (eg. wet labs, computational labs, etc)?</p> <p>Answer: The need for wet labs and other similar uses will be determined during programming. It is possible that additional lab planning expertise will be required.</p> |

END
OF

| BID RFI No. | QUESTIONS / ANSWERS |
|-------------|--|
| 1-25 | <p>Question: Can you confirm that the architect chosen from this phase is precluded from any future phases regardless of the delivery method? Would you reconsider allowing architects chosen for this phase to participate in future phases if this project employs CMAR as the delivery method?</p> <p>Answer: See response in RFI 1-12.</p> |
| 1-26 | <p>Question: The RFQ outlines the A/E Phase 1 scope of work to include CEQA Data Needs, Master Planning, Programming, Detailed Project Program, Conceptual Test Fit options, Site Studies; and Phase 2 which includes preparation of a Basis of Design consisting of Design & Technical Performance criteria or full A/E services depending on the future project delivery method. The OASIS Clean Technology Park project is also described with a Phase 1 (approx. 149,000 sf) and Phase 2 (approx. 105,000 sf). Please confirm that the Phase 1 A/E scope of work as outlined in the RFQ is for both phases of the project, totaling approx. 254,000 sf?</p> <p>Answer: Confirmed, refer to re-issued RFQ via Addendum 4.</p> |
| 1-27 | <p>Question: Do resumes need to be included for recommended sub-consultants?</p> <p>Answer: Yes.</p> |

ADDENDUM

University of California, Riverside

Request for Design Professional Qualifications

FOR

OASIS HUB: CLEAN TECHNOLOGY PARK

Master Planning, Programming, Site Studies, & Basis of Design
Documents

Project Number: 958133

July 22, 2022

Advertisement Date: July 1, 2022 – ~~July 22~~ **August 5**, 2022

Revised Document Issue Date: July 22, 2022, 10:00 AM

Notice of Intent Requested by: July 29, 2022, 3:00 PM

Last day for Questions: July 29, 2022, 3:00 PM

RFQ Submittal Due by: August 16, 2022, 12:00 PM

TABLE OF CONTENTS

- I. ADVERTISEMENT | REQUEST FOR QUALIFICATIONS | DESIGN PROFESSIONAL SERVICES

- II. PROJECT INFORMATION AND REQUIREMENTS
 - A. Campus Overview
 - B. Project Background
 - C. Project Description
 - D. Project Location
 - E. Scope of Services
 - F. Schedule
 - G. Consultants
 - H. Contract Requirements

- III. RFQ SUBMITTAL PROCESS
 - A. RFQ Selection Criteria
 - B. RFQ Schedule
 - C. RFQ Selection Process
 - D. RFQ Submittal Format
 - E. Negotiation and Award of Contract

ATTACHMENTS

(Appropriate attachments may be recopied as necessary for submittal)

Attachment A: RFQ QUALIFICATION & SUBMITTAL FORM

Attachment B: SAMPLE PSA AGREEMENT

Attachment C: SAMPLE EDPA AGREEMENT

Attachment D: OASIS HUB PRE-FEASIBILITY STUDY

I. ADVERTISEMENT | REQUEST FOR QUALIFICATIONS | DESIGN PROFESSIONAL SERVICES

The University of California, Riverside (UCR, UC Riverside, or University), through its Planning, Design & Construction (PD&C) department, will select a Design Professional to perform pre-design services for the Opportunities to Advance Sustainability, Innovation and Social Inclusion (OASIS) Hub Clean Technology (“Clean Tech”) Park.

OASIS Hub: Clean Technology Park Project 958133

The University of California, Riverside, will select an architectural firm to be the University’s Design Professional for the OASIS Hub: Clean Tech Park Project, which will be a multi-phase project delivered via the Design-Build delivery method.

Phase 1 Services include Master Planning, Programming, and Site Studies. At the conclusion of Phase 1, the Design Professional must have prepared the necessary information to facilitate the preparation of the California Environmental Quality Act (CEQA) documentation in order to proceed with demolition of the existing University Extension (UNEX) Building currently located on the proposed site.

Phase 2 Services include preparation of design documents, bidding assistance, construction administration, project closeout and record documents for the UNEX Building demolition and Site Make Ready for the future OASIS Hub: Clean Tech Park. ***Phase 2 Services will be tracked and authorized using an Executive Design Professional Agreement (EDPA).***

Phase 3 Services, dependent on project funding, include preparation of Basis of Design (BOD) documents consisting of Design & Technical Performance Criteria (specifications) for the proposed OASIS Hub: Clean Tech Park, so as to support a design-build project procurement delivery. Phase 3 services also include support throughout the Design-Build procurement (Competition) process and transition meetings with winning Design-Build entity, peer review milestone design & construction documents (developed by the Design-Builder), and review of key submittals.

Services for Phases 1 and 3 will be tracked and authorized using a Professional Services Agreement (PSA).

- The Design Professional selected under this Advertisement will be the Architect of Record for the Site Make Ready Package and UNEX Demolition Documents.
- The Design Professional selected under this Advertisement will not be the Executive Architect for the Clean Tech Park Project; the Executive Architect will be the Design-Builder. The Design Professional selected under this Advertisement will not be eligible to participate on a team in a subsequent Design-Build selection (competition) phase, nor will they be able to participate on the contractor’s team who is the successful low-bidder for the Site Make Ready Package and UNEX Demolition portion of the work.

The selected entity must be able to start work immediately and in alignment with the specific project schedule. Refer to Section F, Schedule.

Phase 3 BOD services will be implemented at the University's discretion.

Upon selection, the University looks forward to strategizing with the selected team on how best to optimize design services phasing so as to allow for expedient project development, completion of CEQA, and demolition of UNEX by June 2024.

The complete Request for Qualifications (RFQ) packet will be available (in electronic format only) on July 22, 2022, at 10:00 AM. To receive a copy of the RFQ Documents, email the RFQ Administrator listed below.

RFQ Qualification Submittals must be received on or before 12:00 PM, on August 16, 2022.

RFQ Administrator:

Betty Osuna

UCR Contracts Administration

Email: betty.osuna@ucr.edu

Or download directly from: www.ucrplanroom.com. Every effort will be made to ensure that all persons, regardless of race, religion, sex, color, ethnicity, national origin, gender, age, marital status, sexual orientation, gender identity, veteran status, disability, or any other characteristics protected by law have equal access to contracts and other business opportunities with the University. Each candidate firm will be required to show evidence of its equal employment opportunity policy.

The University reserves the right to reject any or all responses to this RFQ and to waive non-material irregularities in any response received. The execution of an Agreement with any firm selected pursuant to this advertisement may be contingent upon University approvals, including but not necessarily limited to the approval of the University's Board of Regents to proceed with the Preliminary Plans Phase ("P-phase") of project implementation.

All information submitted for evaluation will be considered official information acquired in confidence, and the University will maintain its confidentiality to the extent permitted by law.

II. PROJECT INFORMATION AND REQUIREMENTS

A. CAMPUS OVERVIEW

UC Riverside is one of 10 universities within the prestigious University of California (“UC”) system, and the only UC campus, as well as the only public research university, located in Inland Southern California. For an overview of UC Riverside, please refer to the Campus homepage at: <http://www.ucr.edu>.

Widely recognized as one of the most ethnically diverse and innovative research universities in the nation, UCR currently hosts approximately 26,847 students (as of Fall 2021).

The approximately 1,108-acre UCR main campus is located three miles east of downtown Riverside and is bisected by the Interstate 215/State Route 60 (“I-215/SR 60”) freeway, resulting in two areas referred to as East Campus and West Campus. East Campus comprises approximately 604 acres and contains most of the University’s built space. West Campus comprises approximately 504 acres and is largely used as agricultural research fields and teaching; several University facilities are also on West Campus: surface parking, University Extension and International Village, the Solar Farm, and University Substation. The physical setting of UC Riverside, at the base of the Box Springs Mountains, is an integral part of the educational experience for all those who come to live, learn, and work on campus. This relationship is vital to its students, faculty, and staff, as the campus is a living laboratory for the exploration of issues critical to growing communities – air, water, energy, transportation, politics, the arts, history, culture and healthcare. Please refer to the UC Riverside Campus map at <https://campusmap.ucr.edu/>.

UC Riverside has benefitted from the region’s growth and continues to be an integral partner in the region. In 2019, UCR was named the number one institution for social mobility by U.S. News & World Report Best Colleges Rankings and has since remained in the top three each subsequent year. In addition, as a part of its bold vision for the future, a concerted effort has been made to enhance its research profile, be recognized as a model for social inclusion, and support local innovation.

B. PROJECT BACKGROUND

The Bourns College of Engineering, Center for Environmental Research & Technology (CE-CERT), established in 1992, is operating as the largest research center at UCR and brings together multiple disciplines throughout campus to address society’s most pressing environmental challenges in air quality, climate change, energy, and transportation. The recent relocation of the California Air Resources Board (CARB) to the City of Riverside, combined with UCR’s research expertise, recognized as a leader in social mobility, air quality, energy, transportation, engineering, community health and health disparity, as well as agriculture innovation, has inspired local leaders to embrace sustainability, innovation, and social inclusion as key areas of economic development in the region. As shown through the success in attracting CARB to Riverside, strong alignment between the University, community, and the private sector are key to transforming the Inland Southern California into a region of growth based on innovation and social inclusion. Due to the range of existing capabilities in research and education, as well as recent

economic development activities, UC Riverside is uniquely positioned to create a new framework for innovation in climate change and air quality research. The relocation of CARB to the City of Riverside, combined with UCR's research excellence presents a unique opportunity for UCR to create a new research hub that will focus on supporting CARB, industry innovation, and ongoing University research initiatives.

C. PROJECT DESCRIPTION

The OASIS (Opportunities to Advance Sustainability, Innovation and Social Inclusion) Hub is envisioned as a combination of physical environments including research laboratories, technology incubator, training facilities, office, light industrial, community spaces, and other supporting uses that will catalyze research partnerships, technology transfer and the creation, attraction and growth of innovation-based companies to the region. The OASIS Hub will offer a welcoming and inclusive setting that inspires the next generation of diverse Science, Technology, Engineering, and Mathematics (STEM) and business leaders. The OASIS Hub will leverage the University and the region's industry and research strengths in agriculture, air quality, clean energy/clean tech, natural resource management and smart mobility.

OASIS aims to anchor a cluster of diverse stakeholders and strategic partners that leverage the University's strengths and the connections to the California Air Resources Board (CARB), City of Riverside, the Counties of Riverside and San Bernardino and other community partners.

Social mobility, inclusion, and equity are hallmark features of OASIS and its partners and should be fully reflected in all key elements of the OASIS Hub. Companies, non-profit organizations, and community groups that focus on corporate responsibility, sustainable development and social equity and inclusion are expected to be key members of the OASIS Hub.

In 2021, UCR completed a pre-feasibility study for the OASIS Hub. The purpose of the analysis was to define the project drivers and strategic objectives of the OASIS Hub as well as to identify potential appropriate sites for the project, and to develop a test-fit site plan demonstrating feasibility of the first phase of development of the OASIS Hub, which is the **Clean Tech Park**.

The deliverable; *OASIS Hub Pre-Feasibility Study* is included as Attachment "D".

The University wishes to proceed with Master Planning, Programming, and Site Studies for the OASIS Hub: Clean Tech Park so as to enable the University to implement preliminary site improvements and the demolition of the existing UNEX Building on the proposed site. Note: the existing parking structure is to remain, and as such, shall be incorporated into all project related analysis and documentation.

OASIS Hub: Clean Technology Park

As the first manifestation of the OASIS Hub, UCR anticipates that the OASIS Hub: Clean Tech Park will provide approximately 254,000 square feet (SF) of phased new construction as a Live, Work, Explore, Learn, Create, and Play environment. As envisioned in the Pre-Feasibility Study, the Clean Tech Park consists of the following mixed-use programmatic components:

Phase 1: approximately 149,000 SF

- 70,000 SF for the Center for Environmental Research and Technology (CE-CERT) industrial space including research space for the New Generation Environmental Chamber & Health Core (GOLIATH)
- 22,000 SF for University Extension (UNEX) office space, workstations, classrooms, and administrative space
- 25,000 SF office space for industry partners and technology incubators
- 18,000 SF shared use and amenities, such as conference rooms, lecture hall, and lounges
- 14,000 SF retail space

Phase 2: approximately 105,000 SF

- 38,000 SF for CE-CERT office and dry lab space
- 28,000 SF office space for community partners
- 26,000 SF office space for industry partners
- 2,000 SF shared use and amenities, such as conference rooms, lecture hall, and lounges
- 11,000 SF retail space

D. PROJECT LOCATION

The proposed location for the OASIS Hub: Clean Tech Park is on approximately 8.3 acres owned by the University at 1150 University Avenue Riverside, California and 1200 University Avenue Riverside, California. This site is in a prime location to act as a gateway for the campus and the City of Riverside's Innovation Corridor, and within proximity to the CARB facility. Presently, the UNEX Building occupies the western portion of the proposed site. The 196,641 gross square foot (GSF) building is currently vacant as the building is seismically deficient and has exceeded its useful life; thus, the building is proposed for demolition.



Project Site 

E. SCOPE OF SERVICES

The OASIS Hub: Clean Tech Park will respond to, and further develop, the goals and objectives articulated in the OASIS Hub Pre-Feasibility Study.

Phase 1: Master Planning, Programming, and Site Studies

At the conclusion of Phase 1, the Design Professional must have prepared the necessary data to facilitate the preparation of the California Environmental Quality Act (CEQA) documentation in order to proceed with demolition of the existing University Extension (UNEX) Building currently located on the proposed site, Site Make Ready (e.g., utility improvements) for the future OASIS Hub: Clean Tech Park.

The consultant selected under this RFQ is not the Environmental Consultant completing the environmental analysis, but is the planning and design consultant who will, in this first phase, be collecting and providing data related to the proposed project to support the environmental analysis that will be completed by the University's Environmental Consultant.

Space Program:

Build upon program information in the Pre-Feasibility Study so as to support CEQA analysis and also to achieve a functional program based on the University's goals and the application of contemporary technology, standards and best practices; develop room size standards and planning modules, and furnish a space inventory by room with total assignable square footage. Identify building gross square footage, and provide details of important criteria affecting design and use of each room.

Functional Concepts:

Evaluate space adjacencies and produce diagrams showing essential relationships between functional areas. Consideration will be given to public spaces, vertical circulation, main building entries, and adjacent open space.

Site Analysis & Site Plan:

Build upon the information in the Pre-Feasibility Study so as to support CEQA analysis. Develop a site plan for phased implementation of the proposed project. Provide design graphics such as conceptual site plan, conceptual design graphics, etc. Identification of utility services capacity and points of connection will also be completed.

Conceptual Design Concepts:

Develop conceptual design 'test-fit' options responsive to the programmatic, design, and technical goals. Concepts will show how overall program requirements can be implemented over time while optimizing or making best use of limited financial resources.

Development of these options is intended for identification of key parameters to be incorporated in the subsequent Basis of Design.

Conceptual Site Make Ready and UNEX Demolition Cost Estimate and Schedule:

Provide the estimated cost for Site Make Ready and demolition of the UNEX Building. Provide the plan and duration (in calendar days) and the amount of demolition materials in cubic yards/tons, sustainability measures, any demolition waste management plan or goals.

Conceptual Clean Technology Park Project Schedule and Implementation Plan:

Develop a preliminary project schedule that shows the overall design and construction timeframes for the proposed Clean Tech Park Project. The anticipated construction phasing and schedule will support the California Emissions Estimator Model (CalEEMod) air quality/greenhouse gas modeling for CEQA. Illustrate in tabular and graphical formats the implementation strategy required to complete the OASIS Hub: Clean Tech Park Project Phases 1 & 2 by building and utility system.

Equipment types and load assumptions:

Provide the anticipated number of construction equipment for each construction phase that will support the CalEEMod modeling for CEQA. Verify the assumptions for the CalEEMod modeling input prepared by the Environmental Consultant.

Utility use modeling:

Provide anticipated water use, wastewater, electrical requirements, and other utility information for the environmental analysis. Provide number and specs for HVAC units, laboratory equipment, etc.

Construction assumptions for Clean Tech Park:

Provide amount of import/export of soils, and assist in providing information in the air quality/greenhouse gas/energy modeling assumptions (CalEEMod).

Cost Plan for Clean Technology Park:

Determine preliminary construction cost utilizing all program variables, including all assumptions about massing, materials, systems, space efficiency, sustainability, etc. at current California Construction Cost Index (CCCI). All assumptions must be clearly documented, and finish cost in current dollars computed to the construction midpoint.

Phase 2: Demolition and Site Make Ready Documents

Phase 2 Services include preparation of design documents for the UNEX Building demolition and Site Make Ready for the future Clean Tech Park.

Phase 3 Services: Basis of Design Documents for Clean Technology Park

The University encourages innovative approaches to Project design, construction, speed of delivery, minimization of on-and-off-site impacts, and operations that will fulfill the University's functional requirements and objectives.

Design & Technical Criteria & Requirements:

Generate comprehensive design & technical performance criteria, responsive to the University's program and budget responsive to the University's program and budget for the project. Performance standards for each building system component, including basic structural elements,

HVAC, lighting and electrical, telephone/data communications, fixed and/or moveable equipment, and finishes as appropriate.

Sustainable design principles will be considered while developing building system criteria. Performance standards must be in accordance with UCR specifications and design criteria.

Design & Performance Criteria Verification:

Develop and incorporate into the Basis of Design a structured system for verification of design & technical parameters throughout the Design-Build design documentation and construction phases.

Sustainability:

Consider the above items in the context of UCR's commitment to sustainable design principles and UC Sustainability Practices Policies. The Basis of Design concept should establish building performance criteria for the project to achieve, at a minimum, Leadership in Energy and Environmental Design (LEED) Platinum certification or equivalence.

Basis of Design Document:

Generate Basis of Design document that clearly communicates Program, High Quality Design and Technical Performance criteria utilizing graphic, quantitative and written descriptions.

Design-Build Procurement Support:

Support throughout the Design-Build procurement (competition) process, including but not limited to, responding to Requests for Information (RFIs).

Peer Review Services:

Peer review services throughout the Design-Build process, within a scope to be determined by the University.

F. SCHEDULE

Upon selection, the University looks forward to strategizing with selected team on how best to optimize design services phasing so as to allow for expedient project development. Generally, however, work would proceed according to the following approximate schedule with potential overlap in phasing so as to facilitate demolition of UNEX by June 2024.

- Consultant Selection: 8-10 weeks
- Phase 1 Services: Master Planning, Programming, and Site Studies: 20-24 weeks
- Phase 2 Services: Demolition & Site Make Ready Documents: 10-14 weeks
- Phase 3 Basis of Design: 24-30 weeks

G. CONSULTANTS

Architectural firms submitting for this RFQ shall recommend sub-consultants that would form the proposed consulting team. Sub-consultant disciplines shall include: Laboratory and Specialty Space Planner(s), Structural, Mechanical, Electrical, Plumbing, Civil, Acoustic, Telecom/Data, Audio-Visual, Landscape, and Cost Estimating.

Architectural firms submitting for this RFQ are also requested to propose sub-consultants to complete site and utility surveys/studies to inform the development of the Master Planning, Programming, and CEQA process. These surveys/studies include:

- Topographic and Underground Utility Survey
- Geotechnical Survey
- Hazardous Materials (for both building and site)
- Phase 1 Environmental Site Assessment
- Utility Capacity Analysis

The University reserves the right to approve final list of subconsultants. Sub-consultants serving on the Design Professional’s team will not be eligible to participate in the ensuing competitive Design-Build process.

H. CONTRACT REQUIREMENTS

1. All consulting services to be provided by the consultant shall be in accordance with the issued University Contract Documents. University Standard Form of Professional Services Agreement (PSA) and/or Executive Design Professional Agreement (EDPA).
 - a. Note any exceptions to the attached Professional Services Agreement (“PSA”) or Executive Design Professional Agreement (EDPA) that would prevent your firm from executing the Agreement in your response. We cannot accept any request to include language to limit liability with regards to insurance and/or modify the indemnification clauses.
2. University requires evidence of insurance coverage: general liability, automobile liability, and worker’s compensation. If consultant does not currently have coverage in accordance with University requirements, listed below, documentation shall be submitted indicating that such coverage will be in place prior to execution of the Consultant Agreement.

| | |
|---|--|
| <u>Commercial Form General Liability Insurance* - Limits of Liability</u> | <u>Minimum Requirement</u> |
| Each Occurrence - Combined Single Limit for Bodily Injury and Property Damage | \$1,000,000 |
| Products - Completed Operations Aggregate | \$2,000,000 |
| Personal and Advertising Injury | \$1,000,000 |
| General Aggregate | \$2,000,000 |
| <u>Business Automobile Liability Insurance* - Limits of Liability</u> | <u>Minimum Requirement</u> |
| Each Accident - Combined Single Limit for Bodily Injury and Property Damage | \$1,000,000 |
| <u>Workers’ Compensation and Employer’s Liability**</u> | <u>Minimum Requirement</u> |
| Workers’ Compensation: | (as required by Federal and State of California law) |

| | |
|-----------------------|-------------|
| Employer’s Liability: | |
| Each Employee | \$1,000,000 |
| Each Accident | \$1,000,000 |
| Each Policy | \$1,000,000 |

| | |
|--|----------------------------|
| <u>Professional Liability Insurance* – Limits of Liability</u> | <u>Minimum Requirement</u> |
| Each Occurrence | \$1,000,000 |
| General Aggregate | \$2,000,000 |

*This insurance must 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). Further, the deductible, or retained limit, for each coverage shall not be more than \$100,000.

**This insurance must 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.

3. Selected firm shall provide evidence of an Equal Employment Opportunity policy, and its compliance with applicable federal law pertaining to Equal Employment Opportunity.

III. RFQ SUMITTAL PROCESS

A. RFQ SELECTION CRITERIA

The Screening Committee will be seeking project teams with experience in comparable projects and with the Design-Build delivery method. Applicants should clearly highlight such projects and their similarities to the proposed project. Specific responses will be reviewed more carefully than those stressing breadth of experience or general qualifications. Submittals should focus on relevant experience of the proposed staff. Major considerations in selection of the firm will be the following:

- Demonstrated firm and staff experience in site planning, University campus design, urban design, and master planning.
- Demonstrated experience in planning, programming, and design of state-of-the-art dry and wet research laboratory space.
- Demonstrated experience in planning, programming, and design of mixed-use space to be occupied by both University and industry partners.
- Experience with the Design-Build process, and with development of Design & Technical Criteria Basis of Design documents.
- Proven ability to provide creative and innovative design criteria and strategies for optimizing the Design-Build competitive selection process that results in Design-Builder proposals that

exceeded the base program requirements. Firms should submit appropriate graphic material supporting creativity and excellence, as applied to Basis of Design documents.

- Experience creating and managing a work plan within defined time constraints and overlapping or concurrent efforts.
- Demonstrated experience managing a large consultant team including technical staff so as to support timely completion of CEQA.
- Demonstrated understanding of how the design professional interacts with the CEQA process.
- Proven technical, cost and schedule management capabilities, including experience with Target Value Design.
- Experience with institutional clients and building committees.
- Qualifications of the Principals and Project Team Members, including the proposed definition of the primary responsibility of each role.

B. RFQ SCHEDULE

In accordance with established University procedures, UC Riverside will review all submittals in response to the RFQ and will select the most qualified firm for the listed project.

RFQ Qualification Submittals must be received on or before 12:00 PM, on August 16, 2022.

Submit three (3) hard copies and one (1) electronic copy on flash-drive media to:

Attn: Contracts Administration, Betty Osuna
Planning, Design & Construction
UNIVERSITY OF CALIFORNIA, RIVERSIDE
1223 University Avenue, Suite 240
Riverside, CA 92507

**Include the Project Number and Name on the outside of your envelope*

A map of the Campus is available at: <https://campusmap.ucr.edu/>

C. RFQ SELECTION PROCESS

The selection process will proceed as follows:

1. Entities are requested to submit a written Notice of Intent as required in the Request for Qualifications Advertisement. The Notice of Intent shall be in the form of an email to the RFQ Administrator announcing an entity's intent to submit Qualification Documents for this project.
2. Entities who are eligible to submit Qualification Documents for this project must submit all required documents by the given deadlines, as required in the Request for Qualifications Advertisement.
3. The University Screening Committee will evaluate each RFQ Submittal and will rank the top three (3) prospective firms on their demonstrated competence and professional qualifications necessary for the satisfactory performance of the services required.
4. The Screening Committee shall develop a list ranking the top three firms, and shall submit the list to the Associate Vice Chancellor / Campus Architect for review and approval.

5. The Associate Vice Chancellor / Campus Architect shall review and approve the list. The Associate Vice Chancellor / Campus Architect shall notify all parties of the top three (3) ranking firms.
6. The University will notify the top three (3) ranking firms that they have been selected for a Presentation/Interview with the selection committee for each of the proposed teams. Notice shall be in writing, will include the time and date for the presentation/interview (currently *anticipated* for the month of August or September 2022) and description of further requirements related to interview and submittal of your fee proposal. Each firm shall have principal members of each discipline in attendance.
7. Submitting firms will be notified of the decision by the Selection Committee within 3 days of the Selection Committee's decision.
8. If the University receives submissions from fewer than three qualified firms, the University may select from among the available qualified firms.

D. RFQ SUBMITTAL FORMAT (80 pages maximum length)

Section 1: Cover Letter (10 points possible).

The Cover Letter should introduce the team and provide a brief history of the firm, including:

1. Number of years in business as the current entity or its legally-recognized predecessor.
2. Number of employees (aggregate of all office locations).
3. The individuals proposed to fill the following roles, at a minimum:
 - a. Designated principal-in-charge, authorized to make contractual commitments on behalf of the firm.
 - b. Designated project lead, responsible for delivery of services to the University in connection with the project.
 - c. Designated technical lead for the project.
4. The firm's office location that will be the firm's primary base for delivery of services to the University in connection with the project.

Section 2: Project Team and Qualifications (30 points possible).

1. Team Organization Chart.
2. Explain the role of each individual and each proposed consultant, and explain how the individual's past experience is directly relevant to his/her proposed role and the specific services as described in the RFQ Advertisement.
3. Describe the Team's, or Team members', experience in working together on projects comparable to this project.
4. Resumes for each proposed team member, indicating individual's experience relevant to the requirements of the project and relevant contact information such as their email address.

Section 3: Describe relevant project experience (30 points possible).

1. Describe (3) projects comparable to the project in which the firm has had a leading design role (example as the Architect of Record or Master Architect).
 - a. For each of the projects cited under item 1) above, provide no more than four (4) pages containing the following information: brief project description, including owner, location and dates of engagement.

- b. No more than two (2) photographs or diagrams e.g. plans, conveying features relevant to the requirements of this project, as described herein.
- c. The firm's scope of work, including services and deliverables.
2. Work product examples demonstrating design responses and graphic abilities, particularly as relevant to the preparation of Basis of Design Documents.
3. Key personnel assigned to the project.
4. Construction Contract sum.
5. Start and completion construction dates.

Section 4: Project Understanding (30 points possible).

1. Understanding of Design Professional's role, scope of services and deliverables, based on information provided herein.
2. Describe how Team would work with the University to achieve the project goals.
3. Describe proposed approach and work plan, and how to manage the process in order to meet the deadlines based on the time sensitivity and other information provided herein.

E. NEGOTIATION AND AWARD OF CONTRACT

1. The University will negotiate a contract with the best ranked qualified firm for services at compensation that the University determines as fair and reasonable.
2. Negotiations shall begin no later than 14 days after the successful firm has been notified of its selection.
3. The University and firm shall work together to ensure the successful delivery of the requested services in a timely fashion.
4. In the event an impasse is reached in negotiations, the University may terminate negotiations and enter into negotiations with the next qualified firm, in the same manner as prescribed below.
 - a. Should the University be unable to negotiate a satisfactory contract with the firm considered to be the most qualified, at a price the University determines to be fair and reasonable, negotiations with that firm shall be formally terminated in writing by the University.
 - b. The University shall then undertake negotiations with the second most qualified firm. Failing accord with the second most qualified firm, the University shall terminate negotiations in writing. The University shall then undertake negotiations with the third most qualified firm.
 - c. Should the University be unable to negotiate a satisfactory contract with any of the selected firms, the University shall select additional firms in order of their competence and qualification and continue negotiations in accordance with these Instructions until an agreement is reached.
 - d. Upon the completion of negotiations, the University and the firm shall proceed to execute a contract. The University shall provide the firm the contract within 45 days after the conclusion of negotiations, unless the University notifies the firm that additional time is necessary to complete the contract.
 - e. If the selected firm fails to execute the contract within 14 days of receipt, the University may formally terminate the negotiations with that firm in writing and undertake negotiations with the second most qualified firm and so on as previously described above.



ATTACHMENT A

QUALIFICATION SUBMITTAL FORM

For
Request for Design Professional Qualifications
FOR
OASIS HUB: CLEAN TECHNOLOGY PARK
Master Planning, Programming, Site Studies, & Basis of Design Documents
Project Number: 958133

July 22, 2022

SUBMITTED BY:

(Company Name. If a Joint Venture, state name of JV Entity)

Type of Organization: Sole Proprietor/Individual Partnership
 Joint Venture
 Corporation

(State of Incorporation)

(Contact Name & Title)

(Street Address)

(City, State, Zip Code)

(Telephone Number) (Facsimile Number)

(E-mail)

Each prospective firm must answer all of the following questions and provide all requested information.

All information submitted for prequalification evaluation in response to Section 2, if applicable, and marked as “confidential” will be considered official information acquired in confidence, and the University of California will maintain its confidentiality unless (1) the University determines that it is required to release the information to a third party pursuant to the requirements of the California Public Records Act or (2) the University is required by court order to release the information to a third party pursuant to the requirements of the California Public Records Act. In the event that the University receives a request pursuant to the California Public Records Act and the University determines that it is required to disclose information marked “confidential” by the provisions of the California Public Records Act, the University will notify the prospective firm of the pending disclosure at least 72 hours prior to such disclosure so that the prospective firm may seek a restraining order in advance of such disclosure. The University shall err on the side of transparency and will generally treat information provided by the prospective firm that is not marked “confidential” as subject to disclosure pursuant to the California Public Records Act. Likewise, any decision by the University that any document is subject to disclosure pursuant to the California Public Records Act shall not prevent the University from making a subsequent determination that any document is not subject to disclosure pursuant to the California Public Records Act.

All other information submitted for evaluation will be considered official information acquired in confidence, and the University will maintain its confidentiality to the extent permitted by law.

WHERE NECESSARY, COPY THE FORMS IN THIS PACKAGE. USE ONLY THESE FORMS. Oral, telephonic, electronic mail (e-mail), facsimile, or telegraphic Prequalification Questionnaires are invalid and will not be accepted.

SUBMIT THREE (3) HARD COPIES AND ONE (1) ELECTRONIC COPY ON FLASH-DRIVE.



1. SURVEY (Information Only)

How did you hear about this RFQ?

Press Enterprise

UCR Website

Other: _____

2. INSURER

Prospective firm shall obtain and submit the Insurance Declaration in the form shown below, or submit a sample certificate of insurance form from its insurer, or submit a letter that declares the same as the Insurance Declaration, signed by an authorized representative of its insurer on the representative's or insurer's letterhead. (If more than one insurer or insurance representative, submit a completed form or sample certificate of insurance form or letter for each).

2.1 Is the firm able to obtain insurance in the following limits for the required coverages?

YES

NO

Commercial Form General Liability Insurance* - Limits of Liability

Minimum Requirement

Each Occurrence - Combined Single Limit for Bodily Injury and Property Damage

\$1,000,000

Products - Completed Operations Aggregate

\$2,000,000

Personal and Advertising Injury

\$1,000,000

General Aggregate

\$2,000,000

Business Automobile Liability Insurance* - Limits of Liability

Minimum Requirement

Each Accident - Combined Single Limit for Bodily Injury and Property Damage

\$1,000,000

Workers' Compensation and Employer's Liability**

Minimum Requirement

Workers' Compensation:

(as required by Federal and State of California law)

Employer's Liability:

| | |
|---------------|-------------|
| Each Employee | \$1,000,000 |
| Each Accident | \$1,000,000 |
| Each Policy | \$1,000,000 |

Professional Liability Insurance* – Limits of Liability

Minimum Requirement

| | |
|-------------------|-------------|
| Each Occurrence | \$1,000,000 |
| General Aggregate | \$2,000,000 |

*This insurance must 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). Further, the deductible, or retained limit, for each coverage shall not be more than \$100,000.

**This insurance must 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.

2.2 Insurance Declaration:

PROVIDE THIS DECLARATION TO YOUR INSURANCE CARRIER FOR COMPLETION AND HAVE YOUR CARRIER RETURN THE COMPLETED DECLARATION TO YOU. THE PROSPECTIVE FIRM MUST SUBMIT THIS DECLARATION TO UNIVERSITY. DO NOT HAVE YOUR CARRIER SUBMIT THIS DECLARATION DIRECTLY TO THE UNIVERSITY

The undersigned declares under penalty of perjury that the below named insurer is currently willing to provide the insurance listed above in Section 2.1. of this RFQ Qualification

submittal

_____ (Name of Prospective Firm)

and that this Declaration was executed in

_____, in the State of _____,

_____ (Name of City if within a City, otherwise Name of County)

_____ (State)

on

_____ (Date)

_____ (Signature)

_____ (Name & Title)

_____ (Insurer Name)

_____ (Street Address)

_____ (City, State & Zip Code)

_____ (Telephone Number)

_____ (Facsimile Number)

_____ (Mobile Number)

_____ (Email)



4. DECLARATION

I, _____, hereby declare that I am the

(Printed Name)

of

(Title)

(Name of Company)

submitting this Qualification Submittal; that I am duly authorized to sign this Qualification Submittal on behalf of the above named company; and that all information set forth in this Qualification Submittal and all attachments hereto are, to the best of my knowledge, true, accurate, and complete as of its submission date.

I declare, under penalty of perjury, that the foregoing is true and correct and that this Declaration was executed in:

_____, in the State of _____,

(Name of City if within a City, otherwise Name of County)

(State)

on

(Date)

(Signature)

END OF QUALIFICATION SUBMITTAL

ATTACHMENT B

PROFESSIONAL SERVICES AGREEMENT

between

THE REGENTS OF THE UNIVERSITY OF CALIFORNIA

and

{CONSULTANT or LABORATORY NAME}

This Agreement is made on _____ between The Regents of the University of California, a California corporation, hereinafter called "University," and _____,

an individual/sole proprietor a partnership a joint venture a _____ corporation, (State of Incorporation)

holder of all necessary and applicable licenses required for the performance of the services described in this Agreement, hereinafter called "Consultant," to furnish certain services upon the following terms and conditions:

I. CONSULTANT SERVICES AND RESPONSIBILITIES

A. The Consultant shall furnish the following services:

1. Act as a consultant to the University of California, Riverside, to perform **{BRIEF DESCRIPTION OF SERVICES}** as required and authorized by the University. Under this Agreement, the consultant may perform pre-design services but in no event does this Agreement authorize the preparation of any design documents, including Schematic Design.

The University will authorize the Consultant to perform specific services by the issuance of a Written Authorization(s) on the form contained in the Exhibits. Each Written Authorization will state the specific services to be performed, the schedule for their completion, and the method of compensation in accordance with paragraph IV.

2. Furnish drawings, documents, reports, surveys, renderings, exhibits, models, prints, and photographs, and other materials as required and as authorized by the University.

{OPTIONAL: INSERT THE FOLLOWING LANGUAGE IN PSA IF CONSULTANT HAS BEEN SELECTED TO ACT AS DESIGN PROFESSIONAL INCLUDING, IF NECESSARY, ADVERTISEMENT AND INTERVIEWS/DISCUSSIONS}

B. Consultant hereby represents to the University that:

1. Consultant acknowledges that it has been selected to perform services for the Project including services as Design Professional under the Executive Design Professional Agreement (EDPA) in the Exhibits;
2. Consultant acknowledges that University have deferred negotiations on a fee for Basic Services and rate schedule for Additional Services described in the EDPA; and
3. Consultant has read and understood the EDPA in Exhibits and agrees to all of its terms and provisions.

C. If University requires the Consultant's services as Design Professional for the Project, Consultant agrees to the following:

1. Consultant will not request any modifications to those terms and provisions to the EDPA and will execute the EDPA in the form in the Exhibits; and

2. Consultant will negotiate in good faith both a fee to perform the Basic Services and a rate schedule to perform Additional Services based on its then current rate structure consistent with its normal practice and consistent with University guidelines for fees and rates for similar projects.

II. TERM

- A. *Order Period.* The period of time for issuance of written Authorizations to Perform Services (hereinafter "Order Period") shall be from _____ to _____.
- B. *Period of Performance.* The period of performance under the Agreement shall be as specified in any written Authorizations to Perform Services, or subsequent revisions thereto, issued during the Order Period. However, the period of performance shall not commence prior to the date of execution of any such written Authorization.
- C. ***University- initiated Termination***

1. If the University determines that the Consultant has failed to perform in accordance with the terms and conditions of this Agreement, the University may terminate all or part of the Agreement for cause. This termination shall become effective if the Consultant does not cure its failure to perform within 10 days (or more, if authorized in writing by the University) after receipt of a notice of intention to terminate from the University specifying the failure in performance. If a termination for cause does occur, the University shall have the right to withhold monies otherwise payable to the Consultant until the services under this Agreement are completed. If the University incurs additional costs, expenses, or other damages due to the failure of the Consultant to properly perform pursuant to the Agreement, these costs, expenses, or other damages shall be deducted from the amounts withheld. Should the amounts withheld exceed the amounts deducted, the balance will be paid to the Consultant upon completion of the services to be provided under this Agreement. If the costs, expenses, or other damages incurred by the University exceed the amounts withheld, the Consultant shall be liable to the University for the difference.

2. University may terminate this Agreement for convenience at any time upon written notice to Consultant, in which case University will pay Consultant for all services performed and all expenses incurred under this Agreement up to and including the effective date of termination less any costs, expenses or other damages due to the failure of the Consultant to properly perform pursuant to the Agreement. In ascertaining the services actually rendered up to the date of termination, consideration will be given to both completed Work and Work in progress, whether delivered to University or in the possession of Consultant, and to authorized Reimbursable Expenses. No other compensation will be payable for anticipated profit on unperformed services.

- D. ***Consultant - initiated Termination***

Consultant may terminate this Agreement for cause if the University fails to cure a material default in performance within a period of 30 days, or such longer period as the Consultant may allow, after receipt from the Consultant of a written termination notice specifying the default in performance. In the event of termination for cause by the Consultant, the University will pay the Consultant in accordance with paragraph II.C.2.

III. GENERAL PROVISIONS

- A. *Independent Contractor.* The Consultant shall perform the services hereunder as an independent contractor and not as an agent or employee of the University.
- B. *Consultant Hiring.* The Consultant shall not hire any officer or employee of the University to perform any

service covered by this Agreement. If the service is to be performed in connection with a federal contract or grant, the Consultant shall not hire any employee of the United States government to perform any service covered by this Agreement.

- C. *Subconsultants.* The Consultant shall cooperate with other professionals employed by the University in the production of other work related to its services. Subject to approval by the University, the Consultant shall contract for or employ, at its expense, such professional subconsultants, as the Consultant deems necessary for the completion of the services. The Consultant may hire the services of subconsultants with University approval in place of or in addition to those employed or retained by the Consultant. The Consultant is as responsible for the performance of its subconsultants as it would be if it had rendered these services itself. Nothing in the foregoing procedure shall create any contractual relationship between the University and the professionals employed by the Consultant under the terms and conditions of this Agreement. The Consultant is solely responsible for payment of any subconsultants.
- D. *Legal and Regulatory Compliance.* The Consultant shall perform all services and prepare documents in compliance with the applicable requirements of laws, codes, rules, regulations, ordinances, and standards.
- E. *Copyright, Ownership and Use of Materials.* Consultant hereby assigns to the University all right, title, and interest, including, but not limited to, copyright and all copyright rights, in all Materials created by Consultant in its performance under this Agreement and/or delivered to the University hereunder and shall execute any documents necessary to effectuate such assignment, with the exception that Consultant hereby grants to the University an irrevocable, fully-paid up, royalty-free license to use any document provided to the University including without limitation any document known as a "detail." Consultant warrants that it has the lawful right to grant the foregoing license to the University. . In the event Consultant uses any individual who is not a full-time employee of Consultant or entity to perform any work required of it pursuant to this Agreement, Consultant shall require said individual or entity to sign an agreement containing identical wording as the foregoing with the exception that word "Consultant" is to be replaced with the individual's or entity's name. Materials constitute all written and other tangible expressions, including, but not limited to, drawings, documents, reports, surveys, renderings, exhibits, models, prints, photographs, etc. All Materials furnished by the Consultant hereunder shall be and shall remain the property of the University. In the event of Agreement termination by either party for any reason, as provided under this Agreement, the University will have the right to receive, and the Consultant shall promptly provide to the University, all drawings, documents, reports, surveys, renderings, exhibits, models, prints, photographs, and other materials prepared by the Consultant for the services under this Agreement. In the event of termination, and any dispute regarding the amount to be paid under this Agreement notwithstanding, the University retains the right to receive and use any such documents or materials any dispute regarding the amount to be paid under this Agreement notwithstanding. The foregoing provisions shall survive the term and termination of this Agreement.
- F. *Consultant's Accounting Records.* All books and records relating to this Agreement shall be maintained in accordance with Generally Accepted Accounting Principles (GAAP) or International Financial Reporting Standards (IFRS). University or University's authorized representative shall have access to and the right to audit and the right to copy all of Consultant's books and records. Consultant records shall include but not be limited to accounting records (hard copy, as well as computer readable data if it can be made available); contracts; payroll records; subconsultant agreements; vendor agreements; purchase orders; leases; original estimates; estimating work sheets; correspondence; receipts; memoranda; and any other supporting evidence deemed necessary to substantiate charges under this agreement. All such books and records shall be preserved for a period of at least 3 years from the date of Final Payment under this Agreement.
- G. *Conflict of Interest.* The Consultant affirms that to the best of its knowledge there exists no actual or potential conflict between the Consultant's family, business, or financial interests (including services provided to another client) and the services provided under this Agreement, and that in the event of a

change in either the private interests or services under this Agreement, any questions regarding a possible conflict of interest that may arise as a result of this change shall be disclosed in writing to the University. The Consultant shall not be in a reporting relationship to a University employee who is a near relative, nor shall the near relative be in a decision-making position with respect to the Consultant.

- H. *Successors and Assigns.* If the Consultant transacts business as an individual, upon the Consultant's death or incapacitation, the University will automatically terminate this Agreement as of the date of such event. If so terminated, neither the Consultant nor the Consultant's estate shall have any further right to perform hereunder, and University shall pay the Consultant, or the Consultant's estate, the prorated unpaid compensation due under Article IV for any services rendered prior to this termination.

If there is more than one Consultant, and any one of them dies or becomes incapacitated, and the others continue to render the consulting services covered herein, the University will make payments to those continuing as though there had been no death or incapacitation; the University will not be obliged to take any account of the person who died or became incapacitated or to make any payment to this person or this person's estate. These provisions shall apply in the event of progressive or simultaneous occasions of death or incapacitation among any group of persons named as Consultant herein; if death or incapacitation befalls the last member of this group before the services of this Agreement are fully performed, then the rights shall be as if there had been only one Consultant.

This Agreement shall be binding upon the University and the Consultant and their respective successors and assigns. Neither the performance of this Agreement nor any part thereof, nor any monies due or to become due hereunder, may be assigned by the Consultant without the prior written consent and approval of the University.

- I. *Information Furnished by University.* If required for the performance of the Consultant's services, the University will furnish information, surveys, reports, as-builts, and other materials at the University's expense.
- J. *Statistical Reporting.* At the commencement of performance, Consultant shall complete and submit, and require each Subconsultant who performs services under this Agreement to complete and submit, a Self-Certification on the form contained in the Exhibits. At the completion of work and prior to final payment, Consultant shall complete and submit a Final Distribution of Contract Dollars under this Agreement on the form contained in the Exhibits.
- K. *Confidentiality.* The Consultant shall use his or her best efforts to keep confidential a) any information produced or created by Consultant under this Agreement including but not limited to test results, sampling results, data, plans and reports; b) any information provided by the University and marked "Confidential Information"; or c) any oral information conveyed to the Consultant by the University and followed by a written communication within thirty (30) days that said information shall be considered Confidential Information. In the event that Consultant determines that it has a legal obligation to disclose such Confidential Information pursuant to a third party demand, Consultant shall notify the University in writing of its receipt of such demand and of Consultant's determination that it has a legal obligation to disclose Confidential Information. Consultant shall not disclose any such Confidential Information until at least ten (10) days from the date of receipt by University of Consultant's written notice. This nondisclosure provision shall not apply to any of the following:
1. Information which the Consultant can demonstrate by written records was known to him or her prior to the effective date of this Agreement;
 2. Information that is currently in, or in the future enters, the public domain other than through a breach of this Agreement or through other acts or omissions of Consultant; or
 3. Information that is obtained lawfully from a third party

- L. *Survival*. The provisions of this Agreement which by their nature survive expiration or termination of the Agreement or Final Completion of any related Project or the performance of services under this Agreement, including any and all warranties, confidentiality, indemnities, payment obligations, and University's right to audit Consultant's books and records, shall remain in full force and effect after any expiration or termination of the Agreement or Final Completion of any related Project or the performance of services under this Agreement.
- M. *UC Fair Wage*. Consultant/Design Professional shall pay all persons providing services and/or any labor on site, including any University location, no less than 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.

IV. COMPENSATION

- A. Compensation payable by University under this Agreement shall not exceed \$_____.
- B. The University will have the right to withhold payment from Consultant for any unsatisfactory service until such time service is performed satisfactorily.
- C. The University will compensate the Consultant for the scope of services provided in accordance with this Agreement, computed as follows:
 - 1. For each written authorization, a maximum payment shall be established that shall not be exceeded without the prior written approval of the University.
 - 2. All fees shall be in accordance with the Consultant Rate Schedule contained in the Exhibits. Unless otherwise provided in the Consultant Rate Schedule, rates shall not be changed except in accordance with paragraph VIII.A. Alternatively, a lump-sum fee may be negotiated.
 - 3. Payments to the Consultant shall be made monthly, subsequent to the University's receipt of an invoice itemizing the fees and reimbursable expenses for each written authorization for the month invoiced.
 - a. *Invoicing for Services Performed on a Labor Hour / Time-and-Materials Basis*. Consultant must submit an itemized invoice for services rendered for each Work Authorization. The itemized invoice must include (i) fees and authorized reimbursable expenses for the month invoiced, (ii) the Contract Number of this Agreement, (iii) the Work Authorization number, (iv) the project name and number if applicable, (v) the date of services, (vi) a summary of the tasks performed with associated hours and billing rates and (vii) supporting timesheets. Payment will be subject to verification by University's Representative. *Overtime premiums* will not be allowed for exempt service professionals. Authorized overtime will be compensated at straight-time rates unless specifically provided otherwise in the Rate Schedule.
 - b. *Invoicing for Services Performed for an Established Lump-Sum Fee*. Consultant will invoice University for authorized services performed for an established Lump-Sum Fee. A lump-sum invoice may be submitted upon completion of the authorized work. If monthly billings are requested, Consultant shall submit a proposed monthly billing schedule for University's approval. Proposed monthly billings must relate to the percentage of work performed each month in proportion to the total Work Authorization amount. Payments will not be made that exceed the value of work performed during the billing period. Each invoice must include (1) the fee for the month invoiced, (ii) the Contract Number of this Agreement, (iii) the Work Authorization number, (iv) the project name and number if applicable, (v) the dates of services

or a copy of the approved billing schedule, and (vi) a summary of the tasks performed. The amount invoiced will be subject to verification by University's Authorized Representative. All overtime premiums, reimbursable expenses except as mutually agreed per IV.C.4., and project related overhead or administrative expenses are Consultant's responsibility and are considered included in the lump-sum fee.

- c. Invoices shall be sent to the following address:

UCR Planning, Design & Construction
1223 University Avenue, Suite 240
Riverside, CA 92507

or

pdcinvoice@ucr.edu

4. When provided in a written Work Authorization as mutually agreed between Consultant and University, reimbursable expenses will be paid in addition to the fees for Services under this Agreement; otherwise, Consultant is responsible for all other operating expenses, overhead and administrative costs that are considered included in the rates in the Consultant's Rate Schedule contained in the Exhibits. Reimbursable expenses are actual expenditures made by the Consultant and the Consultant's employees and subconsultants in accordance with the "Reimbursement Schedule" contained in the Exhibits. All expenses must be itemized, justified, and supported with receipts to University's reasonable satisfaction. All expenses must fall within the established applicable not-to-exceed Work Authorization amount.
5. Payment Terms. Properly submitted invoices will be paid on a net-30 day basis. Invoices that do not conform to the requirements of this Agreement will be returned to Consultant for revision and/or supporting documents. Properly revised invoices will be paid net-30 days.
- a. Payments will not be made for services performed in advance of the Work Authorization effective date unless such advanced services are specifically authorized in the applicable Work Authorization. For each Work Authorization, the maximum payment shall not exceed the established Work Authorization amount without University's prior signed written approval.
- b. If University fails to pay undisputed amounts within 45 days of invoice receipt, Consultant may submit a written payment demand. If University fails to cure the requested payment demand within 7 calendar days from receipt, Consultant may suspend work under this Agreement until such undisputed payments are made. Any payment issues must be brought to the immediate attention of University's Director of Contracts Administration for resolution.
6. Consultant must complete and sign an IRS Form W-9, and send it to the above address for invoices.

V. INDEMNIFICATION AND INSURANCE

A. INDEMNIFICATION

1. Consultant shall indemnify, defend, and hold harmless University and its Regents, officers, employees, agents, and representatives (collectively, "Indemnitee"), against all liability, demands, claims, costs, damages, injury including death, settlements, and expenses (including without limitation, interest and penalties) incurred by Indemnitee ("Losses") arising out of the performance of services or Consultants other obligations under this Agreement, but only in proportion to and to the extent such Losses are caused by or result from (1) the negligent acts or omissions of Consultant, its officers, agents, employees, subcontractors, subconsultants, or any person or entity

for whom Consultant is responsible (collectively, "Indemnitor"); (2) the breach by Indemnitor of any of the provisions of this Agreement; or (3) willful misconduct by Indemnitor.

2. The indemnification obligations under this Article V shall not be limited by any assertion or finding that (1) the person or entity indemnified is liable by reason of non-delegable duty, or (2) the Losses were caused in part by the negligence of, breach of contract by, or violation of law by Indemnitee. The obligation to defend shall arise regardless of any claim or assertion that Indemnitee caused or contributed to the Losses. Indemnitor's reasonable defense costs (including attorney and expert fees) incurred in providing a defense for Indemnitees shall be reimbursed by University except to the extent such defense costs arise, under principles of comparative fault, from Indemnitor's (a) negligent acts or omissions; (b) breach of any of the provisions of this Agreement; or (c) willful misconduct.
3. Consultant shall indemnify, defend, and save harmless Indemnitee from and against all loss, cost, expense, royalties, claims for damages or liability, in law or in equity, including, without limitation, attorney fees, court costs, and other litigation expenses that may at any time arise or be set up for any infringement (or alleged infringement) of any patent, copyright, trade secret, trade name, trademark or any other proprietary right of any person or entity in consequence of the use by Indemnitee of any documents (including any method, process, product, concept specified or depicted) supplied by Indemnitor in the performance of this Agreement.
4. Nothing in this Agreement, including the provisions of this Article V, shall constitute a waiver or limitation of any rights which Indemnitee may have under applicable law, including without limitation, the right to implied indemnity.

B. INSURANCE

1. Insurance Requirements. Consultant, at Consultant's sole cost and expense, shall insure its activities in connection with this Agreement, and shall obtain, keep in force, and maintain insurance as listed below. The coverages required under paragraph V.B. shall not in any way limit the liability of the Consultant.
 - a. Commercial Form General Liability Insurance with coverage and minimum limits as follows:

| | | |
|------|--|-------------|
| i. | Each occurrence | \$1,000,000 |
| ii. | Products Completed; Operations Aggregate | \$1,000,000 |
| iii. | Personal and Advertising Injury | \$1,000,000 |
| iv. | General Aggregate | \$2,000,000 |
 - b. Business Automobile Liability Insurance for owned, scheduled, non-owned, and hired automobiles, with a combined single limit of no less than \$1,000,000 per accident.
 - c. Professional Liability Insurance, with minimum limits of \$1,000,000 per claim and \$2,000,000 in the aggregate.
 - d. If the above insurance (subparagraphs V.B.1.a – V.B.1.c) is written on a claims-made basis, it shall be maintained continuously for a period of no less than 3 years after the date of Final Completion of the services authorized pursuant to each Written Authorization executed. The insurance shall have a retroactive date of placement prior to, or coinciding with, the date services are first provided that are governed by the terms of this Agreement and shall include, without limitation, coverage for professional services as called for in this Agreement.

Insurance required by subparagraphs V.B.1.a-V.B.1.c shall be (i) issued by companies that have 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).

- e. Workers' Compensation and Employer's Liability Insurance as follows:
 - i. Worker's Compensation: as required by Federal and State of California law.
 - ii. Employer's Liability: Each Employee \$1,000,000
 Each Accident \$1,000,000
 Policy Limit \$1,000,000
 - iii. Insurance required by this subparagraph V.B.1.e 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.
- f. Consultant, upon the execution of this Agreement, shall furnish University with Certificate of Insurance evidencing compliance with this Article V., including the following requirements:
 - i. Consultant shall have the insurance company complete University's Certificate of Insurance on the form contained in the Exhibits. If Consultant's insurance company refuses to use the University's Certificate of Insurance form, it must provide a Certificate of Insurance (and endorsements, if needed) evidencing compliance with Paragraph V.B. and Special Provisions 1 through 3 on the Certificate of Insurance Exhibit. It alone constitutes evidence of insurance.
 - ii. If insurance policies are canceled for non-payment, University reserves the right to maintain policies in effect by continuing to make the policy payments and assessing the cost of so maintaining the policies against Consultant.
 - iii. University, University's officers, agents, employees, consultants, University's Representative, and University's Representative's consultants, regardless of whether or not identified in the Contract Documents or to Consultant in writing, will be included as additional insureds on Consultant's general liability policy for and relating to the Work to be performed by Consultant and Subcontractors. Consultant's general liability insurance policy shall name University as an additional insured 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). The General Liability coverage shall contain 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. This requirement shall not apply to Worker's Compensation and Employer's Liability Insurance. 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.

- iv. The General Liability and the Professional Liability insurance policies shall apply to the negligent acts, or omissions of Consultant, its officers, agents, employees, and for Consultant's legal responsibility for the negligent acts or omissions of its subconsultants and anyone directly or indirectly under the control, supervision, or employ of Consultant or Consultant's subconsultants.

VI. STATUTORY AND OTHER REQUIREMENTS

A. NONDISCRIMINATION

1. In connection with the performance of the Consultant pursuant to this Agreement, the Consultant 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). 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 Consultant also agrees to post in conspicuous places, available to employees and applicants for employment, notices setting forth the provisions of this nondiscrimination clause. The Consultant will, in all solicitations or advertisements for employees placed by or on behalf of the Consultant, 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.

B. PREVAILING WAGE RATES

1. For purposes of this Article, the term subcontractor or subconsultant shall not include suppliers, manufacturers, or distributors.
2. Consultant 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 Sections 1770, 1771, 1771.1, 1772, 1773, 1773.1, 1774, 1775, 1776, 1777.5, and 1777.6 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. References to Covered Services hereinafter shall mean services performed pursuant to this Agreement that are covered by the aforementioned provisions as implemented by the State of California Department of Industrial Relations.

3. The State of California Department of Industrial Relations has ascertained the general prevailing per diem wage rates in the locality, if any, listed in the written authorization for the performance of construction, alteration, demolition or repair work as defined in Section 1720 of the State of California Labor Code for each craft, classification, or type of worker required to perform the Covered Services hereunder. A schedule 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. By this reference, such schedule is made part of this Agreement. Consultant shall pay not less than the prevailing wage rates, as specified in the schedule and any amendments thereto, to all workers employed by Consultant in the execution of the Covered Services hereunder. Consultant shall cause all subcontracts or subconsultant agreements to include the provision that all subcontractors or subconsultants shall pay not less than the prevailing wage rates to all workers employed by such subcontractor or subconsultants in the execution of the Covered Services hereunder. Consultant 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 wage 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 Covered Services hereunder performed by Consultant or any subcontractor or subconsultant. The amount of this penalty shall be determined by the Labor Commissioner pursuant to applicable law. Such forfeiture amounts may be deducted from the Consultant fee. Consultant 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 Covered Services hereunder, 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.

C. PAYROLL RECORDS

1. Consultant and all subcontractors or subconsultants 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 journey person, apprentice, or other employee employed in connection with the Covered Services hereunder. All payroll records shall be certified as being true and correct by Consultant or subcontractors or subconsultants keeping such records; and the payroll records shall be available for inspection at all reasonable hours at the principal office of Consultant on the following basis:
 - a. 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.
 - b. 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.
 - c. 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 Consultant or subcontractors or subconsultants. 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 Consultant awarded the Agreement or performing the Agreement shall not be marked or obliterated.

2. Consultant 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. Consultant shall inform University of the location of such payroll records for the written authorization, including the street address, city, and county; and Consultant shall, within 5 working days, provide notice of change of location of such records. In the event of noncompliance with the requirements of this Paragraph or with the State of California Labor Code Section 1776, Consultant shall have 10 days in which to comply following receipt of notice specifying in what respects Consultant must comply. Should noncompliance still be evident after the 10-day period, Consultant 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 Consultant fee.

D. APPRENTICES

1. 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 Consultant and subcontractors or subconsultants as apprentices for the Covered Services hereunder. 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 Consultant bears responsibility for compliance with this section for all apprenticeable occupations.
2. 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 for the Covered Services hereunder in the craft or trade to which the apprentice is indentured.
3. When Consultant or subcontractors or subconsultants employ workers in any apprenticeship craft or trade for the Covered Services hereunder, Consultant or subcontractors or subconsultants shall apply to the joint apprenticeship committee, which administers the apprenticeship standards of the craft or trade in the locality, if any, listed in the written authorization for the performance of construction, alteration, demolition or repair work as defined in Section 1720 of the State of California Labor Code, for a certificate approving Consultant or subcontractors or subconsultants under the apprenticeship standards for the employment and training of apprentices in the locality so identified. 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 Covered Services hereunder. 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. Consultant or subcontractors or subconsultants 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.
4. "Apprenticeship craft or trade," as used in this Paragraph, shall mean a craft or trade determined as an apprenticeship occupation in accordance with rules and regulations prescribed by the Apprenticeship Council.
5. If Consultant or subcontractors or subconsultants employ journeypersons or apprentices in any apprenticeship craft or trade in the locality, if any, listed in the written authorization for the performance of construction, alteration, demolition or repair work as defined in Section 1720 of the State of California Labor Code, 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 locality so identified are contributing, Consultant and subcontractors or subconsultants shall contribute to the fund or funds in each craft or trade in which they employ journeypersons or apprentices on the Covered Services hereunder in the same amount or upon the same basis and in the same manner done by the other contractors. Consultant may include the amount of such contributions in computing its compensation under the Agreement; but if Consultant fails to do so, it shall not be entitled to any additional compensation therefore from University.

6. In the event Consultant willfully fails to comply with this Paragraph VI.D, it will be considered in violation of the requirements of the Agreement.
7. Nothing contained herein shall be considered or interpreted as prohibiting or preventing the hiring by Consultant or subcontractors or subconsultants 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.

E. WORK DAY

1. Consultant shall not permit any worker providing Covered Services 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. Consultant shall forfeit to University, as a penalty, \$25 for each worker employed in the execution of this Agreement by Consultant, or any subcontractors or subconsultant, for each day during which such worker is required or permitted to work providing Covered Services more than 8 hours in any 1 day and 40 hours in any 1 calendar week in violation of the terms of this Paragraph or in violation of the provisions of any law of the State of California. Such forfeiture amounts may be deducted from the compensation otherwise due under this Agreement. Consultant and each subcontractor or subconsultant 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 under this Agreement, 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.

F. PATIENT HEALTH INFORMATION

1. Consultant 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.). Consultant 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. Consultant will adopt procedures to ensure that its employees, agents and subcontractors refrain from such activity. If Consultant, its employees, agents or subcontractors do further examine, copy, photograph, record in any manner, distribute or share this information, Consultant will report such actions immediately to the University Representative. Consultant will immediately take all steps necessary to stop any such actions and will ensure that no further violations of this contractual responsibility will occur. Consultant will report to University Representative within five (5) days after Consultant gives University Representative notice of the event/action of the steps taken to prevent future occurrences.

VII. NOTICES

- A. *University.* Any notice may be served upon the University by delivering it, in writing, to the University at the address set forth on the last page of this Agreement, by depositing it in a United States Postal Service deposit box with the postage fully prepaid and with the notice addressed to the University at the aforementioned address, or by sending a facsimile of it to the University facsimile number set forth on the last page of this Agreement.
- B. *Consultant.* Any notice may be served upon the Consultant by delivering it, in writing, to the Consultant at the address set forth on the last page of this Agreement, by depositing it in a United States Postal Service deposit box with the postage fully prepaid and with the notice addressed to the Consultant at this address, or by sending a facsimile of it to the Consultant facsimile number set forth on the last page of this Agreement.

VIII. AUTHORITY OF AGREEMENT

- A. This Agreement represents the entire and integrated agreement between the University and the Consultant and supersedes all prior negotiations, representations, or agreements, either written or oral. This Agreement may be modified only by a written instrument signed by both the University and the Consultant and the written instrument shall be an Amendment on the form contained in the Exhibits.
- B. This Agreement includes the following Exhibits attached herewith:

- Amendment
- Certificate of Insurance
- Final Distribution of Contract Dollars
- Rate Schedule
- Reimbursement Schedule
- Self-Certification
- Work Authorization
- Reference RFQ/RFP Documents
- Executive Design Professional Agreement

IN WITNESS WHEREOF, the UNIVERSITY and the CONSULTANT have executed this Agreement on the **{DAY}** day of **{MONTH}**, **{YEAR}**

CONSULTANT:

 (Name of Company)

By: _____
 (Signature & Date)

 (License Number, if applicable)

 (Print Name & Title)

 (Employer ID Number)

Address: _____

Telephone Number(s): _____

Facsimile Number: _____

Recommended:

By: University's Representative

Funds Sufficient:

By: Financial Administrative Officer

 (Signature & Date)

 (Signature & Date)

Name
 Title

 Planning, Design & Construction
 (Print Name & Title)

Susan McFadden
 Senior Financial Analyst

 Planning, Design & Construction
 (Print Name & Title)

UNIVERSITY:

By: The Regents of the University of California
 University of California, Riverside

 (Signature & Date)

Drew Hecht, Architect
 Director of Project Management

 Planning, Design & Construction
 (Print Name & Title)

Account No.: _____

Activity Code: _____

Fund: _____

Function: _____

Cost Center: _____

Project Code: _____

Address: University of California, Riverside
Planning, Design & Construction
Attn: Contracts
1223 University Avenue, Suite 240
Riverside, CA 92521

Telephone Number: 951.827.4724

Facsimile Number: 951.827.4556

EXECUTIVE DESIGN PROFESSIONAL AGREEMENT
TABLE OF CONTENTS

COVER PAGE

ARTICLE 1 - GENERAL PROVISIONS

- 1.1 GENERAL REQUIREMENTS
- 1.2 DESIGN PROFESSIONAL STANDARD OF CARE
- 1.3 DEFINITIONS

ARTICLE 2 - BASIC SERVICES

- 2.1 GENERAL
- 2.2 SCHEMATIC DESIGN PHASE
- 2.3 DESIGN DEVELOPMENT PHASE
- 2.4 CONSTRUCTION DOCUMENTS PHASE
- 2.5 BIDDING PHASE
- 2.6 CONSTRUCTION PHASE
- 2.7 INDEPENDENT SEISMIC/STRUCTURAL REVIEW
- 2.8 SCHEDULE

ARTICLE 3 - ADDITIONAL SERVICES

ARTICLE 4 - UNIVERSITY RIGHTS AND RESPONSIBILITIES

- 4.1 ADMINISTRATION
- 4.2 PROVISION OF INFORMATION, SURVEYS, REPORTS, AND DATA

ARTICLE 5 - COMPENSATION

- 5.1 COMPENSATION FOR BASIC SERVICES
- 5.2 COMPENSATION FOR ADDITIONAL SERVICES OR FOR EXTENSIONS OF CONTRACT TIME
- 5.3 REIMBURSABLE EXPENSES

ARTICLE 6 - PAYMENTS

- 6.1 PAYMENTS FOR BASIC SERVICE
- 6.2 PAYMENTS FOR ADDITIONAL SERVICES AND REIMBURSABLE EXPENSES

ARTICLE 7 - DESIGN PROFESSIONAL'S RECORDS AND FILES

ARTICLE 8 - OWNERSHIP AND USE OF DOCUMENTS

- 8.1 DRAWINGS, SPECIFICATIONS, AND PRESENTATION MATERIALS
- 8.2 CONSTRUCTION DOCUMENTS
- 8.3 INDEMNIFICATION

ARTICLE 9 - DISPUTES

- 9.1 NEGOTIATION
- 9.2 MEDIATION
- 9.3 ARBITRATION OR LITIGATION
- 9.4 PERSONAL INJURY, WRONGFUL DEATH OR PROPERTY DAMAGE

ARTICLE 10 - INDEMNIFICATION AND INSURANCE

- 10.1 INDEMNIFICATION
- 10.2 INSURANCE REQUIREMENTS

ARTICLE 11 - STATUTORY REQUIREMENTS

- 11.1 NONDISCRIMINATION
- 11.2 PREVAILING WAGE RATES
- 11.3 PAYROLL RECORDS
- 11.4 APPRENTICES
- 11.5 WORK DAY

ARTICLE 12 - EXTENT OF AGREEMENT

- 12.1 AUTHORITY OF AGREEMENT
- 12.2 EXHIBITS
- 12.3 THIRD-PARTY BENEFICIARIES

ARTICLE 13 - FEDERAL AND STATE GRANTS

ARTICLE 14 - NOTICES

- 14.1 UNIVERSITY
- 14.2 DESIGN PROFESSIONAL

ARTICLE 15 - SUCCESSORS AND ASSIGNS

- 15.1 DESIGN PROFESSIONAL'S DEATH OR INCAPACITATION

ARTICLE 16 - TERMINATION OF AGREEMENT

- 16.1 UNIVERSITY-INITIATED TERMINATION
- 16.2 DESIGN PROFESSIONAL-INITIATED TERMINATION
- 16.3 DOCUMENTS AND MATERIALS

ARTICLE 17 - STATISTICAL REPORTING

EXECUTIVE DESIGN PROFESSIONAL AGREEMENT
between
THE REGENTS OF THE UNIVERSITY OF CALIFORNIA
and
COMPANY NAME

This AGREEMENT is made on _____ between The Regents of the University of California, a California Corporation, hereinafter called "University" and **Insert Company Name** hereinafter called "Design Professional".

{CONTINUE THE PARAGRAPH AFTER CHOOSING THE APPROPRIATE OPTION:

1. IF THE FIRM IS A CORPORATION, USE THE CORPORATE TITLE.
2. IF THE FIRM IS A PARTNERSHIP, LIST THE NAMES OF ALL OF THE PARTNERS. IF THE PARTNERSHIP IS OPERATING AS A "DOING BUSINESS AS (DBA)" FIRM, INCLUDE THE DBA NAME. FOR A GENERAL PARTNERSHIP, STIPULATE AFTER ALL LISTED NAMES THE TERM "Co-partners."
3. IF THE FIRM IS A SOLE PROPRIETORSHIP, LIST THE NAME OF THE INDIVIDUAL, FOLLOWED BY THE WORDS "An Individual." IF THE SOLE PROPRIETORSHIP IS OPERATING AS A DBA FIRM, INCLUDE THE DBA NAME.}

The above named individual or firm shall be the Executive Architect or Engineer and shall comply with the licensing laws of the State of California regarding the practice of Architecture or Engineering in performing the services set forth in this Agreement for the following project:

{NOTE:THE FACILITY NAME, PROJECT NUMBER, AND PROJECT NAME MUST BE THE SAME AS THOSE RECORDED FOR FUNDING PURPOSES.}

UNIVERSITY OF CALIFORNIA, RIVERSIDE

PROJECT NUMBER:

PROJECT NAME

PROJECT DESCRIPTION: Describe including approximate sq. ft.

CONSTRUCTION BUDGET: \$

ARTICLE 1 - GENERAL PROVISIONS

1.1 GENERAL REQUIREMENTS

1.1.1 This Agreement shall be governed by the laws of the State of California.

1.1.2 In the event of a conflict between the provisions of any exhibit (including attachments to an exhibit) to this Agreement and the Agreement, the provisions of this Agreement shall govern. In the event of a conflict between the provisions of any attachment to an exhibit and the exhibit, the provisions of the exhibit shall govern.

1.1.3 University's exercise of any of its rights or remedies prescribed in this Agreement shall not relieve Design Professional from responsibility for damages or other losses incurred or to be incurred by University as a result of Design Professional's breach of its obligation under this Agreement.

1.1.4 Time is of the essence for this Agreement.

1.1.5 Design Professional shall cooperate with University, its designees, and Contractor in furthering the interests of University.

1.1.6 Design Professional shall cooperate with other professionals University may employ for related work.

1.1.7 To the extent required by University, Design Professional shall consult with authorized employees, agents, and representatives of University relative to the design and construction of the Project.

1.1.8 Design Professional shall perform all services in compliance with applicable laws, codes, rules, regulations, ordinances, University policies, and Facility standards. University policies include without limitation those related to Seismic Safety and Sustainable Practices.

1.1.9 Services required by this Agreement include, at no additional cost to University, all services necessitated, in whole or in part, by errors and omissions of, or breach of this Agreement by, Design Professional, its subconsultants, or any person or entity working under Design Professional.

1.2 DESIGN PROFESSIONAL STANDARD OF CARE

1.2.1 Design Professional, its officers, agents, employees, subcontractors, subconsultants and any persons or entities for whom Design Professional is responsible, shall provide all services pursuant to this Agreement 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 the Project (including its contracting mode).

1.3 DEFINITIONS

Unless defined differently herein, terms used in this Agreement shall have the same meaning as those used in University's Bidding Documents, General Conditions in the Exhibits.

NOTE: EXHIBITS MUST ALSO INCLUDE THE FACILITY'S STANDARD SPECIFICATIONS, DIVISION 1, GENERAL REQUIREMENTS.

1.3.1 Agreement. The term "Agreement" means this Agreement, Supplemental Requirements, Exhibits,

Amendments, and all other documents identified in this Agreement which together form the agreement between University and the Design Professional for the Work. The Agreement constitutes the complete agreement between University and the Design Professional and supersedes any previous agreements or understandings.

1.3.2 Architect (or Engineer) of Record. The term "Architect of Record" or "Engineer of Record" shall mean the specific University-approved Design Professional named in this Agreement who is the Design Professional's designated principal or staff member in charge of providing all services required by this Agreement.

1.3.3 As-builts (As-built Drawings and Specifications). The term "As-builts" shall mean the marked-up version of the Contract Documents prepared by the construction Contractor to record as-built conditions, current changes, and selections made during construction.

1.3.4 Bidding Documents. The term "Bidding Documents" shall mean those documents prepared and furnished by University for the purpose of obtaining bids from contractors to construct the Project, including without limitation, the General Conditions and General Requirements attached in the Exhibits.

1.3.5 Construction Budget. The term "Construction Budget" shall mean University's written statement of funds available to pay for the cost of construction.

1.3.6 Construction Documents. The term "Construction Documents" shall mean the documents prepared and furnished by the Design Professional to be used for bidding the construction work for the Project.

1.3.7 Contract Documents. The term "Contract Documents" shall mean the Advertisement for Bids, Instructions to Bidders, Supplementary Instructions to Bidders, Bid Form, Agreement, General Conditions, Supplementary Conditions, Exhibits to the Construction Documents, Specifications, List of Drawings, Drawings, Addenda, Notice to Proceed, Change Orders, Notice of Completion and all other items identified as Contract Documents in the Construction Contract Agreement.

1.3.8 Coordination. The term "Coordination" shall mean that the documents shall be consistent and in conformance each part with all other parts.

1.3.9 Estimated Project Construction Cost. The term "Estimated Project Construction Cost" shall mean Design Professional's written estimate in the form specified by University in the Exhibits, of the total Construction Cost of the Project at the various stages of the design process.

1.3.10 Facility. The term "Facility" means the University of California, Riverside.

1.3.11 Project. The term "Project" means the project described on page 1 of this Agreement.

1.3.12 Project Architect (or Engineer). The term "Project Architect" or "Project Engineer" shall mean the specific University-approved Design Professional named in this Agreement who is the Design Professional's designated architect (or engineer) who is the first point of contact in providing all services required by this Agreement.

1.3.13 Project Program. The term "Project Program" shall mean a written statement in the Exhibits of University's design objectives, constraints, and criteria, including space requirements and relationships, flexibility and expendability, special equipment and systems, and Project site requirements.

1.3.14 Project Schedule. The term "Project Schedule" shall mean the schedule in the form in the Exhibits prepared by University showing project milestones, funding, design, design review, construction, and other deadlines applicable to the Project.

1.3.15 Record Documents. The term "Record Documents" shall mean those documents (including without limitation the updated version of the Construction Documents) prepared by the Design Professional incorporating Addenda, Change Orders and information from the As-Builts and other data furnished by Contractor to Design Professional.

1.3.16 University. The term "University" shall mean The Regents of the University of California.

1.3.17 University's Representative. The term "University's Representative" shall mean the person or entity providing University's Representative services as indicated in the Contract Documents including, but not limited to, issuance of written communications with the Contractor.

1.3.18 University's Designated Administrator. The term "University's Designated Administrator" shall mean the individual acting as University's Designated Administrator pursuant to Paragraph 4.1.1.

ARTICLE 2 - BASIC SERVICES

Basic Services to be provided by Design Professional include the services described in this Article 2 and as further described in the Supplemental Requirements in the Exhibits.

2.1 GENERAL

2.1.1 The services of Design Professional shall be performed in accordance with this Agreement and the Supplemental Requirements in the Exhibits.

2.1.2 To the extent deemed necessary by Design Professional, Design Professional shall employ architects, mechanical, electrical, structural, and civil engineers licensed as such by the State of California, and such other consultants necessary for the provision of services under this Agreement. All consultants provided under basic services shall be paid by Design Professional. Design Professional shall submit, for approval by University, names of consultants for each professional element of service of the Project. University-approved consultants provided under basic services shall be as named below:

| <u>Consultant Name</u> | <u>Discipline</u> |
|-------------------------------|--------------------------|
|-------------------------------|--------------------------|

(LIST THE NAMES AND DISCIPLINES OF UNIVERSITY-APPROVED CONSULTANTS)

Nothing in the foregoing shall create any contractual

relationship between University and any consultants employed by Design Professional under the terms of this Agreement. Design Professional is as responsible for the performance of its consultants as it would be if it had rendered these services itself.

2.1.3 Design Professional shall designate a principal or a staff member as the Project Architect or Project Engineer. So long as the Project Architect or Project Engineer performs in a manner acceptable to University, and remains in Design Professional's employ, the Project Architect or Project Engineer shall remain the first point of contact for all design and other services required under this Agreement, including attending design-related meetings for the Project, unless a substitution mutually acceptable to Design Professional and University is made. University-approved Project Architect or Project Engineer shall be the person named below:

Name of Project Architect or Engineer

Additionally, the University may require other individuals working for the Design Professional or its subconsultants to attend design-related meetings as requested by University.

2.1.4 Design Professional shall assist University in fulfilling the requirements of the authorities and funding agencies whose interests bear on the design, cost, and construction of the Project.

2.1.5 Design Professional shall abide by all regulations imposed by authorities having jurisdiction over the Project.

2.1.6 Design Professional shall review site surveys; existing record documents; seismic data; mechanical, geotechnical, and other test reports; environmental documents, and any other documentation furnished by University. From an examination of the site and a review of available information, Design Professional shall determine whether such data are sufficient for purposes of design or whether additional data are needed and, if so, recommend the manner in which it be provided and needed services obtained. Design Professional may rely on the information provided by University but only to the extent such reliance shall be consistent with Design Professional's obligations under this Agreement.

2.1.7 Review, approval or acceptance of Design Professional's work whether by University or others and whether during Schematic Design Phase, Design Development Phase, Construction Documents Phase, Bidding Phase, Construction Phase, Guarantee to Repair Period, or otherwise, shall not relieve Design Professional from responsibility for errors and omissions in Design Professional's work.

2.1.8 Design Professional shall, at no cost to University, satisfactorily correct any and all errors, omissions, deficiencies, or conflicts in the Construction Documents prepared by Design Professional or Design Professional's consultants promptly upon discovery or notice. The obligations of Design Professional to correct defective or nonconforming Work shall not in any way limit any other obligations of Design Professional.

2.2 SCHEMATIC DESIGN PHASE

2.2.1 Upon University's written direction to proceed, Design Professional shall provide Schematic Design Phase services described herein and in the Supplemental Requirements in the Exhibits including, without limitation, Schematic Design Documents for approval by University.

2.3 DESIGN DEVELOPMENT PHASE

2.3.1 Upon University's written direction to proceed, Design Professional shall provide Design Development Phase services, as described herein and in the Supplemental Requirements in the Exhibits and based on Schematic Design documents approved in writing by University and any written adjustments in the scope or quality of the Project or in the Construction Budget, including, without limitation, Design Development Documents for approval by University.

2.4 CONSTRUCTION DOCUMENTS PHASE

2.4.1 Upon University's written direction to proceed, Design Professional shall provide Construction Documents Phase services, as described herein and in the Supplemental Requirements in the Exhibits and based on Design Development documents approved in writing by University and any written adjustments in the scope or quality of the Project or in the Construction Budget, including, without limitation, Construction Documents for approval by University.

2.4.2 The Drawings and Specifications shall be consistent with the University's General Conditions in the Exhibits and the Division 1 tailored for the Project including but not limited to any Facility requirements.

2.5 BIDDING PHASE

2.5.1 Upon University's written direction to proceed, Design Professional shall provide Bidding Phase services as described herein and in the Supplemental Requirements in the Exhibits.

2.5.2 If the lowest responsive total bid price received exceeds the Construction Budget **10%**, University may, at its discretion, (1) authorize rebidding of the Project within a reasonable period of time; or (2) require Design Professional, at Design Professional's expense, to modify the Project design and the Construction Documents in order to reduce the Estimated Project Construction Cost to a level that falls within the Construction Budget. Modifications proposed by Design Professional shall require University's written approval prior to incorporation into the revised documents.

2.6 CONSTRUCTION PHASE

2.6.1 Upon University's written direction to proceed, Design Professional shall provide Construction Phase services as described herein and in the Supplemental Requirements in the Exhibits.

2.6.2 The Construction Phase will commence on the date the Agreement between University and Contractor is signed by University and will terminate one year after Notice of Completion or Notice of Cessation, or in the absence of either a Notice of Completion or Notice of Cessation, one year after Final Completion.

2.6.3 Except as otherwise provided in the Contract Documents or as directed by University, all written communications with Contractor shall be sent and received by University's Representative.

2.6.4 Design Professional shall render design interpretations of, and design decisions regarding, the Contract Documents that are necessary for the proper execution or progress of the Work including provision of clarifications and interpretations of the Contract Documents that are consistent with the intent of the documents but which do not involve a change in the scope of the Work. Such clarifications and interpretations shall not involve an adjustment of the Contract Sum or an extension of the Contract Time.

2.6.5 Design Professional shall not be responsible for construction means, methods, techniques, sequences, procedures, or safety precautions and programs in connection with the Work, unless Design Professional specifies, directs, recommends or approves such means, methods, techniques, sequences, procedures, or safety precautions/ programs.

2.6.6 Design Professional shall prepare drawings and specifications needed to issue Field Orders and Change Orders as required by the Supplemental Requirements in the Exhibits.

{FACILITY HAS THE OPTION TO USE 2.6.7 OR TO LEAVE PREPARATION OF CHANGE ORDERS AS ADDITIONAL SERVICES.

2.6.7 No additional compensation shall be paid to Design Professional for the preparation of Change Orders, including the preparation of Drawings, Specifications, and supporting data and other services required in connection with the preparation of Change Orders until the total cumulative value (calculated by adding the absolute values of both additive and deductive changes not caused, in whole or in part, by Design Professional errors or omissions) exceeds % of the Contract Sum.

2.6.8 Design Professional shall provide Record Documents as described herein and in the Supplemental Requirements in the Exhibits.

2.6.9 Design Professional shall review the Work at 11 months after Substantial Completion or Final Completion, as applicable, and shall make written recommendations to University for the correction of any deficiencies as required by the Supplemental Requirements in the Exhibits. Dates for inspections shall be as mutually agreed by the parties within the 11th month time frame. The number of work hours associated with the on-site review and preparation of written recommendations shall not exceed hours excluding review and preparation necessitated in whole or in part by Design Professional's errors and omissions.

2.7 INDEPENDENT SEISMIC/STRUCTURAL REVIEW

2.7.1 This Project is subject to an independent seismic/structure review conducted by University and at University expense. Design Professional shall attend meetings as necessary to resolve all seismic issues. Design Professional shall present Drawings and other items as necessary to describe the Project design.

2.8 SCHEDULE

2.8.1 Design Professional acknowledges that all time limits stated in this Agreement are of the utmost importance to University. Design Professional shall meet the Project Schedule, which may be revised from time to time by mutual agreement, for completion of Design Professional's services.

2.8.2 Design Professional shall submit its proposed work plan for the performance of Design Professional's services within 5 calendar days following the later of (1) the execution date of this Agreement, or (2) the date on which University authorizes Design Professional to begin performing Schematic Design Phase services. Design Professional's work plan shall include without limitation, a schedule for how Design Professional will comply with the Project Schedule.

Design Professional's work plan shall include allowances for the periods of time required for University's review and approval of submissions and for approvals by authorities having jurisdiction over the Project. Design Professional's work plan, when approved by University, shall not be exceeded by Design Professional except when University and Design Professional mutually agree, in writing, to a revised Project Schedule.

2.8.3 The total time scheduled for full completion of Design Professional's services for each phase of the Project shall not exceed the durations listed in the Project Schedule, unless mutually agreed upon in writing by Design Professional and University. The durations for University review period listed in the Project Schedule shall be computed from the date on which a clear, complete submittal is received by University. University's failure to meet its commitment to provide written requested information or to review within the stipulated time frames shall be cause for an adjustment in the Project Schedule. However, submittals received for review that are rejected, in writing, as not meeting the deliverables required by submittal requirements of this Agreement and the attachments thereto, shall not be cause for adjustment of the Project Schedule, and any such delay caused by such rejected submittals shall be at the sole responsibility of Design Professional.

ARTICLE 3 - ADDITIONAL SERVICES

Unless required in Article 2 of this Agreement or in the Supplemental Requirements to be performed as part of Basic Services, the services described in this Agreement and the Supplemental Requirements are Additional Services. These Additional Services shall be paid for by University, as provided in this Agreement, in addition to the compensation for Basic Services. Design Professional shall provide Additional Services only when and as authorized in a written Amendment signed by University. No Additional Services shall be compensable unless so authorized.

ARTICLE 4 - UNIVERSITY RIGHTS AND RESPONSIBILITIES

4.1 ADMINISTRATION

4.1.1 University shall designate, in writing, an Administrator who will act on behalf of University with respect to this Agreement. Design Professional shall accept directives only from University's Designated Administrator and not from other University employees or consultants. University may replace University's Designated Administrator

at its sole option; if this replacement is made, University shall notify Design Professional in writing.

4.1.2 University shall designate, in writing, prior to bidding, a University's Representative.

4.2 PROVISION OF INFORMATION, SURVEYS, REPORTS, AND DATA

4.2.1 University shall have the right to make changes to the Project Program. When such changes increase the duties of Design Professional beyond those reasonably and customarily provided in Basic Services, Design Professional shall be compensated in accordance with this Agreement.

4.2.2 University shall have the right to make reasonable changes to its Bidding Documents and Contract Documents, and Design Professional shall be bound by such changes. When such changes increase the duties of Design Professional, beyond those reasonably and customarily provided in Basic Services, Design Professional shall be compensated in accordance with this Agreement.

4.2.3 University shall furnish structural, mechanical, electrical, chemical, soils, and other tests, inspections, and reports as required by law or by the Contract Documents, which are not required to be furnished by Contractor under the Contract Documents.

4.2.4 University shall update the Project Schedule as dates and durations applicable to the Project such as funding deadlines, review periods, anticipated periods of Project suspension, and construction deadlines become known.

4.2.5 If required for the performance of Design Professional's services, University shall furnish an accurate land survey of the Project site, giving, as applicable, grades and lines of streets, alleys, pavements, and adjoining property; rights-of-way, restrictions, easements, encroachments, zoning, deed restrictions, boundaries, and contours of the site; locations, dimensions, and floor elevations pertaining to existing buildings, other improvements, and trees; and information in University's possession concerning available service and utility lines, both public and private.

4.2.6 University shall furnish geotechnical data when these data are reasonably deemed necessary by Design Professional, including test logs, soil classifications, soil bearing values, and other data necessary to define subsoil conditions.

4.2.7 The University shall have the right to require Design Professional and its subconsultants to participate in meetings and provide documents and data (in addition to those required by Basic Services) and to perform Additional Services, pursuant to this Agreement, whether or not such Additional Services are described in the Agreement or the Supplemental Requirements.

4.2.8 The services, information, surveys, reports, and Additional Services required by this Article 4 shall be furnished at University's expense.

ARTICLE 5 - COMPENSATION

University will compensate Design Professional for the scope of services provided, in accordance with this Article 5 and with the other terms and conditions of this Agreement, as follows:

5.1 COMPENSATION FOR BASIC SERVICES

5.1.1 The fee for Basic Services shall be computed as follows:

For services rendered in accordance with this Agreement, the basis for compensation shall be a lump-sum fee in the amount stated in the Compensation Schedule Exhibit, payable upon completion of each Project phase, after the review and approval by University, in accordance with the Compensation Schedule. As an alternative to payment at the completion of each phase, with University's prior approval, monthly payments based on the percentage of completion may be made, not to exceed the total fee due for each phase.

5.2 COMPENSATION FOR ADDITIONAL SERVICES OR FOR EXTENSION OF CONTRACT TIME

5.2.1 For the Additional Services of Design Professional, as described in Article 3, including the Additional Services of consultants, compensation shall be in accordance with the Rate Schedule in the attached Exhibits.

5.2.2 If the Contract Time initially established in the Contract Documents at the time of award is exceeded or extended by a number of days in excess of **60** calendar days through the fault of University or Contractor and through no fault of Design Professional, compensation for any Basic Services provided during this extended period of the construction phase of the construction contract shall be adjusted to compensate Design Professional for any additional costs reasonably incurred by Design Professional as the result of such delay, provided University has approved such adjustments in advance. These extended Basic Services shall be approved, in an Amendment, by University and shall not include Basic Services that would have been performed under this Agreement had the initial Contract Time not been substantially exceeded or extended.

5.2.3 If the Work of the Project is suspended or abandoned for more than **90** consecutive calendar days, and such suspension was not scheduled at the beginning of the Project, as provided under Subparagraph 4.2.4, Design Professional shall be compensated for all authorized services performed prior to the receipt of written notice from University of such suspension or abandonment, together with Reimbursable Expenses then due. If the Project is resumed after being suspended for more than **90** consecutive calendar days, Design Professional's compensation shall be adjusted as mutually agreed to compensate Design Professional for any additional costs reasonably incurred as the result of the suspension.

5.3 REIMBURSABLE EXPENSES

5.3.1 For Reimbursable Expenses, as described in this Paragraph 5.3, only actual costs {OPTION: plus a 10% handling fee} will be reimbursed. Paid invoices or other

proof of payment as required in Article 6 shall be submitted when requesting reimbursement.

5.3.2 Reimbursable Expenses are paid in addition to the compensation for Basic and Additional Services and are actual expenditures made by Design Professional and Design Professional's consultants in the interest of the Project pursuant to the Reimbursement Schedule in the Exhibits.

ARTICLE 6 - PAYMENTS

6.1 PAYMENTS FOR BASIC SERVICES

6.1.1 Payments for Basic Services, as defined in Article 2, shall be made as stipulated in Subparagraph 5.1.1 upon receipt of a statement of services rendered from Design Professional. Each statement of services rendered must include: (1) the Project Name and Number, (2) the contract number of this Agreement, (3) the fee billed for the phase with dates of services and a description of services performed, (4) a copy of the approved payment schedule, if the University approved an alternative monthly payment schedule, and (5) any other supporting documentation required by the Agreement. All overtime premiums and project related overhead or administrative expenses, except for reimbursable expenses as provided in the Agreement, are Design Professional's responsibility and are considered included in the fee for Basic Services.

6.2 PAYMENTS FOR ADDITIONAL SERVICES AND REIMBURSABLE EXPENSES

6.2.1 Payments for Design Professional's Additional Services, as defined in Article 3, and for Reimbursable Expenses, as defined in Paragraph 5.3, shall be made monthly after presentation of Design Professional's statement of services rendered, or expenses incurred. Each statement of services rendered, or expenses incurred, must include: (1) the Project Name and Number, (2) the contract number of this Agreement, (3) itemized fees and authorized reimbursable expenses for the month billed, including dates of services, description of services performed with associated hours and billing rates, and supporting timesheets, invoices, receipts and any other justification thereof.

6.2.2 Payments related to Paragraph 5.2.2 shall be made monthly after presentation of Design Professional's statement of services rendered, or expenses incurred. Each statement of services rendered, or expenses incurred, must include: (1) the Project Name and Number, (2) the contract number of this Agreement, (3) itemized fees and authorized reimbursable expenses for the month billed, including dates of services, description of services performed with associated hours and billing rates, and supporting timesheets, invoices, receipts and any other justification thereof unless otherwise agreed in writing by the parties thereto.

6.3 BILLING ADDRESS AND OTHER BILLING INFORMATION

6.3.1 University's billing address:

Attn: Maritza Robinson
UNIVERSITY OF CALIFORNIA, RIVERSIDE
Design & Construction

3615-A Canyon Crest Drive, D-102
Riverside, CA 92507

6.3.2 All fees paid on an hourly rate basis shall be in accordance with the Rate Schedule contained in the Exhibits. Unless otherwise provided in the Rate Schedule, rates shall not be changed except as mutually agreed in an Amendment.

6.3.3 For Paragraph 6.2, overtime premiums will not be allowed for exempt service professionals. Authorized overtime will be compensated at straight-time rates unless provided otherwise in the Rate Schedule in the Exhibits.

6.3.4 All amounts billed will be subject to verification by University's Representative.

6.3.5 Payments will not be made for services performed in advance of the Agreement effective date unless such services are authorized by the University in writing in advance.

6.3.6 Design Professional must complete and sign an IRS Form W-9, and send it to University at the above billing address.

6.3.7 Statements of services rendered, or expenses incurred, that do not conform to the requirements of this Agreement will be returned to Design Professional for revision.

ARTICLE 7 - DESIGN PROFESSIONAL'S RECORDS AND FILES

7.1.1 Books and records relating to this Agreement shall be maintained in accordance with generally accepted accounting principles. University or University's authorized representative shall have access to, the right to audit and the right to copy pertinent parts of Design Professional and Design Professional's consultants' books and records. Such records shall include but not be limited to accounting records (hard copy, as well as computer readable data); contracts; payroll records; subconsultant agreements; vendor agreements; purchase orders; leases; original estimates; estimating work sheets; correspondence; receipts; invoices; notices of insurance premiums due and proof of insurance premium rates; memoranda; and any other supporting evidence deemed necessary to substantiate any charges, whether fee, rate or reimbursable expense, under this Agreement. All such books and records shall be preserved for a period of at least 3 years from the date of Final Payment under this Agreement.

7.1.2 Design Professional and Design Professional's consultants shall make their files available for inspection and copying by University upon reasonable notice.

7.1.3 Design Professional shall include appropriate language in consultant's agreements to enforce the provision of Paragraph 7.1.2.

ARTICLE 8 - OWNERSHIP AND USE OF DOCUMENTS

8.1 DRAWINGS, SPECIFICATIONS, AND PRESENTATION MATERIALS

8.1.1 Drawings and Specifications shall become the property of University, whether or not the Project for which they are made is executed. Design Professional shall be permitted to retain copies, including reproducible copies, of

the Drawings and Specifications for information and reference except as provided in Paragraph 8.2. Neither University nor Design Professional shall use the Drawings and Specifications as a whole or in substantial part on other projects, but either may reuse details of the Drawings for other projects.

8.1.2 All presentation drawings, slides, and models shall become and remain the property of University.

8.2 CONSTRUCTION DOCUMENTS

8.2.1 Design Professional, upon request, shall provide copies of the Construction Documents in the number required by University for bidding and construction purposes; the reproduction expense shall be borne by University. University reserves the right to select the type of document reproduction and to establish where the reproduction will be accomplished.

8.2.2 University may use the Construction Documents, without Design Professional's consent, on in connection with the Project, including without limitation, future additions, expansions, renovations, alterations, connections, repairs, information, reference, use, or occupancy.

8.2.3 Except as provided in Subparagraphs 8.2.1 and 8.2.2 University will not use the Construction Documents for another project without Design Professional's written consent.

8.3 INDEMNIFICATION

8.3.1 University will defend, indemnify and save harmless Design Professional, its officers, agents and employees from any costs or claims for damages arising from University's use, on other projects, of the Construction Documents, the Drawings and Specifications, or the designs depicted in them. As used in this Article 8, the use "on other projects" does not include any of the uses specified in Subparagraph 8.2.2.

8.3.2 Notwithstanding Paragraph 8.3.1, University will not defend, indemnify or save harmless Design Professional, its officers, agents, or employees from any costs or claims asserted or imposed by any person or entity claiming that University's use of the Construction Documents, the Drawings and Specifications, or the designs depicted in them is contrary to or in violation of any copyright, patent, trade secret, trade name, trademark, or any proprietary, contractual or legal right pertaining to their use.

ARTICLE 9 - DISPUTES

9.1 NEGOTIATION

9.1.1 The parties will attempt in good faith to resolve any controversy or Claim arising out of or relating to this Agreement by negotiation.

9.2 MEDIATION

9.2.1 Within 60 days, but no earlier than 30 days, following the earlier of (1) receipt of notice by the other party from the American Arbitration Association (AAA) of the disputing party's demand for arbitration or (2) receipt by the other party of the disputing party's notice of election to litigate, the parties shall submit the matter to non-binding mediation administered by the AAA under its construction industry mediation rules, unless waived by mutual stipulation

of both parties.

9.3 ARBITRATION OR LITIGATION

Disputes arising from this Agreement between Design Professional and University which cannot be settled through negotiation or mediation shall be subject to arbitration or litigation as follows

9.3.1 Arbitration with Contractor. If any claim arises under the construction Contract Documents for the Project and is submitted to arbitration, and either Contractor or University claims that the acts or omissions of Design Professional are involved, in whole or in part, any claim by University against Design Professional arising out of or in connection therewith may be asserted, at the option of University, against Design Professional in the same arbitration proceeding which shall be conducted under the procedures specified in the General Conditions of the construction contract.

9.3.2 Litigation with Contractor. If any claim arises under the construction Contract Documents for the Project and is submitted to litigation, and either Contractor or University claims that the acts or omissions of Design Professional are involved, in whole or in part, any claim by University against Design Professional arising out of or in connection therewith may be asserted, at the option of University, against Design Professional in the same litigation.

9.3.3 Arbitration without Contractor. Disputes arising from this Agreement between Design Professional and University which cannot be settled through negotiation or mediation, and which are not resolved by arbitration or litigation pursuant to Subparagraphs 9.3.1. and 9.3.2 shall be subject to arbitration without Contractor 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 Rules of the AAA:

- .1 Civil discovery shall be permitted for the production of documents and taking of depositions. Other discovery may be permitted in 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.
- .3 Concurrent disputes subject to this Subparagraph 9.3.3 shall be consolidated into a single arbitration unless the parties otherwise agree in writing.
- .4 No hearing shall be held prior to final completion of the Project unless University and Design Professional otherwise agree in writing.
- .5 The exclusive forum for determining arbitrability shall be the Superior Court of the State of California.
- .6 If total claims are less than \$50,000, AAA expedited procedures as modified by this Article 9 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, the controversy shall be

heard by a panel of 3 arbitrators, one of which shall be an attorney.

- .7 The AAA shall submit simultaneously to each party to the dispute an identical list of at least 10 names of persons chosen from the National Panel of Commercial Arbitrators, and each party to the dispute shall have 10 days from the date of receipt in which to cross off any names objected to, number the remaining names in order of preference and return the list to AAA. If the expedited procedures of the AAA are applicable, the AAA shall submit simultaneously to each party an identical list of 5 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.

Unless University and Design Professional otherwise agree in writing, the arbitration decision shall be made under and in accordance with the laws of the State of California, supported by substantial evidence. 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, verification 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.

9.4 PERSONAL INJURY, WRONGFUL DEATH OR PROPERTY DAMAGE

9.4.1 Claims for personal injury, wrongful death, or property damage (other than property damage to University) shall not be subject to arbitration under Paragraph 9.3.3.

ARTICLE 10 - INDEMNIFICATION AND INSURANCE

10.1 INDEMNIFICATION

10.1.1 Design Professional shall indemnify, defend, and hold harmless University and its Regents, officers, employees, agents, and representatives (collectively, "Indemnitee"), against all liability, demands, claims, costs, damages, injury including death, settlements, and expenses (including without limitation, interest and penalties) incurred by Indemnitee ("Losses") arising out of the performance of services or Design Professional's other obligations under this Agreement, but only in proportion to and to the extent such Losses are caused by or result from (1) the negligent acts or omissions of Design Professional, its officers, employees, subcontractors, consultants, or any person or entity for whom Design Professional is responsible (collectively, "Indemnitor"); (2) the breach by Indemnitor of any of the provisions of this Agreement; or (3) willful misconduct by Indemnitor.

10.1.2 The indemnification obligations under this Article 10 shall not be limited by any assertion or finding that (1) the

person or entity indemnified is liable by reason of non-delegable duty, or (2) the Losses were caused in part by the negligence of, breach of contract by, or violation of law by Indemnitee. The obligation to defend shall arise regardless of any claim or assertion that Indemnitee caused or contributed to the Losses. Indemnitor's reasonable defense costs (including attorney and expert fees) incurred in providing a defense for Indemnitees shall be reimbursed by University except to the extent such defense costs arise, under principles of comparative fault, from Indemnitor's (a) negligent acts or omissions; (b) breach of any of the provisions of this Agreement; or (c) willful misconduct.

10.1.3 Design Professional shall indemnify, defend, and save harmless Indemnitee from and against all loss, cost, expense, royalties, claims for damages or liability, in law or in equity, including, without limitation, attorney's fees, court costs, and other litigation expenses that may at any time arise or be set up for any infringement (or alleged infringement) of any patent, copyright, trade secret, trade name, trademark or any other proprietary right of any person or entity in consequence of the use on the Project by Indemnitee of the design or construction documents (including any method, process, product, concept specified or depicted) supplied by Indemnitor in the performance of this Agreement.

10.1.4 Nothing in this Agreement, including the provisions of this Article 10, shall constitute a waiver or limitation of any rights which Indemnitee may have under applicable law, including without limitation, the right to implied indemnity.

10.2 INSURANCE REQUIREMENTS

Design Professional, at Design Professional's sole cost and expense, shall insure its activities in connection with this Agreement and shall obtain, keep in force, and maintain insurance as listed below. The coverages required under Paragraph 10.2 shall not in any way limit the liability of Design Professional.

10.2.1 Commercial-Form General Liability Insurance with coverage and minimum limits as follows:

| | |
|---|--------------------|
| .1 Each Occurrence | \$1,000,000 |
| .2 Products Completed, Operations Aggregate | \$1,000,000 |
| .3 Personal and Advertising Injury | \$1,000,000 |
| .4 General Aggregate | \$2,000,000 |

10.2.2 Business Automobile Liability Insurance for owned, scheduled, non-owned, or hired automobiles, with a combined single limit of no less than **\$1,000,000** per accident.

10.2.3 Professional Liability Insurance, with limits of **\$1,000,000** per claim and **\$2,000,000** in the aggregate. At the option of the University and in its sole discretion, the University may require Design Professional to purchase project specific professional liability insurance for the Project as a reimbursable cost with the minimum limits.

10.2.4 If the above insurance (Subparagraphs 10.2.1-10.2.3) is written on a claims-made basis, it shall be maintained continuously for a period of no less than 3 years

after the date of Final Completion. The insurance shall have a retroactive date of placement prior to or coinciding with the date services are first provided that are governed by the terms of this Agreement and shall include, without limitation coverage for professional services as called for in this Agreement. Insurance required by Subparagraphs 10.2.1-10.2.3 shall be (i) issued by companies that have 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).

10.2.5 Workers' Compensation as required by law in the state in which work is performed and Employer's Liability insurance with coverage and minimum limits as follows:

| | |
|---------------|-------------|
| Each Employee | \$1,000,000 |
| Each Accident | \$1,000,000 |
| Policy Limit | \$1,000,000 |

Insurance required by this Subparagraph 10.2.5 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.

10.2.6 Design Professional, upon the execution of this Agreement, shall furnish University with Certificate of Insurance evidencing compliance with this Article 10, including the following requirements:

- .1 Design Professional shall have the insurance company complete University's form, Certificate of Insurance in the Exhibits. It alone constitutes evidence of insurance.
- .2 Provide that coverage cannot be canceled without 10 days advance written notice to University.
- .3 If insurance policies are canceled for non-payment, University reserves the right to maintain policies in effect by continuing to make the policy payments and assessing the cost of so maintaining the policies against Design Professional.
- .4 The General Liability Insurance policy and the Business Automobile Liability Insurance policy shall name The Regents of the University of California as an Additional Insured. As respects Professional Liability include Contractual Liability Coverage or endorsements to the insurance policies for Contractual Liability Coverage.
- .5 All insurance policies shall apply to the negligent acts, or omissions of Design Professional, its officers, agents, employees, and for Design Professional's legal responsibility for the negligent acts or omissions of its consultants and anyone directly or indirectly under the control, supervision, or employ of Design Professional or Design Professional's consultants.

ARTICLE 11 - STATUTORY AND OTHER REQUIREMENTS

11.1 NONDISCRIMINATION

11.1.1 In connection with the performance of Design Professional pursuant to this Agreement, Design

Professional will not willfully discriminate against any employee or qualified applicant for employment because of race, color, religion, ancestry, national origin, sex, age, sexual orientation, physical disability, veteran's status, medical condition (as defined in Section 12926 of the California Government Code), marital status, or citizenship (within the limits imposed by law or by The Regents' policy) regardless of local custom, habit, or otherwise. Design Professional will take affirmative action to ensure that qualified applicants are employed, and that employees are treated during employment, without regard to their race, color, religion, ancestry, national origin, sex, age, sexual orientation, physical disability, veteran's status, medical condition (as defined in Section 12926 of the California Government Code), marital status, or citizenship (within the limits imposed by law or by The Regents' policy). This equal treatment shall apply, but shall not be limited to, the following: upgrade, demotion, or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeships.

11.2 PREVAILING WAGE RATES

11.2.1 For purposes of the Article, the term subcontractor or consultant shall not include suppliers, manufacturers, or distributors.

11.2.2 Design Professional shall comply and shall ensure that all subcontractors or consultants comply with Section 1770, and the applicable sections that follow, including Section 1775 of the State of California Labor Code. References to "Covered Services" hereinafter shall mean services performed pursuant to this Agreement that are covered by the aforementioned provisions as implemented by the State of California Department of Industrial Relations.

11.2.3 The State of California Department of Industrial Relations has ascertained the general prevailing per diem wage rates in the locality in which the Project is to be performed for each craft, classification, or type of worker required to perform the Covered Services hereunder. A schedule 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. By this reference, such schedule is made part of the Agreement. Design Professional shall pay not less than the prevailing wage rates, as specified in the schedule and any amendments thereto, to all workers employed by Design Professional in the execution of the Covered Services hereunder. Design Professional shall cause all subcontracts or consultant agreements to include the provision that all subcontractors or consultants shall pay not less than the prevailing rates to all workers employed by such subcontractor or consultants in the execution of the Covered Services hereunder. Design Professional shall forfeit to University, as a penalty, not more than \$50 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 Covered Services hereunder performed by Design Professional or any subcontractor or consultant. The amount of this penalty shall be determined by the Labor Commissioner pursuant to applicable law. Such forfeiture amounts may be deducted from the Design Professional's fee. Design Professional

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 Covered Services hereunder, 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.

11.3 PAYROLL RECORDS

11.3.1 Design Professional and all subcontractors or consultants 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, or other employee employed in connection with the Covered Services hereunder. All payroll records shall be certified as being true and correct by Design Professional or subcontractors or consultants keeping such records; and the payroll records shall be available for inspection at all reasonable hours at the principal office of Design Professional 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 record 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 Design Professional or subcontractors or consultants. 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 Design Professional awarded the Agreement or performing the Agreement shall not be marked or obliterated.

11.3.2 Design Professional 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. Design Professional shall inform University of the location of such payroll records for the Project, including the street address, city, and county; and Design Professional shall, within 5 working days, provide notice of change of location of such records. In the event of noncompliance with the requirements of Paragraph 11.3 or with the State of California Labor Code Section 1776, Design Professional shall have 10 days in which to comply following receipt of notice specifying in what respects Design Professional must comply. Should noncompliance still be evident after the 10-day period, Design Professional shall forfeit to University, as

a penalty, \$25 for each day, or portion thereof, for each worker, until strict compliance is accomplished. Such forfeiture amounts may be deducted from the Design Professional's fee.

11.4 APPRENTICES

11.4.1 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 Design Professional and subcontractors or consultants as apprentices for the Covered Services hereunder. 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.

11.4.2 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 for the Covered Services hereunder in the craft or trade to which the apprentice is indentured.

11.4.3 When Design Professional or subcontractors or consultants employ workers in any apprenticeship craft or trade for the Covered Services hereunder, Design Professional or subcontractors or consultants shall 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 Design Professional or subcontractors or consultants 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 journeyworkers who shall be employed in the craft or trade on the Covered Services hereunder. 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 each 5 hours of journeyworker work, except as permitted by law. Design Professional or subcontractors or consultants 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 journeyworkers fixed in the certificate issued by the joint apprenticeship committee or present an exemption certificate issued by the Division of Apprenticeship Standards.

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

11.4.5 If Design Professional or subcontractors or consultants employ journeyworkers 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, Design Professional and subcontractors or consultants shall contribute to the fund or funds in each craft or trade in which they employ journeyworkers or apprentices on the Covered Services hereunder in the same amount or upon the same basis and in the same manner done by the

other contractors. Design Professional may include the amount of such contributions in computing its compensation under the Agreement; but if Design Professional fails to do so, it shall not be entitled to any additional compensation therefore from University.

11.4.6 In the event Design Professional willfully fails to comply with this Paragraph 11.4, it will be considered in violation of the requirements of the Agreement.

11.4.7 Nothing contained herein shall be considered or interpreted as prohibiting or preventing the hiring by Design Professional or subcontractors or consultants of journeyworker trainees who may receive on-the-job training to enable them to achieve journeyworker status in any craft or trade under standards other than those set forth for apprentices.

11.5 WORK DAY

11.5.1 Design Professional shall not permit any worker providing Covered Services 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. Design Professional shall forfeit to University, as a penalty, \$25 for each worker employed in the execution of the Agreement by Design Professional, or any subcontractors or consultant, for each day during which such worker is required or permitted to work providing Covered Services more than 8 hours in any 1 day and 40 hours in any 1 calendar week in violation of the terms of this Paragraph or in violation of the provisions of any law of the State of California. Such forfeiture amounts may be deducted from the compensation otherwise due under this Agreement. Design Professional and each subcontractor or consultant 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 under this Agreement, 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 12 - EXTENT OF AGREEMENT

12.1 AUTHORITY OF AGREEMENT

12.1.1 This Agreement represents the entire and integrated agreement between University and Design Professional and supersedes all prior negotiations, representations, or agreements, either written or oral. This Agreement may be amended only by a written instrument in the form of the Amendment in the Exhibits signed by both University and Design Professional.

12.2 EXHIBITS

12.2.1 The following exhibits are attached and are incorporated and made part of this Agreement:

- .1 Amendment
- .2 Campus Design Guidelines
- .3 Certificate of Insurance
- .4 Compensation Schedule
- .5 Constructability Analysis / Quality Assurance
- .6 Estimated Project Construction Cost Format
- .7 Facilities Management System CAD Standards

- .8 Facilities Management System Room Numbering Standards
- .9 Final Distribution of Contract Dollars
- .10 Project Program
- .11 Project Schedule
- .12 Proposal
- .13 Rate Schedule
- .14 Regulatory Agencies & Approval Requirements
- .15 Reimbursement Schedule
- .16 Self-Certification
- .17 Supplemental Requirements
- .18 Sustainability Score Sheet (New Construction / Major Renovation OR Renovation)
- .19 University's Bidding Documents, General Conditions & Specifications Division 1, General Requirements
- .20 Value Engineering Program

12.3 THIRD-PARTY BENEFICIARIES

Nothing contained in this Agreement is intended to make the construction Contractor or any construction Subcontractor (regardless of tier), any employee or agent of the construction Contractor or any Subcontractor or any person, including any consultant of Design Professional (regardless of tier), a third-party beneficiary of any obligations between University and Design Professional.

ARTICLE 13 - FEDERAL AND STATE GRANTS

In the event that a federal or state grant or other federal or state financing is used in the funding of this Project, Design Professional shall permit the funding agency or its designee access to, and grant the funding agency the right to examine, documents covering the services performed under this Agreement. Design Professional shall comply with applicable federal or state agency requirements including, but not limited to, the requirements regarding hours, overtime compensation, nondiscrimination, and contingent fees.

ARTICLE 14 - NOTICES

14.1 UNIVERSITY

14.1.1 Any notice may be served upon University by delivering it, in writing, to University at the address set forth on the last page of this Agreement, or by depositing it in a United States Postal Service deposit box with the postage fully prepaid and with the notice addressed to University at the address set forth on the last page of this Agreement, or by sending a facsimile of the notice to University's facsimile number set forth on the last page of this Agreement. Notice is effective only if and when it is actually received.

14.2 DESIGN PROFESSIONAL

14.2.1 Any notice may be served upon Design Professional by delivering it, in writing, to Design Professional at the address set forth on the last page of this Agreement, by depositing it in a United States Postal Service deposit box with the postage fully prepaid and with the notice addressed to Design Professional at the address set forth on the last page of this Agreement, or by sending a facsimile of the notice to Design Professional's facsimile number set

forth on the last page of this Agreement. Notice is effective only if and when it is actually received.

ARTICLE 15 - SUCCESSORS AND ASSIGNS

This Agreement shall be binding upon University and Design Professional and their respective successors and assigns. Neither the performance of this Agreement, nor any part thereof, nor any monies due or to become due hereunder, may be assigned by Design Professional without the prior written consent and approval of University.

15.1 DESIGN PROFESSIONAL'S DEATH OR INCAPACITATION

15.1.1 If Design Professional transacts business as an individual, upon Design Professional's death or incapacitation, University may, at its option, terminate this Agreement as of the date of such event. If so terminated, neither Design Professional, nor Design Professional's estate shall have any further right to perform hereunder, and University shall pay Design Professional or the estate the compensation payable under Article 5 for any services rendered prior to this termination not theretofore paid. This compensation shall be reduced by the amount of additional costs that will be incurred by University by reason of this termination.

15.1.2 If there is more than one Design Professional, and any one of them dies or becomes incapacitated, and the others continue to render the services covered herein, University will make payments to those continuing as though there had been no such death or incapacitation; University will not be obliged to take any account of the person who died or became incapacitated, or to make any payment to this person or this person's estate. These provisions shall apply in the event of progressive or simultaneous occasions of death or incapacitation among any group of persons named as Design Professional herein if death or incapacitation befalls the last member of this group before the services under this Agreement are fully performed, then the rights set forth under Subparagraph 15.1.1 shall apply.

ARTICLE 16 - TERMINATION OF AGREEMENT

16.1 UNIVERSITY-INITIATED TERMINATION

16.1.1 If University determines that Design Professional has failed to perform in accordance with the terms and conditions of this Agreement, University may terminate all or part of the Agreement for cause. This termination shall be effective if Design Professional does not cure its failure to perform within 10 days (or more, if authorized in writing by University) after receipt of a notice of intention to terminate from University specifying the failure in performance. If a termination for cause does occur, University will have the right to withhold monies otherwise payable to Design Professional until the Project is completed. If University incurs additional costs, expenses, or other damages due to the failure of Design Professional to properly perform pursuant to the Agreement, these costs, expenses, or other damages shall be deducted from the amounts withheld. Should the amounts withheld exceed the amounts deducted, the balance will be paid to Design Professional upon completion of the Project. If the costs, expenses, or other damages incurred by University exceed the amounts

withheld, Design Professional shall be liable to University for the difference.

16.1.2 University may terminate this Agreement for convenience at any time upon written notice to Design Professional, in which case University will pay Design Professional in full for all services performed and all expenses incurred under this Agreement up to and including the effective date of termination. In ascertaining the services actually rendered to the date of termination, consideration will be given to both completed Work and Work in progress, whether delivered to University or in the possession of Design Professional, and to authorized Reimbursable Expenses. No other compensation will be payable for anticipated profit on unperformed services.

16.2 DESIGN PROFESSIONAL-INITIATED TERMINATION

16.2.1 Design Professional may terminate this Agreement for cause if University fails to cure a material default in performance within a period of 30 days, or such longer period as Design Professional may allow, after receipt from Design Professional of a written termination notice specifying the default in performance. In the event of termination for cause by Design Professional, University will pay Design Professional in accordance with Subparagraph 16.1.2.

16.3 DOCUMENTS AND MATERIALS

16.3.1 In the event of termination of the Agreement by either party for any reason, University reserves the right to receive, and Design Professional shall promptly provide to University, all drawings, specifications, models, and other documents, data, and materials prepared or generated by Design Professional and its consultants and/or subconsultants for the Project. In the event of termination, any dispute regarding the amount to be paid under Article 16 shall not derogate from the right of University to receive and use any such documents or materials.

ARTICLE 17 - STATISTICAL REPORTING

At the commencement of performance, Design Professional shall complete and submit, and require each subconsultant who performs services under this Agreement to complete and submit, a certification in the form of the Self-Certification contained in the Exhibits. At the completion of work, Design Professional shall complete and submit a report of the distribution of compensation received under this Agreement in the form of the Final Distribution of Contract Dollars contained in the Exhibits.

IN WITNESS WHEREOF, UNIVERSITY and DESIGN PROFESSIONAL have executed this Agreement as of the date first written above (see Cover Page).

DESIGN PROFESSIONAL:

(Name of Company)

By: _____
(Signature & Date)

(Print Name & Title)

Address: _____

(License Number)

(Employer ID Number)

Telephone Number(s): _____

Facsimile Number: _____

Recommended:

By: University's Representative

(Signature & Date)

(Print Name & Title)

Funds Sufficient:

By: Financial Administrative Officer

(Signature & Date)

(Print Name & Title)

Reviewed & Recommended:

By: University's Designated Administrator

(Signature & Date)

(Print Name & Title)

UNIVERSITY:

By: The Regents of the University of California
University of California, Riverside

(Signature & Date)

Richard W. Racicot, AIA
Assistant Vice Chancellor
Design & Construction

(Print Name & Title)

Address: UNIVERSITY OF CALIFORNIA, RIVERSIDE
Design & Construction, Contracts
3615-A Canyon Crest Drive, D-102
Riverside, CA 92507

Telephone Number: 951.827.4724

Facsimile Number: 951.827.3890

EXECUTIVE DESIGN PROFESSIONAL AGREEMENT

EXHIBITS

(Attached in Alphabetical Order.)

AMENDMENT NO.

The Agreement between The Regents of the University of California ("University") and **Company Name**, dated mm/dd/yyyy, to act as Consultant/Design Professional to the University of California, Riverside, is hereby amended as follows:

1.

All terms and conditions of this Agreement shall remain in full force and effect unless expressly modified herein or by another duly executed amendment.

IN WITNESS WHEREOF, the University and the Consultant/Design Professional have executed this Amendment on _____ .
(Date)

CONSULTANT/DESIGN PROFESSIONAL:

(Name of Company)

By: _____
(Signature & Date) (License Number, if applicable)

(Print Name & Title) (Employer ID Number)

Recommended:

By: University's Representative

(Signature & Date)

(Print Name & Title)

Funds Sufficient:

By: Financial Administrative Officer

(Signature & Date)

(Print Name & Title)

Reviewed & Recommended:

By: University's Designated Administrator

(Signature & Date)

(Print Name & Title)

UNIVERSITY:

By: The Regents of the University of California
University of California, Riverside

(Signature & Date)

Richard W. Racicot, AIA
Assistant Vice Chancellor
Design & Construction

(Print Name & Title)

UCR CAMPUS DESIGN GUIDELINES

(2007)

A copy is available at: http://apb.ucr.edu/cap_plan/files/documents/campus%20design%20guidelines.pdf.

SAMPLE

CERTIFICATE OF INSURANCE

DATE ISSUED

| | | |
|---------------|-------------------------------------|--|
| BROKER/AGENT | COMPANIES AFFORDING COVERAGE | |
| | COMPANY A | |
| NAMED INSURED | COMPANY B | |
| | COMPANY C | |
| | COMPANY D | |

COVERAGES

This is to certify that policies of insurance listed below have been issued to the insured named above for the policy period indicated. This certificate or verification of insurance is not an insurance policy and does not amend, extend or alter the coverage afforded by the policies listed herein. Notwithstanding any requirement, term or condition of any contract or other document with respect to which this certificate or verification of insurance 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.

| CO LTR | TYPE OF INSURANCE | POLICY NUMBER | POLICY EFF. DATE (M/D/Y) | POLICY EXP. DATE (M/D/Y) | | ALL LIMITS | DEDUCTIBLE |
|--------|--|---------------|--------------------------|--------------------------|--|----------------------------------|------------|
| | GENERAL LIABILITY <input type="checkbox"/> COMMERCIAL FORM <input type="checkbox"/> CLAIMS MADE <input type="checkbox"/> OCCURRENCE <input type="checkbox"/> SEVERABILITY OF INTEREST CLAUSE <input type="checkbox"/> CROSS LIABILITY CLAUSE | | | | GENERAL AGGREGATE PRODUCTS/COMPLETED OPERATIONS AGGREGATE PERSONAL & ADVERTISING INJURY EACH OCCURRENCE FIRE DAMAGE (ANY ONE FIRE) MEDICAL EXPENSE (ANY ONE PERSON) | \$ \$ \$ \$ \$ \$ | \$ |
| | AUTOMOBILE LIABILITY <input type="checkbox"/> ANY AUTO (CODE 1) <input type="checkbox"/> ALL OWNED AUTOS (CODE 2) <input type="checkbox"/> SCHEDULED AUTOS (CODE 7) <input type="checkbox"/> HIRED AUTOS (CODE 8) <input type="checkbox"/> NON-OWNED AUTOS (CODE 9) <input type="checkbox"/> OTHER ____ | | | | CSL BODILY INJURY (PER PERSON) BODILY INJURY (PER ACCIDENT) PROPERTY DAMAGE | \$ \$ \$ \$ | \$ |
| | EXCESS LIABILITY <input type="checkbox"/> UMBRELLA FORM <input type="checkbox"/> OTHER ____ <input type="checkbox"/> CLAIMS MADE <input type="checkbox"/> OCCURRENCE | | | | EACH OCCURRENCE | GENERAL AGGREGATE | |
| | PROFESSIONAL LIABILITY * <input type="checkbox"/> CLAIMS MADE <input type="checkbox"/> OCCURRENCE | | | | EACH OCCURRENCE | GENERAL AGGREGATE | |
| | WORKERS' COMPENSATION AND EMPLOYER'S LIABILITY* | | | | W.C. AS REQUIRED BY FEDERAL & CALIFORNIA LAW | | |
| | | | | | E.L. EACH EMPLOYEE | \$ | |
| | | | | | E.L. EACH ACCIDENT | \$ | |
| | | | | | E.L. POLICY LIMIT | \$ | |

SPECIAL PROVISIONS:

* Special Provisions # 1 & # 2 below do not apply to this coverage.

- THE REGENTS OF THE UNIVERSITY OF CALIFORNIA, ITS OFFICERS, AGENTS, EMPLOYEES, CONSULTANTS, REPRESENTATIVES AND REPRESENTATIVE'S CONSULTANTS ARE INCLUDED AS ADDITIONAL INSURED BUT ONLY IN CONNECTION WITH:
Project Name, Project No. _____, Contract No. _____
- THIS INSURANCE 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.
- THE PROVISIONS UNDER PARAGRAPHS (1 & 2) OF THIS SECTION, "SPECIAL PROVISIONS" SHALL APPLY TO CLAIMS, COSTS, INJURIES OR DAMAGES BUT ONLY IN PROPORTION TO AND TO THE EXTENT SUCH CLAIMS, COSTS, INJURIES OR DAMAGES ARE CAUSED BY OR RESULT FROM THE NEGLIGENT ACTS OR OMISSIONS OF THE NAMED INSURED.
- SHOULD ANY OF THE INSURANCE PROGRAMS DESCRIBED HEREIN BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, THE ISSUING COMPANY WILL MAIL THIRTY (30) DAYS (TEN [10] DAYS FOR NON-PAYMENT OF PREMIUM) WRITTEN NOTICE TO THE CERTIFICATE HOLDER NAMED BELOW.

CERTIFICATE HOLDER: THE REGENTS OF THE UNIVERSITY OF CALIFORNIA
CAMPUS FACILITY:

UNIVERSITY OF CALIFORNIA, RIVERSIDE
DESIGN & CONSTRUCTION
3615-A CANYON CREST DRIVE, SUITE D-102
RIVERSIDE, CA 92507 Attn: Contracts

THE UNDERSIGNED CERTIFIES THAT HE/SHE IS AUTHORIZED TO SIGN THIS CERTIFICATE AND THAT THE SPECIAL PROVISIONS DESCRIBED HEREIN HAVE BEEN MADE A PART OF THE POLICY(IES) SHOWN ABOVE:

AUTHORIZED REPRESENTATIVE



COMPENSATION SCHEDULE

PROJECT NAME: _____
Project Number: _____
Contract Number: _____

BASIC SERVICES: LUMP SUM FEE \$ _____ -

| Phase Completed | Portion of Total Basic Services Fee to be Paid at Completion of Phase | | | |
|---|---|---------|-------------|---------------|
| Schematic Design Phase | \$ - | (15%) | | \$ - (15%) |
| Design Development Phase | \$ - | (24%) | Increase to | \$ - (39%) |
| Construction Documents Phase | \$ - | (33%) | Increase to | \$ - (72%) |
| Bidding Phase (Award of Bid Package(s)) | \$ - | (2%) | Increase to | \$ - (74%) |
| Construction | \$ - | (23%) | Increase to | \$ - (97%) |
| Receipt of Design Professional's Record Documents | \$ - | (2%) | Increase to | \$ - (99%) |
| Guarantee to Repair Period Services | \$ - | (1%) | Increase to | \$ - (100%) |
| Basic Services Fee | | | | \$0.00 |

REIMBURSABLE EXPENSES NOT-TO-EXCEED AMOUNT **\$0.00**

SAMPLE

ADDITIONAL SERVICES

{Specify} \$ _____
Additional Services Fee **\$0.00**

TOTAL **\$0.00**

NOTES:

SAMPLE INVOICE

Date:
Invoice #:
Page {x} of {y}

Attn: Maritza Robinson
University of California, Riverside
Design & Construction
3615A Canyon Crest Drive, Suite D-102
Riverside, CA 92507

Project Name:
Project Number:
Contract Number:

Services from {Date} to {Date}.

| Description of Work | Scheduled Value | Percent Complete to Date | Amount Remaining | Amount Completed to Date | Amount Completed on Prior Invoice | Amount Due this Invoice |
|---------------------------------------|-----------------|--------------------------|------------------|--------------------------|-----------------------------------|-------------------------|
| Basic Services | | | | | | |
| Schematic Design Phase | 0.00 | 0.0% | 0.00 | 0.00 | 0.00 | \$0.00 |
| Design Development Phase | 0.00 | 0.0% | 0.00 | 0.00 | 0.00 | \$0.00 |
| Construction Documents Phase | 0.00 | 0.0% | 0.00 | 0.00 | 0.00 | \$0.00 |
| Bidding Phase | 0.00 | 0.0% | 0.00 | 0.00 | 0.00 | \$0.00 |
| Construction | 0.00 | 0.0% | 0.00 | 0.00 | 0.00 | \$0.00 |
| Receipt of Design Prof.'s Record Docs | 0.00 | 0.0% | 0.00 | 0.00 | 0.00 | \$0.00 |
| Guarantee to Repair Period Services | 0.00 | 0.0% | 0.00 | 0.00 | 0.00 | \$0.00 |
| Total Basic Services | 0.00 | | 0.00 | 0.00 | 0.00 | \$0.00 |
| Additional Services | | | | | | |
| {Description} | 0.00 | 0.0% | 0.00 | 0.00 | 0.00 | \$0.00 |
| {Description} | 0.00 | 0.0% | 0.00 | 0.00 | 0.00 | \$0.00 |
| Total Additional Services | 0.00 | | 0.00 | 0.00 | 0.00 | \$0.00 |
| Reimbursable Expenses | | | | | | |
| Not-to-Exceed | 0.00 | N/A | 0.00 | 0.00 | 0.00 | \$0.00 |

PLEASE REMIT PAYMENT TO:

Total Due: _____

CONSTRUCTABILITY ANALYSIS / QUALITY ASSURANCE

PROJECT NAME: _____
Project Number: _____
Contract Number: _____

1. Complete a separate worksheet for each architect / engineering discipline.
2. Using the worksheets, verify the following:
 - 2.1 Estimated Project Construction Cost
 - 2.2 Coordination within and between trades
 - 2.3 Document completeness
 - 2.4 Confirm availability of equipment and materials

SAMPLE

CONSTRUCTABILITY ANALYSIS / QUALITY ASSURANCE

Date: _____

PROJECT NAME: _____

Project Number: _____

Contract Number: _____

| ITEM NO. | DRAWING # / SPEC SECTION | REVIEWER NAME | REVIEWER COMMENTS | A / E NAME | START DATE | DATE COMPLETED | A / E RESPONSE - STATUS |
|---------------|-----------------------------|------------------|-------------------|------------|---------------|-------------------|-------------------------|
| SAMPLE | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |

ESTIMATED PROJECT CONSTRUCTION COST FORMAT

To be specified by University's Representative.

SAMPLE

**FACILITIES MANAGEMENT SYSTEM
CAD STANDARDS**

(July 2007)

A copy is available at: http://apb.ucr.edu/cap_plan/CAD_Standards.pdf.

SAMPLE

**FACILITIES MANAGEMENT SYSTEM
ROOM NUMBERING STANDARDS**

(October 2006)

A copy is available at: http://apb.ucr.edu/cap_plan/files/Room%20Numbering%20Standards%20Final%2010-06.pdf.

SAMPLE

FINAL DISTRIBUTION OF CONTRACT DOLLARS

Completed By: _____ Date: _____
(Signature) (Printed Name) (Title)

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 Ownership | Business Categories (Check all that apply [X]) | | | | | Portion of the Work | Amount \$ | Percent % |
| | | | | | SBE | DBE | WBE | DVBE | N/A | | | |
| Prime: | | | | | | | | | | | | |
| Sub: | | | | | | | | | | | | |
| Sub: | | | | | | | | | | | | |
| Sub: | | | | | | | | | | | | |
| Total Contract Amount: \$ _____ | | | | Column 5 – Type of Ownership | | Column 6 – Business Categories | | | | | Subtotals | |
| | | | | C = Corporation | | SBE = Small Business Enterprise | | | | | | |
| | | | | JV = Joint Venture | | DBE = Disadvantaged Business Enterprise | | | | | | |
| | | | | P = Partnership | | WBE = Woman Business Enterprise | | | | | | |
| | | | | SP = Sole Proprietorship | | DVBE = Disabled Veteran 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.

**If a prime Contractor, refer to the Report of Subcontractor Information for license and other information.

PROJECT PROGRAM

Description

Attachments:

SAMPLE

PROJECT SCHEDULE

1. Schematic Design Phase: Complete within ____ weeks, plus ____ weeks for approval time.
2. Design Development Phase: Complete within ____ weeks, plus ____ weeks for approval time.
3. Construction Documents Phase: Complete within ____ weeks, plus ____ weeks for approval time.
4. Attached Gantt Chart entitled _____, dated _____.

SAMPLE

PROPOSAL

The following attachment(s) are incorporated and made a part of the Agreement:

1. Proposal letter from _____ to _____, date (_____ pages).

SAMPLE

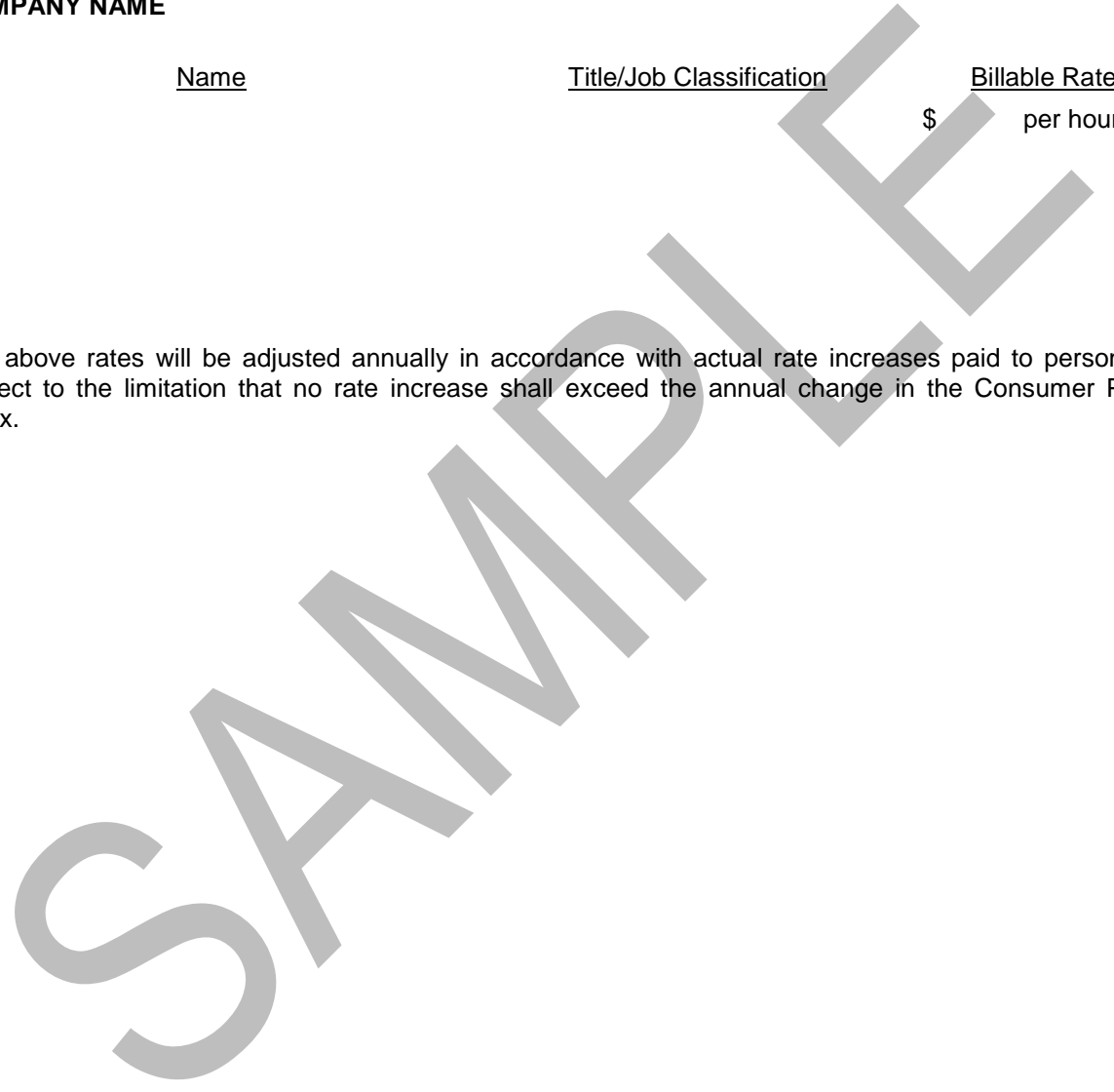
RATE SCHEDULE

The services under the Agreement will be compensated in accordance with the following rate schedule unless a lump-sum fee is established in a Work Authorization/an Amendment.

COMPANY NAME

| <u>Name</u> | <u>Title/Job Classification</u> | <u>Billable Rate</u> |
|-------------|---------------------------------|----------------------|
| | | \$ per hour |

The above rates will be adjusted annually in accordance with actual rate increases paid to personnel, subject to the limitation that no rate increase shall exceed the annual change in the Consumer Price Index.



REGULATORY AGENCIES & APPROVAL REQUIREMENTS

In accordance with the Executive Design Professional Agreement, of which this Exhibit is an attachment thereto, the Construction Document phase shall not be considered 100% complete until all required agency and University approvals have been received by the Design Professional.

The Design Professional shall submit applications to, and obtain approvals/permits from the following:

1. **California Department of General Services, Division of the State Architect - Access Compliance (DSA).**
2. .

The University will submit applications to, and obtain approvals/permits from the following:

1. **UC Riverside Campus Fire Marshal, Office of the State Fire Marshal (SFM).**
2. .

SAMPLE

REIMBURSEMENT SCHEDULE

1. Reimbursable expenses are limited to those listed on this Reimbursement Schedule.
2. Design Professional/Consultant will be reimbursed actual expenditures in accordance with the following reimbursement schedule only when said expenditures are authorized in writing in advance by University, and only when paid invoices, receipts or other proof of payment is submitted:

| Item | Description | Maximum Limit |
|------------|---|--------------------------------------|
| Mileage | Non-rented car | Current Rate* |
| Per diem | Daily meal and incidental expenses (for periods in excess of 24 hours) | \$64.00** |
| Air Fare | Refundable ticket, coach, roundtrip | As approved in advance by University |
| Rental car | Rented car | As approved in advance by University |
| Hotel | Lodging expenses must be supported by original itemized receipts, regardless of the amounts incurred, and must be reasonable for the locality of travel | |

3. Limitations:
 - a. For travel and transportation, Design Professional will be reimbursed actual cost for expenses up to the same maximum limit allowed for University employees per the University of California, Business and Finance Bulletin G-28, Policy and Regulations Governing Travel in effect at the time of travel. See the attached University of California Travel Policy Summary (4 pages). For detailed information, see <http://www.ucop.edu/ucophome/policies/bfb/g28.html>.
 - b. Transportation, lodging, per diem and related expenses for travel between Design Professional's/Consultant's offices and travel between offices of Design Professional/Consultant and offices of its consultants are not reimbursable.
 - c. **Reproduction, Postage, and Miscellaneous Expenses:** Reimbursement is limited to actual cost for expenses for printing, reproductions, postage, handling and delivery for documents, reports, surveys, drawings, and other materials, except that reproductions for office use by Design Professional/Consultant and its consultants and postage and delivery for transmittals between Design Professional's/Consultant's offices or between Design Professional/Consultant and its consultants are not reimbursable.

UNIVERSITY OF CALIFORNIA TRAVEL POLICY SUMMARY

This Travel Policy Summary describes the basic rules and regulations contained in Business and Finance [Bulletin G-28](#), Policy and Regulations Governing Travel (Policy). It contains brief descriptions of the main sections of the Policy and is not intended to substitute for the Policy itself. *Travelers are encouraged to refer to the Policy for additional information.*

The Policy applies to all official University of California travel, including travel funded under federal grants and contracts. Lawrence Berkeley National Laboratory (LBNL) travel is also subject to the provisions of the Policy, except for certain areas that are governed by the Federal Travel Regulations. The campuses and LBNL may also adopt more restrictive procedures, if desired.

All official University travel shall be properly authorized, reported, and reimbursed; under no circumstances shall expenses for personal travel be charged to, or be temporarily funded by, the University, unless otherwise noted in the Policy. It is the traveler's responsibility to report his or her actual travel expenses in a responsible and ethical manner, in accordance with the regulations set forth in the Policy.

Any exceptions to the Policy must be submitted to the Chancellor, LBNL Director, or other University official, as defined in the Policy, for approval.

APPROVAL OF TRAVEL

Travelers may not approve the reimbursement of their own travel expenses. In addition, an employee shall not approve the travel expenses of an individual to whom he or she reports either directly or indirectly.

PAYMENT OF TRAVEL

Under guidelines established by campuses (including LBNL), corporate travel cards may be issued to employees who travel on official University business. Any traveler issued such a card should use the card to pay for all expenses related to official University business travel, including lodging and subsistence, except where the card is not accepted. Certain prepaid expenses such as transportation tickets and conference fees may be billed directly to the University.

Travelers are required to use their corporate travel card to obtain cash advances for expenses incurred in connection with official University business travel, if the card provides this feature. Reasonable fees charged for obtaining a cash advance using the corporate travel card are eligible for reimbursement.

TRANSPORTATION EXPENSES

Transportation expenses shall be reimbursed based on the most economical mode of transportation and the most commonly traveled route consistent with the authorized purpose of the trip.

Transportation tickets should be procured in advance in order to obtain any discounts offered by the carrier or negotiated by the University. Such tickets should be purchased from the campus contract travel agency.

Mileage Expenses

Mileage shall ordinarily be computed between the traveler's headquarters and the common carrier or destination. Expenses for travel between the traveler's residence and headquarters (commuting expense) shall not be allowed. However, mileage expenses may be allowed between the traveler's residence and the common carrier or destination if University business travel originates or terminates before or after the traveler's working hours, or if travel originates or terminates during a regularly scheduled day off.

Air Travel

Coach class or any discounted class airfare shall be used in the interest of economy. The use of business or first-class or other higher cost services may be authorized only under the circumstances listed in the Policy.

Automobile Travel

- **Private Vehicles**

Travelers may use their private vehicle for business purposes if it is less expensive than renting a car, taking a taxi, or using alternative transportation, or if it saves time. See the Policy for limitations on private vehicle use.

- **Mileage Reimbursement Rate**

The standard mileage reimbursement rate is 50¢ per mile (1), which takes into account all actual automobile expenses such as fuel and lubrication, towing charges, repairs, replacements, tires, depreciation, insurance, etc. Under IRS regulations, travelers who claim this rate are not required to substantiate the actual costs of operating the vehicle. The standard rate for travel in connection with a move or relocation is 16.5¢ per mile. (1)

Travelers with physical disabilities who must use specially equipped or modified vehicles may claim reimbursement at the standard 50¢ per mile. However, if the traveler incurred higher than standard operating costs, the traveler may seek reimbursement. The traveler must certify in a statement submitted with the Travel Expense Voucher that he or she incurred higher operating costs. The actual fixed and variable costs must be specified in the statement.

- **Surface Transportation Used in Lieu of Air Travel**

If advance approval has been obtained, a traveler may use surface transportation for personal reasons even though air travel is the appropriate mode of transportation. The cost of meals and lodging, parking, mileage, tolls, taxis, and ferries incurred while in transit by surface transportation may be reimbursed. Such costs shall not exceed the cost of airfare, based on the lower of the regular coach fare available for the location of travel from a standard commercial air carrier or the campus travel program fare, plus transportation costs to and from the terminals. See the Policy for limitations on the use of surface transportation in lieu of air travel.

- **Rental Cars**

A vehicle may be rented when renting would be more advantageous to the University than other means of commercial transportation, such as using a taxi. Advance reservations should be made whenever possible and a compact or economy model requested. The traveler is responsible for obtaining the best available rate commensurate with the requirements of the trip. ***The discount negotiated with car rental agencies by the University should be requested when available.*** Refueling charges may be reimbursed if provided for in the University contract. Hand-held or uninstalled GPS devices should not be reimbursed unless the traveler is unfamiliar with the location of travel.

Travelers are expected to use rental agencies with which the University has contracts that include insurance coverage. On contract rental vehicles used in the continental United States, charges for additional insurance are not allowable, including any charge for a collision damage waiver. The rental agency's University identification number should be given to the agency at the time of rental in order to ensure that the vehicle is covered by physical damage insurance.

Except for State of California pool cars, vehicle rental charges billed directly to the University shall not be authorized. Rental car charges should be paid with the traveler's corporate credit card.

- **Miscellaneous Automobile-related Expenses**

Charges for ferries, bridges, tunnels, or toll roads may be claimed by the vehicle operator. Reasonable charges for parking while an employee is on travel status or on University business away from regular duties will be allowed as specified in the Policy.

Other Forms of Transportation

Rail or bus transportation may be used when required by the destination or by business necessity. If a traveler's destination is served by a regularly scheduled airline, the use of rail transportation shall be reimbursed in accordance with the procedures specified under Surface Transportation in Lieu of Air Travel. Local public transportation is allowed; taxi fares, including tips, are allowed only when the use of public transportation or airport shuttle service is impractical or unavailable.

SUBSISTENCE EXPENSES

Subsistence expenses incurred while on travel status consist of charges for lodging and meals and incidental expenses (M&IE). Incidental expenses include tips and fees for services.

- **Travel of Less Than 24 Hours**

For travel of less than 24 hours, M&IE shall not be reimbursed unless the travel includes an "overnight stay" as supported by a lodging receipt. For domestic travel, reimbursement is limited to the actual cost of lodging. Actual M&IE shall be reimbursed up to a maximum of \$64 for the entire trip. An exception to the overnight stay requirement may be allowed when the traveler incurs a meal expense as part of a business meeting and must be substantiated as specified in the Policy.

- **Travel of Less Than 30 Days**

For travel assignments of less than 30 days within the continental United States, the reimbursement of daily subsistence expenses shall be based on the actual reasonable amounts incurred for lodging. Actual M&IE shall be reimbursed up to a maximum of \$64 per day. ***The M&IE cap shall not be treated as a per diem.*** Lodging expenses must be supported by original itemized receipts.

Foreign travel of less than 30 days shall be reimbursed in accordance with the Federal Maximum Travel Per Diem Allowances for Foreign Areas. Travel within Alaska, Hawaii, and U.S. possessions shall be reimbursed at the per diem authorized for non-foreign localities.

- **Travel of 30 Days or More**

The long-term daily expense rate shall be authorized when a traveler can reasonably be expected to incur expenses in one location comparable to those arising from the use of establishments catering to long-term visitors, and when the traveler is expected to be in one location for 30 or more consecutive days ***but not in excess of one year.***

For domestic travel assignments of 30 days or more within the continental U.S., the **per diem** allowance authorized for subsistence expenses is based on an estimate of actual daily expenses, computed according to the procedures specified in the Policy. Reimbursement of such expenses shall be limited to a daily amount of up to 100% of the applicable federal per diem rate established for travel within the continental U.S.

For foreign travel and for travel within Alaska, Hawaii and U. S. possessions, reimbursement shall be up to 100% of the federal per diem rates authorized for those areas.

- **Travel in Excess of One Year**

Refer to the Policy for provisions covering travel lasting more than one year in a single location.

MISCELLANEOUS TRAVEL EXPENSES

Miscellaneous expenses are reimbursable when they are ordinary and necessary to accomplish the official business purpose of a trip. The Travel Expense Voucher must include an explanation of why such expenditures are being claimed. Miscellaneous expenses may include business office expenses, special fees for foreign travel, registration fees for conferences and professional meetings, and the occasional reimbursement of one-day fees for the use of airline or airport clubs for business related purposes only.(2)

INSURANCE FOR TRAVELERS

Employees: All University employees are routinely covered 24 hours a day, worldwide, against accidental death or dismemberment and other accidents and incidents while on an official University business trip.

Vehicles: When private vehicles are used on University business, the appropriate campus officials are responsible for requiring that employees have adequate liability insurance coverage. The minimum prescribed liability coverages are specified in the Policy. Travelers using rental cars are expected to use rental agencies with which the University has contracts that include insurance coverage.

REPORTING TRAVEL EXPENSES

A Travel Expense Voucher (Form U85 or equivalent, or an electronic version) reporting all expenses and advances pertaining to a particular trip must be submitted to the campus accounting office within 21 days of the end of the trip. For trips lasting over 90 days, the traveler must submit a quarterly report of expenditures to the campus accounting office. *A Voucher must be processed even if no reimbursement is due the traveler.*

Substantiation of expenses must include the following:

- Date and time of departure from and return to the traveler's headquarters or residence;
- Origin and destination of the trip and the route taken;
- Purpose for travel or the nature of the business benefit derived as a result of the travel; and
- Amount of each expenditure, listed by date and location.

The original of the following receipts must be submitted with the Travel Expense Voucher:

- All airline expenses
- All *itemized* lodging expenses for domestic travel
- All rental car expenses
- M&IE and miscellaneous expenses of \$75 or more
- Gifts provided to a host costing \$25 or more

Electronic receipts are acceptable provided that the detail contained therein is equivalent to the level of detail contained in an acceptable paper record.

The traveler **must** sign the Travel Expense Voucher certifying that the amounts claimed are a true statement of the expenses incurred on official University business and that the original of all required receipts has been submitted. The Travel Expense Voucher or electronic equivalent must be approved for payment by the traveler's department head or by a person to whom the Chancellor has delegated such authority.

Please refer directly to the Policy for more information.

SELF-CERTIFICATION

For the Contractor/Consultant/Design Professional and each subcontractor/subconsultant, 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 www.sba.gov/size. The University may rely on written representation by the vendors regarding their status.) Annual average receipts, computed from the gross receipts for the last 3 fiscal years, do not exceed the amount listed in the MAXIMUM RECEIPTS TABLE below. The average annual receipt is computed by taking the sum of the gross receipts of the prior 3 fiscal years and dividing by 3.

| MAXIMUM RECEIPTS TABLE | |
|---|--|
| Construction Services (by Contractor's License Classification): | AVERAGE ANNUAL RECEIPTS (Preceding 3 Years) |
| Class "A" - General Engineering | \$31,000,000 |
| Class "B" - General Building | \$31,000,000 |
| Class "C" - Specialty | \$13,000,000 |
| Architectural & Engineering Services | \$4,500,000 (except landscape architectural services) |
| Landscape Architectural Services | \$6,500,000 |
| Other services | For appropriate amount, see www.sba.gov/size |

(Initial, if applicable) **Disadvantaged Business Enterprise (DBE)** - a business concern which 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) **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) **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 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, Riverside, 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, Riverside, 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/purchserv/documents/sbdrmgr.pdf>.
- 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).

SUPPLEMENTAL REQUIREMENTS
EXECUTIVE DESIGN PROFESSIONAL AGREEMENT
TABLE OF CONTENTS

ARTICLE 1 - BASIC SERVICES - GENERAL

- 1.1 EXAMINATION OF SITE
- 1.2 PROGRAM AND BUDGET REVIEW
- 1.3 REGULATORY AGENCY REVIEWS AND APPROVALS
- 1.4 UNIVERSITY REVIEWS AND APPROVALS
- 1.5 REGENTS' DESIGN APPROVAL
- 1.6 CONSTRUCTION COST/VALUE CONTROL
- 1.7 QUALITY ASSURANCE
- 1.8 DRAWING SUBMITTAL REQUIREMENTS
- 1.9 SPECIFICATION SUBMITTAL REQUIREMENTS
- 1.10 DOCUMENT SUBMITTAL TIMING
- 1.11 CONSTRUCTION PHASING
- 1.12 PARTNERING
- 1.13 GREEN BUILDING DESIGN
- 1.14 MEETINGS

ARTICLE 2 - BASIC SERVICES - SCHEMATIC DESIGN PHASE

- 2.1 GENERAL
- 2.2 CODE ANALYSIS
- 2.3 ESTIMATED PROJECT CONSTRUCTION COST
- 2.4 AREA TABULATION
- 2.5 DESIGN INTENT NARRATIVE
- 2.6 MATERIAL BOARD
- 2.7 CIVIL DRAWINGS
- 2.8 LANDSCAPE DRAWINGS
- 2.9 ARCHITECTURAL DRAWINGS
- 2.10 STRUCTURAL DRAWINGS
- 2.11 PLUMBING DRAWINGS
- 2.12 HVAC DRAWINGS
- 2.13 ELECTRICAL DRAWINGS
- 2.14 ENERGY EFFICIENCY PROGRAM SUPPORT

ARTICLE 3 - BASIC SERVICES - DESIGN DEVELOPMENT PHASE

- 3.1 GENERAL
- 3.2 CODE ANALYSIS
- 3.3 ESTIMATED PROJECT CONSTRUCTION COST
- 3.4 AREA TABULATION
- 3.5 DESIGN INTENT NARRATIVE
- 3.6 MATERIAL BOARD
- 3.7 CIVIL DRAWINGS
- 3.8 LANDSCAPE DRAWINGS
- 3.9 ARCHITECTURAL DRAWINGS
- 3.10 STRUCTURAL DRAWINGS
- 3.11 PLUMBING DRAWINGS
- 3.12 HVAC DRAWINGS
- 3.13 ELECTRICAL DRAWINGS AND CATALOG CUTS
- 3.14 OUTLINE SPECIFICATIONS
- 3.15 ENERGY ANALYSIS
- 3.16 SOLE SOURCE LISTING

3.17 EMS/HVAC AUTOMATIC TEMPERATURE CONTROLS

ARTICLE 4 - BASIC SERVICES - CONSTRUCTION DOCUMENTS PHASE

- 4.1 GENERAL
- 4.2 CODE ANALYSIS
- 4.3 ESTIMATED PROJECT CONSTRUCTION COST
- 4.4 AREA TABULATION
- 4.5 DESIGN INTENT NARRATIVE
- 4.6 MATERIAL BOARD
- 4.7 DRAWINGS AND SPECIFICATIONS
- 4.8 ENERGY ANALYSIS
- 4.9 STRUCTURAL, MECHANICAL, AND ELECTRICAL CALCULATIONS
- 4.10 UTILITY SHUT DOWN PLAN
- 4.11 SOLE SOURCE LIST
- 4.12 95% CONSTRUCTION DOCUMENTS
- 4.13 100% CONSTRUCTION DOCUMENTS
- 4.14 LETTER OF ASSURANCE
- 4.15 LIST OF ROOMS AND SPACES
- 4.16 FINAL BACKCHECK CONSTRUCTION DOCUMENTS

ARTICLE 5 - BASIC SERVICES - BIDDING PHASE

- 5.1 GENERAL
- 5.2 UNIVERSITY ADMINISTRATION
- 5.3 PRE-BID CONFERENCE AND SITE VISIT
- 5.4 BIDDERS INQUIRIES
- 5.5 ADDENDA
- 5.6 PRE-AWARD CONFERENCE
- 5.7 SUBMITTAL LIST

ARTICLE 6 - BASIC SERVICES - CONSTRUCTION PHASE

- 6.1 GENERAL
- 6.2 CONTRACT DOCUMENTS COMPLIANCE
- 6.3 INTERPRETATION OF THE CONTRACT DOCUMENTS
- 6.4 CHANGES TO THE CONTRACT DOCUMENTS
- 6.5 CONSTRUCTION MEETINGS
- 6.6 INSPECTION
- 6.7 MATERIALS TESTING
- 6.8 MATERIALS/COLOR SCHEDULE AND MATERIALS BOARDS
- 6.9 COMMISSIONING PLAN
- 6.10 PUNCH LIST
- 6.11 FINAL APPROVAL AND INSPECTION ACCEPTANCE
- 6.12 REVIEW OF CONTRACTOR'S AS-BUILT DOCUMENTS
- 6.13 RECORD DOCUMENTS

ARTICLE 7 - ADDITIONAL SERVICES

- 7.1 PRELIMINARY DESIGN
- 7.2 PRE-CONSTRUCTION PHASES
- 7.3 CONSTRUCTION PHASE
- 7.4 POST-CONSTRUCTION
- 7.5 GENERAL

ARTICLE 1 - BASIC SERVICES - GENERAL

Design Professional shall provide the following services as Basic Services.

1.1 EXAMINATION OF SITE

1.1.1 At the beginning of the Schematic Design phase, Design Professional and its consultants shall visit the Project site to become familiar with existing site conditions, including the site location and size, utility capacities, and connection options of external utilities. Prior to the completion of the Construction Documents, Design Professional and its consultants shall visit the Project site to coordinate their documents with current site conditions.

NOTE: ADD THE FOLLOWING PARAGRAPHS FOR ALTERATION PROJECTS IN EXISTING BUILDINGS

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

- .1 Adjacent site perimeter (a minimum of 40 feet from building) for accessible path of travel, fire access, drainage conditions, and distance to adjacent buildings.
- .2 Building exterior (from the ground and roof surface).
- .3 Interior spaces including storage, circulation, mechanical, electrical and telecom rooms.
- .4 Rooftop including penthouses.
- .5 Ceiling spaces above suspended lay-in ceiling tiles at several areas representing standard conditions and in areas with atypical ceiling heights or configurations.
- .6 Concealed spaces accessible via access panel at several areas representing standard conditions and in areas with atypical concentrations of services, specifically at firewalls.

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

1.2 PROGRAM AND BUDGET REVIEW

1.2.1 University will furnish the Project Program to Design Professional at the start of Schematic Design. Design Professional shall evaluate the Project's programmatic requirements, promptly call attention to any discrepancy contained therein, and request direction from the University's Designated Administrator.

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

1.3 REGULATORY AGENCY REVIEWS AND APPROVALS

1.3.1 The design and construction of University projects shall comply with the applicable laws, rules, and regulations of the California Code of Regulations (CCR). The Design Professional is responsible for the design's compliance with these laws, rules and regulations. The following CCR titles contain requirements applicable to University construction work:

Title 8, Industrial Relations
Title 17, Public Health
Title 19, Public Safety
Title 20, Public Utilities and Energy
Title 21, Public Works
Title 24, California Building Standards Code

Part 1, Building Standards Administrative Code
Part 2, California Building Code
Part 3, California Electrical Code
Part 4, California Mechanical Code
Part 5, California Plumbing Code
Part 6, California Energy Code
Part 7, California Elevator Safety Construction Code
Part 8, California Historical Building Code
Part 9, California Fire Code
Part 10, California Code for Building Conservation
Part 12, California State Reference Standards Code
Title 25, Housing and Community Development
Title 26, Toxics

1.3.2 Building codes, standards, federal and state legislation, and federal, state, and regional agency regulations affect University projects. In addition to the CCR titles listed above, University construction work shall also comply with the following Codes or Acts. In general, in the case of conflicts between codes, the more stringent conditions shall apply. Confirm particular instances with University's Representative.

| | |
|------|--|
| NFPA | National Fire Protection Association |
| OSHA | Federal Occupational Safety and Health Act of 1970 |
| ADA | Accessibility Guidelines for the Americans with Disabilities Act, Title 24 ADAAG |
| | Other applicable codes not listed above but required for a particular project |
| | California Coastal Commission Regulations |

1.3.3 The University is not subject to the building ordinances and zoning requirements of local political jurisdictions; building permits are not required for on-campus projects. Off-campus projects are required to comply with all applicable local building ordinances and zoning requirements. University is not required to obtain building permits from local jurisdictions for construction on real estate owned or controlled by University. However, the design and construction of utility connections and fire-protection systems may require liaison with local jurisdictions. This liaison shall be coordinated only through University's Designated Administrator. Construction or encroachment upon city- or county-owned property is subject to local codes and permit requirements.

1.3.4 The University is its own enforcement agency for all code requirements except those regarding fire code, access compliance, and medical facilities. For these code requirements, University projects are subject to plan approval and enforcement authority by the state agencies listed below. The Design Professional shall obtain reviews from, submit applications to, and obtain approvals/permits from these agencies. University's Designated Administrator will arrange to pay application fees that may be required.

- .1 California Department of General Services, Division of the State Architect - Access Compliance (DSA).
- .2 UC Riverside Campus Fire Marshal, Office of the State Fire Marshal (SFM).
- .3 **Office of Statewide Health Planning and Development (OSHPD) - For Medical Facilities Only.**

1.3.5 By agreement with the SFM, the effective code date for new and remodeled University building projects is the edition of the CCR, Title 24, in effect at the time of the first submittal of Preliminary Drawings (Design Development Drawings and Specifications) as defined in the State Administrative Manual. The date of receipt of this first submittal is the official "date of record" for the Project. The edition of CCR, Title 24, in effect on that date will be applied for the duration of the Project. In the event Preliminary Drawings are not submitted to the SFM regional office prior to submission of Construction Documents (defined as Working Drawings and Specifications), the edition of the CCR, Title 24, in effect on the date of receipt of the Construction Documents by the SFM regional office will apply.

1.3.6 It is recommended that preliminary State Fire Marshal (SFM), or the local designee, and Division of State Architect (DSA) reviews occur during Schematic Design and Design Development. Review and approval by the SFM and DSA are required at Construction Documents completion. The Design Professional shall arrange all reviews with DSA for access compliance and with SFM for fire safety and code

compliance. The Design Professional shall incorporate corrections required by DSA and SFM into the Contract Documents before advertisement for bid.

1.3.7 The Design Professional shall assist the University in making applications to, and obtain approvals/permits from the South Coast Air Quality Management District.

1.3.8 The Design Professional shall incorporate the following University policies and Campus Standards where applicable to their work:

- .1 University of California Seismic Safety Policy of January 20, 1975 including revisions.
- .2 University of California Policy on Sustainable Practices, dated March 22, 2007.
- .3 University of California, Riverside Facilities Management System CAD Standards, July 2007.
- .4 University of California, Riverside Facilities Management System Room Numbering Standards, October 2006.
- .5 .

1.3.9 Other authorities and fund agencies applicable to this Project include the following: **List.**

NOTE: FOR MAJOR STATE-FUNDED PROJECTS

1.3.10 Approval of the completed Design Development documents by the State Public Works Board is required, as well as State Department of Finance approval of the completed Construction Documents.

1.4 UNIVERSITY REVIEWS AND APPROVALS

1.4.1 Each design phase is subject to review and approval by the University. Project items to be reviewed include design and cost, site, seismic safety, and environmental impact.

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

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

- .1 The Design Professional has completed the work of that phase,
- .2 The Design Professional's design satisfies the University's programmatic needs,
- .3 The Project design is within the stipulated scope and Project budget, and
- .4 The Project is in conformance with University's administrative policies and procedures.

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

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

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

NOTE: Independent seismic review is mandatory (refer to <http://www.ucop.edu/facil/fmc/facilman/volume1/rpseis.html>).

1.4.7 The Project is subject to an independent seismic/structural review. A review of non-structural building elements shall also be included. The review will be initiated early, preferably during Schematic Design, so that it can be performed in conjunction with the independent design and cost/value control review processes, where applicable. The review will be continued at appropriate times during the design

process. Drawings and calculations will be reviewed for conformance to the most current applicable seismic design code requirements.

1.4.8 All projects require review by the **Facility's Appropriate Committee** at the end of Schematic Design. Design Professional shall verify presentation requirements with the University's Representative.

NOTE: An independent architectural design review shall be conducted for projects that are subject to Regents' design review

1.4.9 This Project is subject to an independent architectural design review conducted by University and at University's expense. The design review will be performed early in the preparation of design and focus on, but not be limited to, the compatibility of the design with its setting, and the appropriateness of the design to its functional program and the Project budget. Design Professional shall cooperate with this design review. As part of the review, Design Professional shall present the current status of the design with drawings and other items as necessary to describe the Project's Design.

NOTE: Design review by the Regents is required on building projects with a total project cost in excess of \$5 million, except when such projects consist of the following:

- Alterations or remodeling where the exterior of the building is not materially changed, or
- Buildings or facilities located on agricultural, engineering, or other field stations, and buildings or facilities located in agricultural areas of a campus

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

WHEN THE PROJECT IS SUBJECT TO REGENT'S REVIEW, ADD THE FOLLOWING PARAGRAPHS:

1.5 REGENTS' DESIGN APPROVAL

1.5.1 The Project requires design review by the Office of the President and the Regents of the University of California. The Design Professional shall provide presentation drawings, sustainable design information, and other support materials for use in the Regents' design review process (NOTE: ADD OTHER ITEMS IF REQUIRED - Examples physical models, computer-generated models, perspectives, and simulations). Drawings and written documents for presentations to the Regents shall be simple, clear and concise.

1.5.2 Provide these materials in accordance with the Project schedule provided by University. Design Professional shall attend meetings with representatives of University regarding the presentation material for the Board of Regents.

1.5.3 Should the Regents fail to approve the design or aspects of the design, Design Professional shall, at its own expense, revise the design unless Design Professional has been given prior written approval from University to proceed with the Design Development phase, in which case the revision of the design shall be an Additional Service in accordance with Article 7.

1.6 CONSTRUCTION COST/VALUE CONTROL

1.6.1 Throughout the Project, the Design Professional shall keep the Project's estimated construction cost within the Construction Budget and is responsible to periodically submit a current Estimated Project Construction Cost to verify that this is done. The following three processes shall be used during the Project for Construction Cost/Value Control (CVC) with the Cost Reduction process only used if the previous three are unsuccessful:

- .1 Cost Choices (CC) - Program and design choices that drive the project cost begin at programming and become more focused. Choosing what can be afforded within the budget is the first step. At the first estimate, consideration of cost choices begins and continues as the design progresses.
- .2 Life Cycle Cost Analysis (LCCA) - This identifies alternative materials and systems to evaluate by preparing an economic assessment of all significant costs of ownership over the economic life of each alternative including:

- a. The projected initial cost of the system
- b. Projected yearly operational and maintenance costs
- c. Projected estimated replacement cost
- d. Projected estimated life expectancy
- e. Anticipated levels of performance

LCCA shall be conducted for a minimum of one alternative mechanical and one alternative lighting system. With respect to design alternatives specifically in support of the Energy Efficiency program, the Design Professional shall assist with providing cost and performance information for approximately 10 energy conservation measures or combination of measures. Contact the University's Representative for study life, utility rates, discount factors, escalation factors and benefit-to-infrastructure values. The results shall be presented in a spreadsheet format that shall identify both simple payback and present value of the evaluated options.

- .3 Value Engineering (VE) - This is when one design feature can be achieved in a different manner for the same or lower cost without compromising the aesthetic or functional value. Value engineering should also start early and run throughout the design phases. Life cycle costs should be considered along with capital costs.
- .4 Cost Reduction (CR) - This requires removing something desired from the Project. This is initiated later in the design process if the CC, LCCA and VE efforts were not successful in maintaining the Project within budget.

1.6.2 This Project is subject to independent cost estimates conducted by an estimator designated by University and at University's expense. Design Professional shall be available to answer the estimator's questions regarding the design and to attend meetings as necessary with the estimator to reconcile Design Professional's estimate with the independent estimate. In the event that the independent estimate and the Design Professional's estimate cannot be reconciled, Design Professional's estimate shall prevail as the Estimated Project Construction Cost.

1.6.3 Design Professional shall fully participate in University's CVC program. CVC workshops shall occur after the **50%** and **95%** Schematic Design phase submittals, the **95%** Design Development phase submittal, and the first Construction Documents phase submittal. CVC workshops shall occur three to four weeks after the associated submittal for these phases. CVC workshops shall be scheduled by agreement between the Design Professional and the University. Agenda shall include at a minimum:

- .1 Design and Sustainability Review
- .2 Alternative Technical Solutions
- .3 Cost Evaluations
- .4 Evaluation of Alternatives
- .5 Priorities and Trade-offs (if necessary)

1.6.4 Participants, in addition to the Design Professional and its consultants, shall include professional peers experienced with building type (selected by University and at University's expense); University's professional staff, including representatives from Facilities Management; user representatives; and others deemed appropriate by University. Design Professional and its consultants shall present and discuss the design as required by the agenda of each meeting.

1.6.5 After each CVC session, Design Professional shall evaluate the results of the session with University and shall implement changes in the design as mutually agreed upon or as directed by University.

1.6.6 If the Estimated Project Construction Cost at the Construction Documents phase exceeds the Construction Budget, University may, at its discretion, (1) give written approval of an increase in the Construction Budget, (2) authorize the solicitation of bids (reserving its rights under paragraph 2.5.2 of this Agreement), or (3) require Design Professional, at Design Professional's expense, to revise the Project in cooperation with University so as to reduce the Estimated Project Construction Cost to match the

Construction Budget. Modifications proposed by Design Professional shall require University approval prior to incorporation into the revised documents.

1.7 QUALITY ASSURANCE

1.7.1 The Design Professional shall demonstrate an effective internal Quality Assurance (QA) program that incorporates the QA requirements in the Exhibits and results in well-coordinated and consistent submittal documents. The University's preparation guidelines for drawings and specifications shall be incorporated into the Design Professional's quality assurance program.

1.7.2 The University will perform or may choose to have an outside consulting firm perform a quality assurance review including plan check and/or constructability analysis on the submitted documents. The Design Professional shall review the written comments produced by this review and respond to the comments (item by item) in writing. The Design Professional shall attend meetings as necessary to resolve issues.

1.8 DRAWING SUBMITTAL REQUIREMENTS

1.8.1 Design Professional shall submit one set hardcopy and two sets of executable digital files on CD or DVD, with one set formatted in AutoCAD.dwg and the other set in Adobe .pdf. Hardcopies of submittals shall be on bond paper, except for the final set of Record Documents which shall be on vellum.

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

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

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

1.8.5 Design Professional shall coordinate with the University's Designated Administrator to insure room numbering in accordance with the Format for Listing Rooms and Spaces in the Exhibits.

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

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

1.9 SPECIFICATION SUBMITTAL REQUIREMENTS

1.9.1 Specifications, in CSI format Divisions 1-16, shall consist of one original one-sided set in hardcopy and two sets of executable digital files on CD or DVD with one set formatted in Microsoft Word 2000 version or later and the other set in Adobe .pdf. Hardcopies of submittals shall be on bond paper. Each specification section shall be saved as a document file named with the corresponding Master format number (e.g., 134010.doc).

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

- .1 Complete, coordinated and consistent with each other and the drawings.
- .2 Coordinated with the University's General Conditions and General Requirements.
- .3 Written for a two-party contract between the University and the Contractor.

- .4 Written to describe the University's Representative as the University's acting functionary.
- .5 Written with open specifications for material and equipment except in specifically permitted exceptions.

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

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

1.10 DOCUMENT SUBMITTAL TIMING

1.10.1 Design Professionals shall make formal submittals as required herein to the University in each phase as follows:

- .1 Schematic Design at 50% complete, 95% complete and fully complete
- .2 Design Development at 50% complete, 95% complete and fully complete
- .3 Construction Documents at 50% complete, 95% complete, fully complete and final (with backcheck comments incorporated)

1.10.2 Design Professional shall submit the required documents for each of the submittals in two parts and approximately two weeks apart. The first part of the submittal shall include Drawings and Specifications, Code Analysis, Design and System Narratives, Green Building Baseline form and similar items. The second part of the submittal shall include items such as the Area Tabulation, Special Inspections and Testing Requirements, Estimated Project Construction Cost, Calculations, Sole Source List, Material Board, and the Energy Model and related information.

1.11 CONSTRUCTION PHASING

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

1.12 PARTNERING

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

1.13 GREEN BUILDING DESIGN

1.13.1 The Design Professional shall incorporate green building strategies into the design needed to meet the credits listed as baseline in the University's Green Building Baseline form in the Exhibits. The Design Professional shall incorporate additional strategies into the design as needed to achieve a minimum Silver level certification under the **University's program equivalent to the** United States Green Building Council's (USGBC) LEED program.

1.13.2 The proposed design shall outperform Title 24 energy standards by **30%**. If process loads are present, recommend strategies to reduce process loads to **20%** less than expected for a building designed to current institutional standards.

1.13.3 Design Professional shall prepare and/or assist with the preparation of credit documentation for this program. **OPTIONAL: Design Professional shall collect LEED documentation from the University indicated as the University's responsibility on the Green Building Baseline in the Exhibits, combine it with their own documentation and make the submittals to the USGBC.**

1.14 MEETINGS

Design Professional shall participate in regular meetings at the Facility through each phase of the Project for the purpose of explaining the Project design, reviewing the Project progress, discussing University policy and legal requirements.

SAMPLE

ARTICLE 2 - BASIC SERVICES - SCHEMATIC DESIGN PHASE

2.1 GENERAL

2.1.1 Design Professional shall submit items as listed below:

- .1 Items 2.2 through 2.5 and 2.7 through 2.12 upon 50% completion of the Schematic Design phase
- .2 Items 2.2 through 2.13 upon 95% completion of the Schematic Design phase
- .3 Items 2.2 through 2.14 upon 100% completion of the Schematic Design phase

2.1.2 Design Professional shall provide a written preliminary evaluation of the Project Program and the Construction Budget requirements each in terms of the other.

2.1.3 After consultation with the University's Designated Administrator, Design Professional shall conduct a Schematic Design kick-off workshop to discuss the requirements and goals described in the Project Program.

2.1.4 Shortly after the Schematic Design kick-off workshop, conduct an integrated design workshop focusing on sustainability with all of the Design Professional's consultants and the University to:

- .1 Review the findings of the site analysis, program analysis and preliminary engineering analysis.
- .2 Discuss challenges and opportunities inherent in the Project.
- .3 Review design priorities.
- .4 Review the Project for alignment with the University's Green Building Baseline.

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

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

SUBPARAGRAPH 2.1.7 IS OPTIONAL. IF 2.1.7 IS NOT APPLICABLE RETAIN THE NUMBER AND ADD THE WORDS "NOT USED".

2.1.7 If requested by University, Design Professional shall review with and recommend the contracting mode best suited to the scope, project schedule, and construction budget of the Project.

2.1.8 Design Professional shall prepare Schematic Design studies consistent with and incorporating the Project Program requirements, including site plans, floor plans, elevations, sections, and other drawings, sketches, or graphic materials needed to describe the Project in three dimensions. **{IF APPLICABLE, LIST OTHER DOCUMENTS.}** Schematic studies shall be consistent with the construction budget and Project Schedule and shall be revised until approved by University as acceptable.

2.2 CODE ANALYSIS

Design Professional shall prepare and submit to University an outline of applicable provisions of building codes which apply to this project. The outline shall include a written report and diagrammatic drawings which delineate the design criteria (e.g., exit paths, travel distances, required exits, rated walls, rated corridors, building occupancy, construction type, and fire zones). This graphic documentation of the design criteria shall be updated with each subsequent submittal.

2.3 ESTIMATED PROJECT CONSTRUCTION COST

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

2.3.2 Design Professional shall provide an estimated project construction cost based on the **95%** Schematic Design submittal documents using the estimate format as described in the Cost Estimate

Format in the Exhibits. Design Professional shall compare the estimate with the Construction Budget and bring any unusual cost items to the attention of the University's Designated Administrator.

2.4 AREA TABULATION

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

2.5 DESIGN INTENT NARRATIVE

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

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

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

2.5.4 Design Professional shall submit documentation supporting the design criteria for the structural (including structural loading), HVAC, plumbing, electrical, lighting and communication systems; and other specialized building systems.

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

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

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

2.5.8 Design Professional shall describe special systems including special laboratory control systems, energy management systems, fume hood and other special exhaust systems, and similar items.

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

2.5.10 All of the above descriptions shall include applicable code references where not covered by the code outline.

2.6 MATERIAL BOARD

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

2.7 CIVIL DRAWINGS

2.7.1 Site Demolition Plan shall show existing structures and utilities to be removed by the Contractor or by others.

2.7.2 Grading Plan shall show existing and proposed contours at one foot intervals.

2.7.3 Utility Plan shall show:

- .1 All existing utilities and underground structures within the Project site based on both the information provided by University and on Design Professional's field investigation.
- .2 Off-site utilities in the vicinity required for this project, and all points of connection.
- .3 Proposed points of connection to the existing Facility utility systems including the proposed method of service and routing for electrical power, chilled water, steam, domestic water, fire water, utility water, sanitary sewer, storm drain, natural gas, telephone, and fire alarm systems. Exterior pad-mounted transformers and site distribution shall be included.

2.8 LANDSCAPE DRAWINGS

Landscape Design Plan shall show conceptual hardscape and planting.

2.9 ARCHITECTURAL DRAWINGS

2.9.1 Site Plan shall include:

- .1 Overall dimensions of the proposed new building(s), wings, etc.
- .2 Existing structures and streets (with names) within a radius of 300 feet of the Project site perimeter with the distances from each proposed new building exterior walls to existing buildings, property lines (setbacks), and roadways.
- .3 Major new exterior elements and, for alterations and additions, all existing exterior elements that will remain in place. These elements shall include, but are not limited to streets, service drives, easements, loading docks, parking areas (cars and bicycle), paved areas, walks, stairs, ramps, pools, retaining walls, fences, fire hydrants, recycling, and trash container locations and equipment.
- .4 Elevations of building entrances and the placement of ramps and other provisions for disabled access to the site and building. Also depicted shall be the parking area and drop-off location nearest the building, and the routes and travel distances to all building entrances.

2.9.2 Site Sections shall be included as needed to explain changes in levels within the proposed building as related to the site.

2.9.3 Floor Plans shall include:

- .1 Locations, room names, sizes (in assignable square feet), and space numbers for all programmed spaces and required gross area spaces including entrances, lobbies, corridors, stairs, elevators, toilet rooms, janitors' closets, storage and mechanical/electrical equipment rooms.
- .2 Overall dimensions of major elements of the building(s).
- .3 Building elements such as walls, columns, doors, windows, openings, and major built-in equipment.
- .4 Means for complying with applicable disabled access codes.

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

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

2.9.5 Sections shall be provided as needed to explain structure and unusual design features, and shall show existing and proposed grades.

2.9.6 Elevations shall include all elevations of the building, floor-to-floor dimensions, the overall building height, and elevations of existing neighboring buildings.

2.9.7 Presentation Materials as required for presentation to the **Facilities Appropriate Committee** and to the Regents. Design Professional shall verify all requirements for presentation materials with the University's Representative. These may include:

- .1 Colored presentation-quality drawings of all floor plans, elevations (all sides), sections, site plan, and other drawings, as appropriate.
- .2 Two rendered perspective drawings, compensated as an additional service, in color and large enough to convey the overall design. A normal, "eye-level" view of the Project is preferred. In some instances, a "birds-eye" view will be needed to convey the full scope of the Project. The landscape features of the site development shall be shown in a realistic manner, but shall not obscure the structure.

2.10 STRUCTURAL DRAWINGS

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

2.11 PLUMBING DRAWINGS

2.11.1 Floor Plans shall show primary risers and mechanical room space for pumping, etc.

2.12 HVAC DRAWINGS

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

2.13 ELECTRICAL DRAWINGS

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

- .1 Method of service (Facility or local utility) showing primary service to loop switch
- .2 Major transformers and transformer substations
- .3 Secondary service to switchboards, motor control centers, distribution boards and panel boards for power and lighting.
- .4 Major components of the emergency power system

2.14 ENERGY EFFICIENCY PROGRAM SUPPORT

Design Professional shall support the University's participation in the Public Utility Commission's Nonresidential New Construction energy efficiency program (formerly Savings by Design). Design Professional shall attend meetings to identify up to ten energy conservation measures or combinations of measures for analysis. Design Professional shall provide estimated construction costs, estimated maintenance costs, estimated equipment life spans and technical information for the University's independent energy analyst.

ARTICLE 3 - BASIC SERVICES - DESIGN DEVELOPMENT PHASE

3.1 GENERAL

3.1.1 Design Professional shall submit updated versions of all Schematic Design phase submittal items as well as the additional items described below. The Design Development documents shall be consistent with the Project Program (including the gross and assignable floor areas), the Construction Budget and the Project Schedule. Design Professional shall submit as listed below:

- .1 Items 3.2 through 3.15 (excluding 3.13.3) upon 50% completion of the Design Development phase
- .2 Items 3.2 through 3.15 upon 95% completion of the Design Development phase
- .3 Items 3.2 through 3.16 upon 100% completion of the Design Development phase

3.2 CODE ANALYSIS

Design Professional shall update the code outline.

3.3 ESTIMATED PROJECT CONSTRUCTION COST

Design Professional shall update the estimate at the time of each submittal to include all construction components including quantities of materials and unit costs. The estimated costs shall be based on the latest documents submitted to the University.

3.4 AREA TABULATION

Design Professional shall update the area tabulation.

3.5 DESIGN INTENT NARRATIVE

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

3.6 MATERIAL BOARD

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

3.7 CIVIL DRAWINGS

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

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

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

3.8 LANDSCAPE DRAWINGS

Landscape Plans shall show hardscape, planting and other improvements.

3.9 ARCHITECTURAL DRAWINGS

3.9.1 Floor Plans shall include:

- .1 Corridors (with widths)
- .2 Door swings
- .3 Locations and fire ratings of all fire separations, exit enclosures, fire doors, and similar elements, as required by applicable codes.
- .4 Accessible toilets and drinking fountains.

- .5 Plumbing fixtures such as lavatories, floor drains, water closets, urinals, service sinks, drinking fountains, eyewash fountains, deluge showers, and fire-hose cabinets.
- .6 Built-in features such as fixed auditorium seats, kitchen equipment, display cases, counters, shelves, lockers, laboratory benches, casework, glass washers, sterilizers, fume hoods, and similar items.
- .7 Movable furniture, which in most cases is “not in contract” (NIC), including “interior landscape” partitions and equipment. Differentiate between movable furniture and equipment and built-in furniture and equipment (built-in items are usually included in the construction contract).
- .8 Reference all sections and elevations.

3.9.2 Roof plan shall show associated equipment, slopes, ridges, drains, and other items.

3.9.3 Elevations shall include:

- .1 Building elements including penthouses, entrances, windows, doors, stairs, platforms, louvers, vents, exhaust stacks, retaining walls, and similar items. Indicate proposed finished grades.
- .2 Windowsill and head heights.

3.9.4 Sections shall include:

- .1 Longitudinal and transverse sections for each major area, indicating floor elevations, existing and proposed exterior grades, ceiling heights, pipe tunnels, unexcavated areas, basement areas, rooflines, and parapets. Show cuts for connections to adjoining buildings where appropriate.
- .2 Include a small-scale plan or diagram (if necessary) to indicate section lines for each elevation and section.
- .3 Provisions for HVAC distribution and hood venting.

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

- .1 Classrooms and lecture halls
- .2 Kitchens and related service areas
- .3 Laboratories and laboratory support areas
- .4 Toilet and locker rooms
- .5 Other areas of special design with notes related to materials and design

3.9.6 Schedules shall include:

- .1 Door schedule indicating each door type, size, material, hardware group and pertinent comments.
- .2 Window schedule indicating each window type, size, material, and pertinent comments.
- .3 Preliminary interior finish schedule indicating the material, texture, and color of each finish material proposed for use in the Project.

3.10 STRUCTURAL DRAWINGS

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

3.11 PLUMBING DRAWINGS

3.11.1 Floor Plans shall show:

- .1 Plumbing fixtures and any equipment requiring plumbing service (including pumps, tanks, generators, pressure-reducing valves, etc.) showing their locations and required piping connections.
- .2 Main waste lines and stacks and vents as well as all service mains, including those for water, air, gas, and vacuum. Plumbing chases in multi-storied buildings.
- .3 Fire water mains, standpipes and hose racks.

3.12 HVAC DRAWINGS

3.12.1 Floor Plans shall show:

- .1 Mechanical equipment including air handling units, chillers, cooling towers, pumps, converters, expansion tanks, boilers, fans, fan coil units, heat exchangers, fume hoods and other equipment.
- .2 Mains for each duct system.
- .3 Typical supply and return air zones for each type of occupancy (offices, laboratories, computer rooms, conference rooms, and special application rooms.) A typical air zone shall include the terminal unit with all applicable branch ducts and air outlets and inlets.
- .4 Typical exhaust air duct for each type of application (hoods, toilet rooms, janitors' closets, transformers, mechanical/electrical equipment rooms, and other rooms as required for a satisfactory indoor environment.) A typical duct shall include an air inlet and a source destination for exhaust air.

3.12.2 Large-Scale Drawings of Equipment Rooms shall show layout of all equipment rooms to ensure that the proposed equipment will fit in the allotted space.

3.13 ELECTRICAL DRAWINGS AND CATALOG CUTS

3.13.1 Single line diagrams shall be updated to include each load center unit substation, telephone equipment rooms, and closets.

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

3.13.3 Catalog cuts shall be provided for all proposed lighting fixtures.

3.13.4 Large-Scale Drawings shall include a layout of all equipment rooms to ensure that the proposed equipment will fit in the allotted space.

3.14 OUTLINE SPECIFICATIONS

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

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

- .1 An index showing all divisions and sections intended to be used. The format shall be that recommended by the Construction Specifications Institute (CSI), narrow scope type.
- .2 All technical sections in outline specification format (Part 2 of a narrow scope CSI specification.)

3.15 ENERGY ANALYSIS

Design Professional shall submit a complete performance-approach computer simulation demonstrating Title 24 energy compliance for University review and certification. Process loads shall be clearly identified and evaluated as allowed by California Code of Regulation Title 24, Part 6. The simulation shall

demonstrate compliance with the University's requirement to outperform Title 24 and reduce process loads as described in subparagraph 1.13.2. The Design Professional shall correct any non-complying aspect of the design, including the energy compliance approach.

3.16 SOLE SOURCE LISTING

3.16.1 Design Professional shall submit a list of each item of equipment and/or each system to be designated as sole source by the notation in the documents, "or equal (no known equal)". This list shall include the following information:

- .1 Description of each item of equipment and/or each system;
- .2 Estimated cost of each item of equipment and/or each system; and
- .3 Justification as to why each item of equipment and/or each system needs to be from a sole source. Include brief performance specifications detailing those features which, because they are unique or state-of-the-art, or the preclude use of an alternative product.

3.17 EMS/HVAC AUTOMATIC TEMPERATURE CONTROLS

The Design Professional shall specify automatic Energy Management System (EMS)/HVAC controls systems that communicate with and are interoperable with the campus system. The University's Designated Administrator shall arrange an initial meeting at the end of the Design Development phase to discuss the integration and specification of the EMS/HVAC Control System. The Design Professional shall thereafter incorporate these requirements into Project design and Construction Documents.

SAMPLE

ARTICLE 4 - BASIC SERVICES - CONSTRUCTION DOCUMENTS PHASE

4.1 GENERAL

4.1.1 Design Professional shall submit updated versions of all of the required items for the Design Development phase submittal as well as the additional items described below. The Construction Documents shall be consistent with the Project Program (including the gross and assignable floor areas), the Construction Budget and the Project Schedule. Design Professional shall submit as listed below:

- .1 Items 4.2 through 4.11 upon 50% completion of the Construction Documents phase
- .2 Items 4.2 through 4.9, and 4.12 upon 95% completion of the Construction Documents phase
- .3 Items 4.2 through 4.15 upon 100% completion of the Construction Documents phase
- .4 Items 4.2 through 4.16 upon backcheck to final completion of the Construction Documents phase

4.1.2 Prior to the first Construction Documents phase submittal, Design Professional and its consultants shall review University's Bidding Documents for Project requirements and recommend any changes needed to make them applicable to the Project. Design Professional shall include, with the first Construction Document phase submittal, a single marked-up set of University's Standard Specifications, Division 1, General Requirements, showing the recommended changes.

4.1.3 The Drawings and Specifications shall be consistent with the University's General Conditions and the Division 1 tailored for the Project, as required by subparagraph 4.1.2.

4.2 CODE ANALYSIS

Design Professional shall update the code outline.

4.3 ESTIMATED PROJECT CONSTRUCTION COST

Design Professional shall update the estimate at each submittal, and shall bring any unusual cost item to the attention of University's Designated Administrator. The 100% Construction Documents estimate shall be updated by Design Professional to incorporate any additional backcheck requirements incorporated after the 100% submittal.

4.4 AREA TABULATION

Design Professional shall update the area tabulation.

4.5 DESIGN INTENT NARRATIVE

Design Professional shall update the Design Intent Narrative.

4.6 MATERIAL BOARD

Design Professional shall update the Material Board(s).

4.7 DRAWINGS & SPECIFICATIONS

4.7.1 Cover Sheet and Regulatory Compliance Drawings shall include:

- .1 Title sheet with index, general notes, legends, and a small-scale Facility/Project location map.
- .2 Code Compliance Calculations and Diagrams.

4.7.2 Civil Drawings shall include:

- .1 Existing civil survey
- .2 Site demolition plan
- .3 Site utilities plan
 - a. Coordinate size and location for all stub outs for connection by Architectural, Mechanical, Plumbing, Electrical, etc. Indicate continuation sheet number.

- b. Indicate identification number as provided by the University on all new manholes, valve boxes, cleanouts, lift stations, etc.
 - c. Completely design steam and condensate lines, steam vaults, expansion legs, anchors and guides.
 - d. Show locations, sizes, and elevations of the site sewer, street water main, and water service into the building.
- .4 Site plan
 - .5 Rough grading plan. Show drainage structures.
 - .6 Site profile sections
 - .7 Details
- 4.7.3** Landscape Drawings shall include:
- .1 Finished grading plan
 - .2 Hardscape (paving) plan
 - .3 Irrigation plan
 - .4 Planting plan
 - .5 Hardscape details (walls, walks, planters, etc.)
 - .6 Irrigation details
 - .7 Planting details
 - .8 Other details as appropriate
- 4.7.4** Architectural Drawings shall include:
- .1 Reflected ceiling plans showing all penetrations
 - .2 Details
- 4.7.5** Structural Drawings shall include:
- .1 Plans that indicate the location, type of member, size, and material of each structural element (including existing elements on renovation projects) for foundations, floors, roofs, and any intermediate levels. List assumed safe bearing pressures on soils and ultimate strengths of concrete.
 - .2 Schedules (beam, column and slab)
 - .3 Details of all connections, assemblies, expansion joints, and similar items
 - .4 Details of the structural framing systems required to support nonstructural elements and fixed equipment
- 4.7.6** Plumbing Drawings:
- .1 Floor Plans shall show:
 - a. Locations, sizes, and elevations of the building sewer, drains, waste, and waste vent stacks with connections to drains, fixtures, and equipment
 - b. Locations and sizes of hot, cold, and circulation water mains, branches, and risers from the service entrance and tanks
 - c. Fire-extinguishing equipment such as sprinklers and wet/dry standpipes
 - d. Locations and sizes of natural gas, vacuum, and medical gas systems
 - .2 Riser diagrams for each system shall show all plumbing stacks with vents, water risers, and fixture connections for multi-story buildings; materials, gauges, and sizes for all elements.
 - .3 Sections shall show structural, HVAC, and piping systems through congested areas.

4.7.7 HVAC Drawings shall include:

- .1 Mechanical floor plans showing the complete HVAC systems including the following items:
 - a. Heating and steam mains, including branches, with pipe sizes
 - b. Air-conditioning systems including refrigerators, water and refrigerant piping, and duct work
 - c. Exhaust and supply ventilating systems showing duct sizes for steam or water connections and piping
 - d. Air and piping systems, including all branches, on each floor plan
- .2 Detailed floor plans and sections clearly indicating the work required for all mechanical equipment rooms.
- .3 Air balance schedule indicating the CFM (cubic feet per minute) of outside air, supply air, return air, and exhaust air for each air system.
- .4 Elevations of built-up fan units to ensure required airflows and access to the component parts of the units
- .5 Flow diagram for each of the following types of water systems: Chilled water, Condenser water, Hot water and others as needed to clearly define the scope of work
- .6 Riser diagram for each type of system (air, chilled water, heating hot water, and specialty systems)
- .7 Mounting details
- .8 Sequence of operations diagram

4.7.8 Electrical Drawings shall include:

- .1 Electrical service entrance and its service switches, the service feeds to the public service feeders, and the characteristics of the light and power currents
- .2 Transformers and their connections, whether in the building or on the Project site
- .3 Main switchboard, power panels, light panels, and associated equipment
- .4 Feeder and conduit sizes
- .5 Light fixtures, receptacles, switches, and power outlets
- .6 Telephone outlets, conduits, terminal cabinets, and backboards
- .7 Complete fire alarm system including its connection to the Facility's system
- .8 Emergency electrical power system including generator transfer switches, fuel tanks, and all auxiliaries
- .9 Other systems as required
- .10 Mounting details

4.7.9 Specifications:

- .1 Update the Specification Index.
- .2 Submit, at minimum, any six completed architectural sections from Divisions 2 through 13, one completed mechanical section from Divisions 22 or 23, and one completed electrical section from Division 26. If Division 14 is used, include one completed Section.
- .3 Update the remaining outline specifications in Divisions 2 through 33.
- .4 University will prepare its Bidding Documents including Specifications, Division 1.

4.8 ENERGY ANALYSIS

Update the Title 24 energy compliance computer simulation. Submit California Energy Commission forms, certifying that the design complies with the code and the UC Sustainable Practices Policy. The

University, acting as the enforcement agency, is required to independently check the designs and certify that they are in compliance with the code. Any non-complying aspect of the design, as determined by University's Designated Administrator, shall be corrected by Design Professional before the design can be certified by the University.

4.9 STRUCTURAL, MECHANICAL, AND ELECTRICAL CALCULATIONS

4.9.1 Design Professional shall clearly list all design criteria, assumptions, and references used. Calculations shall be arranged in a clear manner and shall include schematic diagrams and spreadsheets where necessary together with information sufficient to show compliance with all applicable codes and design standards. Calculations shall be checked and stamped by an engineer registered in the applicable discipline. Submitted calculations shall include, but not be limited to:

- .1 Structural Calculations
 - a. Preface with a statement outlining the basis for the structural design and indicating the manner in which the proposed building will resist vertical loads and horizontal forces.
 - b. Structural diagrams shall be accompanied by computations, stress diagrams and other pertinent data and shall be complete to the extent that calculations for individual structural members can be readily interpreted.
 - c. List assumed safe bearing pressures on soils and ultimate strengths of concrete.
 - d. Where unusual conditions occur, submit additional data as is pertinent.
- .2 Mechanical Calculations
 - a. Heating and cooling load calculations
 - b. Psychometric charts and air conditions
 - c. Fan and coil sizing calculations and selection data
 - d. Sizing calculations and selection data for chillers, boilers, cooling towers, heat exchangers, packaged air conditioners, etc.
 - e. Ductwork and pipe sizing calculations. (Include flows per room or coil, sizing method used and pressure drops)
 - f. Domestic/industrial hot water sizing calculations, including pump sizing
 - g. Structural and seismic calculations for equipment supports (may be submitted with structural calculations)
- .3 Electrical Calculations
 - a. Summary of electrical loads used in calculating transformer size
 - b. Fault interruption calculations
 - c. Point-by-point lighting analysis for all interior rooms and exterior areas showing light level contours graphically
 - d. Structural and seismic calculations for equipment supports (may be submitted with structural calculations)
- .4 Plumbing, Communications, and other specialized building system calculations

4.10 UTILITY SHUT DOWN PLAN

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

4.11 SOLE SOURCE LIST

Design Professional shall update the sole source list.

4.12 95% CONSTRUCTION DOCUMENTS

4.12.1 Design Professional shall update the documents and provide additional drawings, details and all complete specification sections.

- .1 Architectural Drawings: Detail the anchorage of all fixed equipment.
- .2 Mechanical Drawings: A sufficient level of detail shall be provided to illustrate connections, routings, and other items in complex areas.
- .3 Electrical Drawings: A sufficient level of detail shall be provided to illustrate connections, routings, and other items in complex areas. All wiring shall be final-sized. Provide a schedule of feeder breakers or switches, locations of all circuits, details for other systems as required.
- .4 Soils and Materials Testing Recommendations: The Design Professional shall provide written recommendations for Construction phase testing and special inspections such as soils and materials testing, welding inspections, and dewatering requirements.

4.13 100% COMPLETE CONSTRUCTION DOCUMENTS

4.13.1 Design Professional shall update the documents and provide additional drawings, details and specifications in sufficient detail as to be deemed complete and buildable. Prior to submitting the 100% Construction Documents, Design Professional and its consultants shall have thoroughly checked, coordinated, and revised all documents to bring them to 100% completed level:

- .1 Contract Documents: University will prepare Bidding Documents including Specifications Division 1. The University shall provide the Cover Page, Table of Contents, Advertisement for Bids, Project Directory, Instructions to Bidders, Supplementary Instructions to Bidders, Information Available to Bidders, Bid Form, Location Map(s), Geotechnical Engineering Report, Prevailing Wage Determinations, Qualifications Questionnaire, Bonds, Agreement, General Conditions, Supplemental Conditions, Equal Opportunity Documentation, Exhibits and Specifications, Division 1, General Requirements. The Design Professional shall provide or assist with the following documents:
 - a. Certification Page (prepared by the University, signed and stamped by the Design Professional)
 - b. Project Description (furnished by the Design Professional, prepared by the University)
 - c. Index to the Specifications (furnished by the Design Professional, prepared by the University)
 - d. Specifications, Divisions 2 through 33
 - e. List of Drawings (with dates furnished by the Design Professional, prepared by the University).

4.14 LETTER OF ASSURANCE

Design Professional shall submit to the University a Letter of Assurance as described in Quality Assurance in the Exhibits attesting that the documents are complete and ready to bid.

4.15 LIST OF ROOMS AND SPACES

Design Professional shall provide a complete listing of all rooms and spaces, as required in Format for Listing Rooms and Spaces in the Exhibits.

4.16 FINAL BACKCHECK CONSTRUCTION DOCUMENTS

4.16.1 The final backcheck submittal shall either incorporate any changes or corrections required by University or review agencies as a result of their review of the Construction Documents, or be accompanied by a written statement as to why such changes were not incorporated. University may reject

Design Professional's explanation and require Design Professional to make the changes or corrections to the Construction Documents as previously requested by University.

4.16.2 Unless directed otherwise in writing by University, the Construction Document phase shall not be considered complete until all required agency and University approvals have been received by Design Professional. When all University and review agency required changes or corrections have been incorporated by Design Professional, the Construction Documents will be deemed to be final and ready for bid

4.16.3 Final Construction Drawings and the Certification page of the specifications submitted to University for bidding purposes shall be signed and stamped by Design Professional or the appropriate Design Professional's consultant.

SAMPLE

ARTICLE 5 - BASIC SERVICES - BIDDING PHASE

5.1 GENERAL

5.1.1 If prequalification of construction contractors is required by University, Design Professional shall review and comment on the prequalification criteria prepared by the University.

5.1.2 Design Professional's Project Architect or Engineer shall assist University in the review and evaluation of bids if requested by University.

5.2 UNIVERSITY ADMINISTRATION

5.2.1 The University shall administer and coordinate the following:

- .1 Reproduction of all documents, including addenda
- .2 Completing and placing the Advertisement for Bids
- .3 Scheduling and coordination of pre-bid conference and site visits
- .4 Receipt of questions from bidders and distribution of questions to the Design Professional
- .5 Receipt of addenda documents from Design Professional
- .6 Issuance of addenda
- .7 Receipt of Bids
- .8 Rejection of Bids
- .9 Bidder Protests
- .10 Contract Award and Execution

5.3 PRE-BID CONFERENCE AND SITE VISIT

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

5.4 BIDDERS INQUIRIES

5.4.1 During the Bidding phase, University's Representative (or designee) shall receive all requests for interpretation, clarification and modification from Bidders, and log in the date, time, and caller's name and question. The University's Representative will forward this information to the Design Professional. The Design Professional and its consultants may answer general questions and collect information from Bidders, but shall not clarify intent or change the Bidding Documents verbally or in writing. The Design Professional and its consultants shall forward a copy of questions they directly received from Bidders to the University's Representative.

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

5.5 ADDENDA

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

5.5.2 Design Professional is responsible for receiving, reviewing, approving, coordinating, and incorporating addenda items received from the consultant(s) into a single addendum document prior to submitting this document to the University. Addenda shall be submitted to the University in the same format as the Construction Documents.

5.5.3 Design Professional shall provide to the University at the end of the Bidding phase the following documents with changes identified as follows. In the Specifications all additions shall be shown in bold underline and all deletions shown in strikethrough. In the Drawings, changes shall be “clouded.”

- .1 One set of individual Construction Drawings and sections of the Specifications which were altered by Addenda.
- .2 One complete set of Construction Drawings and Specifications that fully integrate all addenda items.

5.6 PRE-AWARD CONFERENCE

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

5.7 SUBMITTAL LIST

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

SAMPLE

ARTICLE 6 - BASIC SERVICES - CONSTRUCTION PHASE

6.1 GENERAL

6.1.1 The Design Professional's responsibilities shall include, but not be limited to, interpretation of the Contract Documents; periodic site observations; review of submittals; preparation of documents for proposed changes; and general consultation to the University on design matters. The Design Professional shall be fully responsible for all matters related to the Design Professional's design and all of the Design Professional's recommendations to the University which are carried out by the University without substantive change. The Design Professional's duties shall not include administration of communications with Contractor, chairing meetings with Contractor, monitoring the schedule; negotiation of price changes; and coordination of closeout. Design Professional shall cooperate with the University's Representative in the University's Representative's provision of contract administration services as those services are described in the Contract Documents.

6.1.2 Except as otherwise provided in the Contract Documents or as directed by University, all written communications with Contractor shall be sent and received by University's Representative. The Design Professional shall advise and consult with University's Representative and shall keep University's Representative informed of the observed progress of the Work. The Design Professional shall render written or graphic interpretations and decisions that are consistent with the intent of, and reasonably inferable from, the Contract Documents; review and recommend any action to be taken regarding Contractor's required submittals; and evaluate, with the University's Representative, the equivalence of proposed substitutions for materials, products, or services specified by brand or trade names in the Contract Documents and recommend either approval or rejection of substitutions as being equal in quality, utility, and appearance.

6.1.3 The Design Professional shall perform all Construction phase services in a timely manner, as required by this Agreement and the Contract Documents. Design Professional shall not delay its interpretations, decisions, reviews, or other functions pursuant to this Agreement so as to cause or contribute to a disruption of construction or a delay in completion of the Project.

6.1.4 Design Professional shall, at no cost to University, satisfactorily correct any and all errors, omissions, deficiencies, or conflicts in the Construction Documents prepared by Design Professional or Design Professional's consultants promptly upon discovery or notice. The obligations of Design Professional to correct defective or nonconforming Work shall not in any way limit any other obligations of Design Professional.

6.2 CONTRACT DOCUMENTS COMPLIANCE

6.2.1 Design Professional shall make (1) periodic on-site observations of construction as it progresses except for periods of construction downtime as approved by University in writing, and upon completion of construction and (2) off-site observations of fabricated materials and equipment when such off-site checks are specified in the Contract Documents. Observations shall be conducted deliberately and thoroughly. The frequency, duration, and extent of such observations shall be appropriate to and for: the progress, character, and complexity of the Work; design issues or questions of concern to Design Professional, its consultants, University's Representative or as noted in any inspection reports furnished to Design Professional; the observed quality of Contractor's performance during previous visits; the review of construction of crucial components of the Work; and the observation of the performance of specified or University's Representative's directed tests significant to the acceptability of crucial components of the Work. Such observations shall also be performed when reasonably requested by University.

6.2.2 Observations shall be for the purpose of ascertaining: the progress of the Work; that the character, scope, quality and detail of construction (including workmanship and materials) comply with the design expressed in the Contract Documents, University's Representative's directives, approved product data and samples and clarification drawings. Observations shall be separate from any inspections which may be provided by University. University's provision of inspection services, if any, shall not relieve Design Professional of its responsibilities under this Agreement.

IF THE PROJECT IS SUBJECT TO OSHPD APPROVAL ADD THE FOLLOWING:

University's inspectors, if any, shall be satisfactory to Design Professional and shall act under the direction of Design Professional to the extent required by law.

6.2.3 Design Professional shall have the authority to recommend rejection of Work that does not conform to any of the following: the Contract Documents; Design Professional's directives; applicable code requirements; approved shop drawings, product data, and samples; clarification drawings; or defective Work. Such rejection shall be transmitted to the University's Representative in writing for communication to Contractor.

6.2.4 The Design Professional shall recommend special inspection or testing of the Work in accordance with the provisions of the Contract Documents if, in Design Professional's reasonable opinion, such inspection or testing is necessary or advisable for the implementation of the Contract Documents, regardless of the state of completion of the Work subject to such inspection or testing.

6.2.5 The Design Professional shall review inspection reports, laboratory reports, and test data to determine conformity of such data with the design requirements expressed, implied, or depicted in the Contract Documents; approved Shop Drawings, Product Data, and Samples; and Clarification Drawings.

6.2.6 The Design Professional shall also recommend to the University's Representative, in writing, about actions that need to be taken by University's Representative, as determined from Design Professional Project site visits, inspection reports, laboratory reports, and test data or from Contractor proposals, or other relevant documents.

6.3 INTERPRETATION OF THE CONTRACT DOCUMENTS

6.3.1 The Design Professional shall be, in the first instance, the interpreter of the design requirements of the Contract Documents and the judge of the performance thereunder.

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

6.4 CHANGES TO THE CONTRACT DOCUMENTS

The Design Professional shall incorporate changes (issued as revision drawings with Field Orders, RFIs or Change Orders) into the Record Documents on a monthly basis during the Construction phase.

6.5 CONSTRUCTION MEETINGS

6.5.1 Pre-Construction Meeting (Kick-off): Design Professional and its consultants shall attend and participate in a pre-construction meeting called by the University's Representative. Attendees shall include Contractor and major subcontractors, University's Designated Administrator and others as deemed necessary by the University. The Design Professional may submit items to the University's Representative for inclusion in the agenda.

6.5.2 Construction Meetings: Design Professional shall attend regular construction meetings at the project site scheduled to occur {INSERT MEETING FREQUENCY - Example once a week, once every 2 weeks}, plus special meetings as they are deemed necessary. Design Professional's consultants shall attend as necessary. If, through no fault of Design Professional, the total number of regular construction meetings attended exceeds Insert Number meetings, Design Professional shall be compensated for additional meetings in accordance with Agreement paragraph 5.2. Construction meeting notes will be prepared and distributed by the University's Representative.

6.6 INSPECTION

6.6.1 Construction phase inspection will be provided and paid for by University. Design Professional shall provide technical direction to, and interpretation of, the Contract Documents for inspectors and advise these inspectors of decisions rendered.

6.6.2 The inspectors, acting under the direction of University's Representative, will:

- .1 Be responsible for milestone inspections (spot checks) to assess compliance with the requirements of the Contract Documents.
- .2 Prepare a written report following each milestone inspection. The inspector shall notify University's Representative when work that does not comply with the Contract Document

requirements is observed in the field. Observed instances of noncompliance shall be noted in the inspector's report.

- .3 Comment in subsequent inspector's reports on whether or not instances of noncompliance have been corrected.
- .4 Participate in punch list inspections for beneficial occupancy, substantial completion and final completion.
- .5 Assist University's Representative in reviewing test and inspection results from testing laboratories. If University contracts for specialty inspection services, the inspector shall report the results of these inspections to University's Representative.
- .6 Not authorize deviations from the Contract Documents.
- .7 Not advise or issue directions to Contractor regarding any aspect of construction means, methods, techniques, sequences, or procedures or regarding safety programs in connection with the Project.

6.7 MATERIALS TESTING

University will contract with soils and materials testing laboratories upon Design Professional's recommendations and as required by the Specifications. University's Representative or the University's Representative's delegate will coordinate the activities of Contractor and University's testing consultants.

6.8 MATERIALS/COLOR SCHEDULE AND MATERIALS BOARDS

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

6.9 COMMISSIONING PLAN

Design Professional shall review the Contractor's or the University's Commissioning Plan for accurate incorporation of design intent.

6.10 PUNCH LIST

Design Professional and its consultants shall review the construction with University's Representative and Contractor when notified that the construction is substantially complete, and again when notified that the construction is fully complete. The Design Professional shall compile a punch list indicating any lack of compliance with Contract Document requirements and submit to the University's Representative. University's Representative, Design Professional, and Contractor shall also inspect the construction when Beneficial Occupancy is required by University or stipulated in the Contract Documents. Design Professional shall advise on the issuance of the Certificate of Beneficial Occupancy and the Certificate of Substantial Completion in accordance with the Construction Contract Documents.

6.11 FINAL APPROVAL AND INSPECTION ACCEPTANCE

6.11.1 The Design Professional and its consultants shall:

- .1 Assist University's Representative to review contractor's guarantees, and operating data to assess compliance with the Contract Document requirements.
- .2 Assist University's Representative to assemble written guarantees, operating and maintenance instruction books, diagrams, and charts required of Contractor. University's Representative is responsible for verifying that all required submittals have been received.
- .3 Recommend final acceptance of the construction and shall advise University of the acceptability of the work performed by Contractor.
- .4 Attend a final inspection and sign a Final Completion form.

6.12 REVIEW OF CONTRACTOR'S AS-BUILT DOCUMENTS

Design Professional shall review Contractor's As-Built Documents prior to or immediately following each Contractor pay request submitted to verify that Contractor's work is in compliance with the Contract

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

6.13 RECORD DOCUMENTS

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

SAMPLE

ARTICLE 7 - ADDITIONAL SERVICES

Unless required to be performed as part of basic services, the services described in this Article are additional services as described in Article 3 of this Agreement.

7.1 PRELIMINARY DESIGN

7.1.1 Provide a rough order of magnitude cost estimate based on an anticipated program, scope, schedule, and building area.

7.1.2 Provide programming services including but not limited to the following:

- .1 Meetings
- .2 Confirm design and sustainability goals
- .3 Review and confirm design requirements including sustainability criteria
- .4 Conduct user interviews
- .5 Establish and evaluate space needs and data
- .6 Develop project schedule, delivery method and cost model
- .7 Conduct space/cost reviews and adjustments
- .8 Prepare programming document

7.2 PRE-CONSTRUCTION PHASES

7.2.1 Provide analyses of University's need and formal programming documentation of the requirements of the Project.

7.2.2 Provide planning surveys, site evaluations, environmental studies, or comparative studies of prospective Project sites.

7.2.3 Provide services to investigate existing conditions or facilities, to make measured drawings thereof, or to verify the accuracy of drawings or other information furnished by University beyond those reasonably and customarily provided in Basic Services except that additional information recommended by the Design Professional in accordance with paragraph 2.1.6 of this Agreement shall not entitle Design Professional to additional compensation.

7.2.4 Provide planning services for tenant or rental spaces.

7.2.5 Provide financial feasibility studies or other special studies.

7.2.6 Prepare special surveys, environmental studies, and submissions required for review or approval by governmental authorities or others having jurisdiction over the Project except submittals required for approval of the Construction Documents and as required to prepare Change Orders under basic services as stipulated in this Agreement.

7.2.7 Prepare revisions to the documents during the Schematic Design, Design Development, and Construction Documents phases when these revisions are inconsistent with data or written approvals previously given by University, excluding (1) corrections of design errors or omissions, and (2) modifications of the Construction Documents in accordance with Articles 4 and 5 and paragraphs 1.4 and 1.6 herein.

7.2.8 Provide services related to future facilities, systems and equipment that are not intended to be constructed during the Construction phase or that are not anticipated in the Project Program.

7.2.9 Provide interior design and similar services required for or in connection with the selection, procurement, or installation of furniture, furnishings and related equipment that are not included in the Construction Documents.

7.2.10 Provide detailed quantity surveys or inventories of material, equipment, and labor.

7.2.11 Make investigations or take inventories of materials or equipment, or make valuations and detailed appraisals of existing facilities.

7.2.12 Provide analyses of owning and operating costs, except as needed to prepare the energy analysis required herein or to participate in Construction Cost/Value Control sessions as required by paragraph 1.6.3.

7.2.13 Provide perspective drawings, models, and mock-ups, including slides thereof except as indicated in subparagraph 2.1 for Schematic Design and 1.5 for Regents presentation.

7.3 CONSTRUCTION PHASE

IF AGREEMENT PARAGRAPH 2.6.7 IS USED, INCLUDE THE FOLLOWING PARAGRAPH 7.3.1:

7.3.1 Prepare drawings, specifications, supporting data, and other services in connection with Change Orders after the percent change in the Construction Contract Sum as stated in paragraph 2.6.7 of this Agreement has been met.

IF AGREEMENT PARAGRAPH 2.6.7 IS NOT USED, INCLUDE THE FOLLOWING PARAGRAPH 7.3.1:

7.3.1 Prepare drawings, specifications, supporting data, and other services in connection with Change Orders. Services shall include, but not be limited to, provision of cost and schedule analyses associated with Field and Change Orders

NOTE: 7.3.2 IS AN ADDITIONAL SERVICE AND NOT PART OF BASIC SERVICES.

7.3.2 Provide written communications with Contractor, or provide other University's Representative services as described in the Contract Documents, including but not limited to review and approval of Contractor cost, schedule or application for payment data.

7.4 POST-CONSTRUCTION

7.4.1 Provide services as necessary to correct major defects or deficiencies in the Work of Contractor when such defects or deficiencies require services in excess of those reasonably expected on a project of this type, size and complexity, excluding warranty items, provided that such defects or deficiencies are not caused in whole or in part by errors or omissions on the part of the Design Professional.

7.4.2 Provide extensive assistance in the utilization of any equipment or system; prepare operation and maintenance manuals; train personnel for operation and maintenance; and consult during operation.

7.4.3 Provide services after the issuance of the final Certificate for Payment provided that these services do not relate to the guarantee or warranty services described in paragraph 2.6.9 of this Agreement or to corrections of design errors or omissions.

7.4.4 Provide services regarding replacement of any Work damaged by fire or other cause (excluding any cause resulting from the negligent acts, errors, or omissions by Design Professional).

7.5 GENERAL

7.5.1 Provide services in connection with a public hearing, mediation, arbitration proceeding, or legal proceeding, except where Design Professional is party thereto.

7.5.2 Provide services made necessary by the termination of Contractor but only to the extent such services exceed the level of service that would have been provided in the absence of a termination of Contractor.

END OF SUPPLEMENTAL REQUIREMENTS

Design & Construction

Sustainability Score Sheet (New Construction / Major Renovation) - SAMPLE

Project Name: {insert project name}

Project Number: {insert number}

Contract Number: {insert number}

Instructions: Check boxes corresponding to each credit sought. When summing credits, do not count prerequisites.

Sustainable Sites

The following credits* are applicable to **all** buildings:

| | | |
|----------|--------------|--|
| Y | Prereq SS 1 | Erosion & Sedimentation Control |
| | Credit SS1 | Site Selection |
| | Credit SS2 | Development Density |
| | Credit SS3 | Brownfield Redevelopment |
| | Credit SS4.1 | Alternative Transportation , Public Transportation Access |
| | Credit SS4.2 | Alternative Transportation , Bicycle Storage & Changing Rooms |
| | Credit SS4.3 | Alternative Transportation , Alternative Fuel Vehicles |
| | Credit SS4.4 | Alternative Transportation , Parking Capacity and Carpooling |
| | Credit SS5.1 | Reduced Site Disturbance , Protect or Restore Open Space |
| | Credit SS5.2 | Reduced Site Disturbance , Development Footprint |
| | Credit SS6.1 | Stormwater Management , Rate and Quantity |
| | Credit SS6.2 | Stormwater Management , Treatment |
| | Credit SS7.1 | Landscape & Exterior Design to Reduce Heat Islands , Non-Roof |
| | Credit SS7.2 | Landscape & Exterior Design to Reduce Heat Islands , Roof |
| | Credit SS8 | Light Pollution Reduction |

The following Labs 21 credits** are applicable to **laboratory** buildings:

| | | |
|--|---------------|--|
| | Credit SS12.1 | Safety and Risk Management , Air Effluent |
| | Credit SS12.2 | Safety and Risk Management , Water Effluent |

Water Efficiency

The following credits* are applicable to **all** buildings:

| | | |
|--|--------------|--|
| | Credit WE1.1 | Water Efficient Landscaping , Reduce by 50% |
| | Credit WE1.2 | Water Efficient Landscaping , No Potable Use or No Irrigation |
| | Credit WE2 | Innovative Wastewater Technologies |
| | Credit WE3.1 | Water Use Reduction , 20% Reduction |
| | Credit WE3.2 | Water Use Reduction , 30% Reduction |

The following Labs21 credits** are applicable to **laboratory** buildings:

| | | |
|----------|--------------|---|
| Y | Prereq 1 | Laboratory Equipment Water Use |
| | Credit WE4.1 | Process Water Efficiency , 20% Reduction |
| | Credit WE4.2 | Process Water Efficiency , 30% Reduction |

Design & Construction

Sustainability Score Sheet (New Construction / Major Renovation) - SAMPLE

Project Name: {insert project name}

Project Number: {insert number}

Contract Number: {insert number}

Energy & Atmosphere

The following credits* are applicable to **all** buildings:

| | | |
|----------|--------------|---|
| Y | Prereq EA 1 | Fundamental Building Systems Commissioning |
| Y | Prereq EA 2 | Minimum Energy Performance |
| Y | Prereq EA 3 | CFC Reduction in HVAC&R Equipment |
| | Credit EA1 | Optimize Energy Performance |
| | Credit EA2.1 | Renewable Energy, 5% |
| | Credit EA2.2 | Renewable Energy, 10% |
| | Credit EA2.3 | Renewable Energy, 20% |
| | Credit EA3 | Additional Commissioning |
| | Credit EA4 | Ozone Depletion |
| | Credit EA5 | Measurement & Verification |
| | Credit EA6 | Green Power |

The following Labs21 credits** are applicable to **laboratory** buildings:

| | | |
|----------|-------------|---|
| Y | Prereq EA3 | Assess Minimum Ventilation Requirements |
| | Credit EA7 | Energy Supply Efficiency |
| | Credit EA8 | Improve Laboratory Equipment Efficiency |
| | Credit EA9 | Right-size Laboratory Equipment Load |
| | Credit EA10 | Right-size Laboratory Equipment Load, Metering |

Materials & Resources

The following credits* are applicable to **all** buildings:

| | | |
|----------|--------------|--|
| Y | Prereq MR 1 | Storage & Collection of Recyclables |
| | Credit MR1.1 | Building Reuse, Maintain 75% of Existing Shell |
| | Credit MR1.2 | Building Reuse, Maintain 100% of Shell |
| | Credit MR1.3 | Building Reuse, Maintain 100% Shell & 50% Non-Shell |
| | Credit MR2.1 | Construction Waste Management, Divert 50% |
| | Credit MR2.2 | Construction Waste Management, Divert 75% |
| | Credit MR3.1 | Resource Reuse, Specify 5% |
| | Credit MR3.2 | Resource Reuse, Specify 10% |
| | Credit MR4.1 | Recycled Content, Specify 5% (post-consumer + ½ post-industrial) |
| | Credit MR4.2 | Recycled Content, Specify 10% (post-consumer + ½ post-industrial) |
| | Credit MR5.1 | Local/Regional Materials, 20% Manufactured Locally |
| | Credit MR5.2 | Local/Regional Materials, of 20% Above, 50% Harvested Locally |
| | Credit MR6 | Rapidly Renewable Materials |
| | Credit MR7 | Certified Wood |

The following credits** are applicable to **laboratory** buildings:

| | | |
|----------|------------|------------------------------------|
| Y | Prereq MR2 | Hazardous Material Handling |
|----------|------------|------------------------------------|

Design & Construction

Sustainability Score Sheet (New Construction / Major Renovation) - SAMPLE

Project Name: {insert project name}

Project Number: {insert number}

Contract Number: {insert number}

Indoor Environmental Quality

The following credits* are applicable to **all** buildings:

| | | |
|----------|--------------|---|
| Y | Prereq EQ1 | Minimum IAQ Performance |
| Y | Prereq EQ2 | Environmental Tobacco Smoke (ETS) Control |
| | Credit EQ1 | Carbon Dioxide (CO₂) Monitoring |
| | Credit EQ2 | Ventilation Effectiveness |
| | Credit EQ3.1 | Construction IAQ Management Plan, During Construction |
| | Credit EQ3.2 | Construction IAQ Management Plan, Before Occupancy |
| | Credit EQ4.1 | Low-Emitting Materials, Adhesives & Sealants |
| | Credit EQ4.2 | Low-Emitting Materials, Paints |
| | Credit EQ4.3 | Low-Emitting Materials, Carpet |
| | Credit EQ4.4 | Low-Emitting Materials, Composite Wood & Agrifiber |
| | Credit EQ5 | Indoor Chemical & Pollutant Source Control |
| | Credit EQ6.1 | Controllability of Systems, Perimeter |
| | Credit EQ6.2 | Controllability of Systems, Non-Perimeter |
| | Credit EQ7.1 | Thermal Comfort, Comply with ASHRAE 55-1992 |
| | Credit EQ7.2 | Thermal Comfort, Permanent Monitoring System |
| | Credit EQ8.1 | Daylight & Views, Daylight 75% of Spaces |
| | Credit EQ8.2 | Daylight & Views, Views for 90% of Spaces |

The following credits** are applicable to **laboratory** buildings:

| | | |
|----------|------------|--|
| Y | Prereq EQ3 | Laboratory Ventilation |
| Y | Prereq EQ4 | Exterior Door Notification System |
| | Credit EQ9 | Indoor Environmental Safety |

Innovation & Design Process

The following credits* are applicable to **all** buildings:

| | | |
|--|--------------|---|
| | Credit ID1.1 | Innovation in Design: Provide Specific Title |
| | Credit ID1.2 | Innovation in Design: Provide Specific Title |
| | Credit ID1.3 | Innovation in Design: Provide Specific Title |
| | Credit ID1.4 | Innovation in Design: Provide Specific Title |
| | Credit ID2 | LEED® Accredited Professional |

Project Total

*Source: LEED®2.1, US Green Building Council, www.usgbc.org, **Source: Labs21 EPC, US Department of Energy

Design & Construction

Sustainability Score Sheet (Renovation) - SAMPLE

Project Name: {insert project name}

Project Number: {insert number}

Contract Number: {insert number}

Instructions: Check boxes corresponding to each credit sought. When summing credits, do not count prerequisites.

Sustainable Sites

The following credits* are applicable to **all** buildings:

| | | |
|--------------------------|--------------------|---|
| <input type="checkbox"/> | Credit SS 1 | Site Selection - Select a LEED Certified Building - OR - Locate the tenant space in a building with the following characteristics: |
| <input type="checkbox"/> | Credit SS-Option1A | Brownfield Redevelopment |
| <input type="checkbox"/> | Credit SS-Option1B | Stormwater Management, Rate and Quantity |
| <input type="checkbox"/> | Credit SS-Option1C | Stormwater Management, Treatment |
| <input type="checkbox"/> | Credit SS-Option1D | Heat Island Reduction, Non-Roof |
| <input type="checkbox"/> | Credit SS-Option1E | Heat Island Reduction, Roof |
| <input type="checkbox"/> | Credit SS-Option1F | Light Pollution Reduction |
| <input type="checkbox"/> | Credit SS-Option1G | Water Efficient Irrigation: Reduce by 50% |
| <input type="checkbox"/> | Credit SS-Option1H | Water Efficient Irrigation: No potable Use or No irrigation |
| <input type="checkbox"/> | Credit SS-Option1I | Innovative Water Technologies |
| <input type="checkbox"/> | Credit SS-Option1J | Water Use Reduction: 20% Reduction |
| <input type="checkbox"/> | Credit SS-Option1K | Onsite Renewable Energy |
| <input type="checkbox"/> | Credit SS-Option1L | Other Quantifiable Environmental Performance |
| <input type="checkbox"/> | Credit SS2 | Development Density and Community Connectivity |
| <input type="checkbox"/> | Credit SS3.1 | Alternative Transportation, Public Transportation Access |
| <input type="checkbox"/> | Credit SS3.2 | Alternative Transportation, Bicycle Storage & Changing Rooms |
| <input type="checkbox"/> | Credit SS3.3 | Alternative Transportation, Parking Availability |

The following Labs 21 credits** are applicable to **laboratory** buildings:

| | | |
|--------------------------|---------------|---|
| <input type="checkbox"/> | Credit SS12.1 | Safety and Risk Management, Air Effluent |
| <input type="checkbox"/> | Credit SS12.2 | Safety and Risk Management, Water Effluent |

Water Efficiency

The following credits* are applicable to **all** buildings:

| | | |
|--------------------------|--------------|---|
| <input type="checkbox"/> | Credit WE1.1 | Water Use Reduction, 20% Reduction |
| <input type="checkbox"/> | Credit WE1.2 | Water Use Reduction, 30% Reduction |

The following Labs 21 credits** are applicable to **laboratory** buildings:

| | | |
|--------------------------|--------------|--|
| <input type="checkbox"/> | Prereq 1 | Laboratory Equipment Water Use |
| <input type="checkbox"/> | Credit WE2.1 | Process Water Efficiency, 20% Reduction |
| <input type="checkbox"/> | Credit WE2.2 | Process Water Efficiency, 30% Reduction |

Design & Construction

Sustainability Score Sheet (Renovation) - SAMPLE

Project Name: {insert project name}

Project Number: {insert number}

Contract Number: {insert number}

Energy & Atmosphere

The following credits* are applicable to **all** buildings:

| | | |
|---|--------------|---|
| Y | Prereq EA 1 | Fundamental Commissioning |
| Y | Prereq EA 2 | Minimum Energy Performance |
| Y | Prereq EA 3 | CFC Reduction in HVAC&R Equipment |
| | Credit EA1.1 | Optimize Energy Performance - Lighting Power |
| | Credit EA1.2 | Optimize Energy Performance - Lighting Controls |
| | Credit EA1.3 | Optimize Energy Performance - HVAC |
| | Credit EA1.4 | Optimize Energy Performance - Equipment and Appliances |
| | Credit EA2 | Enhanced Commissioning |
| | Credit EA3 | Energy Use, Measurement & Payment Accountability |
| | Credit EA4 | Green Power |

The following Labs21 credits** are applicable to **laboratory** buildings:

| | | |
|--|------------|---|
| | Prereq EA4 | Assess Minimum Ventilation Requirements |
| | Credit EA5 | Energy Supply Efficiency |
| | Credit EA6 | Improve Laboratory Equipment Efficiency |
| | Credit EA7 | Right-size Laboratory Equipment Load |
| | Credit EA8 | Right-size Laboratory Equipment Load, Metering |

Materials & Resources

The following credits* are applicable to **all** buildings:

| | | |
|---|--------------|---|
| Y | Prereq MR 1 | Storage & Collection of Recyclables |
| | Credit MR1.1 | Tenant Space, Long Term Commitment |
| | Credit MR1.2 | Building Reuse, Maintain 40% of Interior Non-Structural Components |
| | Credit MR1.3 | Building Reuse, Maintain 60% of Interior Non-Structural Components |
| | Credit MR2.1 | Construction Waste Management, Divert 50% from Landfill |
| | Credit MR2.2 | Construction Waste Management, Divert 75% from Landfill |
| | Credit MR3.1 | Resource Reuse, Specify 5% |
| | Credit MR3.2 | Resource Reuse, Specify 10% |
| | Credit MR3.3 | Resource Reuse, Specify 30%, Furniture and Furnishings |
| | Credit MR4.1 | Recycled Content, Specify 10% (post-consumer + ½ pre-consumer) |
| | Credit MR4.2 | Recycled Content, Specify 20% (post-consumer + ½ pre-consumer) |
| | Credit MR5.1 | Regional Materials, 20% Manufactured Regionally |
| | Credit MR5.2 | Regional Materials, 10% Extracted and Manufactured Regionally |
| | Credit MR6 | Rapidly Renewable Materials |
| | Credit MR7 | Certified Wood |

The following credits** are applicable to **laboratory** buildings:

| | | |
|--|------------|------------------------------------|
| | Prereq MR2 | Hazardous Material Handling |
|--|------------|------------------------------------|

Design & Construction

Sustainability Score Sheet (Renovation) - SAMPLE

Project Name: {insert project name}

Project Number: {insert number}

Contract Number: {insert number}

Indoor Environmental Quality

The following credits* are applicable to **all** buildings:

| | | |
|----------|--------------|---|
| Y | Prereq EQ1 | Minimum IAQ Performance |
| Y | Prereq EQ2 | Environmental Tobacco Smoke (ETS) Control |
| | Credit EQ1 | Outside Air Delivery Monitoring |
| | Credit EQ2 | Increased Ventilation |
| | Credit EQ3.1 | Construction IAQ Management Plan , During Construction |
| | Credit EQ3.2 | Construction IAQ Management Plan , Before Occupancy |
| | Credit EQ4.1 | Low-Emitting Materials , Adhesives & Sealants |
| | Credit EQ4.2 | Low-Emitting Materials , Paints and Coatings |
| | Credit EQ4.3 | Low-Emitting Materials , Carpet Systems |
| | Credit EQ4.4 | Low-Emitting Materials , Composite Wood & Laminate Adhesives |
| | Credit EQ4.4 | Low-Emitting Materials , Systems Furniture and Seating |
| | Credit EQ5 | Indoor Chemical & Pollutant Source Control |
| | Credit EQ6.1 | Controllability of Systems , Lighting |
| | Credit EQ6.2 | Controllability of Systems , Temperature and Ventilation |
| | Credit EQ7.1 | Thermal Comfort , Compliance |
| | Credit EQ7.2 | Thermal Comfort , Monitoring |
| | Credit EQ8.1 | Daylight & Views , Daylight for 75% of Spaces |
| | Credit EQ8.2 | Daylight & Views , Daylight for 90% of Spaces |
| | Credit EQ8.3 | Daylight & Views , Views for 90% of Seated Spaces |

The following credits** are applicable to **laboratory** buildings:

| | | |
|--|------------|--|
| | Prereq EQ3 | Laboratory Ventilation |
| | Prereq EQ4 | Exterior Door Notification System |
| | Credit EQ9 | Indoor Environmental Safety |

Innovation & Design Process

The following credits* are applicable to **all** buildings:

| | | |
|--|--------------|--|
| | Credit ID1.1 | Innovation in Design : Provide Specific Title |
| | Credit ID1.2 | Innovation in Design : Provide Specific Title |
| | Credit ID1.3 | Innovation in Design : Provide Specific Title |
| | Credit ID1.4 | Innovation in Design : Provide Specific Title |
| | Credit ID2 | LEED® Accredited Professional |

Project Total

*Source: LEED®-CI, US Green Building Council, www.usgbc.org, **Source: Labs21 EPC, US Department of Energy

**UNIVERSITY'S BIDDING DOCUMENTS, GENERAL CONDITIONS (Traditional)
& SPECIFICATIONS DIVISION 1, GENERAL REQUIREMENTS**

(Samples attached.)

To be revised by University's Representative to satisfy the project delivery method requirements.

SAMPLE

**GENERAL CONDITIONS – LONG FORM
TABLE OF CONTENTS**

ARTICLE 1. GENERAL PROVISIONS

- 1.1 Basic Definitions
- 1.2 Ownership and Use of Contract Documents
- 1.3 Interpretation

ARTICLE 2. UNIVERSITY

- 2.1 Information and Services Provided by University
- 2.2 Access to Project Site
- 2.3 University's Right to Stop the Work
- 2.4 University's Right to Carry Out the Work
- 2.5 University's Right to Replace University's Representative

ARTICLE 3. CONTRACTOR

- 3.1 Review of Contract Documents and Field Conditions by Contractor
- 3.2 Supervision and Construction Procedures
- 3.3 Labor and Materials
- 3.4 Contractor's Warranty
- 3.5 Taxes
- 3.6 Permits, Fees, and Notices
- 3.7 Applicable Code Requirements
- 3.8 Superintendent
- 3.9 Schedules Required of Contractor
- 3.10 As-Built Documents
- 3.11 Documents and Samples at Project Site
- 3.12 Shop Drawings, Product Data, and Samples
- 3.13 Use of Site and Clean Up
- 3.14 Cutting, Fitting, and Patching
- 3.15 Access to Work
- 3.16 Royalties and Patents
- 3.17 Differing Site Conditions
- 3.18 Concealed, Unforeseen, or Unknown Conditions or Events
- 3.19 Hazardous Materials
- 3.20 Information Available to Bidders
- 3.21 Liability for and Repair of Damaged Work
- 3.22 Indemnification

ARTICLE 4. ADMINISTRATION OF THE CONTRACT

- 4.1 Administration of the Contract by University's Representative
- 4.2 Contractor Change Order Requests
- 4.3 Claims
- 4.4 Assertion of Claims
- 4.5 Decision of University's Representative on Claims
- 4.6 Mediation
- 4.7 Arbitration
- 4.8 Waiver

ARTICLE 5. SUBCONTRACTORS

- 5.1 Award of Subcontracts and Other Contracts for Portions of the Work
- 5.2 Subcontractual Relations
- 5.3 Contingent Assignment of Subcontracts

ARTICLE 6. CONSTRUCTION BY UNIVERSITY OR BY SEPARATE CONTRACTORS

- 6.1 University's Right to Perform Construction and to Award Separate Contracts
- 6.2 Mutual Responsibility
- 6.3 University's Right to Clean Up

ARTICLE 7. CHANGES IN THE WORK

- 7.1 Changes
- 7.2 Definitions
- 7.3 Change Order Procedures
- 7.4 Field Orders
- 7.5 Variation in Quantity of Unit Price Work
- 7.6 Waiver

ARTICLE 8. CONTRACT TIME

- 8.1 Commencement of the Work
- 8.2 Progress and Completion
- 8.3 Delay
- 8.4 Adjustment of the Contract Time for Delay
- 8.5 Compensation for Delay
- 8.6 Waiver

ARTICLE 9. PAYMENTS AND COMPLETION

- 9.1 Cost Breakdown
- 9.2 Progress Payment
- 9.3 Application For Payment
- 9.4 Certificate For Payment
- 9.5 Deposit of Securities in Lieu of Retention and Deposit of Retention Into Escrow
- 9.6 Beneficial Occupancy
- 9.7 Substantial Completion
- 9.8 Final Completion and Final Payment

ARTICLE 10. PROTECTION OF PERSONS AND PROPERTY

- 10.1 Safety Precautions and Programs
- 10.2 Safety of Persons and Property
- 10.3 Emergencies

ARTICLE 11. INSURANCE AND BONDS

- 11.1 Contractor's Insurance
- 11.2 Builder's Risk Property Insurance
- 11.3 Performance Bond and Payment Bond

ARTICLE 12. UNCOVERING AND CORRECTION OF WORK

- 12.1 Uncovering of Work
- 12.2 Correction of Defective Work and Guarantee to Repair Period

ARTICLE 13. TERMINATION OR SUSPENSION OF THE CONTRACT

- 13.1 Termination by Contractor
- 13.2 Termination by University for Cause
- 13.3 Suspension by University for Convenience
- 13.4 Termination by University for Convenience

ARTICLE 14. STATUTORY AND OTHER REQUIREMENTS

- 14.1 Patient Health Information
- 14.2 Nondiscrimination
- 14.3 Prevailing Wage Rates
- 14.4 Payroll Records
- 14.5 Apprentices
- 14.6 Work Day

ARTICLE 15. MISCELLANEOUS PROVISIONS

- 15.1 Governing Law
- 15.2 Successors and Assigns
- 15.3 Rights and Remedies
- 15.4 Survival
- 15.5 Complete Agreement
- 15.6 Severability of Provisions
- 15.7 University's Right to Audit
- 15.8 Notices
- 15.9 Time of the Essence
- 15.10 Mutual Duty to Mitigate

SAMPLE

**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, 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.

1.1.2 APPLICATION FOR PAYMENT

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

1.1.3 BENEFICIAL OCCUPANCY

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

1.1.4 CERTIFICATE FOR PAYMENT

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

1.1.5 CHANGE ORDER

See Article 7.2 of the General Conditions.

1.1.6 CLAIM

See Article 4.3 of the General Conditions.

1.1.7 COMPENSABLE DELAY

The term "Compensable Delay" means a delay that entitles the 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.

1.1.8 CONTRACT

The term "Contract" means the written Agreement between Contractor and University set forth in the Contract Documents.

1.1.9 CONTRACT DOCUMENTS

The term "Contract Documents" means all documents listed in Article 2 of the Agreement, as modified by Change Order, including but not limited to the Drawings and Specifications.

1.1.10 CONTRACT MILESTONE

The term "Contract Milestone" means any requirement in the Contract Documents that reflects a planned point in time for the start or completion of a portion of the Work measured from i) the date of the Notice to Proceed or ii) the date of another Contract Milestone defined in the Contract Documents, as applicable.

1.1.11 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.

1.1.12 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.

1.1.13 CONTRACT TIME

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

1.1.14 CONTRACTOR

The term "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.

1.1.15 CONTRACTOR FEE

See Article 7.3 of the General Conditions.

1.1.16 COST OF EXTRA WORK

See Article 7.3 of the General Conditions.

1.1.17 DAY

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

1.1.18 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.

1.1.19 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.

1.1.20 EXCUSABLE DELAY

The term "Excusable Delay" means a delay that entitles the 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.

1.1.21 EXTRA WORK

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

1.1.22 FIELD ORDER

See Article 7.2 of the General Conditions.

1.1.23 FINAL COMPLETION

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

1.1.24 GUARANTEE TO REPAIR PERIOD

See Article 12.2 of the General Conditions.

1.1.25 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.

1.1.26 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.

1.1.27 SEPARATE CONTRACTOR

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

1.1.28 SHOP DRAWINGS, PRODUCT DATA, AND SAMPLES

See Article 3.12 of the General Conditions.

1.1.29 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.

1.1.30 SUBCONTRACTOR

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

Subcontractors of all tiers.

1.1.31 SUBSTANTIAL COMPLETION
See Article 9.7 of the General Conditions.

1.1.32 SUPERINTENDENT
The term "Superintendent" means the person designated by Contractor to represent Contractor at the Project site in accordance with Article 3.

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

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

1.1.35 UNILATERAL CHANGE ORDER.
See Article 7.2 of the General Conditions.

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

1.1.37 UNIVERSITY'S BUILDING OFFICIAL
The term "University's 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.

1.1.38 UNIVERSITY'S REPRESENTATIVE
The term "University's Representative" means the person or firm identified as such in the Agreement.

1.1.39 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 Orders, Field Orders, and other applicable Contract Documents on behalf of the University.

1.1.40 WORK
The term "Work" means all construction, services and other requirements of the Contract Documents as modified by Change Order, whether completed or partially completed, and includes all labor, materials, equipment, tools, and services provided or to be provided by Contractor to fulfill Contractor's obligations. 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 Contractor are the property of the University and are not to be used 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 Contractor in dividing the 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 nonlimiting 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 Work.

2.1.3 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, no later than the date designated in the Contract Schedule accepted by University's Representative, access to the lands and facilities upon which the Work is to be performed, including such access and other lands and facilities designated in the Contract Documents for use by Contractor.

2.3 UNIVERSITY'S RIGHT TO STOP THE WORK

2.3.1 If Contractor fails to correct Defective Work as required by Article 12.2 or fails to perform the Work in accordance with the Contract Documents, University or University's Representative may direct Contractor to stop the Work, or any portion thereof, until the cause for such order has been eliminated by Contractor. 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 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 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 Contractor's expense. In such case, University will be entitled to deduct from payments then or thereafter due 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 Contractor are not sufficient to cover such amounts, 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 Contractor, replace University's Representative with a new University's Representative. Upon receipt of notice from University informing Contractor of such replacement and identifying the new University's representative, Contractor shall recognize such person or firm as University's Representative for all purposes under the Contract Documents.

ARTICLE 3 CONTRACTOR

3.1 REVIEW OF CONTRACT DOCUMENTS AND FIELD CONDITIONS BY CONTRACTOR

3.1.1 Contractor and its Subcontractors shall review 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 Contractor or its Subcontractors.

3.1.2 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 Contractor before commencing the Work. Errors, inconsistencies, or omissions discovered at any time shall be promptly reported in writing to University's Representative.

3.1.3 If 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, without giving the notice required in those Articles and obtaining the written consent of University's Representative, Contractor shall be responsible for the resultant losses, including, without limitation, the costs of correcting Defective Work.

3.2 SUPERVISION AND CONSTRUCTION PROCEDURES

3.2.1 Contractor shall supervise, coordinate, and direct the Work using Contractor's best skill and attention. Contractor shall be solely responsible for and have control over construction means, methods, techniques, sequences, procedures, and the coordination of all portions of the Work.

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

3.2.3 Contractor shall not be relieved of its obligation to perform the 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 Contractor.

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

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

3.3 LABOR AND MATERIALS

3.3.1 Unless otherwise provided in the Contract, Contractor shall provide and pay for all labor, 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 Work, whether temporary or permanent and whether or not incorporated or to be incorporated in the Work.

3.4 CONTRACTOR'S WARRANTY

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

3.5 TAXES

3.5.1 Contractor shall pay all sales, consumer, use, and similar taxes for the Work or portions thereof provided by 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, Contractor shall secure and pay for all permits, approvals, government fees, licenses, and inspections necessary for the proper execution and performance of the Work. Contractor shall deliver to University all original licenses, permits, and approvals obtained by Contractor in connection with the Work prior to the final payment or upon termination of the Contract, whichever is earlier.

3.7 APPLICABLE CODE REQUIREMENTS

3.7.1 Contractor shall perform the 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, Contractor, any Subcontractor, the Project, the Project site, the Work, or the prosecution of the 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.

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

3.7.2 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). Contractor shall promptly notify University's Representative in writing if Contractor becomes aware during the performance of the Work that the Contract Documents are at variance with Applicable Code Requirements.

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

Defective Work.

3.8 SUPERINTENDENT

3.8.1 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 Work. Superintendent shall represent Contractor and communications given to and received from Superintendent shall be binding on Contractor.

3.8.2 Failure to maintain a Superintendent on the Project site at all times Work is in progress shall be considered a material breach of this Contract, entitling University to terminate the Contract or alternatively, issue a stop Work order until the Superintendent is on the Project site. If, by virtue of issuance of said stop Work order, Contractor fails to complete the Contract on time, Contractor will be assessed Liquidated Damages in accordance with the Agreement.

3.8.3 The Superintendent approved for the Project must be able to read, write and verbally communicate in English.

3.8.4 The Superintendent may not perform the Work of any trade, pick-up materials, or perform any Work not directly related to the supervision and coordination of the Work at the Project site when Work is in progress.

3.9 SCHEDULES REQUIRED OF CONTRACTOR

3.9.1 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 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 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 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. Schedules showing the Work completed in less than the Contract 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 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 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 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 Contractor under Article 4 and Article 5 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 is accepted, Contractor shall not be entitled to extensions of the 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 Contract Time.

3.9.5 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.

3.9.7 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.

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

3.9.9 In preparing the Preliminary Contract Schedule, the Contract Schedule, and updated Contract Schedules, 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. Contractor shall continuously obtain from Subcontractors information and data about the planning for and progress of the Work and the delivery of equipment, shall coordinate and integrate such information and data into updated Contract Schedules, as appropriate, and shall monitor the progress of the Work and the delivery of equipment.

3.9.10 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.

3.9.11 Contractor shall cooperate with University's Representative in the development of the Contract Schedule and updated Contract Schedules. University's Representative's acceptance of or its review comments about any schedule or scheduling data shall not relieve 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. Failure of University's Representative to discover errors or omissions in schedules that it has reviewed, or to inform Contractor that Contractor, Subcontractors, or others are behind schedule, or to direct or enforce procedures for complying with the Contract Schedule shall not relieve 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 Contractor shall maintain one set of As-built drawings and specifications, which shall be kept up to date during the Work of the Contract. All changes which are incorporated into the 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 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 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 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 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 Work by Contractor or a Subcontractor to illustrate some portion of the Work.
- .2 Product Data are illustrations, standard schedules, performance charts, instructions, brochures, diagrams, and other information furnished by Contractor to illustrate or describe materials or equipment for some portion of the Work.
- .3 Samples are physical examples which illustrate materials, equipment, or workmanship and establish standards by which the 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 Work for which submittals are required, how Contractor proposes to conform to the information given and the design concept expressed in the Contract Documents.

3.12.3 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 Work or in the activities of University or of Separate Contractors. Submittals made by Contractor which are not required by the Contract Documents may be returned without action by University's Representative.

3.12.4 Contractor shall perform no portion of the 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 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, 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 Work.

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

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

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

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

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

3.15 ACCESS TO WORK

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

3.16 ROYALTIES AND PATENTS

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

3.17 DIFFERING SITE CONDITIONS

3.17.1 If Contractor encounters any of the following conditions at the site, 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 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 Contractor fulfills the following conditions:

- .1 Contractor fully complies with Article 3.17.1; and

- .2 Contractor fully complies with Article 4 (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.

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, Contractor agrees:

- .1 To bear the risk of concealed, unforeseen or unknown conditions or events, if any, which may be encountered in performing the Contract; and
- .2 That 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 or events, Contractor understands that, except and only to the extent provided otherwise in Articles 3.17, 7 and 8, concealed, unforeseen or unknown conditions or events shall not excuse Contractor from its obligation to achieve Final Completion of the Work within the Contract Time, and shall not entitle the Contractor to an adjustment of the Contract Sum.

3.18.2 If Contractor encounters concealed, unforeseen or unknown conditions or events that may require a change to the design shown in the Contract Documents, Contractor shall immediately notify University's Representative in writing such that University's Representative can determine if a change to the design is required. Contractor shall be liable to University for any extra costs incurred as the result of 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, Contractor shall be entitled, subject to compliance all the provisions of the Contract, including those set forth in Articles 4, 7 and 8, 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 Contractor shall, as a condition precedent to any adjustment in Contract Sum or Contract Time under Article 3.18.3, fully comply with Article 4 (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 Contractor.

3.19.2 If the 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 Contractor shall hire a qualified remediation contractor at Contractor's sole cost to eliminate the condition as soon as possible. Under no circumstance shall the Contractor perform Work for which it is not qualified. University, in its sole discretion, may require the Contractor to retain at Contractor's cost an independent testing laboratory.

3.19.3 If the Contractor encounters a Hazardous Material which may cause foreseeable injury or damage, 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 Contractor's compliance with Article 3.19.3, the University shall verify the presence or absence of the Hazardous Material reported by the 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 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 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 Contractor, its suppliers, its Subcontractors of all tiers and/or any persons or entities working under 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, 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: (i) was shown on the Contract Documents or Information Available to Bidders; (ii) was brought to the site by Contractor; and (iii) exceeded OSHA Permissible Exposure Levels or levels which would classify the material as a state of California or federal hazardous waste. Nothing in this paragraph shall obligate the 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 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 Contractor. University shall not be responsible for any interpretation of or conclusion drawn from the other components of the information by the Contractor.

3.21 LIABILITY FOR AND REPAIR OF DAMAGED WORK

3.21.1 Contractor shall be liable for any and all damages and losses to the Project (whether by fire, theft, vandalism, earthquake, flood or otherwise) prior to University's acceptance of the Project as fully completed except that Contractor shall not be liable for damages and losses to the Project caused by 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 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 Contractor shall promptly repair and replace any Work or materials damaged or destroyed for which the Contractor is liable under Article 3.21.1.

3.22 INDEMNIFICATION

3.22.1 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 Contractor to perform its obligations under the Contract.
- .2 The inaccuracy of any representation or warranty by 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 Contractor or any other Subcontractor, or anyone directly or indirectly employed by Contractor or any Subcontractor.
- .4 Any claim of damage or loss resulting from Hazardous Materials introduced, discharged, or disturbed by 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 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 Contractor for damage or injury (including death) to persons or property by reason of the negligence of the Contractor, its officers, agents, employees or Subcontractors, which liability is not impaired or otherwise affected hereby, the 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 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 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. 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 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 Contractor or any Subcontractor, a person indirectly employed by Contractor or any Subcontractor, or anyone for whose acts 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 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 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 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 Contractor shall indemnify Separate Contractors from and against Losses arising out of the negligent acts, omissions, or willful misconduct of Contractor, any Subcontractor, anyone directly or indirectly employed by either of them, or anyone for whose acts either of them may be liable.

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 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 Work, since these are solely Contractor's responsibility.

4.1.4 Except as otherwise provided in the Contract Documents or when direct communications have been specifically authorized, University and Contractor shall communicate through University's Representative. Except when direct communication has been specifically authorized in writing by University Representative, communications by 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 Contractor. Communications by Contractor and Subcontractors with Separate Contractors shall be through University's Representative. 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 Contractor's Applications For Payment, University's Representative will recommend amounts, if any, due 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 Contractor, or any person or entity claiming under or through 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 Contractor; and will issue a final Certificate For Payment upon 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 Contractor. Should 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, 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 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 Contractor shall be responsible for all resultant losses.

4.2 CONTRACTOR CHANGE ORDER REQUESTS

4.2.1 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 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 informational requested by the University 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 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 Contractor requests in writing to the University's Representative, within the 7-day time period, additional time to permit 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 A 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 Contractor requests an adjustment to the Contract Sum or other monetary relief, the 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; OR
- .2 a partial Cost Proposal and a declaration of what required information is not then known to Contractor. If Contractor failed to submit a completed Cost Proposal with the Change Order Request, Contractor shall submit a completed Cost Proposal meeting the requirements of Article 7 within 7 days of the date the 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, 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 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 Contractor seeks an adjustment of the Contract Time, written documentation demonstrating Contractor's entitlement to a time extension under Article 8.4, which shall be submitted within 15 days of the date requested. If requested, 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 Representative, Contractor shall submit a more detailed schedule analysis in support of its request for a time extension.
- .3 If Contractor seeks an adjustment of the Contract Sum or other monetary relief for delay, written documentation demonstrating Contractor's entitlement to such an adjustment under Article 7.3.9, 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, Contractor may contest the decision by filing a timely Claim under the procedures specified in Article 4.3.

4.2.5 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; 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 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 Contractor arising out of or related to the Contract Documents or the performance of the 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 in Article 4.7.4.
- .4 Claims respecting stop notices.

4.3.2 A Claim arises upon the issuance of a written final decision denying in whole or in part Contractor's Change Order Request pursuant to Article 4.2.4.

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.
- .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 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
- .6 If a Cost Proposal or declaration was required by Article 4.2.3, 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. 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 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 Contractor's entitlement to a time extension under Article 8.4, 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 Contractor's entitlement to such an adjustment under Article 7.3.9, including but not limited to, a detailed time impact analysis of the Contract Schedule. The Contract Schedule must demonstrate Contractor's entitlement to such an adjustment under Article 7.3.9.

4.4 ASSERTION OF CLAIMS

4.4.1 Claims by 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, Contractor shall not cause any delay, cessation, or termination in or of Contractor's performance of the Work, but shall diligently proceed with performance of the Work in accordance with the Contract Documents.

4.4.3 Contractor shall submit a Claim in writing, together with all supporting data specified in Article 4.3.3, 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 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 are conditions precedent to Contractor's right to arbitrate or litigate a Claim. Contractor specifically agrees to assert no Claims in arbitration or litigation unless there has been strict compliance with Articles 4.2, 4.3, and 4.4. The failure of Contractor to strictly comply with the requirements of Articles 4.2, 4.3 and 4.4 constitutes a failure by 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 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 60 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. The decision of University's Representative will be final and binding unless appealed in accordance with Articles 4.5.2, 4.5.3, and 4.5.4. The University's Representative's decision on a Claim or dispute will include a statement substantially as follows:

"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 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 Contractor or University disputes University's Representative's decision on a Claim, such party (the "Disputing Party") must either 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 decision of University's Representative 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.

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

4.5.4 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 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 American Arbitration Association ("AAA") within 30 days after its receipt of notice from 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 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.

4.5.5 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.

4.5.6 The parties will attempt in good faith to resolve any controversy or Claim arising out of or relating to this Contract by negotiation.

4.6 MEDIATION

4.6.1 The parties may agree to mediate any controversy or Claim arising out of or relating to this Contract.

4.7 ARBITRATION

4.7.1 A demand for arbitration pursuant to Article 4.5 shall include a copy of the Claim presented to University's Representative pursuant to Article 4.4 and a copy of the decision of University's Representative pursuant to Article 4.5, if any. 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.

4.7.2 Except as modified by this Article 4.7, arbitration shall be initiated and 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 and taking of depositions. Other discovery may be permitted in 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 Contractor and University.
- .3 Contractor's sureties shall be bound by any arbitration award and may join in any arbitration proceeding.
- .4 Except as provided in Articles 4.7.2.2. and 4.7.2.3 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 crossclaim, or otherwise without the express written consent of University, 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, 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 the date of Final Completion unless University and Contractor otherwise agree.
- .8 The exclusive forum for determining arbitrability shall be the Superior Court of the State of California. 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.
- .10 Except as provided herein, the arbitration shall be conducted and enforced under California law, including the California Arbitration Act (California Code of Civil Procedure section 1280 and following). The Federal Arbitration Act shall not apply to the arbitration.

4.7.3 Unless University and 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.

4.7.4 University may, but is not required, to assert as a counterclaim any matter arising out of the claims asserted by 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.

4.8 WAIVER

4.8.1 A waiver of or failure by University or University's Representative to enforce any requirement in this Article 4, including without limitation the requirements in Articles 4.2, 4.3, 4.4, and 4.5 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 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 WORK

5.1.1 Unless otherwise stated in the Contract Documents, Contractor shall submit in writing, prior to entering into subcontract agreements, the names and addresses of all Subcontractors proposed for the Work that were not previously listed in Contractor's Bid.

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 reason.

5.1.3 In accordance with the Subletting and Subcontracting Fair Practices Act, nothing herein shall be deemed to entitle Contractor, without the approval of University, to substitute other subcontractors for those named in Contractor's List of Subcontractors and List of Changes in Subcontractors Due to Alternates contained in the completed Bid Form; 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 Work resulting from the replacement or substitution of a Subcontractor, as required by University or University's Representative pursuant to Article 5.1.1 shall be borne solely by Contractor and 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 Work performed for 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 Work to be performed by the Subcontractor, to be bound to Contractor by the terms of the Contract Documents, to assume toward Contractor all the obligations and responsibilities which Contractor assumes towards University by the Contract Documents, and to perform such portion of the 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 Work to be performed by Subcontractor, so that subcontracting thereof will not prejudice such rights. 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 Contractor or University, except for such rights Subcontractor may have to the proceeds of such insurance held by University under Article 11.
- .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, 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, 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.

5.3 CONTINGENT ASSIGNMENT OF SUBCONTRACTS

5.3.1 Contractor hereby assigns to University all its interest in first-tier subcontracts now or hereafter entered into by 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 Contractor's rights under the Contract Documents. Such assignment is part of the consideration to University for entering into the Contract with 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. 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 Contractor. Contractor shall participate with University and Separate Contractors in joint review of construction schedules and Project requirements when directed to do so. Contractor shall make necessary revisions to the Contract Schedule after such joint review.

6.2 MUTUAL RESPONSIBILITY

6.2.1 Contractor shall afford University and Separate Contractors reasonable opportunity for introduction and storage of their materials and equipment and performance of their activities. 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 Work is dependent upon the proper execution or results of other construction or operations by University or Separate Contractors, Contractor shall inspect such other construction or operations before proceeding with that portion of the Work. Contractor shall promptly report to University's Representative apparent discrepancies or defects which render the other construction or operations unsuitable to receive the Work. Unless otherwise directed by University's Representative, Contractor shall not proceed with the portion of the Work affected until apparent discrepancies or defects have been corrected. Failure of 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 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 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 Contractor may request a Change Order under the procedures specified in Article 4.2.

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

7.1.4 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 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 A modification to any other Contract term or condition.

7.2.2 A Unilateral Change Order may be issued by University, without the Contractor' signature, where the 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 Contractor with regard to such change in the Work.

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

7.3 CHANGE ORDER PROCEDURES

7.3.1 Contractor shall provide a Change Order Request and Cost Proposal pursuant to Article 4.2 and this Article 7.3 of the General Conditions. 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. Contractor's obligation to provide Cost Proposals shall be subject to the following:

- .1 The obligation of Contractor to provide Cost Proposals is not Extra Work, and shall not entitle the Contractor to an adjustment of the Contract Sum or Contract Time.
- .2 The failure of 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. Contractor shall be responsible for any delay in implementing a change for which 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 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 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 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 Contractor shall make provisions so that they may be obtained.
 - .6 Sales taxes on the costs 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. 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 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. 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 Superintendent(s).
- .2 Assistant Superintendent(s).
- .3 Project Engineer(s).
- .4 Project Manager(s).
- .5 Scheduler(s).
- .6 Estimator(s).
- .7 Small tools (Replacement value does not exceed \$300).
- .8 Office expenses including staff, materials and supplies.
- .9 On-site or off-site trailer and storage rental and expenses.
- .10 Site fencing.
- .11 Utilities including gas, electric, sewer, water, telephone, facsimile, copier equipment.
- .12 Data processing personnel and equipment.
- .13 Federal, state, or local business income and franchise taxes.
- .14 Overhead and Profit.
- .15 Costs and expenses of any kind or item not specifically and expressly included in Article 7.3.2.

7.3.4 The term "Contractor Fee" shall mean the full amount of compensation, both direct and indirect (including without limitation all overhead and profit), to be paid to 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. The Contractor Fee shall not be compounded.

The 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 prime 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 prime contractor. Total combined 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 prime contractor. Total combined 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 one or more 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 7.3.1.
- .3 Where Contractor and University cannot agree upon a lump sum, by Cost of Extra Work plus Contractor Fee applicable to such Extra Work.

7.3.6 As a condition to Contractor's right to an adjustment of the Contract Sum pursuant to Article 7.3.5.3, 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 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, supported by a Cost Proposal pursuant to Article 7.3.1.

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

7.3.9 The Contract Sum will be adjusted for a delay if, and only if, 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.
- .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 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 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 perform any Contract obligation where the failure to so perform is not the result of any default or misconduct of the Contractor.
 - .5 A materially differing site condition pursuant to Article 3.17.

- .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 the Contract Sum will be adjusted by the daily rate included in the Agreement and specifically identified as the rate to be paid to Contractor for Compensable Delays. Pursuant to Article 9.7.4, said daily rate shall not apply to delays occurring after Substantial Completion.

7.3.11 Except as provided in Articles 7 and 8, 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 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.

7.4 FIELD ORDERS

7.4.1 Field Orders issued by the University 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 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, Contractor must follow all procedures set forth in Article 4, starting with the requirement of submitting a timely Change Order Request within 7 days of 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 Contractor shall be entitled to an adjustment of the Contract Sum and Contract Time, calculated under and subject to Contractor's compliance with the procedures for verifying and substantiating costs and delays in Articles 7 and 8.
- .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 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 Contractor asserts that the change in the Work encompassed by the Field Order may entitle 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 Contractor must follow all procedures set forth in Article 4, starting with the requirement of submitting a timely Change Order Request within 7 days of 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, Contractor shall promptly proceed to perform the Work as ordered in the Field Order notwithstanding any disagreement by the 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 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 Notice To Proceed. The date of commencement of the Work shall not be postponed by the failure of Contractor, Subcontractors, or of persons or firms for whom Contractor is responsible, to act.

8.2 PROGRESS AND COMPLETION

8.2.1 By signing the Agreement:

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

8.2.2 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 to be furnished by Contractor. The dates of commencement and Final Completion of the Work shall not be changed by the effective date of such insurance.

8.2.3 Contractor shall proceed expeditiously with adequate forces and shall achieve full completion of the Work within the Contract Time. If University's Representative determines and notifies Contractor that Contractor's progress is such that Contractor will not achieve full completion of the Work within the Contract Time, 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, Contractor shall immediately notify University's Representative of all measures to be taken to ensure full completion of the Work within the Contract Time. 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, by signing the Agreement, Contractor agrees:

- .1 to bear the risk of delays to the Work; and
- .2 that 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, 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 Contractor from its obligation to achieve Final Completion of the Work within the Contract Time, and shall not entitle the 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, the Contract Time will be extended for each day of delay for which 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 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 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 Contractor has not yet been delayed when the Contractor discovers or reasonably should discover the critical path impact of the act, error, omission or unforeseen condition giving rise to the delay) the Contractor submits both a timely and complete Change Order Request that meets the requirements of Article 4.2.
- .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; or
 - .2 The financial inability, misconduct or default of the 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; or
 - .5 An error or omission in the Contract; 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 Contractor; or
 - .7 The University's decision to suspend the Work, where such decision is not the result of any default or misconduct of the 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 Contractor's default or misconduct.
 - .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 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 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 Article 8.4.2, such concurrent critical delays shall be treated as a single delay for each such day.

.2 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 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. 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 Contractor, its Suppliers and Subcontractors of all tiers and all persons and entities working under or claiming through 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, 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 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 Selection as the apparent lowest responsible Bidder, and with the Agreement, 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 Contractor's Applications for Payment.

9.2 PROGRESS PAYMENT

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

- .1 Cost of the Work in permanent place as of the date of the Contractor's Application For Payment.
- .2 Plus cost of materials not yet incorporated in the Work, subject to Article 9.3.5.
- .3 Less amounts previously paid.

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

9.2.2 After Substantial Completion and subject to Article 9.4.3, 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, 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 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, 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 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 releases upon progress payment or final payment and (2) unconditional waivers and releases of claims and stop 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 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 notices, security interests, and encumbrances in favor of 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, 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 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 Contractor from sole responsibility for the care and protection of such materials; nor relieve Contractor from risk of loss to such materials from any cause whatsoever; nor relieve 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 Contractor has submitted an Application For Payment in accordance with Article 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 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, University will inform Contractor as soon as practicable, but not later than 5 working days after receipt. Thereafter, 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 Contractor or University arising from the acts or omissions of Contractor or Subcontractors.
- .3 Stop notices.
- .4 Failure of Contractor to make timely payments due Subcontractors for material or labor.
- .5 A reasonable doubt that the Work can be completed for the balance of the Contract Sum then unpaid.
- .6 Damage to University or Separate Contractor for which 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 Contractor to maintain and update as-built documents.
- .9 Failure of 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 Work by Contractor without properly processed Shop Drawings.
- .12 Liquidated damages assessed in accordance with Article 5 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.
- .14 Any other failure of Contractor to perform its obligations under the Contract Documents.

9.4.4 Subject to the withholding provisions of Article 9.4.3, University will pay 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.

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

9.5.1 At the request and expense of 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 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 final payment 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. 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, and at the request and expense of Contractor, University will deposit retention directly with Escrow Agent. 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 Contractor.

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 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 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 Work at any time prior to Substantial Completion or Final Completion upon 10 days' notice to 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 Contractor as an acceptance by University of that portion of the Work which is to be occupied.
- .3 Beneficial Occupancy by University shall not constitute a waiver of existing claims of University or Contractor against each other.
- .4 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 Contractor while the equipment is so operated. 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, 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 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 Contractor's remaining Work.
- .10 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 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 Work, as determined by University's Representative, when the 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 Work for its intended purpose and a Certificate of Occupancy has been issued by the University's Building Official.

9.7.2 When Contractor gives notice to University's Representative that the Work is substantially complete, unless University's Representative determines that the Work is not sufficiently complete to warrant an inspection to determine Substantial Completion, University's Representative will inspect the Work. If the University's Representative determines that the Work is not substantially completed the University's Representative will prepare and give to Contractor a comprehensive list of items to be completed or corrected before establishing Substantial Completion. 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 Contractor to complete all Work in accordance with the Contract Documents. Upon notification that the items on the list are completed or corrected, as applicable, the University's Representative will make an inspection to determine whether the Work is substantially complete. Costs for additional inspection by University's Representative shall be deducted from any monies due and payable to Contractor.

9.7.3 When University's Representative determines that the 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's Building Official, 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 Contractor for security, maintenance, utilities, insurance, and damage to the Work. The University's Representative will prepare and furnish to the 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 Work covered by the Certificate of Substantial Completion, shall commence on the date of Substantial Completion of the 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 Contractor for Compensable Delays shall not apply to any delays occurring after the Work is substantially completed.

9.8 FINAL COMPLETION AND FINAL PAYMENT

9.8.1 Upon receipt of notice from 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's Building Official. University will file a Notice of Completion within 10 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 Neither final payment nor any retention shall become due until Contractor submits the following items to University's Representative:

- .1 The final Application For Payment and all submittals required in accordance with Article 9.3.
- .2 All guarantees and warranties procured by 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 The Final Distribution of Contract Dollars in the form contained in the Exhibits.

9.8.3 The final payment shall be made, subject to the satisfaction of all other conditions to final payment, 35 days after the filing of the Notice of Completion.

9.8.4 Acceptance of final payment by Contractor shall constitute a waiver of all claims, except those previously made in writing and identified by 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 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 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 Contractor or Subcontractors.
- .3 Other property at the Project site and adjoining property.

10.2.2 Contractor shall erect and maintain, as required by existing conditions and performance of the 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 Work, Contractor shall exercise the utmost care and carry on such activities only under the supervision of properly qualified personnel.

10.2.4 Contractor shall designate a responsible member of 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 Contractor in writing to University and University's Representative.

10.2.5 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, Contractor shall act to prevent or minimize damage, injury, or loss. Contractor shall promptly notify University's Representative, which notice may be oral followed by written confirmation, of the occurrence of such an emergency and Contractor's action.

ARTICLE 11 INSURANCE AND BONDS

11.1 CONTRACTOR'S INSURANCE

11.1.1 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 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 regarding the scope and extent of Contractor's liability for and repair of damaged Work.

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

- .1 COMMERCIAL FORM GENERAL LIABILITY INSURANCE covering all Work done by or on behalf of Contractor and providing insurance for bodily injury, wrongful death, personal injury, property damage, and contractual liability. 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 Contractor by these Contract Documents. If the insurance under this Article 11.1.2.1 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.
- .2 BUSINESS AUTOMOBILE LIABILITY INSURANCE on an "Occurrence" form covering owned, hired, leased, and non-owned automobiles used by or on behalf of Contractor and providing insurance for bodily injury and property damage.
- .3 WORKERS' COMPENSATION AND EMPLOYER'S LIABILITY INSURANCE as required by Federal and State of California law. Contractor shall also require all of its Subcontractors to maintain this insurance coverage.

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

11.1.4 Certificates of Insurance, as evidence of the insurance required by these Contract Documents and on the form contained in the Exhibits, shall be submitted by Contractor to University. The Certificates of Insurance shall provide for no cancellation or modification of coverage without 30 days (10 days for non payment of premium) prior written notice to University.

11.1.5 In the event 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 Contractor and may be deducted from the Contract Sum.

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

- .1 University, University's officers, agents, employees, consultants, University's Representative, and University's Representative's consultants, regardless of whether or not identified in the Contract Documents or to Contractor in writing, will be included as additional insureds for and relating to the Work to be performed by Contractor and Subcontractors. This requirement shall apply to claims, costs, injuries, or damages, but only in proportion to and to the extent such claims, costs, injuries, or damages are caused by or result from the

negligent acts or omissions of Contractor and Subcontractors. This requirement shall not apply to Worker's Compensation and Employer's Liability Insurance.

- .2 A Severability of Interest Clause stating that, "The term 'insured' is hereby used severally and not collectively, but the inclusion herein of more than one insured shall not operate to increase the limits of the insurers' liability."
- .3 A Cross Liability Clause stating that, "In the event of claims being made under any of the coverages of the policies referred to herein by one or more insureds hereunder for which another insured hereunder may be liable, then the policies shall cover such insureds against whom a claim is made or may be made in the same manner as if separate policies had been issued to each insured hereunder. Nothing contained herein, however, shall operate to increase the insurers' limits of liability as set forth in the insuring agreements."
- .4 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.
- .5 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.

11.1.7 The form and substance of all insurance policies required to be obtained by 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 shall be issued by companies with ratings and financial classifications as specified in the Supplementary Conditions.

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

11.1.9 The Certificate of Insurance 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 form as contained in the Exhibits, it must provide a Certificate of Insurance evidencing compliance with this Article and Special Provisions 1 through 4 on the Certificate of Insurance Exhibit by including an endorsement to its Certificate of Insurance form covering Special Provisions 1 through 4 exactly as these provisions appear on the Certificate of Insurance Exhibit.

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

11.2 BUILDER'S RISK PROPERTY INSURANCE

11.2.1 If and only if the Contract Sum exceeds \$200,000 at the time of award, 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. 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 Contractor as their respective interests, from time to time, may appear. 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 Contractor of full responsibility for loss of or damage

to materials not incorporated in the Work, and for Contractor's tools and equipment used to perform the Work, whether on the Project site or elsewhere, or to relieve 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 Contractor.
- .2 Include a waiver of subrogation against Contractor, its Subcontractors, its agents, and employees.

11.2.3 Builder's risk insurance coverage under this Article 11.2 will expire as described in the builder's risk property insurance policy.

11.3 PERFORMANCE BOND AND PAYMENT BOND

11.3.1 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 Exhibits 3 and 2.

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

11.3.3 The Payment Bond and Performance Bond shall be in effect on the date the Contract is signed by University.

11.3.4 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 Work. Contractor shall furnish supplemental Payment and Performance Bonds each in the amount of the current Contract Sum at the request of the University.

11.3.5 Surety companies used by 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 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 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 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, 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 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, from the first date of such Beneficial Occupancy or actual use, as established in a Certificate of Beneficial Occupancy.
 - .3 For all Work other than .1 or .2 above, from the date of Final Completion.

12.2.2 Contractor shall (1) correct Defective Work that becomes apparent during the progress of the Work or during the Guarantee To Repair Period and (2) replace, repair, or restore to University's satisfaction any other parts of the 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. 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 Contractor shall diligently and continuously prosecute such correction to completion. 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. Contractor shall perform corrective 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, Contractor shall pay to University all reasonable costs of correcting such Defective Work. Contractor shall replace, repair, or restore to University's satisfaction any other parts of the 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 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 Contractor nor accepted by University.

12.2.5 If 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; and, in addition, University may remove the Defective Work and store salvageable materials and equipment at Contractor's expense.

12.2.6 If Contractor fails to pay the costs of such removal and storage as required by Articles 12.2.4 and 12.2.5 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. Contractor shall be entitled to the proceeds of such sale, if any, in excess of the costs and damages for which 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 Contractor is liable to University, the Contract Sum shall be reduced by such deficiency. If there are no remaining payments due Contractor or the remaining payments are insufficient to cover such deficiency, Contractor shall promptly pay the difference to University.

12.2.7 Contractor's obligations under this Article 12 are in addition to and not in limitation of its warranty under Article 3.4 or any other obligation of Contractor under the Contract Documents. Enforcement of 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 Contractor under the Contract Documents. Establishment of the Guarantee To Repair Period relates only to the specific obligation of Contractor to correct the Work and in no way limits either Contractor's liability for Defective Work or the time within which proceedings may be commenced to enforce Contractor's obligations under the Contract Documents.

ARTICLE 13 TERMINATION OR SUSPENSION OF THE CONTRACT

13.1 TERMINATION BY CONTRACTOR

13.1.1 Subject to Article 13.1.2, 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 Work is stopped for 90 consecutive days, through no act or fault of Contractor, any Subcontractor, or any employee or agent of 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 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 Contractor stating the nature of such default(s).
- .3 Repeated suspensions by University, other than such suspensions as are agreed to by Contractor under Article 13.3, 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, Contractor may, upon 10 days additional notice to University and University's Representative, and provided that the condition giving rise to Contractor's right to terminate is continuing, terminate the Contract.

13.1.3 Upon termination by Contractor, University will pay to Contractor the sum determined by Article 13.4.4. Such payment will be the sole and exclusive remedy to which Contractor is entitled in the event of termination of the Contract by Contractor pursuant to Article 13.1; and 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 Contractor becomes insolvent or files for relief under the bankruptcy laws of the United States.
- .2 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 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, as a result of 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 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 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 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 Contractor fails to make prompt payment of amounts properly due Subcontractors after receiving payment from University.
- .3 Contractor disregards Applicable Code Requirements.
- .4 Contractor persistently or materially fails to execute the Work in accordance with the Contract Documents.
- .5 Contractor is in default of any other material obligation under the Contract Documents.
- .6 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, University may, at its election and by notice to 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 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, Contractor shall remove any part or all of Contractor's materials, supplies, equipment, tools, and construction equipment and machinery from the Project site within 7 days of such request; and if Contractor fails to do so, University may remove or store, and after 90 days sell, any of the same at Contractor's expense.

13.2.4 If the Contract is terminated by University as provided in this Article 13.2, Contractor shall not be entitled to receive any further payment until the expiration of 35 days after Final Completion and acceptance of all 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 Contractor. If such costs, expenses, losses, and liquidated damages exceed the unpaid balance of the Contract Sum, 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 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 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, 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 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, 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 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. 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 Contractor. Upon such termination, Contractor agrees to waive any claims for damages, including loss of anticipated profits, on account thereof; and, as the sole right and remedy of Contractor, University shall pay Contractor in accordance with Article 13.4.4.

13.4.2 Upon receipt of notice of termination under this Article 13.4, 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 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 Work as may be necessary to preserve and protect 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 Contractor's obligations under Article 13.4.2, as to bona fide obligations assumed by Contractor prior to the date of termination.

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

- .1 The amount of the Contract Sum allocable to the portion of the Work properly performed by Contractor as of the date of termination, less sums previously paid to 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 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 Contractor is entitled in the event of termination of the Contract by University pursuant to Article 13.4; and 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.). 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. 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, Contractor will report such actions immediately to the University Representative. 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. Contractor will report to University Representative within five (5) days after 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 Contractor shall comply and shall ensure that all Subcontractors comply with Section 12900 through 12996, of the State of California Government Code.

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

- .1 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). 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 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 Contractor will, in all solicitations or advertisements for employees placed by or on behalf of the 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 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 Contractor is not a "responsible bidder" as to future contracts for which such Contractor may submit bids or (2) a basis for refusing to accept or consider the bids of 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 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 Contractor that, unless it demonstrates to the satisfaction of University within a stated period that the violation has been corrected, Contractor's bids on future projects will not be considered.
 - .4 Contractor agrees that, should University determine that Contractor has not complied with this Article 14.2, 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 for violation of prevailing wage rates. Such penalty amounts may be recovered from Contractor; and University may deduct any such penalty amounts from the Contract Sum.

- .5 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.
- .6 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 Contractor shall notify its Superintendent and other supervisory personnel of the nondiscrimination requirements of the Contract Documents and their responsibilities thereto.
 - .2 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 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, nonminority women, and minority men shall be available and given an equal opportunity for employment.
 - .4 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.
- .7 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 Contractor shall comply and shall ensure that all Subcontractors comply with Sections 1770, 1771, 1772, 1773, 1774, and 1775 of the State of California Labor Code. Compliance with these sections is required by this Contract.

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. Contractor shall post a copy of the general prevailing per diem wage rates at the job site. By this reference, such schedule is made part of the Contract Documents. Contractor shall pay not less than the prevailing wage rates, as specified in the schedule and any amendments thereto, to all workers employed by Contractor in the execution of the Work. 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. Contractor shall forfeit to University, as a penalty, not more than \$50 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 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. 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 17420 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 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 Contractor or Subcontractors keeping such records; and the payroll records shall be available for inspection at all reasonable hours at the principal office of 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 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 Contractor awarded the Contract or performing the Contract shall not be marked or obliterated.

14.4.3 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. Contractor shall inform University of the location of such payroll records for the Project, including the street address, city, and county; and 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, Contractor shall have 10 days in which to comply following receipt of notice specifying in what respects Contractor must comply. Should noncompliance still be evident after the 10 day period, Contractor shall forfeit to University, as a penalty, \$25 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 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.

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 Work in the craft or trade to which the apprentice is indentured.

14.5.4 When Contractor or Subcontractors employ workers in any apprenticeship craft or trade on the Work, 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 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 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. 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 Contractor or Subcontractors employ journeyworkers 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, Contractor and Subcontractors shall contribute to the fund or funds in each craft or trade in which they employ journeyworkers or apprentices on the Work in the same amount or upon the same basis and in the same manner done by the other contractors. Contractor may include the amount of such contributions in computing its bid for the Contract; but if Contractor fails to do so, it shall not be entitled to any additional compensation therefor from University.

14.5.7 In the event 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 Contractor or Subcontractors of journeyworker trainees who may receive on-the-job training to enable them to achieve journeyworker status in any craft or trade under standards other than those set forth for apprentices.

14.6 WORK DAY

14.6.1 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. Contractor shall forfeit to University, as a penalty, \$25 for each worker employed in the execution of this Contract by 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. 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 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 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 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 Article 7.

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 Contractor's books, records, contracts, correspondence, instructions, drawings, receipts, vouchers, purchase orders, and memoranda relating to the Work. 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 NOTICES

15.8.1 Except as otherwise provided, all notices, requests, demands, and other communications to be given under the Contract Documents shall be in writing and shall be transmitted by one of the following methods:

- .1 Personally delivered.
- .2 Sent by facsimile copy where receipt is confirmed.
- .3 Sent by courier where receipt is confirmed.
- .4 Sent by registered or certified mail, postage prepaid, return receipt requested.

15.8.2 Such notices and other communications in Article 15.8.1 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. Such notices and communications shall be given 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 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.

SAMPLE

UC STANDARD SPECIFICATION SECTIONS
FOR DIVISION 1 OF THE CONTRACT DOCUMENTS

| <u>Section No.</u> | <u>Title</u> |
|--------------------|--|
| 01010 | Summary of Work |
| 01012 | Request for Interpretation (RFI) |
| 01014 | Contractor's Use of The Project Site |
| 01020 | Allowances |
| 01035 | Modification Procedures |
| 01037 | Applications for Payment |
| 01040 | Coordination |
| 01050 | Field Engineering |
| 01070 | Cutting & Patching |
| 01100 | Alternates |
| 01155 | Unit Prices |
| 01200 | Project Meetings |
| 01300 | Submittals |
| 01310 | Contract Schedules |
| 01340 | Shop Drawings, Product Data & Samples |
| 01400 | Quality Control |
| 01420 | Observation of Work |
| 01421 | Reference Standards and Definitions |
| 01500 | Construction Facilities & Temporary Controls |
| 01532 | Tree Protection |
| 01560 | Environmental Mitigation |
| 01565 | Hazardous Materials Procedures |
| 01600 | Materials & Equipment |
| 01630 | Product Options & Substitutions |
| 01700 | Contract Closeout |
| 01710 | Final Cleaning |
| 01720 | Project Record Documents |



Facilities – Contracts Administration

Project Name: #
Project Number: #
Contract Number: #

01740

Guarantees, Warranties, Bonds, Service & Maintenance Contracts

SAMPLE

SECTION 01010
SUMMARY OF WORK

PART 1 - GENERAL

1.1 WORK COVERED BY CONTRACT DOCUMENTS

A. **(Enter Description of the Work here)**

1. Project Location: University of California, Riverside, Riverside, California 92521.
2. Owner (hereinafter referred to as "University"): University of California, Riverside, Riverside, California 92521.

B. Contract Documents were prepared for the Project by **(Architect/Engineer name, address, zip code here)**.

C. The Work will be constructed under a **(single or multiple)** prime contract**(s)** **(Contractors)**.

1.2 WORK SEQUENCE

A. Special Requirements:

1. Existing Site Conditions and Restrictions: Maintain access and code required exiting to adjacent buildings during construction.

1.3 CONTRACTOR USE OF PREMISES

A. Use of the Site: Limit use of the premises to work in areas indicated. 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 areas designated 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 North Campus Circle Drive 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.

1.4 OCCUPANCY REQUIREMENTS

- 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. Such placing of equipment and partial occupancy shall not constitute acceptance of the total Work.
 - 1. If partial occupancy of the Work is required, The University's Representative will prepare a Notice of Beneficial Occupancy for each specific portion of the Work to be occupied prior to Final Completion of the entire Work.
 - 2. Upon occupancy, the University will assume responsibility for insurance, security, maintenance, operation, and custodial service for occupied portions of the site.

1.5 OWNER-FURNISHED PRODUCTS:

- A. The University will furnish certain toilet accessories as designated at no cost to Contractor. The Work includes identification and installation of the total number of each type accessory required.
 - 1. Furnish University's Representative with a schedule listing quantity and location of each type of toilet accessory by room number.
 - 2. Make arrangements with University's Representative to deliver the accessories to the Project site.

1.6 SITE EXAMINATION

- A. 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. 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.
- B. The Contractor shall prepare a report of the survey, including:
 - 1. VHS format videotape of existing conditions.
 - 2. 8" x 10" glossy photographs of significant features requested by University's Representative.
 - 3. Key plan with references to video/photographs
- C. 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.
- D. Contractor is solely responsible for repairing damage to existing construction and finishes and for replacing damaged components, which cannot be repaired.

- E. 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.
- F. The University shall provide a copy of the "As-Built Anchor Bolt Survey" prepared by the Increment 1 Contractor. The Contractor shall compare the existing conditions to the survey and the Increment 2 drawings and specifications. Prepare an acceptance report noting any discrepancies within one week of receipt of the "Survey".
 - 1. Acceptance of "As-Built Anchor Bolt Survey": Contractor is solely responsible for any modifications or repairs necessary to complete Increment 2 for all items accepted in the "As-Built Anchor Bolt Survey". Contractor is also responsible for all design/engineering fees required for these modifications or repairs.
 - 2. Discrepancies with "As-Built Anchor Bolt Survey": Contractor shall complete any modifications or repairs necessary to complete Increment 2 for all items noted as a discrepancy in their report. Cost of Change Orders for modifications or repairs shall be approved by the University prior to completing the work.

1.7 PERMITS AND FEES

- A. The Contractor is responsible for all fees, and Project costs, other than the following:
 - 1. Building Permit Fees (none required);
 - 2. Plan check fees (non required);
 - 3. Inspection by the University and its representatives except overtime costs incurred for the Contractor's convenience.

PART 2 - PRODUCTS (Not Applicable)

PART 3 - EXECUTION (Not Applicable)

END OF SECTION

**SECTION 01012
REQUESTS FOR INTERPRETATION (RFI)**

PART 1 - GENERAL

1.1 DESCRIPTION

- 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.

2.1 PROCEDURES

- A. Notification by Contractor:

1. Submit all requests for clarification or additional Interpretation in writing to University's Representative using the Request for Interpretation (RFI) form provided by University's Representative or a similar form approved by University's Representative.
2. Number RFI's sequentially. Follow RFI number with sequential alphabetical suffix as necessary for each resubmission. For example, the first RFI would be "001." The second RFI would be "002." The first re-submittal of RFI "002" would be "002a."
3. Limit each RFI to one subject.
4. Submit an RFI if one of the following conditions occur:
 - 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.
5. RFIs will not be recognized or accepted if, in the opinion of University's Representative, one of the following conditions exist:
 - a. Contractor submits the RFI as a request for substitution.
 - b. Contractor submits the RFI as a submittal.
 - c. Contractor submits the RFI under the pretense of a Contract Documents discrepancy or omission without thorough review of the Documents.
 - d. Contractor submits the RFI 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. Contractor submits an RFI in an untimely manner without proper coordination and scheduling of Work of related trades.
- 6. Ask for any clarification or request for Interpretation immediately upon discovery. Submit RFIs in a reasonable time frame so as not to affect the Contract Schedule while allowing the full response time described below.
- B. Response Time:
 - 1. University's Representative, whose decision will be final and conclusive, shall resolve such questions and issue instructions to Contractor within a reasonable time frame. In most cases, RFIs will receive a response within 14 days. In some cases this time may need to be lengthened for complex issues, or shortened for emergency situations, as mutually agreed in writing.
 - 2. 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.
 - 3. 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 USED

PART 3 - EXECUTION

- 3.1 Refer to the following Request for Interpretation Form



Facilities – Contracts Administration

Project Name: #
Project Number: #
Contract Number: #

UNIVERSITY OF CALIFORNIA
RIVERSIDE CAMPUS
RIVERSIDE, CALIFORNIA

TO:

FROM:

ISSUE: SCHEDULE ACTIVITY:
SPEC. SEC. REF.: PARA: DWG REF: DETAIL:

* CIVIL * ARCH * STRUCT * PLUMBING * MECH * FP * ELECT * LANDSCAPE
* OTHER

* INFORMATION NOT SHOWN ON CD'S * COORDINATION PROBLEM
* INTERPRETATION OF CD'S * POSSIBLE COST IMPACT
* CONFLICT IN CD'S * POSSIBLE TIME IMPACT

DESCRIPTION:

CONTRACTOR'S PROPOSED RESOLUTION:

SIGNED: DATE INTERPRETATION REQUIRED:

RESPONSE:

* ATTACHMENTS

RESPONSE FROM: TO:

SIGNED: DATE SENT: DATE REC'D:

** END OF SECTION **

Facilities – Contracts Administration

SECTION 01014 CONTRACTOR'S USE OF THE PROJECT SITE

PART 1 GENERAL

1.1 USE OF PUBLIC THOROUGHFARES AND UNIVERSITY ROADS

- A. 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.
- B. 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.
- C. 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.
- D. 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.
- E. Truck staging is not allowed on campus or on any residential street surrounding the campus.

2.1 WATCHMAN'S SERVICES

- A. During all hours that Work is not being prosecuted, 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.
- B. The University will not be liable for any loss or damage.

3.1 SERVICE CONTINUITY

- A. 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.
- B. 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 fifteen (15) 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

Facilities – Contracts Administration

in advance for shut-down.

2. Include in Contractor's bid the cost of overtime necessary for the Work. No extra payment will be allowed for overtime to meet this requirement or the Contract Schedule.

4.1 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 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.

5.1 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.

6.1 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 01060, REGULATORY REQUIREMENTS.
- B. Arrange for construction equipment access to areas which may be partly blocked by existing obstructions.

7.1 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.

8.1 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 Air Quality Management District (AQMD) Rule 403 to eliminate dust formation.

Facilities – Contracts Administration

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.

10.1 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 off-site to the extent feasible. Those operations which cannot be performed off-site shall be done on those areas of the site furthest from noise sensitive receptors.
- 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.
 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.
 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.
 4. Scheduling: Noisy operations shall be scheduled so as to minimize their disturbance to occupied adjacent areas and duration at any given location.

11.1 EROSION 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.

Facilities – Contracts Administration

1. Erosion control shall include retaining sediments within project site by the use of catch basins; using interceptor ditches and benches to prevent gully of slopes; and preparing and implementing erosion control plans.

12.1 SHORING:

- A. Protection. Pursuant to Labor Code Sections 6705 and 6707, Contractor shall include in its base bid all costs incident to the provision of adequate sheeting, shoring, bracing or equivalent method for the protection of Life and Limb which shall conform to the applicable Federal and State Safety Orders.
- B. Before beginning excavation five feet or more in depth, Contractor shall submit to University=s Representative a detailed plan showing the design or shoring, bracing, sloping, or other provisions to be made for worker protection from the hazards of caving ground during the excavation. The proposed plan shall comply with the State Regulations. (CCR). If the detailed plan varies from such shoring system standards, it shall be prepared by a registered civil or structural engineer, University=s Representative=s determination of the matter shall be final and conclusive on Contractor. The cost of required engineering services shall be borne by Contractor and shall be deemed to have been included in the amount bid for the Work as stated in the Agreement.
- C. Neither the review nor approval of any plan showing the design of shoring, bracing, sloping, or other provisions for worker protection, shall relieve Contractor from its obligation to comply with Construction Safety Orders Standards and Title 24 CCR for the design and construction of such protective Work, and Contractor shall indemnify University and University=s Representative from any and all claims, liability, costs, action and causes of action arising out of or related to the failure of such protective systems. Contractor shall defend University, its officers, employees, and agents and University=s Representative in any litigation of proceeding brought with respect to the failure of such protective systems.
- D. Comply with State of California Construction Safety Orders, Article 6 - Excavations, Trenches, Earthwork - whether or not the excavation, trench, or earthwork is five feet or more in depth.

END OF SECTION

SECTION 01020
ALLOWANCES

PART 1 GENERAL

1. SUMMARY

- A. Included in the Contract Sum are all allowances stated in the Contract Documents. Items covered by Allowances shall be provided for such amounts and by such persons or firms as the University's Representative may direct.

1.2 The following shall apply, unless otherwise provided in the Contract Documents:

- A. Allowances shall cover the actual cost incurred by Contractor, all Subcontractors, Suppliers, or by such other persons or firms as the University's Representative may direct that actually perform the Work directed by the University's Representative, and shall be limited to the extent so incurred in accordance with the General Conditions, Article 7.3.3, and the actual costs incurred shall be computed on the basis of General Conditions, Article 7.3.6.
- B. Allowances shall not include Contractor's costs in accordance with General Conditions, Article 7.3.4, overhead, profit, "Contractor Fee" or any other expenses. The full amount of Contractor's compensation for all costs and expenses not included in the Allowances, whether or not referred to in Subparagraph 1.2.A shall be included in the Contract Sum and not in the Allowances.
- C. Whenever the Work allowed for as actually directed provided by the University's Representative is more than or less than Allowances, the Contract Sum shall be adjusted by Change Order based on (1) the difference between actual work and the allowances and (2) changes in the Contractor's costs.
- D. The Contract Time shall remain unchanged, unless the total of stated cost of Allowances is exceeded, or the directions of the University's Representative are made untimely with regard to the Detailed Construction Schedule accepted by the University's Representative.

2. DESCRIPTION OF ALLOWANCES

- 2.1 ALLOWANCE 1: Include an allowance of Thirty thousand dollars (\$30,000) for additional Miscellaneous Steel, to be provided during the progress of the Work. This is in addition to the description in Section 05120, paragraph 1.5, C.
- 2.2 ALLOWANCE 2: Include an Allowance of Ten thousand dollars (\$10,000) for unforeseen conditions related to Hazardous Materials removal required during the progress of the Work.
- 2.3 ALLOWANCE 3: Include an Allowance of Sixty thousand dollars (\$60,000) to be used by University for additional Works related to Mechanical Systems.
- 2.4 ALLOWANCE 4: Include an Allowance of Fifty thousand dollars (\$50,000) to be used by University for any additional Works related to Electrical Systems, and Communications Systems.
- 2.5 ALLOWANCE 5: Include an Allowance of Twenty thousand dollars (\$20,000) to be used by University for any additional Works requested by University Representative during the Earthwork portion of the Work.

- 2.6 ALLOWANCE 6: Include an Allowance of Thirty thousand dollars (\$30,000) for additional Concrete Reinforcement, to be provided during the progress of the Work. This is in addition to the description in Section 03200, paragraph 1.5A.

END OF SECTION

SAMPLE

Facilities – Contracts Administration

SECTION 01035 MODIFICATION PROCEDURES

PART 1 – GENERAL

1.1 SUMMARY

- A. This Section specifies administrative and procedural requirements for handling and processing contract modifications.
- B. Related Sections: The following Sections contain requirements that relate to this Section:
 - 1. Division 1 Section “Submittals” for requirements for the Contractor’s Construction Schedule.
 - 2. Division 1 Section “Applications for Payment” for administrative procedures governing Applications for Payment.
 - 3. Division 1 Section “Product Substitutions” for administrative procedures for handling requests for substitutions made after award of the Contract.

2.1 PROCEDURES AND FORMS

- A. Review General Conditions Article 7: Changes in the Work.
- B. The University’s Representative will use the cost Proposal form shown in Exhibit 7 and/or Field order form shown in Exhibit 8 for (1) issuing Field orders, (2) for requesting cost proposals, (3) for directing changes in the work based on cost proposals. Contractor shall price and return the cost proposal form within ten (10) working days after receipt.
- C. Use only the UCR Cost Proposal and Cost Breakdown form shown in Exhibit 7 to summarize changes directed by Field orders and to respond to a request for a proposal. The Cost Proposal and Cost Breakdown forms are not required when the University’s Representative and Contractor agree on a lump sum.
- D. Use the UCR Cost Proposal and Cost Breakdown forms to summarize the detailed cost breakdown of a claim.
- E. The University will issue a Change order by using the form shown in Exhibit 9 to supersede approved Cost Proposal/Field Order requests.

3.1 BASIS OF COST PROPOSALS

- A. If Contractor and University’s Representative cannot agree on the labor unit hours and unit costs of material and equipment, then labor unit hours and unit costs of materials and equipment will be compared against those published by R.S. Means Company, Inc. Building Construction Cost Data, **2004** Edition. Contractor shall justify any differences and the University’s Representative determination will be final.

PART 2 – PRODUCTS (Not Applicable)

PART 3 – EXECUTION (Not Applicable)

END OF SECTION

Facilities – Contracts Administration

SECTION 01037
APPLICATIONS FOR PAYMENT

PART 1 – GENERAL

1.1 SUMMARY

- A. This Section specifies administrative and procedural requirements governing the Contractor's Applications for Payment.
- B. Related Sections: The following Sections contain requirements that related to this Section.
 - 1. Schedules: The Contractor's Construction Schedule and Submittal Schedule are specified in Division 1 Section "Submittals".

2.1 SCHEDULE OF VALUES

- A. Coordination: coordinate preparation of the Schedule of Values with preparation of the contractor's Construction Schedule.
 - 1. Correlate line items in the Schedule of Values with other required administrative schedules and forms, including:
 - a. Contractor's Construction Schedule.
 - b. Application for Payment forms, including Continuation Sheets.
 - c. List of subcontractors.
 - d. Schedule of allowances.
 - e. Schedule of alternates.
 - f. List of products.
 - g. List of principal suppliers and fabricators.
 - h. Submittals Schedule (see Exhibit 6).
 - 2. Submit the Schedule of Values to the University's Representative at the earliest possible date but no later than 14 days after issuance of Notice to Proceed.
- B. Format and Content: Use the Specifications Table of Contents as a guide to establish the format for the Schedule of Values.
 - 1. Identification: Include the following Project identification on the Schedule of Values:
 - a. Project name and location.
 - b. Name of the University's Representative.
 - c. University's project Number.
 - d. Contractor's name and address.
 - e. Date of submittal
 - 2. Arrange the Schedule of Values in tabular form with separate columns to indicate the following for each item listed:
 - a. Related Specification Section or Division.

Facilities – Contracts Administration

- b. Generic name.
 - c. Name of subcontractor.
 - d. Name of manufacturer or fabricator.
 - e. Name of supplier.
 - f. Change orders (numbers) that affect value.
 - g. Dollar value.
- 1) Percentage of Contract Sum to nearest whole percent, adjusted to total 100%.
3. Provide a breakdown of the contract Sum in sufficient detail to facilitate continued evaluation of Applications for Payment and progress reports. Coordinate with the Specifications Table of contents. Break principal subcontract amounts down into several line items.
 4. Round amounts to nearest whole dollar; the total shall equal the Contract Sum.
 5. Provide a separate line item in the Schedule of Values for each part of the Work where Applications for Payment may include materials or equipment, purchased or fabricated and stored, but not yet installed.
 - a. Differentiate between items stored on-site and items stored off-site. Include requirements for insurance and bonded warehousing, if required.
 6. Provide separate line items on the Schedule of Values for initial cost of the materials, for each subsequent stage of completion, and for total installed value of that part of the Work.
 7. Margins of Cost: Show line items for indirect costs and margins on actual costs only when such items are listed individually in Applications for Payment. Each item in the Schedule of Values and Applications for Payment shall be complete. Include the total cost and proportionate share of general overhead and profit margin for each item.
 - a. Temporary facilities and other major cost items that are not direct cost of actual work-in-place may be shown either as separate line items in the Schedule of Values or distributed as general overhead expense, as the Contractor's option.
 8. Schedule Updating: Update and resubmit the Schedule of Values prior to the next Applications for Payment when Change orders result in a change in the Contract Sum.

3.1 APPLICATIONS FOR PAYMENT

- A. Each Application for Payment shall be consistent with previous applications and payments as certified by the University's Representative and paid for by the University.
 1. The initial Application for Payment, the Application for Payment at time of Substantial Completion, and the final Application for Payment involve additional requirements.

Facilities – Contracts Administration

- B. Transmittal: Submit 3 executed copies of each Application for Payment to the University's Representative by a method ensuring receipt within 24 hours. One copy shall be complete, including waivers of lien and similar attachments, when required.
1. Transmit each copy with a transmittal form listing attachments and recording appropriate information related to the application, in a manner acceptable to the University's Representative.
- C. Waivers of Mechanics Lien: With each Application for Payment, submit waivers of mechanics lien from every entity who is lawfully entitled to file a mechanics lien arising out of the Contract and related to the Work covered by all previous payments.
- D. Initial Application for Payment: Administrative actions and submittals, that must precede or coincide with submittal of the first Application for Payment, include the following:
1. List of subcontractors
 2. List of principal suppliers and fabricators.
 3. Schedule of Values.
 4. Contractor's Construction Schedule (preliminary if not final); 3 copies.
 5. Schedule of principal products.
 6. Schedule of unit prices.
 7. Submittal Schedule (preliminary if not final).
 8. List of Contractor's staff assignments.
 9. initial progress report.
 10. Report of pre-construction meeting.
 11. Certificates of insurance and insurance policies.
 12. Contractor's and subcontractor's Certificates of Review and Coordination, if required.
 13. Performance and payment bonds.
 14. Data needed to acquire the University's insurance.
 15. Initial settlement survey and damage report, if required.
- E. Intermediate Applications for Payment: When an updated schedule is prepared, submit 3 copies of the current updated Contractor's Construction Schedule with each Application for Payment. If no change in schedule has occurred, submittal is not required.
- F. Application for Payment at Substantial Completion: Following issuance of the Certificate of Substantial Completion, submit an Application for Payment.
1. This application shall reflect Certificates of Partial Substantial Completion issued previously for University occupancy of designated portions of the Work.
 2. Administrative actions and submittals that shall precede or coincide with this application include:
 - a. Occupancy permits and similar approvals.
 - b. Warranties (guarantees) and maintenance agreements.
 - c. Test/adjust/balance records.
 - d. Maintenance instructions.
 - e. Meter readings.
 - f. Startup performance reports.

Facilities – Contracts Administration

- g. Changeover information related to University's occupancy, use, operation, and maintenance.
 - h. Advise on shifting insurance coverage's.
 - i. Final progress photographs, if any.
 - j. List of incomplete Work, recognized as exceptions to the Certificate of Substantial Completion.
- G. Final Payment Application: Administrative actions and submittals that must precede or coincide with submittal of the final Application for Payment include the following:
 - 1. Completion of Project closeout requirements.
 - 2. Completion of items specified for completion after Substantial Completion.
 - 3. Ensure that unsettled claims will be settled.
 - 4. Ensure that incomplete Work is not accepted and will be completed without undue delay.
 - 5. Transmittal of required Project construction records to The Regents.
 - 6. Proof that taxes, fees, and similar obligations were paid.
 - 7. Removal of temporary facilities and services.
 - 8. Removal of surplus materials, rubbish, and similar elements.
 - 9. Perimeter fences to remain in place until increment 2 contractor occupies site.

4.1 CERTIFIED PAYROLL RECORDS

- A. In addition to the requirements of the General Conditions, Contractor shall submit with each Application for Payment an accurate payroll record showing the name, address, social security number or classification, straight time and overtime hours worked each day and week, and the actual per diem wages paid to each journey worker, apprentice, laborer, or other employee employed by it in connection with the Work for the period covered by the Application for Payment. The payroll record shall be certified. Failure to submit the certified payrolls with the Application for Payment will result in a delay in processing the progress payment until the certified payrolls are received.

5.1 CONTRACTOR'S DAILY REPORTS

- A. Contractor and each subcontractor on site shall completely fill out a Contractor's Daily Report, on forms provided by University's Representative (refer to Exhibit 15, bound herein), for each day worked. It is the responsibility of Contractor to submit all Daily Reports, including those of subcontractors, by 9:00 a.m. the following work day. Failure to submit Daily Reports in a timely manner may result in delayed progress payment(s).

PART 2 – PRODUCTS (Not Applicable)

PART 3 – EXECUTION (Not Applicable)

END OF SECTION

Facilities – Contracts Administration

SECTION 01040 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. General project coordination procedures.
 2. Conservation.
 3. Coordination Drawings.
 4. Administrative and supervisory personnel.
 5. Cleaning and protection.
 6. Requests for interpretation.
- B. Related Sections: The following Sections contain requirements that relate to this Section:
1. Division 1 Section "Field Engineering" specifies procedures for field engineering services, including establishment of benchmarks and control points.
 2. Division 1 Section "Project Meetings" for progress meetings, coordination meetings, and preinstallation conferences.
 3. Division 1 Section "Submittals" for preparing and submitting the Contractor's Construction Schedule.
 4. Division 1 Section "Materials and Equipment" for coordinating general installation.
 5. Division 1 Section "Contract Closeout" for coordinating contract closeout.

1.2 DEFINITIONS

- A. Request For Interpretation (RFI): A written document submitted by the Contractor requesting clarification of a portion of the Contract Documents.

1.3 COORDINATION

- 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 differenced 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.

Facilities – Contracts Administration

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.
 8. 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 in AutoCAD 2000 format for review by University's Representative. 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.
- 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.
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.

Facilities – Contracts Administration

- 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. Requests for Information (RFI): Make Requests for Information in writing to the University's Representative immediately when a clarification of the Contract Documents is required. (Use the form Exhibit 15 in the Exhibits section of the specifications.)
1. The University's Representative will only review Requests for Information received directly from the Contractor in the required written form. Allow 14 days for University's review of RFI.
 2. Assign an "RFI Number" to each RFI. Assign numbers sequentially starting with 1.
 3. A Request for Information and the University Representative's response does not alter or change the requirements of the Contract Documents and is not an authorization to proceed in a manner resulting in Work that does not comply with the Contract Documents or results in extra cost to the University.
 - a. In the event a response to a RFI is a possible change in the Contract Document requirements, submit a Change Order Proposal Request in accordance with requirements in Division 1 Section "Modification Procedures."
 4. When, in the University Representative's opinion, the Contract Documents clearly identify the information requested by the Contractor in a RFI, the Contractor shall reimburse the University for costs, including, but not limited to, labor costs at University Representative's normal hourly billing rates and reimbursable expenses at cost plus 15 percent incurred by the University's Representative in reviewing the unnecessary RFI.
- G. 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.

1.4 SUBMITTALS

Facilities – Contracts Administration

- A. Coordination Drawings (Auto CAD 2000 format): Prepare coordination drawings where careful coordination is needed for installation of products and materials fabricated by separate entities. Prepare coordination drawings where limited space availability necessitates maximum utilization of space for efficient installation of different components.
1. Show the relationship of components shown on separate Shop Drawings.
 2. Indicate required installation sequences.
 3. Comply with requirements contained in Section "Submittals."
- B. Staff Names: Within 15 days of commencement of construction operations, submit 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.
- C. Requests for Information: Submit a legible written request (FAX is acceptable) on a RFI Form 8-1/2 by 11 inches (215 by 280 mm), approved in advance by the University's Representative and including the following information:
1. Project name, as listed on the Contract Documents, and University Representative's project number (indicated as "Project No." on the Drawings and Specifications.
 2. Date.
 3. Name, address, telephone and FAX numbers of the Contractor.
 4. Number and title of appropriate Specification Section or Sections.
 5. Drawing numbers and detail references, as appropriate.
 6. RFI Number.
 7. Clear, concise, explanation of information or clarification requested.
 8. Blank, lined space, for University Representative's written response.
- D. 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.

PART 2 - PRODUCTS (Not Applicable)

PART 3 - EXECUTION

3.1 GENERAL COORDINATION PROVISIONS

- A. Inspection of Conditions: Require the Installer of each major component to inspect both the substrate and conditions under which Work is to be performed. Do not proceed until unsatisfactory conditions have been corrected in an acceptable manner.
- B. Coordinate temporary enclosures with required inspections and tests to minimize the necessity of uncovering completed construction for that purpose.

Facilities – Contracts Administration

3.2 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.

Facilities – Contracts Administration

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

Facilities – Contracts Administration

COMPLETE THIS CERTIFICATE, INCLUDING SIGNATURE BY PERSON DIRECTLY RESPONSIBLE FOR WORK ON THIS PROJET, AND SUBMIT TO THE GENERAL CONTRACTOR WITHIN 5 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 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

END OF SECTION

Facilities – Contracts Administration

SECTION 01050
FIELD ENGINEERING

PART 1 – GENERAL

1.1 SUMMARY

- A. General: This Section specifies administrative and procedural requirements for field-engineering services including, but not limited to, the following:
 - 1. Surveys, lines, and levels.
- B. Related Sections: The following Sections contain requirements that relate to this Section.
 - 1. Division 1 Section “Summary of work” for damage survey.
 - 2. Division 1 Section “Coordination” for procedures for coordinating field engineering with other construction activities.
 - 3. Division 1 Section “Submittals” for submitting Project record surveys.
 - 4. Division 1 Section “Contract closeout” for submitting final property survey with Project Record Documents and recording of University-accepted deviations from indicated lines and levels.

PART 2 –PRODUCTS (Not Applicable)

PART 3 – EXECUTION

3.1 EXAMINATION

- A. Identification: The University’s Representative will identify existing control points including horizontal and vertical control points.
- B. Verify layout information shown on the Drawings, in relation to the property survey and existing benchmarks, before proceeding to lay out the Work. Locate and protect existing benchmarks and control points. Preserve permanent reference points during construction.
 - 1. Do not change or relocate benchmarks or control points without prior written approval. Promptly report lost and destroyed reference points or requirements to relocate reference points because of necessary changes in grades or locations.
 - 2. Promptly replace lost or destroyed Project control points. Base replacements on the original survey control points.
- C. Establish and maintain a minimum of 2 permanent benchmarks on the site, referenced to data established by survey control points.
 - 1. Record benchmark locations, with horizontal and vertical data, on Project Record Documents.
- D. Existing Utilities and Equipment: The existence and location of underground and other utilities and construction indicated as existing are not guaranteed. Before beginning site work Contractor shall employ and pay for underground utilities service company to investigate and verify the existence and location of all underground utilities and other construction.

Facilities – Contracts Administration

1. Prior to construction, verify the location and invert elevation at points of connection of sanitary sewer, storm sewer, and water-service piping.
2. The Drawings show, if applicable, existing above and below grade structures, drainage lines, storm drains, sewers, water, gas, electrical, hot water and other utilities, which are known to the University.
3. Existing installations shall be kept in service where possible and damage to them shall be repaired with no adjustment of Contract Sum.
4. If any other structures or utilities are encountered, request University's Representative to provide direction on how to proceed with the Work.
5. If any structure or utility is damaged, take appropriate action to ensure the safety of persons and property. Repair damage and restore utility to service at no cost to the University.
6. Obtain University Representative approval at least 14 days prior to any service shutdown or cutover. All utility shut downs shall be kept to a minimum. Contractor shall coordinate for all shut downs to occur during weekend hours with out 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.

3.2 PERFORMANCE

- A. Work from lines and levels established by the property survey. Establish benchmarks and markers to set lines and levels at each story of construction and elsewhere as needed to locate each element of the Project. Calculate and measure required dimensions within indicated or recognized tolerances. Do not scale Drawings to determine dimensions.
 1. Advise entities engaged in construction activities of marked lines and levels provided for their use.
 2. As construction proceeds, check every major element for line, level, plumb, movement, settlement, or other damage.
- B. Site Improvements: Locate and lay out site improvements, including pavements, stakes for grading, fill and topsoil placement, utility slopes, and invert elevations.
- C. Existing Utilities: Furnish information necessary to adjust, move, or relocate existing structures, utility poles, lines, services, or other appurtenances located in or affected by construction. Coordinate with, and obtain required approvals form University's Representative.

END OF SECTION

Facilities – Contracts Administration

SECTION 01070
CUTTING AND PATCHING

PART 1 – GENERAL

1.1 SUMMARY

- A. This Section includes administrative and procedural requirements for cutting and patching.
- B. Related Sections: The following Sections contain requirements that relate to this Section:
 - 1. Division 1 Section "Coordination" for procedures for coordinating cutting and patching with other construction activities.
 - 2. Division 2 Section "Demolition: for shoring and demolition of selected portions of the building for alterations.
 - 3. Refer to other Sections for specific requirements and limitations applicable to cutting and patching individual parts of the Work.
 - a. Requirements of this Section apply to mechanical and electrical installations. Refer to Division 16 Sections for other requirements and limitations applicable to cutting and patching mechanical and electrical installations.

1.2 DEFINITIONS

- A. 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.

1.3 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.

Facilities – Contracts Administration

All utility shut downs shall be kept to a minimum. Contractor shall coordinate for all shut downs to occur during weekend hours with out 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.

1.4 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.

1.5 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.

Facilities – Contracts Administration

PART 2 – PRODUCTS

2.1 MATERIAL, GENERAL

- 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

Facilities – Contracts Administration

- 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 01100
ALTERNATES**

1. GENERAL

- 1.1 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.
- 1.2 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.
- 1.3 Except as otherwise specifically provided by the University, the Work described in Alternates shall be completed with no increase in Contract Time.
- 1.4 This SECTION includes only the non-technical descriptions of the Alternates. Refer to the specific SECTIONS of DIVISIONS 2 - 16 of the Specifications for technical descriptions of the Alternates.
- 1.5 Coordinate related Work and modify surrounding Work as required to properly and completely integrate the Alternates into the Work.

2. DESCRIPTION OF ALTERNATES

2.1 ALTERNATE NO. 1:

2.2 ALTERNATE NO. 2:

(ETC.)

END OF SECTION

Facilities – Contracts Administration

SECTION 01155
UNIT PRICES

PART 1 – GENERAL

1.1 SUMMARY

- A. This Section specifies administrative and procedural requirements for unit prices.
1. A unit price is an amount proposed by Bidders and stated on the Bid form as a price per unit of measurement for materials or services that will be added to or deducted from the Contract Sum by Change order in the event the quantities of specified Work required by the Contract Documents are increased or decreased.
 2. Unit prices include all necessary material, overhead, profit and applicable taxes.

PART 2 – PRODUCTS (Not Applicable)

PART 3 – EXECUTION

3.1 UNIT PRICE SCHEDULE:

- A. Item No. 1 – Reinforcing Steel for Concrete work; Extra Material:
1. Description: Reinforcing steel for concrete work, including all related drawing, detailing, submittals, fabrication, installation, and record document procedures.
 2. Unit of Measurement: Tons.
 3. Payment: The Unit Price will be used to deduct from the Contract Price the quantity of extra material required by Section 03200 – Concrete Reinforcement not actually installed in the work, or to add to the Contract Price the quantity of extra material over that specified in Section 03200 added to the work, up to, but not exceeding 100% more than the quantity indicated.
 - a. The same Unit Price will be used for deduct or add adjustments.

END OF SECTION

Facilities – Contracts Administration

SECTION 01200 PROJECT MEETINGS

PART 1 – GENERAL

1.1 SUMMARY

- A. This Section specifies administrative and procedural requirements for project meetings, including, but not limited to, the following:
 - 1. Preconstruction conferences.
 - 2. Preinstallation conferences
 - 3. Progress meetings.
 - 4. Coordination meetings.
- B. Related Sections: The following Sections contain requirements that related to this Section:
 - 1. Division 1 Section "Project Coordination" for procedures for coordinating project meetings with other construction activities.
 - 2. Division 1 Section "CPM Schedules" for submitting the Contractor's Construction Schedule.

1.2 PRECONSTRUCTION CONFERENCE

- 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. Hold the conference at the Project Site or another convenient location. Conduct the meeting to 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: Discuss 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.

Facilities – Contracts Administration

13. Safety procedures, including emergency notification procedures.
14. First Aid.
15. Security.
16. Housekeeping.
17. Working hours.

1.3 PREINSTALLATION CONFERENCES

- A. Conduct a preinstallation 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. 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 preinstallation 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.

Facilities – Contracts Administration

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 MEETING

- A. Conduct progress meetings at the Project Site at regular intervals. Notify the University's Representative and the Architect of scheduled meeting dates. Coordinate dates of meetings with preparation of the payment request
- 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. Deliveries.
 - f. Off-site fabrication problems
 - g. Access
 - h. Site utilization.
 - i. Temporary facilities and services
 - j. Hours of work.
 - k. Contractor's Safety Program (including any special hazards and risks).
 - l. Housekeeping.
 - m. Quality and work standards.
 - n. Contractor's two week "look ahead" schedule and issues.
 - o. Change Orders.
 - p. Documentation of information for payment requests.
- 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

Facilities – Contracts Administration

- 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. University Representative's 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 GUARANTEES, BONDS AND SERVICE AND MAINTENANCE CONTRACTS REVIEW MEETING

- A. Attend a meeting eleven months following the date of Notice of Completion.
- B. Attendees:
 - 1. Regents
 - 2. University's Representative.
 - 3. University Representative's Consultants, as appropriate.
 - 4. Contractor's Project Manager
 - 5. Subcontractors, as appropriate.
 - 6. Others as directed by University's Representative.
- 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

Facilities – Contracts Administration

SECTION 01300 SUBMITTALS

PART 1 – GENERAL

1.1 SUMMARY

- A. This Section includes administrative and procedural requirements for submittals required for performance of the Work, including the following:
1. Preliminary construction schedule.
 2. Contractor's construction schedule.
 3. Submittal schedule.
 4. Daily construction reports.
 5. Shop Drawings.
 6. Product Data.
 7. Samples.
 8. Quality assurance submittals
 9. Mock-ups
- B. Administrative Submittals: Refer to other division 1 Sections and other Contract Documents for requirements for administrative submittals. Such submittals include, but are not limited to, the following:
1. Permits.
 2. Applications for Payment.
 3. Performance and Payment bonds
 4. Insurance certificates
 5. List of subcontractors.
- C. Related Sections: The following Sections contain requirements that relate to this Section:
1. Division 1 Section "CPM Schedules" specifies requirements for submittal of CPM construction schedule.
 2. Division 1 Section "Quality Control" specifies requirements for submittal of inspection and test reports.

1.2 GENERAL

- 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 01640. Contractor shall be responsible for obtaining such copies of shop drawings, product data, and samples as it may require for its own use.

1.3 DEFINITIONS

- A. 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.

Facilities – Contracts Administration

- B. The terms “Shop Drawings” and Product Data” as used herein also include fabrication, erection, layout and setting drawings, manufacturers’ standard drawings, descriptive literature, catalogues, brochures, performance and test data, wiring and control diagrams, all other drawings and descriptive data pertaining to materials, equipment, or systems and the positions thereof conform to the Contract Documents.
- C. 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.
- D. 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.
- D. Submit Schedule:
 - 1. A schedule of submission of shop drawings, product data, and samples by Contractor (“Submittal Schedule”), and their processing and return by the University’s Representative, 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.
 - 2. Contractor shall prepare the Submittal Schedule in the form contained in Exhibit 6 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.
 - 3. 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.
 - 4. Allow 28 days for the University’s review of submittals.

1.4 SHOP DRAWINGS

- A. 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.
- B. Shop drawings shall be original drawings by the Contractor. Direct reproductions of the Contract Drawings will not be acceptable as shop drawings.

1.5 PRODUCT DATA

Facilities – Contracts Administration

- A. Clearly mark each copy to identify pertinent Products or models.
- B. 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.
- C. Show dimensions, weights and clearances required.
- D. Show wiring or piping diagrams and controls.
- E. Modify the standard schematic drawings and other diagrams to delete information, which is not applicable to the Work.
- F. Supplement standard information to provide information specifically applicable to the Work.

1.6 SAMPLES

- A. Office samples shall be of sufficient size and quality to clearly illustrate the following:
 - 1. Functional characteristics of the products, with integrally related parts and attachment devices.
 - 2. Full ranges of color, texture, and pattern.
 - 3. Provide 3 samples plus number Contractor needs.

1.7 MOCK-UPS - NOT APPLICABLE TO THIS CONTRACT

1.8 MATERIAL LIST

- A. Provide complete material list of products proposed for use.

1.9 CONTRACTOR'S REVIEW

- A. 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 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

Facilities – Contracts Administration

changes are not made in writing to the University Representative 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 University Representative's final reviewed submittals.

1.10 SUBMISSION REQUIREMENTS

- A. Make submittals promptly in accordance with the Specifications and in such sequence as to cause no delay in the Work.

- B. Number of Submittals Required:

1. Shop Drawings: submit one reproducible transparency and five (5) opaque reproductions. After checking, University's Representative will retain five (5) copies for itself, University's Consultants, and return the reproducible copy to Contractor to make prints as it requires for its use and distribution.
2. Product data and non-reproducible submittals: Submit the number of copies which contractor will need, plus six copies which will be retained by University's Representative.

- 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 01340/005/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. Resubmission Requirements:

1. Shop Drawings and Product Data:

Facilities – Contracts Administration

- a. Revise shop drawings or product data, and resubmit as specified for the initial submittal, only if required by University's Representative.
 - b. Identify any changes which have been made other than those requested.
 - c. Note any departures from the Contract Documents or changes in previously reviewed submittals which were not commented upon by University's Representative.
2. Samples: Submit new samples as required for initial submittal.
- E. Distribution
1. Reproduce and distribute copies of Shop Drawings and Product Data, which carry University Representative's or designee's review stamp, to the following locations:
 - a. Contractor's Project site file.
 - b. Record documents file maintained by Contractor.
 - c. Separate Contractors.
 - d. Subcontractors.
 - e. Supplier or manufacturer.
 - f. Other involved parties as directed by University's Representative.
- F. University Representative's or designee's Review will be under the following conditions.
1. 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.
 2. 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 Consultant or University.

1.11 LIST OF SUBMITTALS REQUIRED – NOT APPLICABLE TO THIS CONTRACT

PART 2 – PRODUCTS (Not Applicable)

PART 3 – PRODUCTS (Not Applicable)

Facilities – Contracts Administration

PART 4 – SUBMITTAL SCHEDULE:

| SUBMITTAL SCHEDULE | | | | | | | | | |
|--------------------|-----------|-----------------|------------------|-------------------|-------------------|-------|-------------|--------|-------|
| Section | Shop Dwgs | Prod. Data/List | Samples Mock-ups | Extend. Guarantee | Op/Maint. Manuals | Tests | Extra Mat'l | Certs. | Other |
| 01010 | | | | | | | | | |
| 01037 | | | | | | | | | |
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Facilities – Contracts Administration

| SUBMITTAL SCHEDULE | | | | | | | | | |
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| Section | Shop Dwgs | Prod. Data/List | Samples Mock-ups | Extend. Guarantee | Op/Maint. Manuals | Tests | Extra Mat'l | Certs. | Other |
| 05400 | | | | | | | | | |
| 05500 | | | | | | | | | |
| 05510 | | | | | | | | | |
| 05905 | | | | | | | | | |
| 06200 | | | | | | | | | |
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| 07430 | | | | | | | | | |
| 07541 | | | | | | | | | |
| 07600 | | | | | | | | | |
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| 08160 | | | | | | | | | |
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| 08334 | | | | | | | | | |
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Facilities – Contracts Administration

| SUBMITTAL SCHEDULE | | | | | | | | | |
|--------------------|-----------|-----------------|------------------|-------------------|-------------------|-------|-------------|--------|-------|
| Section | Shop Dwgs | Prod. Data/List | Samples Mock-ups | Extend. Guarantee | Op/Maint. Manuals | Tests | Extra Mat'l | Certs. | Other |
| 10425 | | | | | | | | | |
| 10522 | | | | | | | | | |
| 10530 | | | | | | | | | |
| 10800 | | | | | | | | | |
| 10950 | | | | | | | | | |
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| 11161 | | | | | | | | | |
| 12480 | | | | | | | | | |
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| 12495 | | | | | | | | | |
| 12650 | | | | | | | | | |
| 14240 | | | | | | | | | |
| 15000 | | | | | | | | | |
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Facilities – Contracts Administration

| SUBMITTAL SCHEDULE | | | | | | | | | |
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| Section | Shop Dwgs | Prod. Data/List | Samples Mock-ups | Extend. Guarantee | Op/Maint. Manuals | Tests | Extra Mat'l | Certs. | Other |
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| 15991 | | | | | | | | | |
| 16000 | | | | | | | | | |
| 16025 | | | | | | | | | |
| 16073 | | | | | | | | | |
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NOTE: Should a discrepancy arise between this schedule's requirements and individual requirements, the most stringent requirement shall prevail.

END OF SECTION

Facilities – Contracts Administration

SECTION 01310
CONTRACT SCHEDULES

PART 1 – GENERAL

1.1 SUMMARY

- A. This Section includes administrative and procedural requirements for the critical path method (CPM) of scheduling and reporting progress of the Work.
 - 1. Refer to the General Conditions and the Agreement for definitions and specific dates of Contract Time.
- B. Related Sections: The following Sections contain requirements that relate to this Section:
 - 1. Division 1 Section "Submittals" specifies requirements for submitting the Submittal Schedule.
 - 2. Division 1 Section "Project Meetings" specifies requirements for submitting and distributing meeting and conference minutes.
 - 3. Division 1 Section "Quality Control" specifies requirements for submitting inspection and test reports.
 - 4. Division 1 Section "Materials and Equipment" specifies requirements for submitting the list of products.

1.2 GENERAL

- A. Contractor shall develop a network plan and schedule for the Project demonstrating complete fulfillment of all contract requirements, shall keep the network plans up-to-date and in accordance with the requirements of this section and shall utilize the Critical Path Method (CPM) in planning, coordination, performing and reporting the work under this contract, including all activities of subcontractors, equipment vendors, and suppliers and in assisting University's Representative in monitoring the progress of the Work.
- B. The precedence Diagramming, Method (PDM) shall be utilized in preparing the CPM Schedule network diagrams utilizing Primavera Scheduling Software.

1.3 SUBMITTALS

- A. Preliminary Contract Schedule.
- B. Detailed Contract Schedule.
- C. Final As-Built Schedule.
- D. All other reports referenced in this Section.
- E. Submit 2 reproducible and 2 blueline prints of each required schedule and report. Contractor shall also submit two (2) copies of the computer data disks used to produce hard copy submittals.

Facilities – Contracts Administration

- F. Monthly update Contract Schedules (hereinafter Baseline Schedules) and reports referenced herein shall be submitted concurrently in a single package, with previous month's payment application.
- G. Submit the Preliminary Contract Schedule to the University's Representative with the signed Agreement. Within fourteen (14) days after receipt of the Preliminary Contract Schedule, University's Representative will notify Contractor of its review comments about the schedule so that appropriate adjustments may be made by Contractor in the development of the Contract Schedule.

1.4 APPROVALS

- A. Acceptance of the Detailed Contract Schedule and monthly updates is a condition precedent to the making of any progress for work performed.
- B. The monthly updating of the Baseline Schedule and reports shall be an integral part and basic element of the estimate upon which progress payments will be made. Submittal, review and approval by University's Representative of these items shall be a condition precedent to the making of progress payments. If, in the judgment of University's Representative, Contractor fails or refuses to provide a complete updated Baseline Schedule or reports, as specified, Contractor will be deemed to have not provided the required estimate upon which progress payments may be made, and shall not be entitled to such progress payments unless or until it has furnished the required schedules.

1.5 CONSTRUCTION ANALYSIS

- A. Contractor shall use a computerized critical path scheduling system capable of producing computer generated reports with the following minimum information:
 - 1. Activity identification code keyed to Summary and Detailed Contract Schedule Activities.
 - 2. Activity description.
 - 3. Status date and remaining duration.
 - 4. Activity percentage complete.
 - 5. Activity duration.
 - 6. Early start/finish and late start/finish.
 - 7. Total float.
 - 8. Free float.
 - 9. The predecessor and successor activities for each individual activity.
 - 10. A comparison between the current update and the Baseline Schedule.
 - 11. Designation of the planned work day/work week for each activity.
 - 12. A critical item list of activities with ten (10) working days or less total float.
 - 13. Scheduled and actual manpower loading for each activity.
 - 14. Scheduled and actual progress payment for each activity.

1.6 PRELIMINARY CONTRACT SCHEDULE

- A. Prepare the Preliminary Contract Schedule as a CPM, time-scaled network showing continuous flow from left to right.
- B. Prepare the Preliminary Contract in sufficient detail to demonstrate adequate preliminary planning for the Work and to represent a practical plan to complete the Work within the Contract Time.

Facilities – Contracts Administration

- C. Identify critical construction milestone events on the Preliminary Contract Schedule.

1.7 ACTIVITIES

- A. Identify all holidays as non-working days on the Preliminary Schedule. Contractor shall perform no work requiring the University's observation or inspections during the University's holiday as follow:
 - 1. New Year's Day.
 - 2. Third Monday in January.
 - 3. Third Monday in February.
 - 4. Last Monday in May.
 - 5. July 4th.
 - 6. Labor Day.
 - 7. Thanksgiving Day.
 - 8. Day after Thanksgiving.
 - 9. December 24th through New Year's Day.
- B. Identify all Work activities which constitute the critical path.
- C. Identify all Work activities in proper sequence for the completion of the Work.

1.8 CONTRACT SCHEDULE

- A. Contractor shall submit for University's Representative review and acceptance a Detailed Contract Schedule no later than 30 days Prior to the first application of payment. The detailed Contract Schedule shall be a computerized, detailed, task level CPM diagram in PDM format. A clear delineation of construction activities shall be shown on the Detailed Contract Schedule. This schedule shall be manpower and cost loaded and not extend beyond the Contract time of completion.
- B. Contractor shall participate in a review of the proposed Detailed Contract Schedule by University's Representative when requested. Any revisions deemed necessary as a result of this joint review shall be re-submitted within 7 days.
- C. All activities in the Detailed Contract Schedule shall be grouped to enable "rollup" of the activities in the form of a Summary Schedule. Submit monthly with Updated Detailed Contract Schedule. A clear delineation of construction activities shall be shown on the Summary Schedule. This schedule shall be manpower and cost loaded.
- D. The work activities comprising the Detailed Contract Schedule shall be a sufficient detail to ensure adequate planning and execution of the Work such that the schedules provide an appropriate basis for monitoring and evaluating the progress of the Work. A work activity is defined as an activity which requires time and resource (manpower, equipment, and/or material) to complete in a continuous operation. No activity shall be less than 1, no more than 14 days duration for any onsite operation. All holidays and non-working days shall be identified.
- E. Failure by Contractor to include any element of the Work required for the performance of this Contract and completion of the Project shall not excuse Contractor from completing

Facilities – Contracts Administration

all work required within the time of completion, notwithstanding University's Representative acceptance of the Detailed Contract Schedule.

- F. Schedule shall allow for 28 days for the review of submittals by the University.
- G. No more than 30% of the total number or activities shown on the schedule shall be critical or near critical. Near critical is defined as float less than 10 days.
- H. These schedules shall indicate the sequence and interdependency of work activities and shall be coordinated with all submittal, review and approval requirements.
- I. Each approved Change Order and Field Order shall be listed and plotted as a separate and independent activity. Schedule components shall be organized into logical groupings by location, responsibility, Specification Section, etc.
- J. A combined 3-week Look-Ahead Schedule with a 3-week As-Built Schedule for previous two weeks (derived for the Baseline Schedule) shall be submitted by Contractor for review and approval as often as requested by the University's Representative, at no additional cost.
- K. Critical work activities are defined as activities which, if delayed or extended, will delay the scheduled completion of the Work. All other Work activities are defined as non-critical Work activities and are considered to have float. Float is defined as the time that a non-critical Work activity can be delayed or extended without delaying the scheduled completion of milestones specified in this Section or the scheduled completion of the Work, or both. Float or slack time is not for the exclusive use or benefit of either the University or Contractor. Neither Contractor nor the University shall have an exclusive right to the use of float. Document the effect on the updated Contract Schedule whenever float has been used.
- L. Delay of any non-critical Work activity shall not be the basis for an extension of the contract Time until the delay consumes the float associated with the non-critical Work activity and causes the Work activity to become critical.
- M. Contractor shall not sequester float through strategies including extending 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 restraints or imposed dates. Use of float time disclosed or implied by the use of alternate float suppression techniques shall be shared to the benefit of both the University and contractor.
- N. It is acknowledged that University-generated time savings (critical path submittal reviews returned in less time than allowed by the Contract Documents, approval of substitution requests which result in a savings of time for contractor) create shared float. Accordingly, University-caused delays may be offset by University-generated time savings.
- O. Once accepted by University's Representative, Contractor's Detailed Contract Schedule shall be known as the Baseline Schedule and shall be used by Contractor for execute the Work of the Contract, including planning, organizing and directing the Work, and reporting its progress until subsequently revised.

1.9 BASELINE SCHEDULE UPDATING

Facilities – Contracts Administration

- A. Update the Baseline Schedule on a monthly basis, or at lesser intervals if deemed Necessary by University's Representative without additional cost to the University for reasons such as work activities being 14 days or more behind schedule. Contractor shall meet with University's Representative each month to review actual progress made to date, activities started and completed to date, and the percentage of work completed to date on each activity started but not completed. Upon completion of the joint review Contractor shall prepare the updated Baseline Schedule and submit it to University's Representative.
- B. The updated Baseline Schedule shall incorporate all changes mutually agreed upon by contractor and University during preceding periodic reviews and all changes resulting from approved Change Orders and Field Orders. Acceptance of the Updated Baseline Schedule will be a condition precedent to the making of any progress payments for work performed.
- C. Variance: A variance report shall be submitted monthly comparing the approved baseline and the Updated Baseline Schedules. The report shall include a description of all activities completed during the preceding month, a description of progress made and planned for activities listed as started but not completed on the updated Contract Baseline Schedule, and shall report noncritical activities which have been delayed 10 or more working days and critical (8 days or less total float) activities which have incurred any delay. The format of this report shall include.
1. Activity code and description.
 2. Baseline scheduled early start/finish dates.
 3. Current anticipated early start/finish dates.
 4. Working days remaining to complete the activity.
 5. Percentage complete of the activity.
 6. Total float of the activity.
- D. Cash Flow Curve:
1. Contractor shall submit within 60 days after Notice to Proceed Cash Flow Curve of expected progress payments over the time of the Project. The curve shall be plotted against the Detailed Contract Schedule using contractual bid item amounts.
 2. Contractor shall update the curve with actuals from the approved progress payments and forecasted progress payments and submit it to Regents' Representative monthly. The total of approved progress payments and forecasted progress payments shall equal the contractual bid amounts plus approved Contract modifications. The updated curve shall be plotted against the Baseline Schedule.
- E. Manpower Curve:
1. Contractor shall submit, within 30 days after Notice to Proceed, a Manpower Curve of the labor requirements per calendar week over the time of the Project. The curve shall be plotted against the Detailed Contract Schedule. The curve shall show the number of persons in each craft for each week.
 2. Contractor shall update the curve with actual labor employed and forecasted labor requirements necessary to achieve the Baseline Schedule and submit it to University's Representative monthly. The updated curve shall be plotted against the Baseline Schedule.

Facilities – Contracts Administration

1.10 RESPONSIBILITY FOR COMPLETION

- A. Contractor agrees that whenever it becomes apparent from the current monthly updated Contract Baseline Schedule that the Contract completion date will not be met, it will take some or all of the following actions, with prior approval of University's Representative, at no additional cost.
 - 1. Increase construction manpower in such quantities and crafts as will substantially eliminate, in the judgment of University's Representative, the backlog of work.
 - 2. Increase the number of Working hours per shift, shifts per working day, working days per week, or the amount of construction equipment, or any combination of the foregoing, sufficiently to substantially eliminate, in the judgment of University's Representative, the backlog of work. This paragraph shall not be construed to permit Contractor to violate the work hour restrictions specified in the Contract Documents.
 - 3. Reschedule activities to achieve maximum practical concurrent completion activities within the requirements of the specifications.

1.11 ADJUSTMENT OF TIMES FOR COMPLETION

- A. In addition to provisions of the General Conditions, the time for completion of the work will be adjusted in accordance with the procedures.
- B. Any request for an adjustment of the Contract Time for completion submitted by Contractor for changes or alleged delays shall be accomplished by a completed Time Impact Analysis, which shall be submitted for review within 20 days after the request by Contractor. Time extensions will not be granted unless substantiated by the CPM Schedule, and then not until the CPM project contingency becomes zero.
- C. Each Time Impact Analysis shall provide information justifying the request and stating the extent of the adjustment requested for each specific change or alleged delay. Each Time Impact Analysis shall be in form and content acceptable to University's Representative, and shall include, but not be limited to the following:
 - 1. A fragmentary CPM type network (Fragnet) illustrating how Contractor proposes to incorporate the change or alleged delay into the current updated Baseline Schedule.
 - 2. Identification of activities in the current updated Baseline Schedule which are proposed to be amended due to the change or alleged delay, together with engineering estimates and other appropriate data justifying the proposal.
- D. The Time Impact Analysis shall be determined on the basis of the date when the change was issued, or the date when the alleged delay began. The status of the construction project and Time Impact Analysis shall include event time computations for all affected activities.
- E. University's Representative may require that Time Impact Analyses be provided at no additional cost to demonstrate the time impact upon the overall Project and the time for completion.
- F. If University's Representative finds, after review of the Time Impact Analysis, that

Facilities – Contracts Administration

Contractor is entitled to any extension of time, the time for completion will be adjusted accordingly, and Contractor shall revise the Baseline Schedule accordingly.

1.12 FINAL AS-BUILT SCHEDULE

- A. As a condition precedent to final acceptance of the Project, submit a final As-Built Construction Schedule and all final reports which accurately reflect the manner in which the Project was constructed and includes actual start and completion dates for all work activities on the Baseline Schedule.

END OF SECTION

SAMPLE

Facilities – Contracts Administration

**SECTION 01340
SHOP DRAWINGS, PRODUCT DATA AND SAMPLES**

PART 1 - GENERAL

1.1 REQUIREMENTS INCLUDED

- A. Procedures for Submittals.
- B. Schedule of Submittals.

1.2 RELATED REQUIREMENTS

- A. Section 01640: Product Options and Substitutions: Product Options.
- B. Section 01720: Project Record Documents.
- C. Section 01730: Operation and Maintenance Data.

1.3 SUBMITTAL PROCEDURES

- A. 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.
 - 1. Coordinate each submittal with fabrication, purchasing, testing, delivery, other submittals and related activities that require sequential activity.
 - 2. 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.
 - a. The University's Representative reserves the right to withhold action on a submittal requiring coordination with other submittals until related submittals are received.
- B. 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.
 - 1. 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.
 - 2. If an intermediate submittal is necessary, process the same as the initial submittal.
 - 3. Allow additional time for reprocessing each submittal.
 - 4. 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.

1.4 SHOP DRAWINGS/PRODUCT DATA

- A. The terms "Shop Drawings" and "Product Data" as used herein also include, but are not limited to, fabrication, erection, layout and setting drawings, manufacturers' standard drawings, descriptive literature, catalogues, brochures, performance and test data, wiring and control diagrams, all other drawings and descriptive data pertaining to materials, equipment,

pipng, duct and conduit systems, and methods of construction as may be required to show that the materials, equipment, or systems and the positions thereof conform to the Contract Documents.

- B. 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 requirement. 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.
- C. 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.
- D. 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.
- E. 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.
- F. Manner: Furnish for University's Representative 's approval separate sheets of submittal of each specialty item in the following manner:
 - 1. Catalog cuts shall be photocopied or reproduced in some other acceptable manner and submitted eight (8) copies 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. Provide one (1) reproducible transparency and seven (7) blueline prints of each shop drawing.
 - 2. Each sheet shall be identified with the division, section, article or reference in the Contract Documents which covers the item submitted for approval.
 - 3. Each sheet shall be identified with the project name and the University's Representative.
 - 4. Each sheet shall bear the Contractor's stamp and signature of approval.

1.5 SAMPLES

- A. Extent: 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 Representative. They shall be submitted in triplicate unless otherwise required

Facilities – Contracts Administration

by the Specifications or requested by the University's Representative.

- B. 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.
- C. Manner: Contractor shall forward all samples under cover letter in three (3) 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 and University's Representative. All submittals shall be numbered sequentially.
- D. 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.
- E. 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.

1.6 MANUFACTURER

- A. Manufacturers 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.
- B. The University's Representative 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.
- C. Materials and equipment, for which Underwriters' Laboratories, Inc. standards have been established and their label service is available, shall bear the appropriate UL label.

1.7 SUBMITTAL REQUIREMENTS

- A. 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.
- B. **Quality:** 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 Representative for review shall be such as to provide one (1) for University's Architect's files, five (5) for the University, one (1) to Contractor's job files and such additional copies as Contractor may desire for the Contractor's own office files and/or for distribution by the Contractor to subcontractors or vendors. Exceptions shall be as noted in Specifications sections.
 - C. **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.
 - D. **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 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.
 - E. **Manner:** All shop drawings shall be drawn accurately on paper suitable for duplicate copying by black line, blue line printing processes or photocopy.
 - F. **Supplemental Data:** Supplemental data shall include information as noted in the specification paragraphs requiring them, or as requested by the University.
 - G. **University's Representative 's Review:** The University's Representative 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.
 - H. **Review Required:** Shop drawings, if requested, must be submitted to and favorably reviewed by the University's Architect before being used by the Contractor on the job.

PART 2 - PRODUCTS

NOT USED

Facilities – Contracts Administration

PART 3 - EXECUTION

NOT USED

PART 4 – SUBMITTAL SCHEDULE:

| SUBMITTAL SCHEDULE | | | | | | | | | |
|--------------------|-----------|-----------------|------------------|-------------------|-------------------|-------|-------------|--------|-------|
| Section | Shop Dwgs | Prod. Data/List | Samples Mock-ups | Extend. Guarantee | Op/Maint. Manuals | Tests | Extra Mat'l | Certs. | Other |
| 01010 | | | | | | | | | |
| 01037 | | | | | | | | | |
| 01040 | | | | | | | | | |
| 01045 | | | | | | | | | |
| 01050 | | | | | | | | | |
| 01315 | | | | | | | | | |
| 01400 | | | | | | | | | |
| 01500 | | | | | | | | | |
| 01710 | | | | | | | | | |
| 01740 | | | | | | | | | |
| 02200 | | | | | | | | | |
| 02235 | | | | | | | | | |
| 02300 | | | | | | | | | |
| 02312 | | | | | | | | | |
| 02313 | | | | | | | | | |
| 02500 | | | | | | | | | |
| 02510 | | | | | | | | | |
| 02516 | | | | | | | | | |
| 02520 | | | | | | | | | |
| 02530 | | | | | | | | | |
| 02620 | | | | | | | | | |
| 02630 | | | | | | | | | |
| 02711 | | | | | | | | | |
| 02741 | | | | | | | | | |
| 02745 | | | | | | | | | |
| 02754 | | | | | | | | | |
| 02765 | | | | | | | | | |
| 02810 | | | | | | | | | |
| 02820 | | | | | | | | | |
| 02870 | | | | | | | | | |
| 02950 | | | | | | | | | |
| 02951 | | | | | | | | | |
| 03100 | | | | | | | | | |
| 03200 | | | | | | | | | |
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| 03350 | | | | | | | | | |
| 03355 | | | | | | | | | |
| 03480 | | | | | | | | | |
| 04200 | | | | | | | | | |
| 04210 | | | | | | | | | |

SUBMITTAL SCHEDULE

| Section | Shop Dwgs | Prod. Data/List | Samples Mock-ups | Extend. Guarantee | Op/Maint. Manuals | Tests | Extra Mat'l | Certs. | Other |
|---------|-----------|-----------------|------------------|-------------------|-------------------|-------|-------------|--------|-------|
| 04415 | | | | | | | | | |
| 05065 | | | | | | | | | |
| 05120 | | | | | | | | | |
| 05315 | | | | | | | | | |
| 05400 | | | | | | | | | |
| 05500 | | | | | | | | | |
| 05510 | | | | | | | | | |
| 05905 | | | | | | | | | |
| 06200 | | | | | | | | | |
| 07130 | | | | | | | | | |
| 07140 | | | | | | | | | |
| 07162 | | | | | | | | | |
| 07210 | | | | | | | | | |
| 07260 | | | | | | | | | |
| 07412 | | | | | | | | | |
| 07430 | | | | | | | | | |
| 07541 | | | | | | | | | |
| 07600 | | | | | | | | | |
| 07720 | | | | | | | | | |
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| 07840 | | | | | | | | | |
| 07900 | | | | | | | | | |
| 08100 | | | | | | | | | |
| 08160 | | | | | | | | | |
| 08210 | | | | | | | | | |
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| 08305 | | | | | | | | | |
| 08334 | | | | | | | | | |
| 08350 | | | | | | | | | |
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| 09000 | | | | | | | | | |
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| 09511 | | | | | | | | | |
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| 09725 | | | | | | | | | |
| 09800 | | | | | | | | | |
| 09900 | | | | | | | | | |
| 10100 | | | | | | | | | |
| 10155 | | | | | | | | | |
| 10200 | | | | | | | | | |

Facilities – Contracts Administration

| SUBMITTAL SCHEDULE | | | | | | | | | |
|--------------------|-----------|-----------------|------------------|-------------------|-------------------|-------|-------------|--------|-------|
| Section | Shop Dwgs | Prod. Data/List | Samples Mock-ups | Extend. Guarantee | Op/Maint. Manuals | Tests | Extra Mat'l | Certs. | Other |
| 10260 | | | | | | | | | |
| 10425 | | | | | | | | | |
| 10522 | | | | | | | | | |
| 10530 | | | | | | | | | |
| 10800 | | | | | | | | | |
| 10950 | | | | | | | | | |
| 11132 | | | | | | | | | |
| 11161 | | | | | | | | | |
| 12480 | | | | | | | | | |
| 12490 | | | | | | | | | |
| 12495 | | | | | | | | | |
| 12650 | | | | | | | | | |
| 14240 | | | | | | | | | |
| 15000 | | | | | | | | | |
| 15005 | | | | | | | | | |
| 15010 | | | | | | | | | |
| 15015 | | | | | | | | | |
| 15020 | | | | | | | | | |
| 15025 | | | | | | | | | |
| 15030 | | | | | | | | | |
| 15075 | | | | | | | | | |
| 15084 | | | | | | | | | |
| 15100 | | | | | | | | | |
| 15120 | | | | | | | | | |
| 15160 | | | | | | | | | |
| 15190 | | | | | | | | | |
| 15200 | | | | | | | | | |
| 15280 | | | | | | | | | |
| 15290 | | | | | | | | | |
| 15510 | | | | | | | | | |
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| 15550 | | | | | | | | | |
| 15600 | | | | | | | | | |
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| 15670 | | | | | | | | | |
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| 15800 | | | | | | | | | |
| 15810 | | | | | | | | | |
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| 15840 | | | | | | | | | |
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| 15860 | | | | | | | | | |

| SUBMITTAL SCHEDULE | | | | | | | | | |
|--------------------|-----------|-----------------|------------------|-------------------|-------------------|-------|-------------|--------|-------|
| Section | Shop Dwgs | Prod. Data/List | Samples Mock-ups | Extend. Guarantee | Op/Maint. Manuals | Tests | Extra Mat'l | Certs. | Other |
| 15900 | | | | | | | | | |
| 15901 | | | | | | | | | |
| 15902 | | | | | | | | | |
| 15903 | | | | | | | | | |
| 15905 | | | | | | | | | |
| 15910 | | | | | | | | | |
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| 15990 | | | | | | | | | |
| 15991 | | | | | | | | | |
| 16000 | | | | | | | | | |
| 16025 | | | | | | | | | |
| 16073 | | | | | | | | | |
| 16100 | | | | | | | | | |
| 16110 | | | | | | | | | |
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NOTE: Should a discrepancy arise between this schedule's requirements and individual requirements, the most stringent requirement shall prevail.

END OF SECTION

SECTION 01400
QUALITY CONTROL

PART 1 - GENERAL

1.1 SUMMARY

- A. This Section includes administrative and procedural requirements for quality-control services.
- 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

Facilities – Contracts Administration

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

Facilities – Contracts Administration

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.

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

- A. The University shall retain and pay the expenses of a Geotechnical Engineer to perform inspection, testing, and observation functions specified by the University. Geotechnical Engineer 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.
- B. The Contractor shall retain and pay the expense of an independent testing/inspecting agency to perform inspections and materials testing (except Geotechnical inspection and testing), as indicated in the individual Sections of this Specification.

PART 2 - PRODUCTS (Not Applicable)

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

Facilities – Contracts Administration

SECTION 01420 OBSERVATION OF WORK

PART 1 - GENERAL

1.1 REQUIREMENTS

- A. The University will provide a Project Inspector or Inspector of Record (IOR) for this project. Contractor shall submit an Inspection Request Form to the Project Inspector (IOR) at least 3 working days prior to the time the inspection is needed. Contractor shall not cover any work requiring inspection until the Project Inspector (IOR) has inspected and approved the subject work. For works to be inspected by Contractor's Testing Laboratory, Project Inspector (IOR) should be notified at least 3 working days prior to the time the inspection is giving to take place. For work not in conformance with the Contract Documents, the Project Inspector (IOR) shall submit to the Contractor a Nonconforming Work Notice.

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. University shall supply personnel, reporting to University's Representative, who shall observe construction in progress. University's Inspectors 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 Construction Documents. Inspector will report any discrepancies observed to University's Representative and Contractor. Only University's Representative has the authority to make approvals or rejections.
 3. Only University's Representative shall interpret the requirements of the Construction Documents. If any item is ambiguous, University's Representative shall make a written interpretation. If Contractor requests changes or modifications to the Construction Documents, University's Representative shall make a written

Facilities – Contracts Administration

determination on the requested changes or modifications.

4. Prepare and submit an inspection report to University's Representative for each inspection performed.
 5. Review the monthly progress payment request before Contractor submits it to University's Representative.
 6. Assist University's Representative in reviewing the test and inspection results of testing laboratories.
 7. The Inspector 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 Inspector is not authorized to advise on or issue directions to Contractor about any aspect of construction means, methods, techniques, sequences or procedures, or relating to safety programs in connection with the Project.
- B. The failure of University, University's Representative and its representatives and consultants, or University's Inspector 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. 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, or has been damaged prior to final completion, unless responsibility for the protection of such work has been assumed by University through beneficial occupancy in accordance with Article 9.6 of the General Conditions or through substantial completion in accordance with Article 9.7 of the General Conditions.

1.5 INSPECTION REQUESTS

- A. Contractor shall request inspection of completed portions of the Work through University's Representative at least 3 working days in advance of the inspection to be performed. Contractor shall submit said request for inspection using a form to be furnished by University's Representative at the Pre-Construction Meeting (see Section 01200, PROJECT MEETINGS).

PART 2 - EXECUTION

- 2.1 Refer to the following Inspection Request Form
- 2.2 Refer to the following Nonconforming Work Notice



Facilities – Contracts Administration

Project Name: #
Project Number: #
Contract Number: #

INSPECTION REQUEST
NUMBER:
DATE:

TO:

FROM:

DWG REF: DETAIL: SHOP DWG:

PROJECT SCHEDULE ACTIVITY ID NO.

DATE OF INSPECTION: TIME OF INSPECTION:

TYPE OF INSPECTION:

SPECIFIC LOCATION OF INSPECTION (IE. FLOOR, COL LINE, ETC.):

ALL WORK REQUESTED FOR INSPECTION HAS BEEN REVIEWED FOR COMPLIANCE WITH THE CONTRACT DOCUMENTS BY CONTRACTOR'S SUPERINTENDENT PRIOR TO NOTIFICATION OF INSPECTION REQUEST.

SIGNED: DATE:

UCR USE ONLY

DATE REC'D:

DATE OF INSPECTION: TIME OF INSPECTION:

INSPECTOR: INSPECTION REPORT ATTACHED

COMMENTS:

COPIES: UNIVERSITY CONSULTANTS FILE



Facilities – Contracts Administration

Project Name: #
Project Number: #
Contract Number: #

INSPECTION REQUEST
NUMBER:
DATE:

TO:

FROM:

SPEC. SEC. REF.: PARA: DWG REF: DETAIL:

DESCRIPTION OF DEFECTIVE CONDITION:

REPORTED BY:

CORRECTIVE ACTION SHOULD BE TAKEN AS SOON AS POSSIBLE AND COORDINATED WITH THE INSPECTOR OF RECORD. IF FURTHER INFORMATION IS NEEDED, ADVISE THE UNIVERSITY'S REPRESENTATIVE.

DESCRIPTION OF CORRECTIVE ACTION TAKEN:

ACCEPTED BY: DATE:

CC:

END OF SECTION

Facilities – Contracts Administration

SECTION 01421 REFERENCE STANDARDS AND DEFINITIONS

PART 1 – GENERAL

1.1 DEFINITIONS

- A. General: Basic contract definitions are included in the Conditions of the Contract.
- B. “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.
- C. “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.
- D. “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.
- E. “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.
- F. “Furnish”: The term “furnish” means to supply and deliver to the Project site, ready for unloading, unpacking, assembly, installation, and similar operations.
- G. “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.
- H. “Provide”: The term “provide” means to furnish and install, complete in place, operating, tested, approved, and ready for the intended use.
- I. “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.

Facilities – Contracts Administration

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.
- J. “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.
- K. “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.
- L. “Similar”: The term “similar” means in the general sense and not necessarily identical.

1.2 SPECIFICATION FORMAT AND CONTENT EXPLANATION

- A. Specification Format: These Specifications are organized into Divisions and Sections based on the 16-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 INDUSTRY 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.

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- 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.
- E. **Abbreviations and 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.

| | | |
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| AA | Aluminum Association 900 19th St., NW, Suite 300 Washington, DC 20006 | (202) 862-5100 |
| AABC | Associated Air Balance Council | (202) 737-0202 |

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| | 1518 K St., NW, Suite 503 Washington, DC 20005 | |
| AAMA | American Architectural Manufacturers Association 1827 Walden Office Sq., Suite 104 Schaumburg, IL 60173 | (847) 303-5664 |
| AAN | American Association of Nurserymen 1250 Eye St., NW, Suite 500 Washington, DC 20005 | (202) 789-2900 |
| AASHTO | American Association of State Highway and Transportation Organizations, 444 North Capitol St., NW Suite 249 Washington, DC 20001 | (202) 624-5800 |
| AATCC | American Association of Textile Chemists and Colorists P.O. Box 12215 One Davis Dr. Research Triangle Park, NC 27709-2215 | (919) 549-8141 |
| ABMA | American Bearing Manufacturers Association 1200 19 th St., NW, Suite 300 Washington, DC 20036-4201 | (202) 429-5155 |
| ABMA | American Boiler Manufacturers Association 950 North Glebe Rd., Suite 160 Arlington, VA 22203-1824 | (703) 522-7350 |
| ACI | American Concrete Institute P.O. Box 9094 Farmington Hills, MI 48333 | (801) 848-3700 |
| ACIL | American Council of Independent Laboratories 1629 K St., NW, Suite 400 Washington, DC 20006 | (202) 887-5872 |
| ACPA | American Concrete Pipe Association 222 West Las Colinas Blvd., Suite 641 Irving, TX 75039-5423 | (214) 506-7216 |
| ADC | Air Diffusion Council 11 South LaSalle St., Suite 1400 Chicago, IL 60603 | (312) 201-0101 |
| AEIC | Association of Edison Illuminating Companies 600 N. 18 th Street P.O. Box 2641 Birmingham, AL 35291-0992 | (205) 250-2530 |
| AFBMA | Anti-Friction Bearing Manufacturers Association (Now ABMA) | |
| AFPA | American Forest and Paper Association | (202) 463-2700 |

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| | 1111 19 th St., NW, Suite 800 Washington, DC 20036 | |
| AGA | American Gas Association 1515 Wilson Blvd. Arlington, VA 22209 | (703) 841-8400 |
| AHA | American Hardboard Association 1210 W. Northwest Hwy Palatine, IL 60067-1897 | (847) 934-8800 |
| AHAM | Association of Home Appliance Manufacturers 20 N. Wacker Dr., Suite 1500 Chicago, IL 60606 | (312) 984-5800 |
| AI | Asphalt Institute, Research Park Dr. P.O 14052 Lexington, KY 40512-4052 | (606) 288-4960 |
| AIA | The American Institute of Architects 1735 New York Ave., NW Washington, DC 2006-5292 | (202) 626-7300 |
| AIA | American Insurance Association 1130 Connecticut Ave., NW, Suite 1000 Washington, DC 20036 | (202) 828-7100 |
| AIHA | American Industrial Hygiene Association 2700 Prosperity Ave., Suite 250 Fairfax, VA 22031 | (703) 849-8888 |
| AISC | American Institute of Steel Construction One East Wacker Dr., Suite 3100 Chicago, IL 60601-2001 | (312) 670-2400 |
| AISI | American Iron and Steel Institute 1101 17 th St., NW Washington, DC 20036-4700 | (202) 452-7100 |
| AITC | American Institute of Timber Construction 7012 S. Revere Pkwy, Suite 140 Englewood, CO 80112 | (303) 792-9559 |
| ALA | American Laminators Association 1402 3 rd Ave., Suite 709 Seattle, WA 98101-2118 | (206) 682-3618 |
| ALI | Associated Laboratories, Inc. P.O. Box 152837 1323 Wall St. Dallas, TX 75315 | (214) 565-0593 |
| ALSC | American Lumber Standards Committee | (301) 972-1700 |

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| | P.O. Box 210 Germantown, MD 20875 | |
| AMCA | Air Movement and Control Association International, Inc. 30 W. University Dr. Arlington Heights, IL 60004-1893 | (847) 394-0150 |
| ANSI | American National Standards Institute 11 West 42 nd St., 13 th Floor New York, NY 10036-8002 | (212) 642-4900 |
| AOAC | AOAC International 481 N. Frederick Ave., Suite 500 Gaithersburg, MD 20877 | (301) 924-7077 |
| AOSA | Association of Official Seed Analysts 201 N. 8 th St., Suite 400 P.O. Box 81152 Lincoln, NE 68501-1152 | (402) 476-3852 |
| APA | APA-The Engineered Wood Association (Formerly American Plywood Association) P.O. Box 11700 Tacoma, WA 98411-0700 | (206) 565-6600 |
| API | American Petroleum Institute 1220 L St., NW Washington, DC 20005-8029 | (202) 682-8000 |
| ARI | Air-Conditioning and Refrigeration Institute 4301 Fairfax St., Suite 425 Arlington, VA 22203 | (703) 524-8800 |
| ARMA | Asphalt Roofing Manufacturers Association 6000 Executive Dr., Suite 201 Rockville, MD 20852-3803 | (301) 231-9050 |
| ASA | Acoustical Society of America 500 Sunnyside Blvd. Woodbury, NY 11797 | (516) 576-2360 |
| ASC | Adhesive and Sealant Council 1627 K St., NW, Suite 1000 Washington, CA 20006-1707 | (202) 452-1500 |
| ASCE | American Society of Civil Engineers 345 East 47 th St. New York, NY 10017-2398 | (212) 705-7010 |
| ASCE | American Society of Civil Engineers – World Headquarters 1801 Alexander Bell Dr. Reston, VA 20191-4400 | (703) 295-6000 |

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| ASHE | American Society for Healthcare Engineering One North Franklin, Suite 2700 Chicago, IL 60606 | (800)AHA-2626 (312) 422-3800 |
| ASHRAE | American Society of Heating, Refrigerating and Air-Conditioning Engineers 1791 Tullie Circle, NE Atlanta, GA 30329-2305 | (800) 527-4723 (404) 636-8400 |
| ASME | American Society of Mechanical Engineers 345 East 47 th St. New York, NY 10017-2392 | (800) 843-2763 (212) 705-7722 |
| ASPA | American Sod Producers Association (Now TPI) | |
| ASPE | American Society of Plumbing Engineers 3617 Thousand Oaks Blvd., Suite 210 Westlake Village, CA 91362-3649 | (805) 495-7120 |
| ASSE | American Society of Sanitary Engineering P.O. Box 40362 Bay Village, OH 44140 | (216) 835-3040 |
| ASTM | American Society for Testing and Materials 100 Barr Harbor Dr. West Conshohocken, PA 19428-2959 | (610) 832-9500 |
| ATIS | Alliance for Telecommunications Industry Solutions 1200 G St., NW, Suite 500 Washington, DC 20005 | (202) 628-6380 |
| AWCI | Association of the Wall & Ceiling Industries-International 307 E. Annandale Rd., Suite 200 Falls Church, VA 22042-2433 | (703) 534-8300 |
| AWCMA | American Window Covering Manufacturers Association (Now WCMA) | |
| AWI | Architectural Woodwork Institute 1952 Isaac Newton Sq. Reston, VA 20190 | (703) 733-0600 |
| AWPA | American Wood Preservers' Association P.O. Box 286 Woodstock, MD 21163-0286 | (410) 465-3169 |
| AWPB | American Wood Preservers' Bureau (This organization is now defunct.) | |
| AWS | American Welding Society 550 LeJeune Rd., NW Miami, FL 33126 | (305) 443-9353 |

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| AWWA | American Water Works Association 666 W. Quincy Ave Denver, CO 80235 | (303) 794-7711 |
| BANC | Brick Association of North Carolina P.O. Box 13290 Greensboro, NC 27415-3290 | (910) 273-5566 |
| BHMA | Builders Hardware Manufacturers Association 355 Lexington Ave., 17 th Floor New York, NY 10017-6603 | (212) 661-4261 |
| BIA | Brick Institute of America 11490 Commerce Park Dr. Reston, VA 22091-1525 | (703) 620-0010 |
| BIFMA | The Business and Institutional Furniture Manufacturer's Association 2680 Horizon Dr., SE, Suite A1 Grand Rapids, MI 49546-7500 | (616) 285-3963 |
| CAGI | Compressed Air and Gas Institute c/o Thomas Associates, Inc. 1300 Sumner Ave. Cleveland, OH 44115-2851 | (216) 241-7333 |
| CAUS | Color Association of the United States 409 W. 44 th St. New York, NY 10036-4402 | (212) 582-6884 |
| CBM | Certified Ballast Manufacturers Association 1422 Euclid Ave., Suite 402 Cleveland, OH 44115-2094 | (216) 241-0711 |
| CCC | Carpet Cushion Council P.O. Box 546 Riverside, CT 06878-0546 | (203) 637-1312 |
| CDA | Copper Development Association Inc. 260 Madison Ave. 16 th Floor New York, NY 10016-2401 | (800) 232-3282 (212) 251-7200 |
| CFFA | Chemical Fabrics & Film Association, Inc. c/o Thomas Associates, Inc. 1300 Sumner Ave. Cleveland, OH 44115-2851 | (216) 241-7333 |
| CGA | Compressed Gas Association 1725 Jefferson Davis Hwy, Suite 1004 Arlington, VA 22202-4102 | (703) 412-0900 |
| CGSB | Canadian General Standards Board | (613) 941-8703 |

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| | 222 Queen St., Suite 1402 Ottawa K1A 1G6 CANADA | |
| CISCA | Ceiling and Interior Systems Construction Association 1500 Lincoln Hwy, Suite 202 St. Charles, IL 60174 | (630) 584-1919 |
| CISPI | Cast Iron Soil Pipe Institute 5959 Shallowford Rd., Suite 419 Chattanooga, TN 37421 | (615) 892-0137 |
| CLFMI | Chain Link Fence Manufacturers Institute 9891 Broken Land Pkwy, Suite 300 Columbia, MD 21046 | (301) 596-2583 |
| CPPA | Corrugated Polyethylene Pipe Association 4235 Monroe St., Suite 124 Toledo, OH 43606 | (800) 510-2772 |
| CRI | Carpet and Rug Institute P.O. Box 2048 Dalton, GA 30722-2048 | (706) 278-3176 |
| CRSI | Concrete Reinforcing Steel Institute 933 N. Plum Grove Rd. Schaumburg, IL 60173-4758 | (847) 517-1200 |
| CSSB | Cedar Shake and Shingle Bureau 515 116 th Ave., NE, Suite 275 Bellevue, WA 98004-5294 | (206) 453-1323 |
| CTI | Ceramic Tile Institute of America 12061 West Jefferson Blvd. Culver City, CA 90230-6219 | (310) 574-7800 |
| CTI | Cooling Tower Institute P.O. Box 73383 Houston, TX 77273 | (713) 583-4087 |
| DHI | Door and Hardware Institute 14170 Newbrook Dr. Chantilly, VA 22021-2223 | (703) 222-2010 |
| DIPRA | Ductile Iron Pipe Research Association 245 Riverchase Pkwy East, Suite O Birmingham, AL 35244 | (205) 988-9870 |
| DLPA | Decorative Laminate Products Association (Dissolved in 1995 – Now part of KCMA) | |
| ECSA | Exchange Carriers Standards Association (Now ATIS) | |

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| EIA | Electric Industries Association 2500 Wilson Blvd. Arlington, VA 22201 | (703) 907-7500 |
| EIMA | EIFS Industry Members Association 402 N. Fourth St., Suite 102 Yakima, WA 98901-2470 | (509) 457-3500 |
| EJMA | Expansion Joint Manufacturers Association 25 N. Broadway Tarrytown, NY 10591 | (914) 332-0040 |
| ETL | ETL Testing Laboratories, Inc. c/o ITS/Warnock Hersey P.O. Box 2040 3933 U.S. Route 11, Industrial Park Cortland, NY 13045 | (800) 345-3851 607) 753-6711 |
| FCI | Fluid Controls Institute P.O. Box 9036 Morristown, NJ 07960 | (201) 829-0990 |
| FCICA | Floor Covering Installation Contractors Association (Formerly Floor Covering Installation Board) P.O. Box 948 Dalton, GA 30722-0948 | (706) 226-5488 |
| FGMA | Flat Glass Marketing Association (Now GANA) | |
| FM | Factory Mutual 1151 Boston-Providence Tnpk. P.O. Box 9102 Norwood, MA 02062 | (617) 762-4300 |
| FTI | Facing Tile Institute P.O. Box 8880 Canton, OH 44711 | (216) 488-1211 |
| GA | Gypsum Association 810 First St., NE, Suite 510 Washington, DC 20002 | (202) 289-5440 |
| GANA | Glass Association of North America 3310 SW Harrison St. Topeka, KS 66611-2279 | (913) 266-7013 |
| GRI | Geosynthetic Research Institute 23 rd and Lancaster Walk Rush Building, West Wing Philadelphia, PA 19104 | (215) 895-2343 |

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| HEI | Heat Exchange Institute c/o Thomas Associates, Inc. 1300 Sumner Ave. Cleveland, OH 44115-2851 | (216) 241-7333 |
| HI | Hydraulic Institute 9 Sylvan Way Parsippany, NJ 07054-3802 | (201) 267-9700 |
| HI | Hydronics Institute P.O. Box 218 32 Russo Pl. Berkeley Heights, NJ 07922 | (908) 464-8200 |
| HMA | Hardwood Manufacturers Association 400 Penn Center Blvd., Suite 530 Pittsburgh, PA 15235-5605 | (412) 829-0770 |
| HPVA | Hardwood Plywood and Veneer Association 1825 Michael Farraday Dr. P.O. Box 2789 Reston, VA 22090-0789 | (703) 435-2900 |
| IAS | International Approval Services 8504 East Pleasant Valley Road Cleveland, OH 44131 | (216) 524-4990 |
| IBD | Institute of Business Designers (Now part of IIDA) | |
| ICEA | Insulated Cable Engineers Association, Inc. P.O. Box 440 South Yarmouth, MA 02664 | (508) 394-4424 |
| IEC | International Electrotechnical Commission (Available from ANSI) 11 West 42 nd St., 13 th Floor New York, NY 10036-8002 | (212) 642-4900 |
| IEEE | Institute of Electrical and Electronic Engineers 345 E. 47 th St. New York, NY 10017-2394 | (212) 705-7900 |
| IESNA | Illuminating Engineering Society of North America 120 Wall St., 17 th Floor New York, NY 10005-4001 | (212) 248-5000 |
| IGCC | Insulating Glass Certification Council c/o ETL Testing Laboratories, Inc. P.O. Box 2040 3933 U.S. Route 11, Industrial Park Courtland, NY 13045 | (800) 345-3851 (607) 753-6711 |
| IIDA | International Interior Design Association | (312) 467-1950 |

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| | 341 Merchandise Mart Chicago, IL 60654-1104 | |
| ILI | Indiana Limestone Institute of America Stone City Bank Building, Suite 400 Bedford, IN 47421 | (812) 275-4426 |
| IMSA | International Municipal Signal Association P.O. Box 539 165 E. Union St. Newark, NY 14513 | (315) 331-2182 |
| INCE | Institute of Noise Control Engineering P.O. Box 3206 Arlington Branch Poughkeepsie, NY 12603 | (914) 462-4006 |
| IRI | Industrial Risk Insurers P.O. Box 5010 85 Woodland St. Hartford, CT 06102-5010 | (203) 520-7300 |
| ISA | ISA – International Society for Measurement and Control P.O. Box 12277 67 Alexander Dr. Research Triangle Park, NC 27709 | (919) 549-8411 |
| KCMA | Kitchen Cabinet Manufacturers Association 1899 Preston White Dr. Reston, VA 22091-4326 | (703) 264-1690 |
| LIA | Lead Industries Association, Inc. 295 Madison Ave. New York, NY 10017 | (212) 578-4750 |
| LPI | Lightning Protection Institute 3365 N. Arlington Heights Rd., Suite E Arlington Heights, IL 60004-7700 | (800) 488-6864 (847) 577-7200 |
| MBMA | Metal Building Manufacturer's Association c/o Thomas Associates, Inc. 1300 Sumner Ave. Cleveland, OH 44115-2851 | (216) 241-7333 |
| MCAA | Mechanical Contractors Association of America 1385 Piccard Dr. Rockville, MD 20850-4329 | (301) 869-5800 |
| MFMA | Maple Flooring Manufacturers Association 60 Revere Dr., Suite 500 Northbrook, IL 60062 | (847) 480-9138 |

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| MHI | Material Handling Institute (A Division of the Material Handling Industry) 8720 Red Oak Blvd., Suite 201 Charlotte, NC 28217-3992 | (800) 345-1815 (704) 522-8644 |
| MIA | Marble Institute of America 30 Eden Alley, Suite 201 Columbus, OH 43215 | (614) 228-6194 |
| MIA | Masonry Institute of America 2550 Beverly Blvd. Los Angeles, CA 90057 | (213) 388-0472 |
| ML/SFA | Metal Lath/Steel Framing Association (A Division of the NAAMM) 8 South Michigan Ave., Suite 1000\ | (312) 456-5590 |
| MRCA | Midwest Roofing Contractors Association 4840 W. 15 th St., Suite 1000 Laurence, KS 66049 | (913) 843-4888 |
| MSS | Manufacturers Standardization Society of the Valve and Fitting 127 Park St., NE Vienna, VA 22180-4602 | (703) 281-6613 |
| NAA | National Arborist Association P.O. Box 1094 Amherst, NH 03031-1094 | (603) 673-3311 |
| NAAMM | National Association of Architectural Metal Manufacturers 8 South Michigan Ave., Suite 1000\ | (312) 456-5590 |
| NAGDM | National Association of Garage Door Manufacturers c/o Thomas Associates, Inc. 1300 Sumner Ave. Cleveland, OH 44115-2851 | (216) 241-7333 |
| NAIMA | North American Insulation Manufacturers Association 44 Canal Center Plaza, Suite 310 Alexandria, VA 22314 | (703) 684-0084 |
| NAPA | National Asphalt Pavement Association NAPA Building 5100 Forbes Blvd. Lanham, MD 20706-4413 | (301) 731-4748 |
| NAPF | National Association of Plastic Fabricators (Now DLPA) | |

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| NAPM | National Association of Photographic Manufacturers 550 Mamaroneck Ave. Harrison, NY 10528 | (914) 698-7603 |
| NBGQA | National Building Granite Quarries Association, Inc. c/o Rock of Ages 369 N. State St. Concord, NH 03301 | (800) 884-7936 (603) 225-8397 |
| NBHA | National Builders Hardware Association (Now DHI) | |
| NCMA | National Concrete Masonry Association 2302 Horse Pen Road Herndon, VA 22071-3406 | (703) 713-1900 |
| NCPI | National Clay Pipe Institute P.O. Box 759 253-80 Center St. Lake Geneva, WI 53147 | (414) 248-9094 |
| NCRPM | National Council on Radiation Protection and Measurements 7910 Woodmont Ave., Suite 800 Bethesda, MD 20814-3095 | (800) 229-2652 (301) 657-2652 |
| NCSPA | National Corrugated Steel Pipe Association 1255 23 rd St., NW, Suite 850 Washington, DC 20037 | (202) 452-1700 |
| NEBB | National Environmental Balancing Bureau 8575 Grovemont Circle Gaithersburg, MD 20877-4121 | (301) 977-3698 |
| NEC | National Electrical Code (Available from NFPA) | |
| NECA | National Electrical Contractors Association 3 Bethesda Metro Center, Suite 1100 Bethesda, MD 20814-5372 | (301) 657-3110 |
| NEI | National Elevator Industry 185 Bridge Plaza North, Suite 310 Fort Lee, NJ 07024 | (201) 944-3211 |
| NELMA | Northeastern Lumber Manufacturers Association 272 Tuttle Rd. P.O. Box 87A Cumberland Center, ME 04021 | (207) 829-6901 |
| NEMA | National Electrical Manufacturers Association 2101 L St., NW, Suite 300 | (202) 457-8400 |

Facilities – Contracts Administration

Washington, DC 20037

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| NETA | InterNational Electrical Testing Association P.O. Box 687 Morrison, CO 80465-1526 | (303) 697-8441 |
| NFPA | National Fire Protection Association One Batterymarch Park P.O. Box 9101 Quincy, MA 02269-9101 | (800) 344-3555 (617) 770-3000 |
| NFPA | National Forest Products Association (Now AFPA) | |
| NFRC | National Fenestration Rating Council Inc. 1300 Spring St., Suite 120 Silver Spring, MD 20910 | (301) 589-6372 |
| NHLA | National Hardwood Lumber Association P.O. Box 34518 Memphis, TN 38184-0518 | (901) 377-1818 |
| NKCA | National Kitchen Cabinet Association (Now KCMA) | |
| NLGA | National Lumber Grades Authority 103-4400 Dominion St. Burnaby, BC V5G 4G3 CANADA | (604) 451-7323 |
| NOFMA | National Oak Flooring Manufacturers Association P.O. Box 3009 Memphis, TN 38173-0009 | (901) 526-5016 |
| NPA | National Particleboard Association 18928 Premiere Ct. Gaithersburg, MD 20879-1569 | (301) 670-0604 |
| NPCA | National Paint and Coatings Association 1500 Rhode Island Ave., NW Washington, DC 20005-5597 | (202) 462-6272 |
| NRCA | National Roofing Contractors Association O'Hare International Center 10255 W. Higgins Rd., Suite 600 Rosemont, IL 60018-5607 | (847) 299-9070 |
| NSF | NSF International (Formerly National Sanitation Foundation) 3475 Plymouth Rd. P.O. Box 130140 Ann Arbor, MI 48113-0140 | (313) 769-8010 |

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| NSSEA | National School Supply and Equipment Assoc. 8300 Colesville Rd., No. 250 Silver Spring, MD 20910 | (800) 395-5550 (301) 495-0240 |
| NTMA | National Terrazzo and Mosaic Association 3166 Des Plaines Ave., Suite 121 Des Plaines, IL 60018 | (800) 323-9736 (847) 635-7744 |
| NUSIG | National Uniform Seismic Installation Guidelines 12 Lahoma Ct. Alamo, CA 94526 | (510) 946-0135 |
| NWMA | National Woodwork Manufacturers Association (Now NWWDA) | |
| NWWDA | National Wood Window and Door Association 1400 E. Touhy Ave., G-54 Des Plaines, IL 60018 | (800) 223-2301 (708) 299-5200 |
| PATMI | Power Actuated Tool Manufacturers' Institute, Inc. 1000 Fairgrounds Rd., Suite 200 St. Charles, MO 63301 | (314) 947-6610 |
| PCA | Portland Cement Association 5420 Old Orchard Rd. Skokie, IL 60077-1083 | (847) 966-6200 |
| PCI | Precast/Prestressed Concrete Institute 175 W. Jackson Blvd. Chicago, IL 60604 | (312) 786-0300 |
| PDCA | Painting and Decorating Contractors of America 3913 Old Lee Hwy Fairfax, VA 22030 | (703) 359-0826 |
| PDI | Plumbing and Drainage Institute c/o William C. Whitehead 45 Bristol Drive, Suite 101 South Easton, MA 02375 | (800) 589-8956 (508) 230-3516 |
| PEI | Porcelain Enamel Institute 4004 Hillsboro Pike, Suite 224-B Nashville, TN 37215 | (615) 385-5357 |
| PPFA | Plastic Pipe and Fittings Association 800 Roosevelt Rd., Building C, Suite 20 Glen Ellyn, IL 60137-5833 | (630) 858-6540 |
| RCMA | Roof Coatings Manufacturers Association 6000 Executive Blvd., Suite 201 Rockville, MD 20852-3803 | (301) 230-2501 |

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| RFCI | Resilient Floor Covering Institute 966 Hungerford Dr., Suite 12-B Rockville, MD 20850-1714 | (301) 340-8580 |
| RIS | Redwood Inspection Service c/o California Redwood Association 405 Enfrente Dr., Suite 200 Novato, CA 94949-7206 | (415) 382-0662 |
| RMA | Rubber Manufacturers Association 1400 K. St., NW, Suite 900 Washington, DC 20005 | (800) 220-7620 (202) 682-4800 |
| SAE | SAE International 400 Commonwealth Dr. Warrendale, PA 15096-0001 | (412) 776-4841 |
| SDI | Steel Deck Institute P.O. Box 9506 Canton, OH 44711-9502 | (216) 889-0010 |
| SDI | Steel Door Institute 30200 Detroit Rd. Cleveland, OH 44145-1967 | (216) 889-0010 |
| SEFA | Scientific Equipment and Furniture Association 1028 Duchess Dr. McLean, VA 22101 | (703) 790-8661 |
| SEGD | Society of Environmental Graphic Designers 2700 Bridgeway Blvd. Sausalito, CA 94965 | (617) 868-3781 |
| SGCC | Safety Glazing Certification Council c/o ETL Testing Laboratories 3933 U.S. Route 11, Industrial Park P.O. Box 2040 Cortland, NY 13045 | (800) 345-3851 (607) 753-6711 |
| SHLMA | Southern Hardwood Lumber Manufacturers Assoc. (Now HMA) | |
| SIGMA | Sealed Insulating Glass Manufacturers Association 401 N. Michigan Ave. Chicago, IL 60611-4267 | (312) 644-6610 |
| SJI | Steel Joist Institute 1205 48 th Ave. North, Suite A Myrtle Beach, SC 29577-5424 | (803) 449-0487 |
| SMA | Screen Manufacturers Association | (407) 533-0991 |

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2850 S. Ocean Blvd., Suite 114
 Palm Beach, FL 33480-5535

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| SMACNA | Sheet Metal and Air Conditioning Contractors' National Association 4201 LaFayette Center Dr. P.O. Box 221230 Chantilly, VA 22022-1209 | (703) 803-2980 |
| SPI | Society of the Plastics Industry, Inc. 1275 K St., NW, Suite 400 Washington, DC 20006 | (202) 371-5200 |
| SPIB | Southern Pine Inspection Bureau 4709 Scenic Hwy Pensacola, FL 32504-9094 | (904) 434-2611 |
| SPRI | SPRI (Formerly Single Ply Roofing Institute) 175 Highland Ave. Needham, MA 02194 | (617) 444-0242 |
| SSINA | Specialty Steel Industry of North America 3050 K St., NW, Suite 400 Washington, DC 20007 | (800) 982-0355 (202) 342-8630 |
| SSPC | Steel Structures Painting Council 40 24 th St., 6 th Floor Pittsburgh, PA 15222-4643 | (412) 281-2331 |
| SSPMA | Sump and Sewage Pump Manufacturers Assoc. P.O. Box 647 Northbrook, IL 60065-0647 | (847) 559-9233 |
| STI | Steel Tank Institute 570 Oakwood Rd. Lake Zurich, IL 60047-1559 | (847) 438-8265 |
| SWI | Steel Window Institute c/o Thomas Associates, Inc. 1300 Sumner Ave. Cleveland, OH 44115-2851 | (216) 241-7333 |
| SWPA | Submersible Wastewater Pump Association 1806 Johns Dr. Glenview, IL 60025-1657 | (798) 729-7972 |
| SWRI | Sealant, Waterproofing and Restoration Institute 3101 Broadway, Suite 585 Kansas City, MO 64111 | (816) 561-8230 |
| TCA | Tile Council of America | (864) 646-8453 |

Facilities – Contracts Administration

| | | |
|----------|--|----------------|
| | 100 Clemson Research Blvd. Anderson, SC 29625 | |
| TIMA | Thermal Insulation Manufacturers Association (Now NAIMA) | |
| TPI | Truss Plate Institute 583 D'Onofrio Dr., Suite 200 Madison, WI 53719 | (608) 833-5900 |
| TPI | Turfgrass Producers International (Formerly American Sod Producers Assoc.) 1855-A Hicks Road Rolling Meadows, IL 60008 | (847) 705-9898 |
| UL | Underwriters Laboratories, Inc. 333 Pfingsten Rd. Northbrook, IL 60062 | (847) 272-8800 |
| UNI-BELL | Uni-Bell PVC Pipe Association 2655 Villa Creek Dr., Suite 155 Dallas, TX 75234 | (214) 243-3902 |
| USP | U.S. Pharmacopeia (Formerly U.S. Pharmacopoeial Convention) 12601 Twinbrook Pkwy Rockville, MD 20852 | (301) 881-0666 |
| WA | Wallcoverings Association 401 N. Michigan Ave. Chicago, IL 60611-4267 | (312) 644-6610 |
| WCLIB | West Coast Lumber Inspection Bureau P.O. Box 23145 Portland, OR 97281-3145 | (503) 639-0651 |
| WCMA | Window Covering Manufacturers Association (Formerly American Window Covering Manufacturers Association) 355 Lexington Ave., 17 th Floor New York, NY 10017-6603 | (212) 661-4261 |
| WIC | Woodwork Institute of California 3164 Industrial Blvd. P.O. Box 980247 West Sacramento, CA 95798-0247 | (916) 372-9943 |
| WMMPA | Wood Moulding & Millwork Producers Assoc. P.O. Box 25278 Portland, OR 97225-0278 | (503) 292-9288 |
| WRI | Wire Reinforcement Institute 203 Loudoun St., SW | (703) 779-2339 |

Facilities – Contracts Administration

Leesburg, VA 20175

WSC Water Systems Council (603) 545-1762
 Building C, Suite 20
 800 Roosevelt Rd.
 Glen Ellyn, IL 60137

WSFI Wood and Synthetic Flooring Institute
 (Now MFMA)

WWPA Western Wood Products Association (503) 224-3930
 Yeon Building
 522 SW 5th Ave.
 Portland, OR 97204-2122

F. 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.

CE Corps of Engineers (202) 761-0660
 (U.S. Department of the Army)
 20 Massachusetts Ave., NW
 Washington, DC 20314

CFR Code of Federal Regulations (202) 512-0000
 (Available from the Government Printing Office)
 Washington, DC 20401
 (Material is usually published first in the
 "Federal Register.")
 (Internet: <http://law.house.gov/cfr.htm>)

CPSC Consumer Product Safety Commission (800) 638-2772
 East West Towers
 4330 East-West Hwy
 Bethesda, MD 20814

CS Commercial Standard (202) 512-1800
 (U.S. Department of Commerce)
 Government Printing Office
 Washington, DC 20402
 For Commercial Standards, contact:
 Ms. Brenda Umberger
 CS & PS Specialist
 c/o NIST
 Gaithersburg, MD 20899 (301) 975-4036

DOC Department of Commerce (202) 482-2000
 14th St. and Constitute Ave., NW
 Washington, DC 20230

Facilities – Contracts Administration

| | | |
|------|--|----------------|
| DOT | Department of Transportation 400 Seventh St., SW Washington, DC 20590 | (202) 366-4000 |
| EPA | Environmental Protection Agency 401 M St., SW Washington, DC 20460 | (202) 260-2090 |
| FAA | Federal Aviation Administration (U.S. Department of Transportation) 800 Independence Ave., SW Washington, DC 20591 | (202) 366-4000 |
| FCC | Federal Communications Commission 1919 M St., NW Washington, DC 20554 | (202) 418-0126 |
| FDC | Food and Drug Administration 5600 Fishers Lane Rockville, MD 20857 | (301) 443-1544 |
| FHA | Federal Housing Administration (U.S. Department of Housing and Urban Development) 451 Seventh St., SW Washington, DC 20410 | (202) 401-0388 |
| FS | Federal Specification Unit (Available from GSA) 470 East L'Enfant Plaza, SW, Suite 8100 Washington, DC 20407 | (202) 755-0325 |
| GSA | General Services Administration F St. and 18th St., NW Washington, DC 20405 | (202) 708-5082 |
| | To order copies of Federal Specifications | (202) 619-8925 |
| MIL | Military Standardization Documents (U.S. Department of Defense) Defense Printing Service 700 Robbins Ave., Building 4D Philadelphia, PA 19111 | (215) 697-2179 |
| NIST | National Institute of Standards and Technology (U.S. Department of Commerce) Building 101, #A1134 Rte. I-270 and Quince Orchard Rd. Gaithersburg, MD 20899 | (301) 975-2000 |
| OSHA | Occupational Safety and Health Administration (U.S. Department of Labor) | (202) 219-8148 |

Facilities – Contracts Administration

200 Constitution Ave., NW
 Washington, DC 20210

| | | |
|------|--|--|
| PS | Product Standard of NBS (U.S. Department of Commerce) Government Printing Office Washington, DC 20402 For Product Standards, contact: Ms. Brenda Umberger CS & PS Specialist c/o NIST Gaithersburg, MD 20899 | (202) 512-1800 (301) 975-4036 |
| RUS | Rural Utilities Service (Formerly Rural Electrification Administration) (U.S. Department of Agriculture) 14 th St. and Independence Ave., SW Washington, DC 20250 | (202) 720-9560 |
| TRB | Transportation Research Board, National Research 2101 Constitution Ave., NW Washington, DC 20418 | (202) 334-2934 |
| USDA | U.S. Department of Agriculture 14 th St. and Independence Ave., SW Washington, DC 20250 | (202)720-8732 |
| USPS | U.S. Postal Service 475 L'Enfant Plaza, SW Washington, DC 20260-0010 | (202) 268-2000 |

1.4 GOVERNING REGULATIONS AND AUTHORITIES

- A. 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 24
 2. California Health and Safety Code.
 3. CAL/OSHA.
 4. City of Riverside "Department of Public Works Standards and Specifications.
 5. National Electrical Code.
 6. National Fire Protection Association
 7. State of California, Department of Transportation, Division of Highways, "Materials Specifications."
 8. State of California, Department of Transportation, Division of Highways, "Standard Specifications."
 9. State of California, Office of State Fire Marshal
 10. State Industrial Accident Commission, State Orders.
 11. Uniform Building Code
 12. Uniform Mechanical Code

Facilities – Contracts Administration

13. Uniform Plumbing Code

1.5 SUBMITTALS

- 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.

1.6 MISCELLANEOUS ABBREVIATIONS

- A. 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

Facilities – Contracts Administration

SECTION 01500 CONSTRUCTION FACILITIES AND TEMPORARY CONTROLS

PART 1 – GENERAL

1.1 SUMMARY

- A. This Section includes requirements for construction facilities and temporary controls, temporary partitions, temporary utilities, support facilities, security and protection, traffic and noise control, use of public and University roads, and potentially hazardous materials.
1. Related Sections:
 - a. Section 01560; Environmental Mitigation
 - b. Section 01565; Hazardous Materials Procedures
 2. Where Sections contain conflicting requirements, the more stringent requirement shall apply. Notify University's Representative when conflicts or discrepancies are found.
- B. Temporary utilities include, but are not limited to, the following:
1. Water service and distribution.
 2. Temporary electric power and light.
 3. Temporary heat.
 4. Ventilation.
 5. Telephone service.
 6. Sanitary facilities, including drinking water.
 7. Storm and sanitary sewer.
- C. Support facilities include, but are not limited to, the following:
1. Field offices and storage sheds.
 2. Temporary fencing.
 3. Temporary partitions.
 4. Temporary enclosures.
 5. Hoists and temporary elevator use.
 6. Temporary project identification signs, bulletin boards, and directional signs.
 7. Waste disposal services.
 8. Cleaning during construction period.
 9. Construction aids and miscellaneous services and facilities.
- D. Security and protection facilities include, but are not limited to, the following:
1. Temporary fire protection.
 2. Barricades, warning signs, and lights.
 3. Temporary site security provisions.
 4. Environmental protection.

1.2 SUBMITTALS

- A. Temporary Utilities: Submit reports of tests, inspections, meter readings, and similar procedures performed on temporary utilities.

Facilities – Contracts Administration

- B. 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.
- C. Submit the following according to Conditions of the Contract and Division 1 Section "Submittals:"
 - 1. Drawings indicating graphic design for temporary project identification signs designed by the Contractor.
- D. 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.

1.3 QUALITY ASSURANCE

- A. Regulations: Comply with industry standards and applicable laws and regulations of the University including, but not limited to, the following:
 - 1. Potentially hazardous materials.
 - 2. Health and safety regulations.
 - 3. Utility company regulations.
 - 4. Police, fire department, and rescue squad rules.
 - 5. Environmental protection regulations.
- B. 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."
 - 1. 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."
- C. Inspections: Arrange for authorities having jurisdiction to inspect and test each temporary utility before use. Obtain required certifications and permits.
- D. Construction Facilities and general construction activities shall comply with the energy use guidelines in Title 24 of the California Administrative Code.

1.4 PROJECT CONDITIONS

- A. Temporary Utilities: Prepare a schedule indicating dates for implementation 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.
- B. 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.

Facilities – Contracts Administration

- C. Security: 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.

PART 2 – PRODUCTS

2.1 MATERIALS

- A. General: Provide new materials. If acceptable to the University's Representative, the Contractor may use undamaged, previously used materials in serviceable condition. Provide materials suitable for use intended.
- B. Lumber and Plywood:
1. For job-built temporary offices, partitions, shops, and sheds within the construction area, provide UL-labeled, fire-treated lumber and plywood for framing, sheathing, and siding.
 2. For signs and directory boards, provide exterior-type, Grade B-B high-density concrete form overlay plywood of sizes and thickness indicated.
 3. For vision barriers, provide minimum 3/8-inch-(9.5-mm-) thick exterior plywood.
 4. For safety barriers, sidewalk bridges, and similar uses, provide minimum 5/8-inch- (16-mm-) thick exterior plywood.
- C. Roofing Materials: Provide UL Class A standard-weight asphalt shingles or UL Class C mineral-surfaced roll roofing on roofs of job-built temporary offices, shops, and sheds.
- D. Paint:
1. For job-built temporary offices, shops, sheds, fences, and other exposed lumber and plywood, provide exterior-grade acrylic-latex emulsion over exterior primer.
 2. For sign panels and applying graphics, provide exterior-grade alkyd gloss enamel over exterior primer.
- E. Tarpaulins: Provide waterproof, fire-resistant, UL-labeled tarpaulins with flame-spread rating of 15 or less. For temporary enclosures, provide translucent, nylon-reinforced, laminated polyethylene or polyvinyl chloride, fire-retardant tarpaulins.
- F. Water: Provide potable water approved by local health authorities.
- G. Open-Mesh Fencing: Provide minimum 0.120-inch- (3-mm-) thick, galvanized 2-inch (50-mm) chain link fabric fencing 8 feet (2.5 m) high with 3-footwide access gates as required, galvanized steel pipe posts, minimum 2.375-inch (50 mm) O.D. for line posts and minimum 2.87-inch (65 mm) **O.D.** for corner posts. All posts should be embedded in a properly engineered concrete footing.
- H. Green Fence Fabric: Provide top and bottom reinforced fabric with grommets at 2'-0" on center.

2.2 EQUIPMENT

Facilities – Contracts Administration

- A. 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.
- B. 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.
- C. 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.
- D. 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.
- E. 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.
- F. 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.
- G. Temporary Offices: Provide prefabricated or mobile units or similar job-built construction with lockable entrances, operable windows, and serviceable finishes. Provide heated and air-conditioned units on foundations adequate for normal loading.
- H. Temporary Toilet Units: Provide self-contained, single-occupancy toilet units of the chemical, aerated re-circulation, or combustion type. Provide units properly vented and fully enclosed with a glass-fiber-reinforced polyester shell or similar nonabsorbent material. Use of existing University sanitary facilities will not be permitted.
- I. 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.
 - 1. Comply with NFPA 10 and NFPA 241 for classification, extinguishing agent, and size required by location and class of fire exposure.
 - 2. Comply with requirements of authorities having jurisdiction.
- I. 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.

PART 3 – EXECUTION

3.1 INSTALLATION

Facilities – Contracts Administration

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

3.2 TEMPORARY UTILITY INSTALLATION

- A. General: 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.
- B. 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. Install electric power service with a meter at the point of connection designated by the University's Representative
 - 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.
- C. 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.

Facilities – Contracts Administration

- 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.
- D. Temporary Lighting: Provide temporary lighting with local switching as required to supplement existing lighting.
- E. 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.
 - 1. Maintain temperature at less than 60 deg F (16 deg C) in permanently enclosed portions of the building and areas where finished Work has been installed.
- F. 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.
 - 1. Use of gasoline-burning space heaters, open flame, or salamander heating units is prohibited.
- G. Temporary Telephones: Provide temporary telephone service throughout the construction period for all personnel engaged in construction activities. Install telephone on a separate line for each temporary office and first-aid station.
 - 1. Separate Telephone Lines: Provide additional telephone lines for the following:
 - a. Direct-line telephones as required in Contractor's field office.
 - b. Three direct-line telephones in field office of University's Representative.
 - c. Coin-operated telephone for general usage.
 - 2. At each telephone, post a list of important telephone numbers.
- H. Sewers and Drainage: If sewers are required to serve Contractor's field offices and are available, provide temporary connections to remove effluent that can be discharged lawfully.
 - 1. Connect temporary sewers to the University's sewer system, as directed by the University's Representative.
 - 2. Maintain temporary sewers and drainage facilities in a clean, sanitary condition. Following heavy use, restore normal conditions promptly.
- I. 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.

3.3 SUPPORT FACILITIES INSTALLATION

- A. 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".

Facilities – Contracts Administration

- B. Provide and maintain University's Field Office in the area of Work until final acceptance of the Project, located as directed by University's Representative.
1. Provide 12'-0" x 40'-0" minimum size mobile field office for use by the University's Representative to be located within close proximity to the Contractor's Field Office as approved by the University's Representative. Two 10' x 12' min. size walled off area and a restroom (provided sewer is available in area of trailers) shall be provided within the field office with a lockable door. The field office shall contain operable and screened windows, at least two of which are locked to afford view of the construction site and shall have key-type lockable interior and exterior doors. The field office shall be provided with an independent electrical distribution panel with four (8) circuit 110 V, 60 Hz service and a minimum of eight (16) 110 V convenience outlets distributed along the interior walls. Provide four telephone lines and not less than a 5-ton (capacity) air conditioning unit.
 2. University's Representative's field office shall contain at a minimum the following furnishings:
 - a. Three (3) standard size desks with drawers.
 - b. Twenty four (24) Lineal ft of bookshelves.
 - c. Eight (8) two drawer legal size filing cabinets.
 - d. One (1) 8-foot drafting tables.
 - e. Two (2) drawing racks with minimum five (5) sticks each.
 - f. Three (3) swivel base desk chairs.
 - g. Six (6) visitor chairs.
 - h. One (1) drafting stools.
 - i. Three (3) waste baskets.
 - j. One (1) bottled water dispensing station (hot & cold), with bottled water supplied by contractor.
 - k. Two (2) 3' x 6' minimum size bulletin boards.
 - l. Two (2) 3' x 6' minimum size marker board.
 - m. Four (4) 4' X 8' folding tables and twelve (12) chairs.
 3. University Representative's field office shall contain at a minimum the following equipment:
 - a. One photocopy machine (Xerox, Canon or equal) with self-feed, enlargement and reduction capabilities. Capable of copying to and from 8-1/2 x 11, 8-1/2 x 14 and 11 x 17 paper with paper Supplied by Contractor.
 - b. Provide one (1) plain paper fax machine.
 - c. Thirty construction hard hats (Fibre-Metal 3-Action-Gear). These hard hats shall remain the property of the Regents.
 - d. One (1) complete set of all code books and references applicable to this project. These code books and references shall remain the property of the University.
 - e. Items c, and d will become the property of the Regents.

3.4 CONSTRUCTION SIGNS:

Facilities – Contracts Administration

- A. Project Identification: Provide two project signs, approximately **5' x 8'** each, that will include names of principal participants and project information. At the completion of this project, these two signs shall be removed by the Contractor.
- B. Provide signs for traffic direction and warnings such as "Construction Project" and "Keep Out" to facilitate control of personnel and vehicles. Use only the minimum number necessary, to 2' x 4' maximum size.
- C. Erect signs securely on wood posts and concrete footings. Maintain in good condition throughout the construction period and remove upon completion, including concrete footings, if any.
- D. Contractor shall submit all signs to University's Representative for approval prior to installation. Contractor shall review completed project sign with University Representative, prior to installation.

3.5 CONTRACTOR'S FACILITIES:

- A. Field Offices: Provide insulated, weather tight temporary offices of sufficient size to accommodate required office personnel at the Project Site. Provide adequate lighting, power, heating, and cooling. Keep the office clean and orderly for use for small progress meetings. Furnish and equip offices as follows:
 - 1. Furnish with a desk and chairs, a 4-drawer file cabinet, plan table, plan rack, and a 6-shelf bookcase. Furnish a conference table of sufficient size to comfortably accommodate a minimum of 14 people.
 - 2. Equip with a water cooler.
 - 3. Equip with a private toilet complete with water closet and lavatory (if sewer connection is available), and medicine cabinet unit with a mirror.
- B. 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.
- C. Temporary Lifts and Hoists: 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.
- D. Temporary Exterior Lighting: Install exterior yard and sign lights so signs are visible when Work is being performed.
- E. Collection and Disposal of Waste: 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 deg F (27 deg C). Handle hazardous, dangerous, or unsanitary waste materials separately from other waste by containerizing properly. Dispose of material lawfully off-site.

Facilities – Contracts Administration

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.
 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.
- F. **Cleaning During Construction Period:** Comply with regulations of the University and safety standards for cleaning. Final cleaning is specified in Division 1 Section "Final 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.

3.6 SECURITY AND PROTECTION FACILITIES INSTALLATION

- 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 Library building.
 4. Provide supervision of welding operations, combustion-type temporary heating units, and similar sources of fire ignition.
- C. **Barricades, Warning Signs, Signals, and Lights:** Comply with standards and code requirements for erection of structurally adequate barricades. Paint with appropriate

Facilities – Contracts Administration

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.
- D. Enclosure Fence: Before excavation begins, install an enclosure fence with lockable entrance gates. Locate where indicated, or the portion of the site determined sufficient to accommodate construction operations. Install in a manner that will prevent people, dogs, and other animals from easily entering the site, except by the entrance gates. Comply with regulations of the University.
1. Provide open-mesh, chainlink fencing with green fabric/cover, with posts set in concrete footings.
- E. 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.
1. Storage: 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.
- F. 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. 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.

Facilities – Contracts Administration

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.
- G. Protection Against Inclement Weather: Brace, secure, and cover all parts of the Work to prevent damage by inclement weather.
- H. 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.
- I. 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.
- J. Site Decorum: 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 nor Building under Construction.

3.7 TRAFFIC CONTROL

- A. Prior to start of Work, 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. Be 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 via Big Springs Road and existing public streets to and from the site as approved by the University's Representative.
 3. Schedule deliveries to minimize disruption of University traffic and duration of on-site storage.
- B. Parking: 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.
1. Confine parking to the construction site or specifically designated areas. Vehicles parked elsewhere are subject to Campus parking fees or fines. Campus parking permits are available through Parking Services of **\$56.00** per

Facilities – Contracts Administration

month (check with Parking Services for daily and weekly rates) per vehicle. Rate is subject to change.

2. Contractor may use available space within its staging area for parking without a permit.
3. Provide 3 parking spaces within the staging area for University's Representative and its Consultants use.

3.8 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. 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 that are least disruptive to uses. Exterior noise levels shall not exceed 85 dBA at 50 feet.
 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. Require contractors to use the quietest among alternative equipment or to muffle/control noise from available equipment to the maximum extent possible.
 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.
 4. 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 when adjacent University buildings are normally closed. This work may be performed during the following time periods:
 6. Monday through Friday: Before 7:30 a.m. and after 3:00 p.m.
 7. Saturday and Sunday (with approval of University Representative).
- D. Work outside of regular work hours, **6:30 a.m. to 3:30 p.m.**, "overtime", required to accomplish work of this contract, such as utility shutdowns, shall be included in the contract sum.
- E. Overtime work requests must be submitted to the University's Representative three working days before the work is to commence.
1. Acceptable overtime hours are no earlier than 4:00 a.m. and no later than 7:00 p.m., Monday through Friday; and from 8:00 a.m. to 4:00 p.m. on Saturday, Sunday and Holidays.

Facilities – Contracts Administration

2. Work at other times may be permitted if it takes place within the enclosed building and the University's Representative determines that it is unlikely to affect University personnel and operations.
 3. Additional overtime operating hours may be approved at the University's Representative sole discretion and only without change to the contract sum.
 4. 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.
- G. Notify University's Representative at least 10 days in advance of all utility shutdowns including date, time and expected duration.

3.9 STORM WATER CONTROL

- A. Obtain and pay for permit from regulatory agency.
1. Provide engineering, drawings, etc., to meet the requirements.
- B. Erect berm and other appropriate measures to prevent water from running off site and staging area.
- C. Erect berm and other appropriate measures to prevent water from entering the site and staging area.

3.10 OPERATION, TERMINATION, AND REMOVAL

- A. Supervision: Enforce strict discipline in use of temporary facilities. Limit availability of temporary facilities to essential and intended uses to minimize waste and abuse.
- B. Maintenance: Maintain facilities in good operating condition until removal. Protect from damage by freezing temperatures and similar elements.
1. Maintain operation of temporary enclosures, heating, cooling, humidity control, ventilation, and similar facilities on a 24-hour basis where required to achieve indicated results and to avoid possibility of damage.
 2. Protection: Prevent water-filled piping from freezing. Maintain markers for underground lines. Protect from damage during excavation operations.
- C. Termination and Removal: 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.
1. Materials and facilities that constitute temporary facilities are the Contractor's property. The University reserves the right to take possession of project identification signs.
 2. Repair or replace street paving, curbs, and sidewalks damaged by construction traffic.

Facilities – Contracts Administration

3. At Substantial Completion, clean and renovate permanent facilities used during the construction period including.
4. After removal of temporary facilities which were placed on portions of the existing site not scheduled for new Work, restore those portions of the site occupied by the temporary facilities to at least the condition they existed prior to start of Work.

END OF SECTION

SAMPLE

Facilities – Contracts Administration

SECTION 01532 TREE PROTECTION

PART 1 GENERAL

1.1 SUMMARY:

- A. Provide all labor, materials, equipment, tools, services and miscellaneous and incidental work to provide all tree protection as indicated on the drawings and as specified including:
 - 1. Protection and welfare of all existing trees within and adjacent to the Contract Limits which are noted to remain, including trimming, cabling, and repair of such trees as necessary on the Drawings and as specified.
 - 2. Contractor shall submit tree maintenance plan for University's Representative approval.
 - 3. Protection of any existing irrigation system servicing trees to remain.
 - 4. Completely coordinate with all work.
- B. Related Work Specified Elsewhere:
 - 1. Section 01500 - Construction Facilities and Temporary Controls.
 - 2. Section 01510 - Temporary Utilities.
 - 3. Section 02110 - Site Clearing.

1.2 DEFINITIONS:

- A. "Injury" is defined, without limitation, as any bruising, scarring, tearing, or breaking of roots, branches, or trunk.
- B. "Drip line" is defined as the outermost limits of the tree canopy.

1.3 QUALITY ASSURANCE:

- A. General Responsibility: The Contractor shall be directly responsible for protection and welfare of existing trees within the Contract Limits which are noted to remain. This responsibility shall continue throughout the full construction period until the entire project is completed and accepted by the University's Representative and through completion of the guarantee period.
- B. Qualifications of workmen: Trimming shall be performed only by a licensed arborist. Provide at least one person approved by the University's Representative who shall be present at all times during tree protection and trimming operations, who shall be thoroughly familiar with the type of work involved, and who shall direct all protection and trimming work.
- C. Reference Standards: Published specifications, standards, tests, or recommended methods of trade, industry, or governmental organizations apply to work of this section.
- D. International Society of Arboriculture (ISA) "Guide for Establishing Values of Trees and Other Plants," prepared by the Council of Tree and Landscape Appraisers (CTLA).
- E. "Cabling, Bracing and Guying Standards for Shade Trees", as published by the National Arborist Association (NAA), 174 RT 101, Bedford, New Hampshire, 03102.

1.4 JOB CONDITIONS:

Facilities – Contracts Administration

- A. Prior to performing any work of this Contract, Contractor shall call for a site meeting with the University's Representative and University's Representative's Consultant. This meeting shall occur prior to construction of any nature on site. The purpose of the meeting shall be to establish the conditions of all existing trees to be preserved or relocated upon receipt of the site by the Contractor. Failure to call for said meeting implies acceptance by the Contractor of trees to be preserved in their existing condition.
- B. Sequencing Schedule: Coordinate and cooperate with other trades to enable the work to proceed as rapidly and efficiently as possible.

1.5 GUARANTEE:

- A. Contractor shall guarantee that all plants covered by the provisions of this Section will be healthy and in flourishing condition of active growth 1 year from the date of Final Completion.
- B. During the warranty period the Contractor shall be liable for damages to all trees covered by the provisions of this Section and shall pay compensation to the University.
- C. Contractor will not be held responsible for failures due to neglect by the University, vandalism, etc., during the warranty period. Report such conditions to the University's Representative.

PART 2 PRODUCTS

2.1 TREE PROTECTION FENCING:

- A. Tree Protection Fence: 8-foot high chain link fence, sturdy and capable of acting as a barrier against objects, vehicles, etc., and designed so as to allow for relocations as required and shall have gate access to inside for care of tree. It shall be continuously maintained and repaired as necessary. Metal shall be galvanized.
- B. Install tree protection fencing around trees to be preserved at a distance required from the base of the trunk to the drip line of the tree. Fencing shall remain until landscape work has commenced, and it shall then be removed as directed by the University's Representative.
- C. During the course of construction, relocation of the fence may be required to facilitate construction. The Contractor shall do so as directed by the University's Representative at no additional expense to the University.

PART 3 EXECUTION

3.1 PROTECTION OF TREES:

- A. Water: Provide ample water supply of potable quality and sufficient quantity for all operations required under this Section.
- B. The existing trees to be preserved presently are in excellent condition. Trees shall not be allowed to deteriorate and shall be maintained in a healthy and vigorous condition during the course of construction and maintenance period.
- C. During the course of construction the Contractor shall take all necessary precautions, as outlined herein, to protect the existing trees to be preserved from injury or death. Protection

Facilities – Contracts Administration

shall be given to the roots, trunk, and foliage of all existing trees to remain.

- D. Trees, subject to the provisions of this Section, which have been injured shall be repaired immediately by an approved, certified arborist. Repair shall include removal of rough edges and sprung bark and severely injured branches as directed by the University's Representative.
- E. Tree protection fencing shall be installed for the protection of existing trees to be preserved. No construction, demolition, or work of any nature will be allowed within the fenced area without prior written approval by the University's Representative.
 - 1. Approval by the University's Representative for work within the fenced area shall not release the Contractor from any of the provisions specified herein for the protection of existing trees to be preserved.
 - 2. During the course of construction of approved work within the fenced area, no roots larger than two inches in diameter shall be cut without prior written approval by the University's Representative.
- F. During construction the existing site surface drainage patterns shall not be altered within the area of drip line.
- G. Contractor shall not alter the existing water table within area of drip line.
- H. Take necessary measures to maintain healthy living conditions for existing trees to be preserved. Such measures shall include but not be limited to periodic washing of leaves for the removal of dust, irrigation, etc.
- I. Do not permit the following within drip line of any existing tree to be preserved.
 - 1. Storage or parking of automobiles or other vehicles.
 - 2. Stockpiling of building materials or refuse of excavated materials.
 - 3. Skinning or bruising of bark.
 - 4. Use of trees as support posts, power poles, or signposts; anchorage for ropes, guy wires, or power lines; or other similar functions.
 - 5. Dumping of poisonous materials on or around trees and roots. Such material includes but is not limited to paint, petroleum products, contaminated water, or other deleterious materials.
 - 6. Cutting of tree roots by utility trenching, foundation digging, placement of curbs and trenches, and other miscellaneous excavation without prior written approval by the University's Representative.
 - 7. Damage to trunk, limbs, or foliage caused by maneuvering vehicles or stacking material or equipment too close to the tree.
 - 8. Compaction of the root area by movement of trucks or grading machines; storage of equipment., gravel, earth fill, or construction supplies; etc.
 - 9. Excessive water or heat from equipment, utility line construction, or burning of trash under or near shrubs or trees.
 - 10. Damage to root system from flooding, erosion, and excessive wetting and drying resulting from dewatering and other operations.
- J. Excavation Around Trees:
 - 1. Excavation within drip lines of trees shall be done only where absolutely necessary.
 - 2. Where trenching for utilities is required within drip lines, tunneling under and around roots shall be by hand digging. Main lateral roots and taproots shall not be cut.

Facilities – Contracts Administration

Smaller roots that interfere with installation of new work may be cut with prior approval.

3. Where excavation for new construction is required within drip line of trees, hand excavation shall be employed to minimize damage to root system. Roots shall be relocated in backfill areas wherever possible. If large, main lateral roots are encountered, they shall be exposed beyond excavation limits as required to bend and relocate without breaking. If encountered immediately adjacent to location or new construction and relocation is not practical, roots shall be cut approximately 6 inches back from new construction.
4. Exposed roots shall not be allowed to dry out before permanent backfill is placed. Temporary earth cover shall be provided, or roots shall be packed with wet peat moss or four layers of wet, untreated burlap and temporarily supported and protected from damage until permanently relocated and covered with backfill. The cover over the roots shall be wetted to the point of runoff daily.
5. Branching structure shall be thinned in accordance with NAA "Pruning Standards and Practices" to balance loss to root system. Thinning shall not exceed 30 percent of existing branching structure.

3.3 TRIMMING OF TREES:

- A. In company with the University's Representative, and registered arborist ascertain the limbs and roots which are to be trimmed, and clearly mark them to designate the approved point of cutting.
- B. A consulting arborist, registered by the American Society of Consulting Arborists (ASCA), shall be engaged to direct removal of branches from trees and large shrubs which are to remain if required to clear for new construction.
- C. Dead and damaged trees that are determined by the University's Representative and arborist to be incapable of restoration to normal growth pattern shall be removed.
- D. Cut evenly, using proper tools and skilled workmen, to achieve neat severance with the least possible damage to the tree.
- E. In the case of root cuts, apply wet burlap or other protection, approved as noted herein, to prevent drying out, and maintain in a wet condition as long as necessary for temporary protection.

3.4 IRRIGATION SYSTEM:

- A. Protect existing irrigation system from damage.

3.5 REPAIR COMPENSATION:

- A. Damage to existing tree crowns or roots over 1-inch in diameter shall be immediately reported to University's Representative in writing, and, at the direction of the University's Representative, repaired immediately at the Contractor's expense by an approved certified arborist.
- B. A certified arborist shall direct repair of trees damaged by construction operations. Repairs shall be made promptly after damage occurs to prevent progressive deterioration of damaged trees.
- C. Any tree to remain which is damaged or destroyed owing to the Contractor's negligence or failure to provide adequate protection shall be compensated for in accordance with the

Facilities – Contracts Administration

following schedule of values using "tree caliper" method (greatest trunk diameter, measured 18 inches above ground):

1. For trees and shrubs with diameters up to and including 6 inches, compensation shall be the actual cost of replacement with item similar in species, size, and shape, including:
 - a. Actual cost of item boxed out of ground.
 - b. Transportation or delivery of boxed item to site.
 - c. Planting and staking.
 - d. Maintenance, including watering, fertilizing, pruning, pest control, and other care to bring replacement to same general condition of original item.

D. For trunks up to:

| | |
|--|---------|
| 7"..... | \$1,500 |
| 8"..... | \$2,000 |
| 9"..... | \$2,500 |
| 10"..... | \$3,000 |
| 11"..... | \$3,500 |
| 12"..... | \$4,000 |
| 13"..... | \$4,500 |
| 14"..... | \$5,000 |
| 15"..... | \$5,500 |
| 16"..... | \$6,000 |
| 17"..... | \$6,500 |
| 18" and over, add for each caliper inch..... | \$ 700 |

- E. Damaged tree limbs or trees which have died as a result of injury during construction shall remain the property of the University and shall remain or be removed by the Contractor as directed by the University's Representative.

3.6 MAINTENANCE:

- A. Contractor shall be responsible to perform periodic inspections of existing trees to be preserved and submit written proposals to the University's Representative for additional maintenance work as may be required to ensure the health and general well-being of the trees. Contractor shall retain, at the direction of the University's Representative additional specialists as may be required to perform this work.
- B. Root Hormone: Apply as follows:
 1. Construct tree basins at rims or outer edge of the tree box so that applied water will remain on top of the root-ball.
 2. Apply root hormone at the rate of 2 ounces of root hormone dissolved in a 2-gallon bucket of water, poured on top of the root-ball and contained thereon by the basin rims. Immediately after root hormone application, fill the tree basin with water and allow it to settle within the soil. Repeat application, fill the tree basin with water and allow it to settle within the soil. Repeat application of water twice.
- C. Mulching: Trees shall be mulched with 1-inch nitrolized fir bark immediately after completion of the root hormone application and its irrigation into the rootball.
- D. Irrigation: During construction the existing trees to be preserved shall, at the direction of the University's Representative, be given deep watering (be irrigated). Quantities and lengths of time are variable and shall depend upon seasonal rainfall.

END OF SECTION

SAMPLE

Facilities – Contracts Administration

SECTION 01560
ENVIRONMENTAL MITIGATION

PART 1 – GENERAL

- 1.1 The Environmental Mitigation requirement for this project is recorded in this specification section 01560. The measures mitigations may include, but are not limited to, procedures and standards to control:

Dust
Noise
Fumes
Timing of work activities
Erosion
Archaeological resources found during excavation
Preservation of trees
Demolition process and materials

- 1.2 The Contractor must comply with the mitigation below in terms of what is to be controlled, acceptable methods, and standards, e.g. equipment must be muffled and noise levels may not exceed specified decibel level.

LRDP Mitigation Measure 4.10.1 to reduce dust emissions during construction, construction contract specifications would stipulate the conditions that follow:

- A. Exposed surfaces should be watered twice daily or more if necessary.
 - B. Stockpiles of excavated materials should be covered.
 - C. A berm should be erected on the down-slope of the project site to prevent silt-laden water from running off site.
 - D. Trucks carrying excavated materials from the site should be covered and should have their tires and undercarriages washed prior to exiting the site.
 - E. Paving of exposed dirt surfaces should be done as quickly as possible.
 - F. Streets affected by fugitive dust should be swept regularly.
 - G. An on-site manager should be responsible for monitoring dust levels and suggesting appropriate additional control measures, if necessary.
 - H. Uncovered soil should be bound (by grass or similar ground cover) as soon as is reasonably possible.
 - I. Excavation should not be conducted when surface winds exceed 11 mph.
 - J. Unnecessary idling of construction vehicles and equipment should be avoided.
- 1.3 LRDP Mitigation Measure 4.11.1. UCR will implement the following measures to minimize noise caused by construction activities.

Facilities – Contracts Administration

- A. Limit construction activities to a schedule that minimizes disruption as much as possible to area residences surrounding the project site and to Campus users.
 - B. Schedule activities with highest noise potential for the times when background ambient noise levels are highest (i.e., during peak commute hours).
 - C. Require contractors to employ the quietest among alternative equipment or to muffle / control noise from available equipment to the maximum extent possible.
 - D. Perform noisy operations (e.g., mixing concrete) off-site or on portions of the site furthest from noise sensitive receptors.
- 1.4.1 Project Mitigation Measure 4. To minimize construction-related impacts, the limits of construction, the construction staging area and vehicle turnarounds, shall be clearly defined, by the use of fencing or other signage/markings. Specifically, the entire perimeter of the construction staging area shall be fenced for the duration of constructions. Any major movement of construction vehicles outside of the designated construction area shall be directed by flagmen to ensure pedestrian safety in and around the project site.

END OF SECTION

SECTION 01565
HAZARDOUS MATERIALS PROCEDURES

PART 1 - GENERAL

1.1 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.

See attached sheet for Listing of Approved TSDFs.

PART 2 – MATERIALS (Not Applicable)

PART 3 – EXECUTION (Not Applicable)

SEE THE FOLLOWING SHEET FOR THE UNIVERSITY OF CALIFORNIA – APPROVED TSDFs

SECTION 01600
MATERIALS AND EQUIPMENT

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.
- B. Related Sections: The following Sections contain requirements that relate to this Section:
 - 1. Division 1 Section "Reference Standards and Definitions" specifies the applicability of industry standards to products specified.
 - 2. Division 1 Section "Submittals" specifies requirements for submittal of the Contractor's Construction Schedule and the Submittal Schedule.
 - 3. Division 1 Section "Product Options & Substitutions" specifies administrative procedures for handling requests for substitutions made after award of the Contract.

1.2 DEFINITIONS

- A. 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.

1.3 QUALITY ASSURANCE

- A. Source Limitations: To the fullest extent possible, provide products of the same kind from a single source.

Facilities – Contracts Administration

- 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.

1.4 PRODUCT DELIVERY, STORAGE, AND HANDLING

- A. 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

Facilities – Contracts Administration

5. Documents and to ensure that products are undamaged and properly protected.
 6. Store products at the site in a manner that will facilitate inspection and measurement of quantity or counting of units.
 7. 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.
 8. 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.
 9. Immediately remove from the site materials and equipment that are damaged or do not comply with requirements of the Contract Documents.
 10. When handling and moving materials and equipment, protect all finished surfaces.
- B. Keep copies of manufacturer's specifications and instructions on site and available for reference.

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.

Facilities – Contracts Administration

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 INSTALLATION OF PRODUCTS

- 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

Facilities – Contracts Administration

SECTION 01630 PRODUCT OPTIONS AND SUBSTITUTIONS

- 1.1 General Provisions Regarding Specification of Products, Material or Equipment By Brand Or Trade Name.
- A. Products, material or equipment specified by both brand or trade name and model number are approved for use, provided that 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; Contractor shall, at its sole cost, modify such products, material, or equipment so that they comply with all requirements of the plans and specifications.
 - B. 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 Contractor uses any product, material or equipment other than the first-named one, 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.
 - C. 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.
 - D. 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.
 - E. 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.
 - F. 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; 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.

Facilities – Contracts Administration

- A. 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 review and approval by the University's Representative, 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, 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. Contractor shall utilize the first-named product, material or equipment if Contractor fails to make the appropriate required submittal pursuant to this paragraph within the 70-day period.
- B. 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. 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, 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.

- A. 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 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. 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.
- B. 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

Facilities – Contracts Administration

- by an independent Testing Laboratory and at the sole expense of 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 Contractor.
3. Provide any additional information deemed necessary by the University's Representative to evaluate the proposed substitution.
- C. 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, Contractor shall do so within the time period specified by the University's Representative. A proposed substitution may be rejected if Contractor fails to submit such revisions, corrections, or supplemental supporting data within the specified time period.
- D. 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.A., must be submitted to the University's Representative not later than 35 days after the date of commencement specified in the Notice to Proceed. 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.
- E. **NOT USED**
- F. 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 Contractor's expense.
- G. 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, 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.
- H. The University's Representative may refuse to approve any requested substitution where, in the reasonable opinion of the University's Representative, 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.
- I. University's Representative may reject any substitution not proposed in the manner and within the time limits prescribed herein.

Facilities – Contracts Administration

- J. Substitutions are not allowed unless approved in writing by the University's Representative. Any such approval shall not relieve Contractor from the requirements of the Contract Documents.
- K. The 35-day and 70-day submittal periods do not excuse Contractor from completing the Work within the Contract Time or excuse Contractor from paying liquidated damages if Final Completion is delayed.
- L. 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, 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.
- M. If a substitution request is finally rejected by the University Representative, 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 Contractor complies with the submittal requirements (including deadlines) of specification section 01630-1.2

END OF SECTION

(SUBSTITUTION FORM ON FOLLOWING PAGE.)

Facilities – Contracts Administration

SECTION 01630
 MATERIAL/PRODUCT SUBSTITUTION REQUEST

To: University's Representative

A. We hereby submit for your consideration the following product instead of the specified item:

1. Section _____ Sub-article _____
2. Specified Item _____
3. Proposed Substitution (Mfg., type, Model, etc.)

B. Complete all of the following:

1. Does this Substitution offer The Regents a cost credit (including costs for changes by other trades)? _____ How much? _____
2. Does this Substitution offer earlier delivery or less construction time? _____
3. Does this substitution affect any dimensions, layout, or details of other trades as shown on the drawings? Yes _____ No _____
 (If yes, explain) _____
4. What are the specific differences between this substitution and the specified item?

C. Attach the following items as applicable: Check if attached

- | | |
|---|-------|
| 1. Manufacturer's technical data | _____ |
| 2. Laboratory test or performance results | _____ |
| 3. Drawings and wiring diagrams of the proposed product | _____ |
| 4. Drawings and description of changes required by other trades | _____ |
| 5. Samples | _____ |
| 6. Manufacturer's guarantee and maintenance instructions | _____ |
| 7. Documentation of code compliance for all specific uses | _____ |

D. The undersigned agrees to pay for all additional review, design, testing, changes in the contract documents, and construction as a result of the acceptance of this substitution, at no cost to the Regents.

E. Submitted by (Contractor) _____

(University Representative's use only.)

SECTION 01700
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. Inspection procedures.
 2. Project record document submittal.
 3. Operation and maintenance manual submittal.
 4. Submittal of warranties.
- B. Related Sections: The following Sections contain requirements that relate to this Section:
1. Division 1 Section "Final Cleaning" for final cleaning requirements.
 2. Division 1 Section "Project Record Documents" for requirements for preparation and submittal of record documents.
 3. Division 1 Section "Operation and Maintenance Data" for requirements for preparation and submittal of operation and maintenance data and instruction of University's personnel.
 4. Division 1, Section "Warranties" for requirements for preparation and submittal of warranties.
- C. Closeout requirements for specific construction activities are included in the appropriate Sections in Divisions 2 through 16.

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

Facilities – Contracts Administration

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 Division 1 Section "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 unfilled requirements. The University's Representative will prepare the Notice of Completion following inspection or advise the Contractor of construction that 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 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.

- 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. Record 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.

END OF SECTION

SECTION 01710
FINAL CLEANING

PART 1 – GENERAL

1.1 SUMMARY

- A. This Section includes administrative and procedural requirements for final cleaning at Substantial Completion.
- B. Related Sections: The following Sections contain requirements that relate to this Section:
 - 1. Division 1 Section "Construction Facilities and Temporary Controls" specifies general cleanup and waste-removal requirements.
 - 2. Division 1 Section "Contract Closeout" specifies general contract closeout requirements.
 - 3. Special cleaning requirements for specific construction elements are included in appropriate Sections of Divisions 2 through 16.
- 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.

1.2 SUBMITTALS

- A. Certification: Prior to requesting inspection for Substantial Completion, submit written certification to the University's Representative that final cleaning has been performed in accordance with the Contract Documents.

PART 2 - PRODUCTS

2.1 MATERIALS

- A. 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.

PART 3 - EXECUTION

3.1 FINAL CLEANING

- A. General: 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.

- B. 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.
- C. 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.
- D. Removal of Protection: Remove temporary protection and facilities installed during construction to protect previously completed installations during the remainder of the construction period, after the increment 2 contractor occupies the site.
- E. Compliances: Comply with governing regulations and safety standards for cleaning operations. Remove waste materials from the site and dispose of lawfully.
1. 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.

END OF SECTION

SECTION 01720
PROJECT RECORD DOCUMENTS

PART 1 - GENERAL

1.1 SUMMARY

- A. This Section includes administrative and procedural requirements for Project Record Documents.
- B. Project Record Documents required include the following:
1. Marked-up copies of Contract 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. Record 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 Record submittals.
- C. Related Sections: The following Sections contain requirements that relate to this Section:
1. Division 1 Section "Submittals" specifies general requirements for preparing and submitting Project Record Documents.
 2. Division 1 Section "Contract Closeout" specifies general closeout requirements.
 3. Division 1 Section "Operation and Maintenance Data" for preparing and submitting operation and maintenance data.
 4. Divisions 2 through 16 Sections for specifying Project Record Document requirements for specific pieces of equipment or building operating systems.
- D. General requirements for submittal of Project Record Documents are included in Section "Shop Drawings, Product Data, and Samples."
- E. Maintenance of Documents and Samples: Store record documents and Samples in the field office apart from the Contract Documents used for construction. Do not use Project Record Documents for construction purposes. Maintain record documents in good order, legible condition, and in a clean, dry, secure, fire-safe location. Make documents and Samples available at all times for the University's Representative's inspections.
1. Maintain 1 set of all record documents at the Project site for the entire duration of construction.
 2. Clearly label each document or item "PROJECT RECORD DRAWING," "PROJECT RECORD SAMPLE," "PROJECT RECORD SPECIFICATIONS," or similar as appropriate and applicable.
- F. Do not conceal Work requiring verification for record documents until such information has been verified and recorded.

1.2 RECORD 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 Project Record 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 Construction Change Directive.
 - h. Changes made following the University Representative's written orders and pertinent graphic and written responses to requests for information (RFI).
 - i. Details not on original Contract Drawings.
 2. Mark record 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 record 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 Construction Change Directive numbers, alternate numbers, change-order numbers, request for information (RFI) numbers, and similar identification.
 6. Identify and date each drawing; include the printed designation "PROJECT RECORD DRAWINGS" in a prominent location on each drawing.
- B. Responsibility for Markup: The individual or entity who obtained record data, whether the individual or entity is the Installer, subcontractor, or similar entity, shall prepare the markup on record drawings.
1. Accurately record 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 record 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 Record Drawings: Prepare new drawings instead of following procedures specified for preparing record drawings where new drawings are required,

Facilities – Contracts Administration

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 record Drawings.

1.3 RECORD SPECIFICATIONS

- A. During the construction period, maintain 3 copies of the Project Specifications, including addenda and modifications issued, for Project Record 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 record Product Data submittals and maintenance manuals.
 - c. Note related record Product Data, where applicable. For each principal product specified, indicate whether record Product Data has been submitted in maintenance manual instead of submitted as record Product Data.
 - d. Use pen and black ink so marks will reproduce clearly.
 - 2. Upon completion of markup, submit record Specifications to the University's Representative for the University's records.

1.4 RECORD PRODUCT DATA

- A. During the construction period, maintain one copy of each Product Data submittal for Project Record 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 record Drawings, where applicable.
 - 4. Upon completion of markup, submit a complete set of record Product Data to the University's Representative for the University's records.
 - 5. Where record Product Data is required as part of maintenance manuals, submit marked-up Product Data as an insert in the manual instead of submittal as record Product Data.
 - 6. Each prime contractor is responsible for marking up and submitting record Product Data for its own Work.

Facilities – Contracts Administration

1.5 RECORD 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 RECORD 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 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 records 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

3.1 RECORDING

- A. Post changes and modifications to the Documents as they occur. Do not wait until the end of the Project. The University's Representative will periodically review record documents to determine compliance with this requirement.
- B. Current updated record documents shall be made available for review by the University's Representative at the time of submitting applications for payment.
- C. Progress payments may be withheld until record documents are completed and up to

date as of the billing.

END OF SECTION

SAMPLE

SECTION 01740
GUARANTEES, WARRANTIES, BONDS, SERVICE AND MAINTENANCE CONTRACTS

PART 1 - GENERAL

1.1 SUMMARY

- A. This Section includes administrative and procedural requirements for warranties required by the Contract Documents, including manufacturers' standard warranties on products and special warranties.
 - 1. Refer to the General Conditions for terms of the Contractor's period for correction of the Work.
- B. Related Sections: The following Sections contain requirements that relate to this Section:
 - 1. Division 1 Section "Submittals" specifies procedures for submitting warranties.
 - 2. Division 1 Section "Contract Closeout" specifies contract closeout procedures.
 - 3. Divisions 2 through 16 Sections for specific requirements for warranties on products and installations specified to be warranted.
 - 4. Certifications and other commitments and agreements for continuing services to University are specified elsewhere in the Contract Documents.
- C. 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.
- D. 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.
- E. 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.

1.2 DEFINITIONS

- A. Standard product warranties are preprinted written warranties published by individual manufacturers for particular products and are specifically endorsed by the manufacturer to the University.
- B. 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.

Facilities – Contracts Administration

1.3 WARRANTY REQUIREMENTS

- A. **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.
- B. **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.
- C. **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.
- D. **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.
 - 1. **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.
 - 2. 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.
- E. 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.
- F. **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.

1.4 SUBMITTALS

- A. Submit written warranties to the University's Representative prior to the date certified for Notice of Completion. If the University Representative's Notice of Completion designates a commencement date for warranties other than the date of Notice of Completion for the Work, or a designated portion of the Work, submit written warranties upon request of the University's Representative.
 - 1. When a designated portion of the Work is completed and occupied or used by

Facilities – Contracts Administration

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.

- B. 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.
 - 1. Refer to Divisions 2 through 16 Sections for specific content requirements and particular requirements for submitting special warranties.
- C. 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.

1.5 SUBMITTAL REQUIREMENTS

- A. Assemble required guarantees, bonds, and service and maintenance contracts.
- B. Number of original signed copies required: Three (3) each.
- C. Table of Contents: Neatly typed and in orderly sequence, based on Specifications Table of Contents. Provide complete information for each item as follows:
 - 1. Product or Work item.
 - 2. Firm name, address, and telephone number; and name of principal.
 - 3. Scope.
 - 4. Date of beginning of guarantee, bond, or service and maintenance contract.
 - 5. Duration of warranty or service and maintenance contract.
 - 6. Size 8-1/2 inch x 11inch sheets punched for 3-ring binder. Fold larger sheets to fit into binders.
 - 7. Identify each packet on the cover with typed or printed title, "WARRANTIES", Title of Project, and Name of Contractor.
 - 8. Submit in commercial quality, 3-ring binders, with durable, cleanable plastic covers.
 - 9. When warranted, construction requires operation and maintenance manuals, provide additional copies of each required warranty, as necessary, for inclusion in each required manual.
 - 10. 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.
 - 11. When a manufacturer does not offer a standard warranty, provide a written form listing the product and indicating "Standard Product Warranty Not Available."

PART 2 - PRODUCTS (Not Applicable)

PART 3 - EXECUTION (Not Applicable)



Facilities – Contracts Administration

Project Name: #
Project Number: #
Contract Number: #

SPECIAL WARRANTY FORM FOLLOWS:

SAMPLE



Facilities – Contracts Administration

Project Name: #
Project Number: #
Contract Number: #

GUARANTEE

Project Name: _____ Date: _____

Project Location: _____

Project Number: _____

GUARANTEE FOR _____ (the "Contract"), between
The (Specification SECTION and Contract No.)

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.



Facilities – Contracts Administration

Project Name: #
Project Number: #
Contract Number: #

SUBCONTRACTOR

Signed: _____ Title: _____

Typed Name: _____

Name of Firm: _____

Contractor License Classification and Number: _____

Address: _____

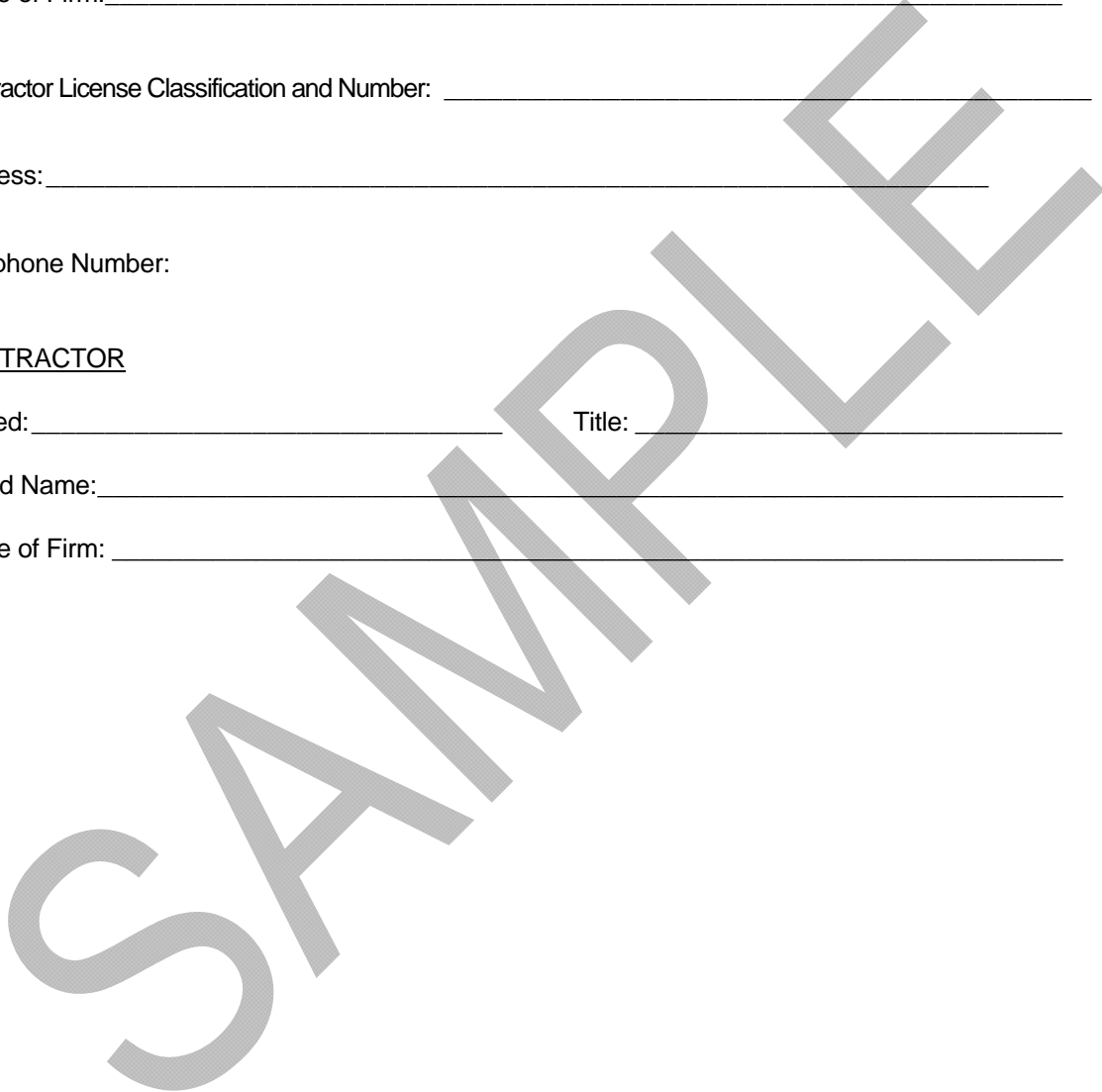
Telephone Number: _____

CONTRACTOR

Signed: _____ Title: _____

Typed Name: _____

Name of Firm: _____





Facilities – Contracts Administration

Project Name: #
Project Number: #
Contract Number: #

SECTION 01740
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



Facilities – Contracts Administration

Project Name: #
Project Number: #
Contract Number: #

Signature of Manufacturer

SAMPLE

VALUE ENGINEERING PROGRAM

1. The Design Professional and all Consultants listed in Basic Services, Article 2 of the Executive Design Professional Agreement shall be required to participate in each scheduled Value Engineering (VE) session conducted by the University.
2. The Design Professional and the Design Professional's Consultants shall prepare _____ copies of the current status documents for use at each VE session.
3. The Design Professional and the Design Professionals Consultants shall prepare _____ copies of a life cycle analysis of all proposed building systems, major components, and alternatives addressing the following:
 - a. Projected initial cost of the system.
 - b. Projected yearly operational cost.
 - c. Projected estimated replacement cost and estimated life expectancy.
4. The Design Professional shall provide _____ copies of the current Estimated Project Construction Cost.
5. Following each VE session the Design Professional shall develop a report which itemizes the VE session results of all evaluations into a prioritized listing of alternatives for discussion with University. Final decisions based upon this report shall be incorporated into the 100% construction documents.
6. Timing of submittals shall be as appropriate for each scheduled Value Engineering session.
7. Value Engineering sessions shall be as scheduled below. Actual dates shall be established by agreement between the Design Professional and University.
 - a. Late Schematic Design Phase
 - (1) Evaluation of Alternatives
 - (2) Decisions
 - b. Middle to late Design Development Phase
 - (1) Design Review
 - (2) Alternative Technical Solutions
 - (3) Cost Evaluations
 - (4) Priorities and Trade-offs (if necessary)
8. **PARTICIPANTS:** Design Professional and Design Professional Consultants, Professional Peers experienced with building type, Special Consultants (i.e. Geotechnical Engineer), University professional staff, user representatives, and others as deemed appropriate by University.

ATTACHMENT D



OASIS Hub Pre-Feasibility Study

FINAL DRAFT / NOVEMBER 2021



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Table of Contents

| | |
|--|-----------|
| BACKGROUND | 3 |
| Preface | 3 |
| Clean Technology Park | 6 |
| Regional Context | 8 |
| Stakeholder Engagement | 9 |
| CONCEPT DEVELOPMENT | 11 |
| Site Analysis | 11 |
| Parcel Analysis | 12 |
| Clean Tech Park Concept | 15 |
| Phasing Strategy | 19 |
| MARKET ANALYSIS | 21 |
| Overview | 21 |
| Programmatic Opportunities | 23 |
| FINANCIAL ANALYSIS | 26 |
| Overview | 26 |
| Development Economics | 27 |
| Project Delivery | 29 |
| Market Sounding | 33 |
| CONCLUSION & NEXT STEPS | 33 |

Background

PREFACE

In May 2021, the University of California, Riverside (“UCR” or “UC Riverside”) engaged Brailsford & Dunlavey, Inc. (“B&D”) and Perkins & Will (“P&W”), jointly “the Project Team,” to provide consulting services to complete a Pre-Feasibility Study (the “Analysis”) for the Opportunities in Agriculture, Social Inclusion, and Sustainability (“OASIS”) Hub project. The purpose of the Analysis was to define the project drivers and strategic objectives of the OASIS Hub to establish decision-making criteria for implementation of the project concept and the first phase of development to be called the Clean Technology Park (“Clean Tech Park”). This deliverable documents the purpose, outcomes, and decisions made during the Pre-Feasibility Study initiative.

The purpose and scope of the Pre-Feasibility Study was to accomplish the following:

- ❖ Define project drivers and strategic objectives for the OASIS Hub and Clean Tech Park project;
- ❖ Establish decision-making criteria by which market opportunities and programmatic considerations could be evaluated;
- ❖ Assess area market conditions to identify potential opportunities for the Clean Tech Park project;
- ❖ Identify viable market opportunities in alignment with UC Riverside’s strategic objectives for the Clean Tech Park project;
- ❖ Develop a site plan and development approach that maximized the site’s utility and minimizes financial risk to the University;
- ❖ Establish UC Riverside’s risk profile and financial objectives of implementing the proposed development strategy for the Clean Tech Park;
- ❖ Engage the private development market in order to test the proposed Clean Tech Park development strategy;
- ❖ Determine the most effective delivery and partnership structure for the OASIS Hub.

The next steps within the development process are summarized in the Project Delivery and Conclusion sections of this deliverable, which include pursuing additional marketing and socialization efforts to promote OASIS and the first phase of the Clean Tech Park. This Analysis recommends seeking ongoing funding opportunities to support the project and UCR tenants while also considering immediate activities to begin preparing the site. A high-level timeline is provided, which establishes the anticipated duration of each process to reach an opening of 2025 for the first phase and 2029 for the second phase.

STRATEGIC CRITERIA

The Project Team initiated the Analysis by conducting a **Strategic Asset Value (“SAV”)** Session with UC Riverside leadership to identify and prioritize the strategic objectives that the OASIS Hub must address in order to advance the institution’s broader mission and vision. The SAV guided all subsequent research and recommendations provided by the Project Team within the following categories:

Location and Scale of Development:

- ❖ The OASIS Hub development will physically reinforce UCR’s position as a prominent anchor in the local community and the Inland Empire by seeking appropriate adjacencies with industry and regional partners.

Priority Order of Market Segments:

- ❖ Through an open and permeable system, the OASIS Hub fundamentally serves not only Riverside but also the larger Inland Empire region. OASIS specifically responds to the needs and demands of the local workforce and residents, industry partners, and UCR research efforts.

Outcome Drivers & Programmatic Components:

- ❖ In order to drive transformative outcomes in the Inland Empire, the OASIS Hub must deliver an economic diversification platform that catalyzes successful partnerships between industry, research, and the regional community.

Institutional Will & Financial Participation:

- ❖ The OASIS Hub development must be financially viable in order to provide meaningful change to the Inland Empire and to drive the necessary ecosystem and platform for economic vitality in the region. UCR must participate in development that carries calculated risk while relying on the strength of its relationships with industry and regional partners.

OASIS HUB CONCEPT

Due to the range of existing capabilities in research and education, as well as recent economic development activities, UC Riverside is uniquely positioned to create a new framework for innovation in climate change and air quality research. The relocation of the California Air Resources Board (CARB) will bring over 400 knowledge-based jobs to the Inland Empire and a \$419 million facility directly aligning with UCR’s research initiatives. The relocation of CARB to the City of Riverside, combined with UCR’s research excellence presents a unique opportunity to create a Clean Tech Park at UCR that will focus on supporting CARB, industry innovation, and ongoing University research initiatives.

The economic growth opportunity of locating clean technologies near CARB and the UCR campus is a main component of the campus' larger initiative in economic development called the Opportunities to Advance Sustainability, Innovation and Social Inclusion (OASIS). OASIS is intended to be a framework that will initially be established as a Clean Technology Park and engine for the region. OASIS will build upon the momentum of regional partnerships and UCR's strength in clean technology and social mobility. The proposed framework and investment will leverage the University's existing strengths, the University of California's Carbon Neutrality Initiative, the City of Riverside's Innovation District, and the State of California's investment in relocating the CARB facility on the UCR campus. The OASIS Hub concept must fundamentally act as an open system that not only allows for the Clean Tech Park to be the primary catalyst for re-development along University Avenue but also provide a system for implementing the OASIS Hub concept in other parts of the Inland Empire. The OASIS project will take advantage of the already existing synergies among the participants and partners to promote innovation, economic prosperity and the wellbeing of the Inland Empire region. As such, OASIS will achieve this vision by adhering to its primary principles of Sustainability, Innovation, and Social Inclusion (Figure 1).



Figure 1 – OASIS Concept Triangle – Sustainability, Innovation, & Social Inclusion

CLEAN TECHNOLOGY PARK

Overview

UCR is recognized for its longstanding leadership in basic and applied research on air quality and climate science, air pollution characterization and control, intelligent transportation systems, smart grids, renewable fuel and power production, agricultural operations, material science, and energy storage. UC Riverside and its partners seek to utilize the Clean Technology Park to provide the first phase of shared facilities for bringing together opportunities in research and incubator space. The facilities will allow researchers from academia, industry, and regulatory agencies to interact in a synergistic way to address today's critical environmental topics focusing on five pillars:



Figure 2 – Five (5) Pillars of the OASIS concept

Clean Tech Park Objectives

As part of the OASIS concept, objectives for the Clean Tech Park will be to:

- ❖ Create an ecosystem of strategic partners that leverage University's strengths and connections to industry, government and community partners;
- ❖ Establish itself as the first Inland Empire innovation park that provides a Live, Work, Learn, & Play environment;
- ❖ House state-of-the-art facilities and living laboratories to support research, entrepreneurs, and industries in the cleantech and sustainability space;
- ❖ Catalyze the creation of innovative startups addressing sustainability challenges;

- ❖ Create a skilled workforce to fulfill the needs caused by technological changes, prioritizing underserved populations;
- ❖ Expand research, education, transfer and commercialization on technologies that improve air quality and reduce greenhouse gases and other toxic air contaminants;
- ❖ Gain a greater understanding of the health and environmental impacts of climate change and air quality; and
- ❖ Provide internship and job opportunities for our students and alumni.

OASIS should provide a framework for deploying resources, University research, local innovation, workforce, and physical infrastructure across the Inland Empire to mirror similar initiatives being accomplished through the Clean Tech Park as demonstrated by Figure 3. The regional coalition developed around the OASIS Hub concept will be critical in continuing to drive transformative outcomes within the city of Riverside, as well as its continued influence and growth throughout the Inland Empire.

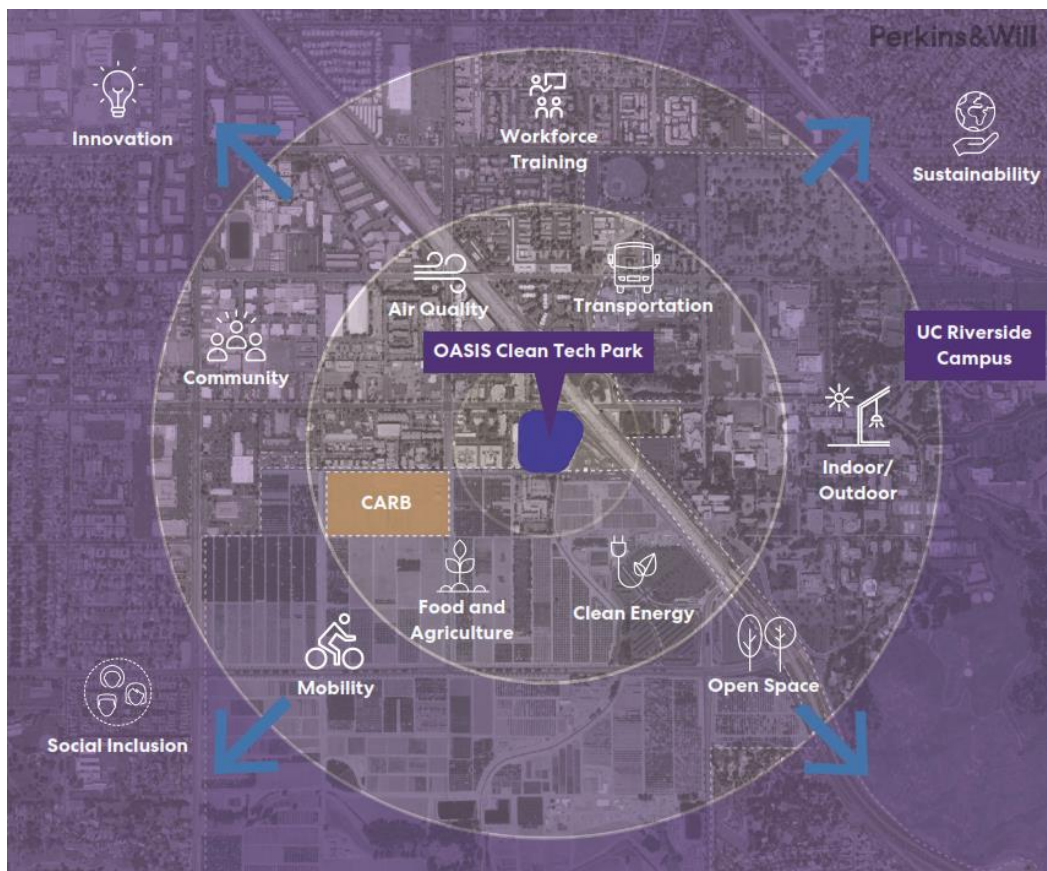


Figure 3 – Innovation Impact at Campus, Community, and Regional Scale (credit: Perkins & Will)

REGIONAL CONTEXT

Comprised of over 27,000 square miles of territory with deep roots in agriculture and farming, the Inland Empire is one of the fastest growing regions in the United States. One hundred years ago, the City of Riverside was considered to be one of the most prosperous cities in the state of California due to the birth and success of the citrus industry. However, although the impact of the citrus industry in the region has declined significantly over the years, the Inland Empire has exploded from the eastward migration of families residing in Los Angeles and Orange Counties in search of affordable housing. The region is now estimated to have approximately 4.7 million residents with the city of Riverside having 335,000. This migration has expedited the development of residential, industrial, and commercial sectors. The logistics industry has experienced the greatest growth with over 200,000 employees making it an important industry in the region. Further, the shift in land use from these industries throughout Riverside has had a mixed impact on the livelihood of many workers, and in particular, communities of color. For instance, the warehouse and logistics industry has created significant environmental issues for the region and having adverse effects to residents' wellbeing from air pollution.

UC Riverside has benefitted from the region's growth and continues to be an integral partner in the region. In 2019, UCR was named the number one institution for social mobility by U.S. News World & Report Best Colleges rankings and has since remained in the top three each subsequent year. As part of its bold vision for the future, a concerted effort has been made to enhance its research profile, be recognized as a model for social inclusion, and support local innovation. The relocation of CARB to the City of Riverside, combined with UCR's research expertise, recognized as a leader in social mobility, air quality, energy, transportation, engineering, community health and health disparity, as well as agriculture innovation, has inspired local leaders to embrace sustainability, innovation, and social inclusion as one of the key areas of economic development in the region.

As shown through the success in attracting CARB to Riverside, strong alignment between the University, community and the private sector are key to transforming the Inland Empire into a region of growth based on innovation and social inclusion. In 2017, the Riverside City Council also approved the concept of establishing innovation districts throughout the city as a means of promoting economic growth through jobs creation and new investments. The Clean Tech Park will be a critical asset to achieving the city's goals for an innovation corridor along University Avenue and a larger innovation district linking the UCR campus to Downtown Riverside.

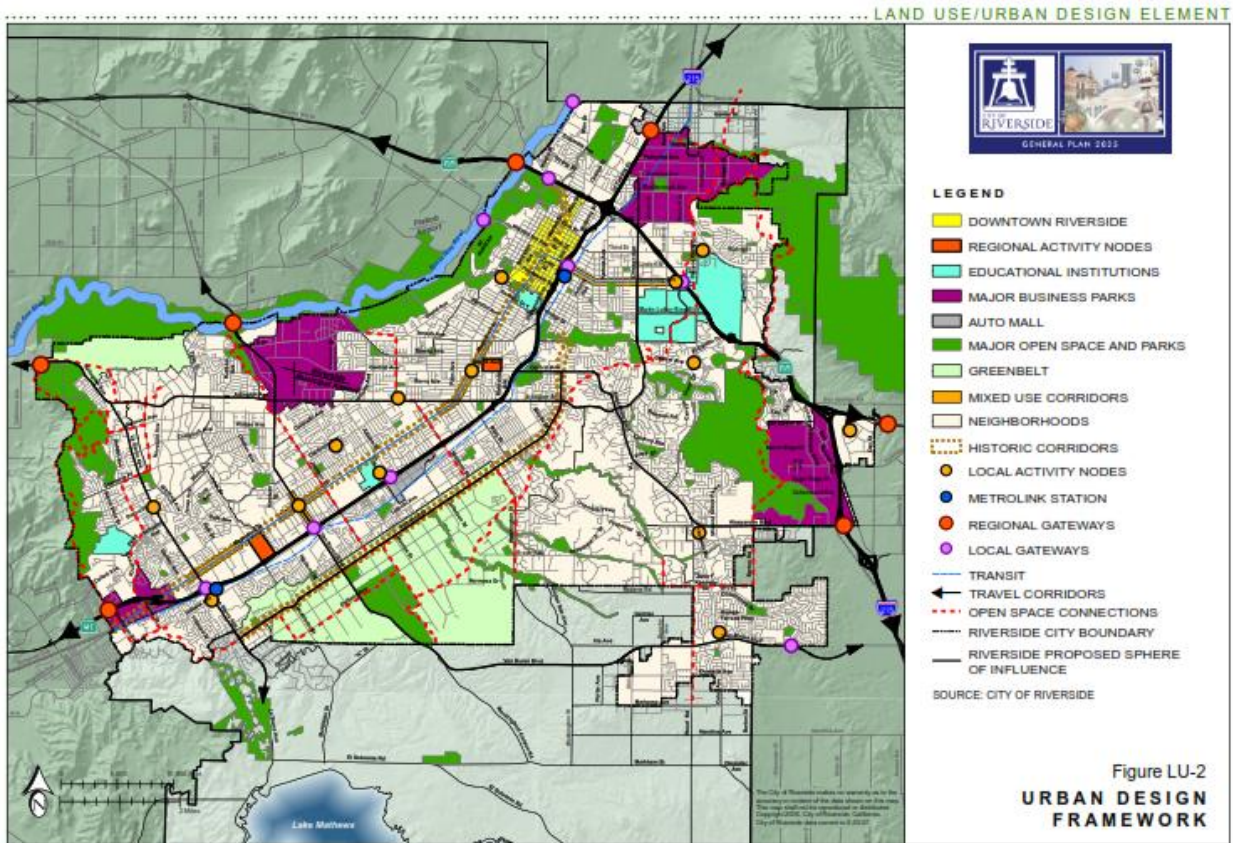


Figure 4 – City of Riverside Innovation District Map of Overlays

STAKEHOLDER ENGAGEMENT

The Project Team engaged stakeholders about the OASIS concept and Clean Tech Park to determine how the project can be a benefit to the larger region and align with various initiatives being spearheaded by stakeholders. In total, approximately 200 individuals from the Inland Empire participated in either a separate meeting with the Project Team or attended an open forum to provide their feedback.

Stakeholder Engagement

- **Regional Civic/Government Partners: City of Riverside, City of Norco, Riverside County, San Bernardino County, Office of Senator Richard Roth, Office of Senator Connie Leyva, Office of Assemblywoman Eloise Gomez Reye, Riverside Chamber of Commerce, Western Riverside Council of Governments (WRCOG)**
- **Higher Education Institutions: Riverside Unified School District, Riverside Community College District, California State University, San Bernardino, San Diego State University**
- **UC Riverside: Chancellor’s Executive Cabinet, Schools/Colleges Deans, University Extension, Center for Environmental Research & Technology (CE-CERT), Research and Economic Development, Winston Chung Global Energy Center, and Center for Social Innovation**
- California Air Resources Board (CARB)
- Inland Empire Growth & Opportunity (IEGO)
- Inland Empire / Desert Regional Consortium (IEDRC)
- California Workforce Development Board
- Manufacturers Council of the Inland Empire
- Eastern Municipal Water District
- Inland SoCal United Way / 211
- Inland Empire Tech Bridge
- Diverse America Network
- Zocalo Local
- JFF
- AVL
- Amazon, Inc.
- James Irvine Foundation

Figure 5 – List of Stakeholders Engaged and Represented in the Pre-Feasibility Study

Stakeholder Engagement Summary

The Pre-Feasibility Study is the first step in identifying ways for the University to move the OASIS concept forward with significant influence and collaboration from regional partners. The Project Team engaged a variety of stakeholders from the local community, including civic and industry partners, as part of a broad effort to gain valuable insight from supporters of the Clean Tech Park. A summary of those important discussions is included in the Stakeholder Engagement section of this report. In addition, the leadership of Research & Economic Development (RED) presented progress and feedback from the Project Team with numerous stakeholders and jointly with the UCR Provost conducted an open forum with the campus community.

- ❖ As an economic benefit to the region, OASIS should include other cities and institutions from the Inland Empire for collaborative initiatives in the Clean Tech Park.
- ❖ Due to significant confusion from stakeholders on how to integrate the community into the OASIS physical space program, partners expressed the recommendation to create guiding principles

around community engagement and activities for OASIS spaces and programs. Additionally, engagement must include underrepresented and at-need groups, including local tribes.

- ❖ Must highlight the social inclusion of innovation in the Clean Tech Park. One of the reasons for bringing CARB to the area was to improve the social justice of air quality.
- ❖ Be mindful of gentrification in the surrounding Eastside neighborhood by ensuring thoughtful land use and planning includes the local residents. Eastside residents desire places to walk, outdoor spaces that are inviting, and access to fresh produce or an urban garden
- ❖ Create space(s) that promote the local heritage to agriculture and history of the region. Incorporating the arts into some of the shared spaces or gathering areas of the Clean Tech Park's facilities. Allowing the Clean Tech Park to draw people of color from the community to co-create and feel invited to collaborate on innovation that directly serves their communities
- ❖ Align OASIS goals with the redevelopment initiatives of the Innovation Corridor and Innovation District plans defined by the City of Riverside.
- ❖ Utilize OASIS to develop a comprehensive workforce pipeline with RCCD in new trade opportunities and industries centered on climate science. Provide opportunities for youth development, internships, and apprenticeships for local K-14 students in the sciences.
- ❖ University should reinforce the strategic partnerships with IEGO, the City, and County to seek funding opportunities from the state legislature and federal agencies.
- ❖ The Clean Tech Park should maximize the street frontage of the University Extension site with retail and community spaces. The site should feel porous and welcoming to the local residents.
- ❖ In addition to physical spaces, OASIS would benefit from a robust virtual space can open opportunities for community involvement and marketing the success of the concept

Concept Development

SITE ANALYSIS

The Project Team evaluated thirty-four (34) site options available during the time of the Analysis within a 5-mile radius in the City of Riverside for the OASIS Hub and Clean Tech Park. The primary objective of the site and parcel analysis was to evaluate a variety of options through the lens of specific criteria. The following criteria was utilized to assess all of the sites within the 5-mile radius:

1. Proximate to CARB;
2. Proximate to the UCR campus;
3. Proximate to University Ave. as part of the Innovation Corridor plans with the City;
4. Access to existing transit and/or future light rail considerations along University Ave.;
5. Must not occupy any existing UCR agriculture land;
6. At least four (4) acres in size to accommodate a first and/or second phase of development; and

7. Adjacent to sites that can be utilized for expansion as part of a larger precinct strategy.

The criteria were then utilized to further reduce the options down to seven (7) sites primarily filtering them by how proximate they are to CARB and UC Riverside and being located along University Avenue. In the figure below, all seven sites (labeled A – G) proximate to CARB and UCR can be seen.



Figure 6 – Seven (7) Sites Near CARB and UCR Labeled A-G

PARCEL ANALYSIS

Relying primarily on the size of the sites as the final filter (at least four acres) for narrowing down three primary site options. The three primary site options that were analyzed further (figure 7) included the following:

- ❖ **Site A.** – Site owned and utilized by CalTrans
- ❖ **Site B.** – Location owned by UCR and used by University Extension (UNEX)
- ❖ **Site D.** – Privately owned site along University Ave.



Figure 7 – Three (3) Primary Sites Selected for Detailed Parcel Analysis

University Extension Site

Each of the three sites were evaluated at a parcel level to determine which would be the preferred site. Ultimately, the University Extension site (Site B or Site 3) in Figure 8 was recommended to be the preferred option because of its size (8 acres), proximity to CARB and UCR, frontage along University Avenue, adjacency to sites with expansion opportunities, and ownership of the land by UC Riverside. Figure 8 provides an overview of the site's area and street frontage opportunities. Additional site information can be found in the Appendix.

The following is a list of elements related to the UNEX site:

- ❖ Site area: 8.30 acres
- ❖ Frontage along University Avenue: 493 feet
- ❖ Frontage along Everton Place: 485 feet
- ❖ Total Frontage: 44% site perimeter
- ❖ Area of Largest Rectangle: 6 acres
- ❖ Capacity: 300,000 – 400,000 Sq. ft. (3-5 levels)

The site is in a prime location to act as a gateway for the campus and the City of Riverside's innovation corridor. The site of the Clean Tech Park will also provide the environment to spur Live, Work, Learn, Play elements near the UCR campus and CARB while also generating significant momentum for ongoing private

development along the City of Riverside's innovation corridor. As previously mentioned, the goal of connecting the UCR campus to Downtown Riverside requires a catalyst to propel revitalization along University Avenue. The site will position the Clean Tech Park to generate economic impacts in the local area that will initiate a transformation to the region. The site itself has a capacity of 300,000 to 400,000 sq. ft. with additional opportunities to expand to the south into other parcels owned by the University.

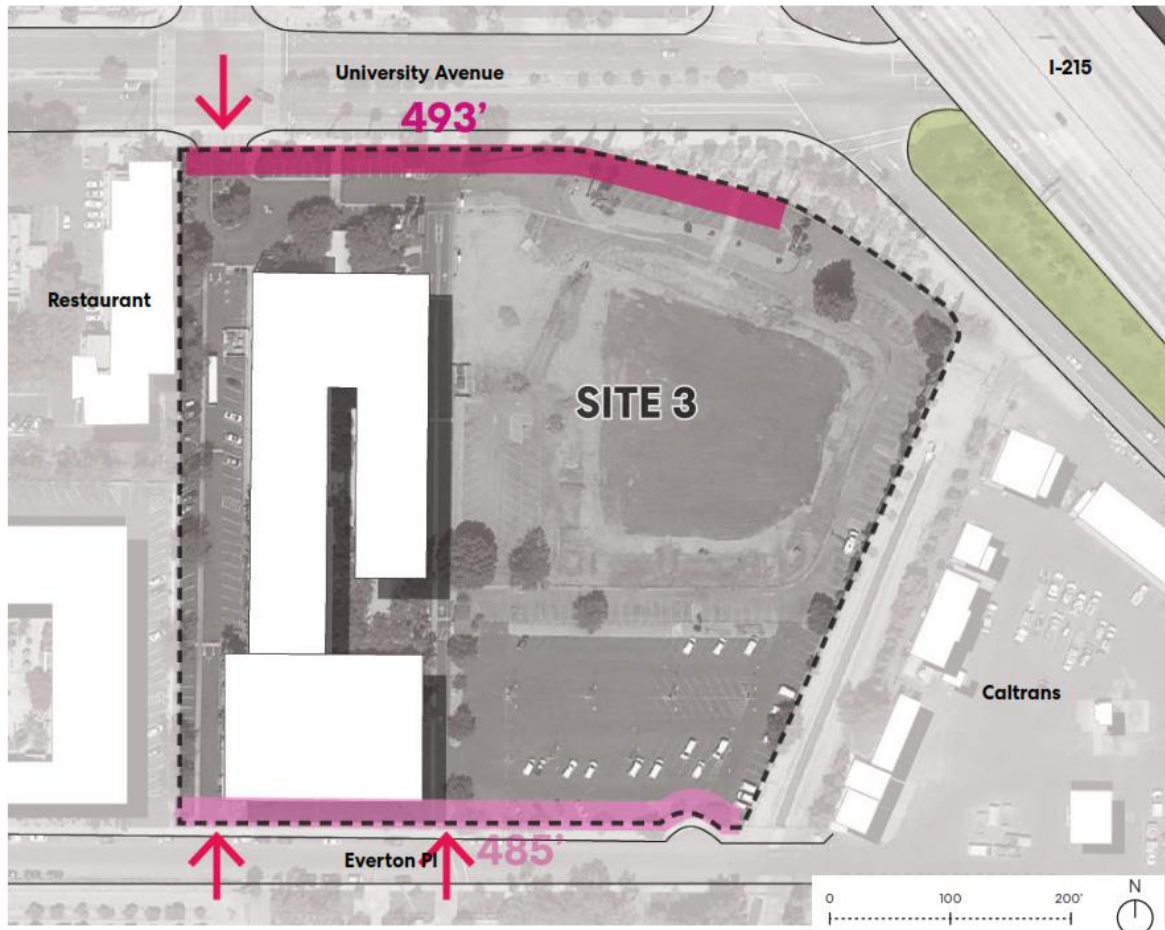


Figure 8 – University Extension site – Site Frontage (Site B or Site 3; credit: Perkins & Will)

The map (Figure 9) below conceptualizes the transformational connection that will occur between the UCR campus, the Clean Tech Park, CARB, and Downtown Riverside. Additionally, the momentum from redevelopment opportunities along University Avenue can drive new commercial uses and transform the Innovation Corridor long term.



Figure 9 – City of Riverside and UC Riverside Context (credit: Perkins & Will)

CLEAN TECH PARK CONCEPT

Development Concept

To ensure the OASIS Clean Tech Park is able to catalyze development along the City of Riverside's innovation corridor, B&D recommends UCR and its regional partners pursue a development strategy that focuses on a Live, Work, Learn, Play environment on the 8-acre UNEX site. Given the limited financial capacity of UCR and its regional partners to fund a project of this magnitude, it is recommended that a development partner be utilized through a public-private partnership (P3). The P3 transaction will outline the roles and responsibilities, as well as the level of risk transfer between all parties for construction, financing, and ongoing operations of the Clean Tech Park. Additional information about project delivery and the P3 agreement is included in the Financial Analysis section. To fulfill the vision of the OASIS Clean Tech Park, the project should prioritize uses that strengthen the socioeconomic well-being of the area, provides amenities that support the broader community, and creates research spaces that encourage connections between faculty, staff, students, industry, and the community.

The site provides an opportunity to deploy uses that cater initially to research elements, retail, shared uses, and green outdoor areas while also leveraging nearby sites for future expansion. The development will be anchored by UCR research-focused tenants while blending market-responsive commercial uses to create a vibrant and active community.

- ❖ **Innovation Zone:** Office and light industrial spaces dedicated to facilitating innovation, commercialization of new technologies, and broadening academic certifications through UNEX, CE-CERT, industry, and local community partners.
- ❖ **Shared Space:** A combination of conferencing spaces for events and academic uses to be shared by all tenants for the promotion of innovation, social inclusion, and sustainability initiatives occurring within OASIS. Shared spaces will also be open and welcoming to outside visitors to promote local communities to interact, collaborate, and learn.
- ❖ **Retail:** A mixture of small- and large-scale retail development preliminarily targeted towards food and beverage establishments. Dining experiences will vary from grab-and-go to casual sit-down with indoor and outdoor seating environments.
- ❖ **Green Zone:** Flexibly programmed greenspace that allows for a variety of broader tenant and community uses, including outdoor shaded seating, open green areas, drought tolerant vegetation, and amenities.
- ❖ **Residential:** Multi-family market rate and affordable housing development targeted towards the local workforce, as well as UC Riverside faculty and staff. Residential will be considered for later phases as part of a land acquisition strategy to create a larger innovation precinct.
- ❖ **Hotel:** The market conditions indicate there is an opportunity to include an upper midscale or upscale hotel to serve visitors of CARB, Clean Tech Park, and UC Riverside. Similar to residential, hospitality services are anticipated as part of a later phase or as land becomes available.

To maximize this concept of a connected and activated corridor leading from UCR to Downtown Riverside, the OASIS Clean Tech Park must implement a mixed-use development plan on the 8-acre site where the current University Extension building is located. Most importantly, no additional agriculture land will be utilize and the focus will be to activate the University Avenue corridor for more commercial uses and redevelopment opportunities as diagrammed in Figure 10.

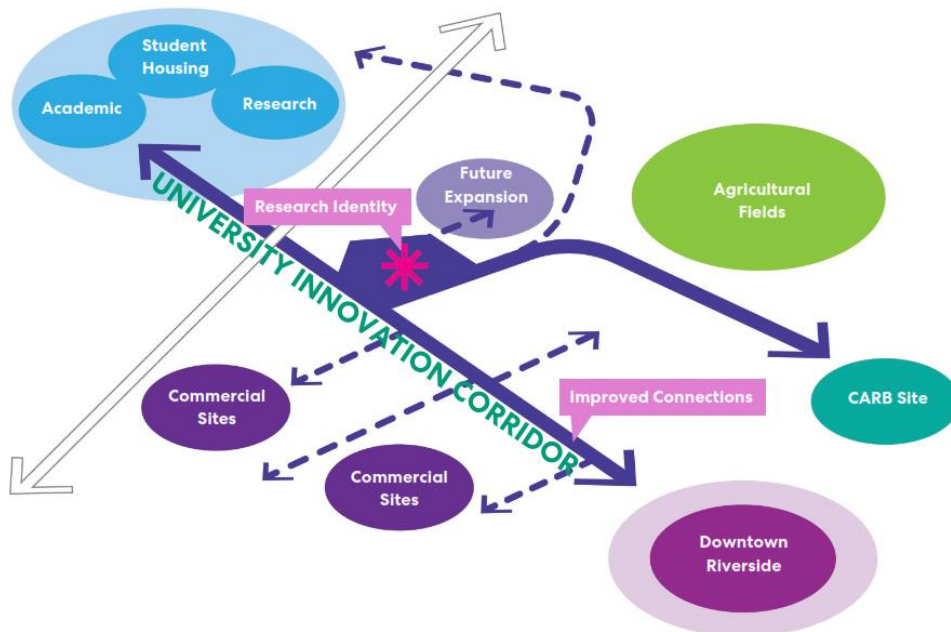


Figure 10 – University Innovation Corridor – Connected Corridor Design Principle (credit: Perkins & Will)

Space Program Overview

The Clean Tech Park is envisioned to showcase the development and commercialization of new technologies, elevate the academic and research standing of the University, and support economic development along University Avenue. A needs assessment was developed with stakeholders from UC Riverside to determine how much space would be required to support existing and ongoing research

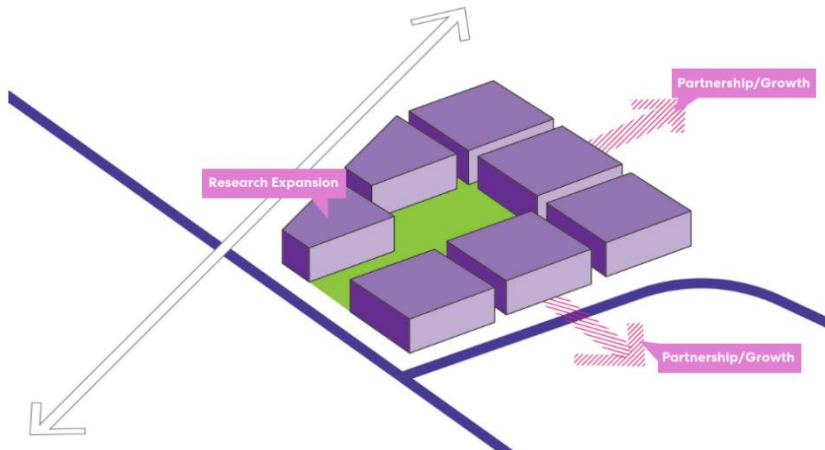


Figure 11 – Research & Industry Growth Design Principle (credit: Perkins & Will)

initiatives from CE-CERT and other campus partners. Additionally, information from regional stakeholder interviews was utilized to determine the space needs for community users and potential industry partners. The outcomes of the site analysis and various discussions determined a preliminary outline program (i.e., list of spaces and respective sizes) for the Clean Tech Park on the 8-acre site. Additional development opportunities for growth of the Clean Tech Park into a larger precinct is demonstrated in Figure 11. The diagram demonstrates how growth can be initiated to the south, such as the solar farm, and west along

University Avenue, to provide a unique opportunity for partnership growth based on key adjacencies to CARB and nearby site options.

The 8-acre UNEX site is estimated to have a capacity for 300,000 to 400,000 sq. feet of development. The following outlines the approximate square footage of various space types determined to be needed, and confirmed by the Market Analysis, for a successful initial phase of development:

- ❖ Anchored by CE-CERT, 70,000 sq. ft. of double height light industrial space will be dedicated to research for the New Generation Environmental Chamber & Health Core (GOLIATH), immersive mobility, and sustainable fuels.
- ❖ An additional 38,000 sq. ft. of office and dry lab space for CE-CERT programs such as Dynamic Mobility Management Systems, Community Air Monitoring, Smart City Infrastructure, Environmental Materials Laboratory, Computational Earth Systems Modeling, and the Winston Chung Global Energy Center.
- ❖ University Extension will be supported in office spaces up to 22,000 sq. ft. to include offices, workstations, classrooms, and administrative support areas.
- ❖ Additional speculative office space is planned for up to sixteen (16) industry partners across 51,000 sq. ft.
- ❖ Other office spaces (28,000 sq. ft.) will also be dedicated to community partners, such as EXCITE in order to accommodate entrepreneurial initiatives and programs through co-working space, training rooms, business incubators, conference rooms, and a variety of office sizes for EXCITE tenants.
- ❖ General shared uses and amenities, such as conference rooms, lecture hall, ground floor lounge spaces, and food retail comprise over an additional 45,000 sq. ft. in the Clean Tech Park.
- ❖ Flexibly programmed community greenspace is intended to bring a diverse mix of various patrons and visitors to promote frequent activity and traffic into the Clean Tech Park.

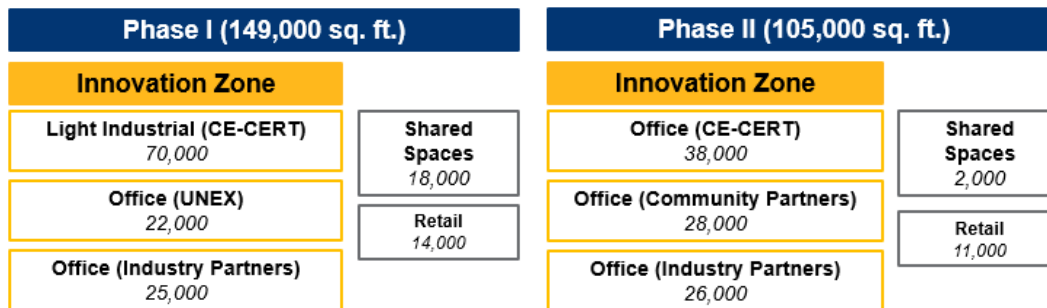


Figure 12 – Preliminary Phased Program Opportunity (Phases I & II)

The full development of a larger precinct concept is integral to creating a Live, Work, Learn, Play environment originally envisioned as part of this Pre-Feasibility phase. As innovation and collaboration occurs between the University, industry partners, and local entrepreneurs on the 8-acre site, the need for expansion is expected. As part of the larger precinct concept, future uses may include a multi-family residential development, hotel, additional retail, and more office / dry lab space for new industry partners. As indicated in the Market Analysis, significant unmet demand exists within the current residential and hotel markets to support these asset types. This unmet demand is anticipated to grow after the initial phases of the OASIS Clean Tech Park are developed and significant interest in participating within the OASIS Clean Tech Park emerges.

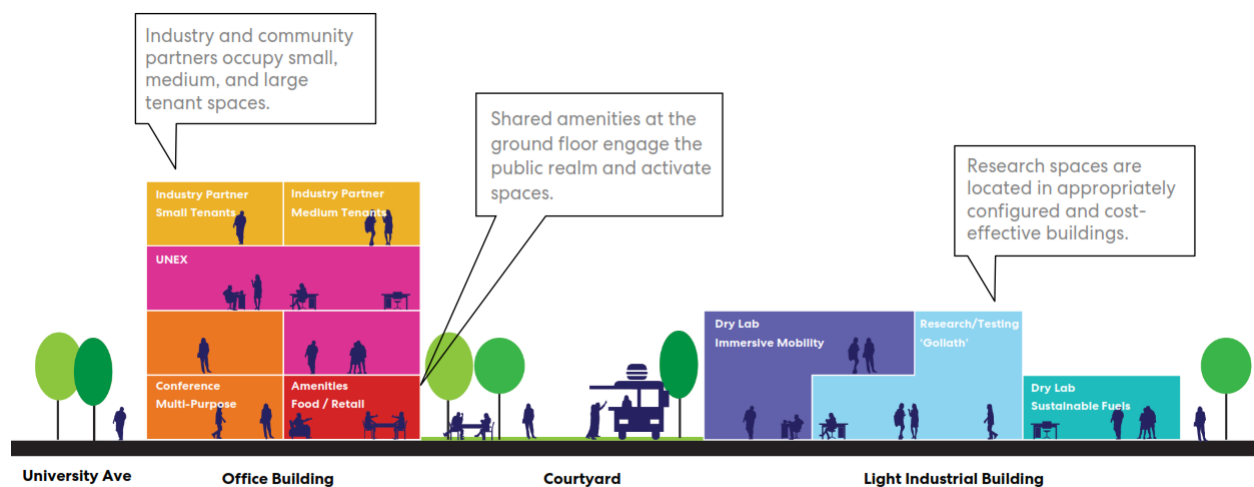


Figure 13 – Preliminary Overview of Potential Program Uses within the Innovation Ecosystem (credit: Perkins & Will)

PHASING STRATEGY

Phasing Objectives

Through the process of assessing the University's risk profile and financial capabilities, B&D believes utilizing a multi-phase approach to developing the Clean Tech Park will effectively leverage all available resources from UCR and its partners while achieving a speed to market needed to catalyze the region's larger Innovation District goals. In particular, UCR can maximize recent state grant funding of \$15 M toward pre-development activities to prepare the site for Phase I while the institution continues to seek additional funding. The University is actively investigating other sources of funding, including a federal grant through the Economic Development Agency (EDA) for \$25 M with the potential for matching funds from regional partners.

A phased approach will also capitalize on the pre-qualified tenancy of CE-CERT and University Extension in Phase I and EXCITE in Phase II. UCR-affiliated tenants are critical for attracting industry tenants interested in being located near CARB, as well as UCR's research capabilities and human talent. During the market sounding phase of this Analysis, the private development community expressed an interest in the project because of the pre-qualified tenancy associated with UCR's use of the Clean Tech Park, which is estimated to be over 50% of the leased space.

As part of the phased development approach, B&D recommends the following first steps to prepare the site prior to design and construction:

- ❖ Demolition of the existing University Extension building. The existing facility contains significant deferred maintenance issues and is past its useful life.
- ❖ The demolition of the current building will also allow for development of infrastructure to begin early by utilizing the existing parking lot on the site.
- ❖ Additional assessments including technical studies and environmental impacts of site.

The demolition strategy will provide a speed to market of phase 1 (FY 2025) and allow for a partner to prepare horizontal development for Phase II (FY 2029).

There is potential to complete the entire development into one phase but would require additional grant funding of approximately \$10 – 15M (in addition to the \$15 M of state funding received in 2021) to support the entire Phase I & II program, as well as full build out of the UNEX site. In order to achieve the speed to market of a combined phase, the funding would need to be delivered to UCR in 2022 to keep with a schedule of opening in 2025-2026 for the full program.

Phasing Scenario

A variety of scenarios were modeled as part of this Analysis based on the desire to achieve a speed to market of research and collaborative functions for the site. The following is a proposed scenario in two phases with additional considerations for future phases as part of a larger precinct concept. Additional program refinement will occur during the collaborative solicitation process for a private development partner, which will bring additional design ideas, site uses, and long-term planning perspectives.

Phase I & II: The first phase is imagined to include CE-CERT spaces within light industrial, as well as office spaces for industry tenants and University Extension. Ample shared uses and amenities, such as conferencing, lounge seating, community interaction spaces, green space, and retail outlets are also planned. In order to maximize the footprint of the site for construction of Clean Tech Park facilities, off-site parking at the solar farm to the south should be evaluated as a strategy whereby solar panels are raised to be above the newly-developed surface parking lot.

Future Phases: Based on local market conditions and the anticipated momentum generated from the initial phases of the Clean Tech Park, additional commercial uses, such as market rate and affordable residential housing facilities should be considered by the private development partner. Similarly, local market conditions demonstrate the need for a hotel near the campus to support visitors to CARB, UCR, and OASIS. Details on the potential composition of a two-phase approach can be found below.

Market Analysis

OVERVIEW

B&D performed a Market Analysis utilizing quantitative data and qualitative information from stakeholder engagement to inform the overall Analysis. This quantitative assessment evaluated recent external economic conditions using online real estate market analysis tools, such as CoStar and ESRI. B&D defined the external market as a 3-mile trade area radius from the University Extension site which is also less than a quarter of a mile from the edge of the UC Riverside campus. The 3-mile radius translates to an average 10-minute drive trade area and encapsulates most of the northern portion of the city of Riverside including the neighborhoods of Eastside, Downtown, Hunter Industrial Park, University, and portions of Victoria and Canyon Crest. The 3-mile radius was also utilized to gain a general understanding of the regional population demographics.

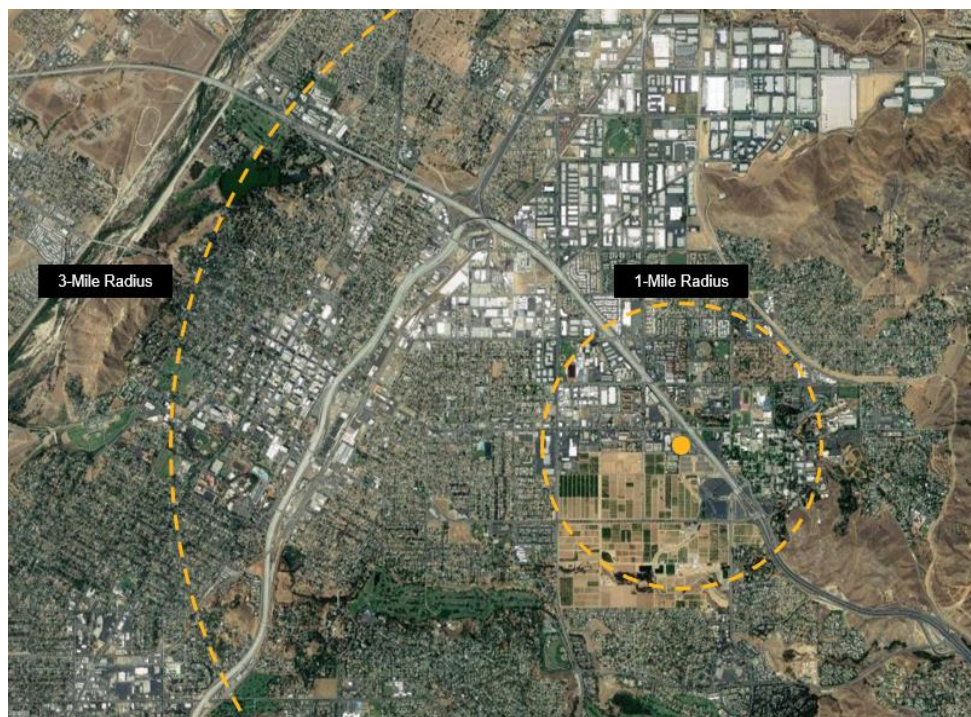


Figure 14 – Map of Trade Areas Assessed within Market Analysis

Demographics Analysis

The following is an overview of the Project Team's demographic analysis that was completed to determine how existing market conditions may be influenced by current and future population trends. Given the OASIS Clean Tech Park concept is located close to UCR and CARB, the Analysis focused on evaluating the primary demographic profile of the local area most impacted by the proposed development, which includes the residents living in the neighborhoods of Eastside, Hunter Industrial Park, Canyon Crest, and University. The following is a summary of key 2020 demographic data in the 1-mile radius from the proposed site of the Clean Tech Park:

- ❖ Total population: 20,999
- ❖ Total number of households: 6,223
- ❖ Average household size: 3.3
- ❖ Estimated average household income (2020): \$44,853
- ❖ Projected average household income (2025): \$48,923
- ❖ Percent of housing units renter-occupied: 81.5%
- ❖ Median age: 24.7 years old
- ❖ Average minutes travel to work: 19.3
- ❖ The most represented race/ethnic groups in the 1-mile radius is White (36.1%), followed by Hispanic/Latino at 32.6% and Asian at 29.2%.

All demographic data was incorporated into the Multi-Asset Market Analysis to understand the potential market capture from the primary study area near the site along with secondary and tertiary markets. In addition, given the larger aspirational impact of the Clean Tech Park, the Market Analysis used local area demographics to understand how the site can support a more complete customer base. Lastly, housing affordability continues to be an important issue in California and lately a growing concern in the region. While there are existing plans and construction projects related to housing in the city of Riverside, the OASIS partners should consider how they can further contribute to alleviating these needs in the community surrounding the Clean Tech Park.

Market Overview

The synthesis of the Market Analysis is summarized below, which demonstrates how the current market components analyzed in this Analysis, such as office, retail, residential, and hotel have performed in the past and what level of unmet demand exists. The Market Analysis was used to help inform the conceptual development and financial analysis portions of the Pre-Feasibility Study for the OASIS Clean Tech Park, which revealed opportunities to provide value and meet unmet demand on the site. The market

conditions also demonstrated potential for ongoing commercial uses along University Avenue to support the City’s Innovation Corridor concept to connect UCR with Downtown Riverside.

In general, UCR’s faculty, staff, and students along with approximately 52,858 residents (within 2 miles) comprise the direct customer base. These customers can arrive to the site within a 15-20 walk or short drive. Other likely customers include those between 2-5 miles from the site or over 229,000 residents. Additionally, a separate target market includes customers who fall within the middle-to-high income bracket and who may be employed by or visiting CARB, OASIS, and UC Riverside. While minimal new development has occurred within the trade area in recent years, latent demand exists within the University’s population creating an opportunity for developers to capture demand with products not currently existing within the market. Additional data and information from the Multi-Asset Market Analysis can be found in the Appendix (Exhibit B).

PROGRAMMATIC OPPORTUNITIES

The following is an overview of the market conditions within a 3-mile radius of the Clean Tech Park site and programmatic considerations utilized in the concept development section of this Plan:

- ❖ **Office:** While the local office market continues to recover from the pandemic, the lack of Class A office buildings in the area and no research / lab spaces available presents an opportunity for the Clean Tech Park to be the premier destination for research and innovation in the City of Riverside. The nearest Class A buildings are located 1 to 2 miles away in the Hunter Industrial Park or Downtown submarkets and charge an average of \$37.50 / SF / year. The Clean Tech Park would be the first lab-related leased space available in the local market, which can be charged at a premium based on the lack of supply in the area. **Providing new office types to start, such as research, lab, co-working and flexible office spaces up to 200,000 sq. ft. can be supported and has the potential to drive higher rental rates.**

Riverside, CA - Office Market - 3-mile Trade Area

| | Class A | Class B | Class C |
|-------------------------------|----------------|----------------|----------------|
| No. of Properties | 6 | 31 | 10 |
| Avg. Age | 26 | 39 | 45 |
| Avg. Rent / SF / Year | \$37.5 | \$27.6 | \$14.3 |
| % of Market (SF) | 37% | 52% | 11% |
| Avg. Vacancy (%) | 22% | 30% | 48% |
| Avg. Number of Stories | 6 | 2 | 2 |
| Avg. Parking Ratio / 1,000 SF | 3.8 | 3.6 | 3.2 |

Figure 15 – Riverside, CA Office Market Data (3-mile trade area)

- ❖ **Retail:** Most notably, University Village (Class B) sits across the street from the site and contains a variety of uses from a movie theater, shops, casual food options, and office spaces (some of which are leased by UCR's University Extension). The market lacks upscale retail amenities within the food and beverage category, such as full-service restaurants, bars, and quick-service restaurants. Given the proximity of University Village, the Clean Tech Park must provide unique and convenient dining options for tenants that offer alcohol and late-night hours to support tenants and the local customer base. **The recommended retail program for the first two phases is up to 25,000 sq. ft. with additional retail considerations in subsequent phases to meet the anticipated growth in demand from visitors to CARB, OASIS, and UCR.**

- ❖ **Residential:** During Q4 of 2020, vacancy rates were at 4.2% followed by a Q2 2021 vacancy rate dropping nearly in half to 2.6%. This decline in vacancy is primarily due to significant population migration eastward from Los Angeles and Orange County residents during the pandemic. The low vacancy rate demonstrates the market has become tighter, making it difficult for renters to find affordable housing options in the 3-mile trade area. With no significant housing pipeline expected near the site, **an additional 350 – 400 units can be supported in future phases of the Clean Tech Park. Additionally, the strategic purchase of International Village by UCR should be considered given its adjacency to CARB and opportunity to meet housing demand near the UNEX site.**

- ❖ **Hotel:** As with other market segments in Riverside, the pandemic took a toll on the hospitality industry during 2020 with an average monthly revenue among the 14 properties in a 3-mile radius at \$2.8 M compared to \$3.9 M in 2019. However, the market is saturated with economy hotels and lacks middle scale and upper scale hotel offerings. **A recommended program of 200 rooms within a middle-to-upper scale hotel chain can be utilized to accommodate visitors coming to CARB, UCR, and the Clean Tech Park.**

As seen in Figure 16, vacancy rates within the larger 5-mile radius for residential remains tight (4%) while office and retail trend slightly higher at 9% and 10%, respectively. However, the retail market individual market assessments show a much different picture as you get closer to the University-owned site, which was evaluated on a 3-mile basis. Lease rates averaged \$25.00 (NNN) per year for office space and approximately \$21.00 for retail (Figure 17). Those figures were higher closer to the UNEX site with University Village tenants, for instance, seeing approximately \$28.00 and \$27.00 for retail and office spaces, respectively.

More detailed information for each market segment can be found in the subsequent pages of the Multi-Asset Market Analysis section.

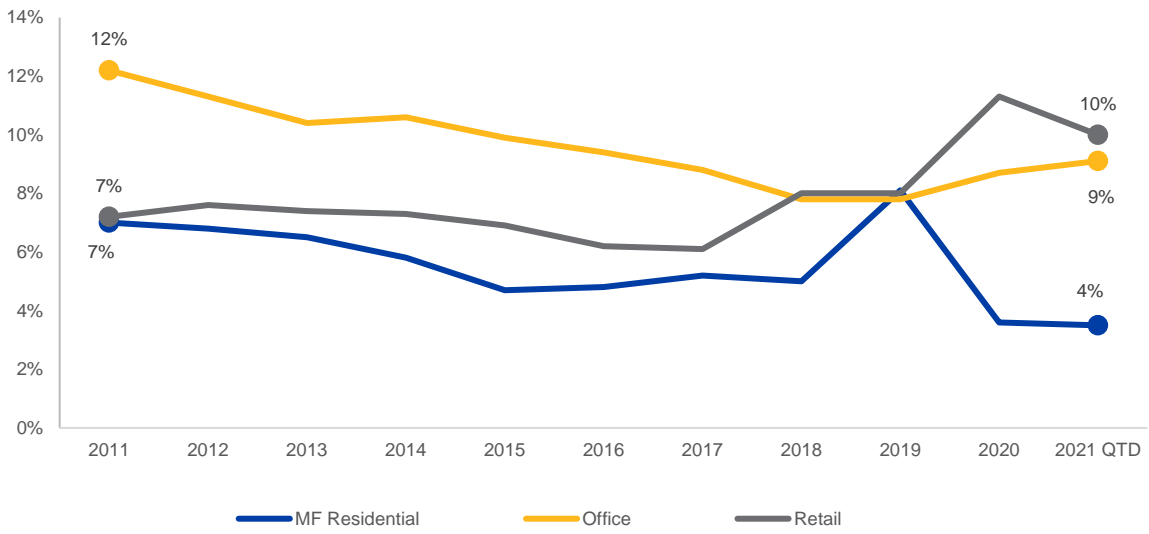


Figure 16 – City of Riverside Market Overview – Historical Vacancy Rates (5-mile radius)

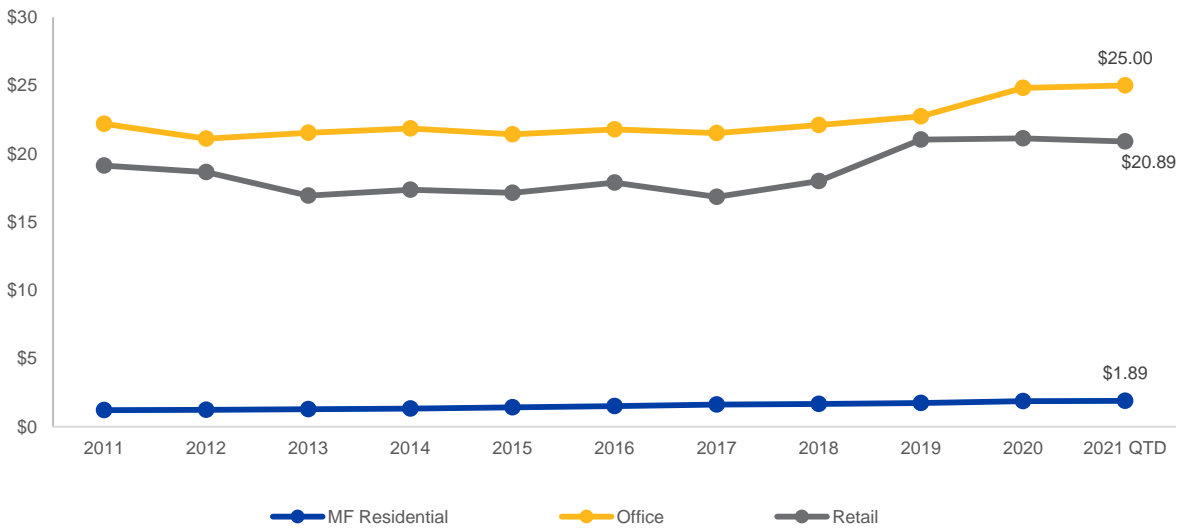


Figure 17 – City of Riverside Market Overview – Historical Triple NNN Rents (5-mile radius)

Financial Analysis

OVERVIEW

General Project Assumptions

In order to achieve the Live, Work, Learn, Play environment of a thriving innovation district, B&D recommends UC Riverside pursue a development strategy that prioritizes an innovation zone with office and light industrial spaces in the first and second phases. Additionally, to accommodate the tenants and visitors of the Clean Tech Park, some food retail, outdoor green spaces, and general gathering / conferencing spaces should be included. The first two phases will ultimately achieve the greatest concentration of research, innovation, and community activities to begin successfully meeting OASIS strategic objectives while catalyzing development along University Avenue. As part of the development approach, B&D recommends the demolition of the existing University Extension building on the UNEX site. The existing facility contains significant deferred maintenance issues and is past its useful life. Additional debt on the UNEX facility exists and should be paid off using grant and funding sources by the University as part of the overall real estate strategy.

It is important to note that the assumptions for the phased scenarios are based on the best available information as well as key metrics and standards within the private market. Specific deal terms, cost of capital, as well as debt and equity contributions, are expected to change as a development partner is selected and the project is realized during the solicitation process for a private partner. However, the analysis does demonstrate a potential path for development and what level of contribution may be necessary from the University to support the initial phases of the Clean Tech Park.

Given the scale of the project and long-term partnership, it is anticipated that a ground lease of up to 99 years is likely but alternate lease structures may be negotiated with a master developer during the solicitation process. Additionally, this Analysis assessed the level of funding and contribution needed to ensure pre-qualified UCR tenants can maintain similar below-market lease rates being paid today with adjusted yearly for inflation. The following Financial Analysis evaluates the high-level project economics of Phase I & II using development costs, revenue and expense assumptions, University contributions, and common return metrics expected by a private development partner.

Development Costs

Preliminary development cost assumptions for all potential product types were evaluated in the Financial Analysis to determine the total cost of construction of the Clean Tech Park. Construction costs may vary based on the development partner's ability to negotiate costs with local contractors and trades, so a

detailed cost estimate is recommended. The program for the two-phased innovation district project assumes light industrial, office / dry lab, conferencing, and retail as the primary uses. Cost of construction for other asset types, such as residential, hotel, and dry lab office space are also included in the chart below for consideration in future phases. Preliminary costs per sq. ft assumptions for all product types utilized in this Analysis can be found in the chart below:

| Construction Costs / Square Foot by Product Type | | |
|--|----------|------|
| Retail | \$250.00 | / sf |
| Office | \$375.00 | / sf |
| Dry Lab | \$500.00 | / sf |
| Hotel | \$400.00 | / sf |
| Residential | \$350.00 | / sf |
| Light Industrial | \$200.00 | / sf |

Source: Cumming Corp Insights
 Figure 18 – Construction Costs per Sq. Ft. by Product Type – Riverside, CA

Construction cost per sq. ft. figures were then calculated to estimate total construction costs for each product type. An additional factor of 25% was used as a baseline industry assumption for soft costs, which includes design and project management fees, development fees, contingency, financing costs, FF&E, and other miscellaneous construction-related expenses. Softs costs will also vary and should be estimated by the University’s Planning, Design & Construction department.

In today’s dollars (2021), it is estimated the total project cost for the initial phases of development will be approximately \$110-\$120 M.

DEVELOPMENT ECONOMICS

Revenue and Operating Assumptions

Lease rate assumptions for office and light industrial were based on local market metrics derived from the Market Analysis. The Analysis assumed UCR-affiliated tenants will commit to lower lease rates for Class A office spaces than what industry / speculative office tenants will pay to align with current lease agreements by CE-CERT and UNEX. For instance, CE-CERT and UNEX are anticipated to pay a range of \$1.0 – 1.2 M and \$350,000 - \$400,000, respectively, in Year 1 rents for the first phase of development while industry partners are anticipated to pay \$700,000 – \$800,000. All rents are assumed to be triple net, which designates the tenant as the responsible party for covering all expenses under the lease such as, utilities, insurance and maintenance. Lease rates are expected to escalate on a yearly basis by 3.0%.

| Lease Rate Assumptions (NNN) | | |
|------------------------------|---------|-------------|
| Retail | \$35.00 | / Sf / year |
| UCR (Office) | \$25.00 | / Sf / year |
| UCR (Light Industrial) | \$20.00 | / Sf / year |
| Community (Office) | \$40.00 | / Sf / year |
| Industry / Spec (Office) | \$45.00 | / Sf / year |

Figure 19 – Lease Rate Assumptions by Tenant Type – Riverside, CA

Assumptions for operating expenses included property management fees, real estate taxes and other expenses associated with ownership by the private partner. All expenses are expected to also increase on a yearly basis at 3.0%. The above assumptions are generally what the market will bear and is expected to be in alignment with expectations for a development partner. Given the pre-feasibility nature of this Analysis, it is recommended that additional detailed analyses are completed by potential private partners during the solicitation process to verify all operating assumptions, developer returns, and ground lease payments to the University.

University Contribution & Potential Development Returns

In addition to qualitative benefits from a developer's perspective for participating in the development of the Clean Tech Park, B&D developed a preliminary model to understand the potential developer returns for a project of this magnitude. The financial model was used to determine if return metrics would be favorable to a private partner and what level of contribution by the University would make the project more attractive during a solicitation and negotiation process. In a variety of modeling scenarios, the private partner internal rate of return (IRR) ranged from 18-25%. Specific cashflows modeled during the Pre-Feasibility phase cannot be guaranteed and should be vetted further during the Request for Proposal (RFP) stage by requesting operating pro forma and sources and uses information from the interested developers.

In 2021, the University received an approval from the state legislature for a \$15 M grant to be allocated towards pre-development and planning costs for the Clean Tech Park. The Financial Analysis took these funds into consideration as part of a contribution toward the demolition of the existing building on the UNEX site, as well as other pre-development costs. However, other opportunities are being investigated, such as additional state funding, federal grants from the Economic Development Agency (EDA), and matching grants from regional partners. Various contribution amounts were tested to determine what level was most beneficial to the project and the achieving UCR's goals for the Clean Tech Park. As mentioned, the Analysis attempted to identify how this contribution could help achieve affordable lease rates to UCR tenants. Significant cashflow and favorable preferred returns to the private partner were seen with an additional \$10 – 15 M contribution poured into the project. Revenues from Phase I in addition to ongoing revenues of a second phase would support the project economics and would help

sustain the initial phases of development. The potential development cash flows in Figure 20, are a representation of the positive net profit to the developer from NNN leases and after debt service, ground payment to the University, and other expenses. In a variety of modeling scenarios, the private partner internal rate of return ranged from 18-25% based on the projected cashflows of the project.

| Potential Development Cash Flows by Use | | | |
|--|------------------|------------------|--------------------|
| | Year 1 | Year 5 | Year 10 |
| Light Industrial | \$250,000 | \$348,000 | \$486,000 |
| Retail | \$156,000 | \$216,000 | \$299,000 |
| Office + Shared Spaces | \$321,000 | \$296,000 | \$671,000 |
| Total Remaining Cashflow | \$727,000 | \$860,000 | \$1,456,000 |

Figure 20 – Potential Cashflows by Project Use

PROJECT DELIVERY

Risk Profile Assessment

B&D conducted a risk profile assessment for the University to ascertain the development structure that provides UCR and its regional partners with the best value for delivery and risk transfer to a private partner. This exercise yielded the following framework for UCR to apply to the eventual regional partnership for the purposes of solicitation and partnership strategy with a private development partner. UCR, along with its regional partners, is willing to make a financial contribution towards the innovation portion of the site, including seeking federal funding through grants and matching contributions from regional partners, however, the University will look to a private partner to coordinate financing for the remainder of the development.

- ❖ The partnership must ensure that the programming for the Clean Tech Park is reflective of a site and facility that is porous to the community, local industry, and the University in order to reach its desired outcomes of innovation, social inclusion, and sustainability.
- ❖ UCR will be the primary tenant of the Clean Tech Park as a pre-qualified lease holder, but the development partner will be responsible for securing additional non-University tenants.
- ❖ A private development partner must assume occupancy risk for speculative office spaces, retail, as well as residential and hotel in later phases. Residential components should be mindful of offering rental rates that cater to the local workforce along with Affordable Housing options in accordance with state guidelines for new developments.
- ❖ The private developer will be responsible for all asset management within the Clean Technology Park, including maintenance, custodial, and other operating needs.

- ❖ The private partner agrees to a yearly ground lease; alternate lease structure including, a pre-paid ground lease payment; or base rent with a share of revenue streams and participation in capital market activities (i.e., sales, refinancings, recapitalizations, etc.).

Regional Partnership Organization

The results of the Risk Profile Assessment in this Pre-Feasibility phase yielded two partnership opportunities for the OASIS Clean Tech Park that should be further evaluated and discussed by UCR and its regional partners. The first approach would position a regional partnership organization to act as the governing body that oversees all real estate activities with respect to the project. The regional partnership organization could be comprised of representatives appointed by UC Riverside and other representatives from each regional partner to ensure the vision of the OASIS Clean Tech Park is implemented. The regional organization would have decision-making authority and would receive the land through a ground lease from the University. Given the entity's lack of real-estate expertise, the foundation should seek a third-party firm with subject-matter expertise to oversee real estate activities on the project site(s), which is illustrated in Figure 21. Specific activities of the third-party firm may include managing the solicitation and sub-ground lease to a development partner, monitoring the master developer's construction progress and its ongoing operations of the facility(ies), as well as any other sub-ground leases on the project site(s).

B&D reviewed the existing bylaws of the Riverside County Education Foundation (RCEF) and do not believe, as currently organized, it can properly serve the purposes of managing the envisioned real estate activities on the UNEX site or other future project sites. It is recommended that UCR and its regional partners create a new regional foundation or significantly revise the bylaws of the RCEF to allow for shared governance and expanded capabilities as outlined above. Figure 21 demonstrates the potential relationship between the regional non-profit entity (RCEF or another entity) with the University's primary purpose to maintain ties and control through ex-officio majority voting members and non-voting members within the Regional Foundation to provide guidance on real estate activities to the third-party firm to ensure vision alignment of the project(s). Lastly, in addition to a project limited liability company (LLC) for the Clean Tech Park, it is envisioned there may be multiple LLCs in the future in order to support the open framework concept of OASIS throughout the region.

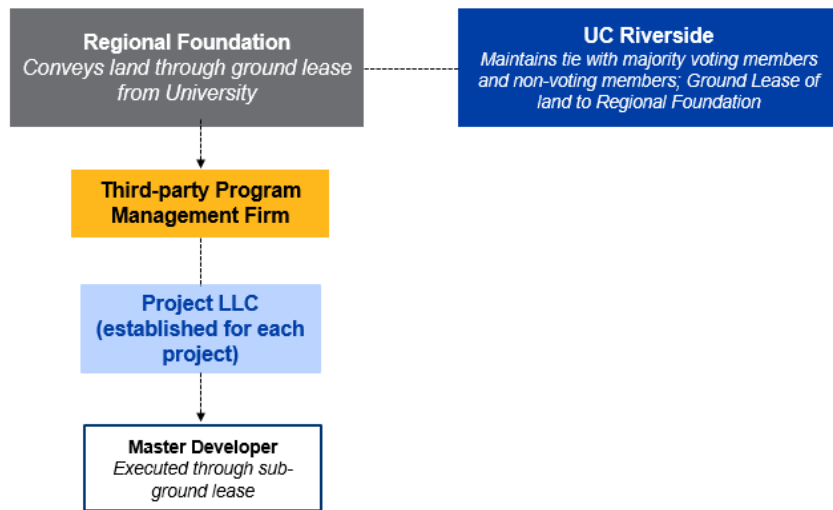


Figure 21 – Regional Foundation Governance Structure

UCR Affiliated Foundation

The second approach positions UCR to act as the primary beneficiary of a non-profit entity/foundation via formal affiliation with the university. The University Affiliated Foundation (UAF) would perform a variety of duties with the primary purpose of acting on behalf of UCR to ensure the vision and mission of the OASIS Clean Tech Park is realized. In this model, the University may lease the land (i.e., UNEX site or other university property) directly to the UAF and then subsequently sub-ground lease the land to a private partner for the development of physical improvements.

Additional activities performed by the UAF could also include receiving grant funding, managing the solicitation of a private development partner, monitoring the master developer’s construction progress and their ongoing operations of the facility(ies), as well as any other sub-ground leases on the project site. Depending on the available capacity within the university, it is common for internal campus resources to be deployed through an augmentation of staff with expertise in real estate, design, planning, and construction. Additionally, university expertise and staff can be used to provide support for administrative functions, procurement, legal counsel, and asset management should the UAF desire more control of the project. Any regional foundation, such as RCEF, in this structure would be connected to the project on a programmatic and collaborative nature with UCR. The regional foundation’s ability to inform the creation of programs and initiatives or to provide advice to the UAF would be through a Project Advisory Committee as illustrated in Figure 22. RCEF could serve this function as advisor, however, based on its existing bylaws, a thorough review is recommended to ensure it can adequately inform and execute the collaborative functions originally intended and established for CE-CERT. Similar to the regional foundation model, it is anticipated the UCR affiliated foundation would create multiple LLCs for each

project including the Clean Tech Park. The master developer would then be contracted via a sub-ground lease under the project LLC.

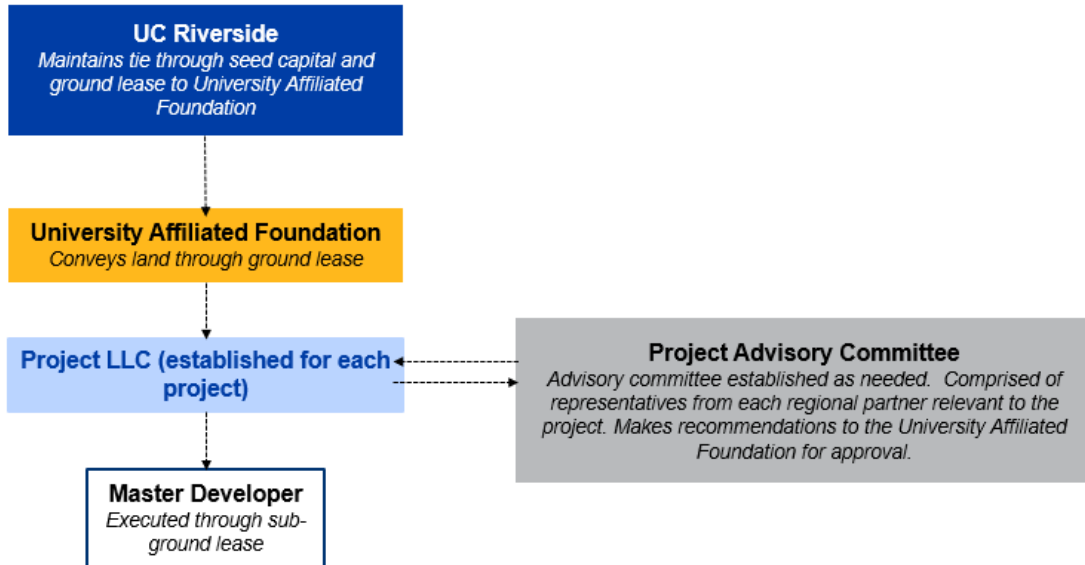


Figure 22 – University Affiliated Foundation Governance Structure

Overall, the results of the Risk Profile Assessment revealed a benefit to the University to pursue a governance structure that allows the institution to maintain the greatest control of the Clean Tech Park through ground lease terms and conditions. This control will allow for flexibility in decision making while protecting the University from risks related to the project development. The UAF structure also ensures ownership of the improvements on the land is reverted to the university after the ground lease expires. In contrast, a reversion right in a regional foundation model must be clearly indicated in the ground lease terms and conditions. Thus, after evaluating potential governance structures, B&D recommends UC Riverside pursue the establishment of a University Affiliated Foundation for future public-private partnerships associated with OASIS. Additionally, the UAF would continue to serve as the primary non-profit entity that accepts private gifts and grant funding, as well as oversees future real estate transactions related to OASIS. Finally, in order to maintain project support from non-University stakeholders in the region, an advisory committee comprised of UCR and representatives from each regional partner relevant to the Clean Tech Park can be created to make recommendations to the UAF.

MARKET SOUNDING

B&D engaged with several national developers to socialize and assess market interest in the development opportunity. This critical step in the development process enabled UC Riverside to receive direct feedback from the development community on the project strategy and site composition, as well as gauge the extent to which the development market would be interested in participating in a solicitation process. B&D reached out to five national developers during the market sounding process. Four developers accepted B&D's request to connect for an informal discussion around the development project. Ongoing market sounding efforts are anticipated to continue garnering interest for the project prior to a formal solicitation process. A brief summary of the development market's feedback can be found below.

- ❖ The scale of the first phase program was initially perceived to be small and recommendations were given to make the first phase larger to create more space for “collisions” between innovation, social inclusion, and sustainability;
- ❖ Developers observe the larger regional and economic impact benefits of OASIS on the property site especially as it relates to providing a porous and welcoming site to local residents;
- ❖ There is interest from the market in participating in the innovation zone and eventually supporting the hotel and residential portions of the development as the precinct grows;
- ❖ The market was supportive of the pre-qualified tenancy commitments from UC Riverside, which will be a measure of maintaining or mitigating occupancy risk for early portions of the development;
- ❖ The market provided feedback on the site layout and uses, including utilizing surrounding sites for parking solutions in order to maximize the 8-acre site for the innovation zone development.

CONCLUSION & NEXT STEPS

The Pre-Feasibility phase resulted in a real estate and development strategy for the University Extension property that aligns the strategic goals of the University for OASIS with local market realities. B&D engaged the development market to confirm project feasibility, determine market interest, and identify and evaluate associated risks with the project. The market confirmed its interest in participating in the innovation, small-scale retail, as well as the potential for a hotel and residential components as a long-term strategy. Given the market's recent engagement and interest, as well as the current favorable financing conditions, B&D recommends that UC Riverside pursue the following next steps:

1. *Determine best opportunities for preparation of the site and horizontal development:* Utilizing the recent approval of one-time funding from the state of \$15 M, B&D recommends the University pursue the demolition of the current building, additional planning, and site surveys. Demolition will allow for development of infrastructure to begin early by utilizing the existing parking lot on the

site. This strategy will provide a speed to market of Phase I (FY 2025) for the Clean Tech Park while also concurrently preparing the site for Phase II. Increase University funding towards horizontal development will create higher opportunities for university return. The private partner could then prepare horizontal development for Phase II upon demolition of the existing building for completion in FY 2029.

2. *Engage in a competitive solicitation process to identify a master developer for the Clean Tech Park:* B&D recommends the University pursue a two-step request for information (RFI) and request for proposals (RFP) process that ensures the University will receive high quality responses while allowing developers enough time to team with asset specific partners. Figure 29 illustrates a proposed solicitation timeline if UC Riverside were to engage the market in a competitive solicitation for a master developer and other anticipated steps leading to a completion of the first phase in 2025.

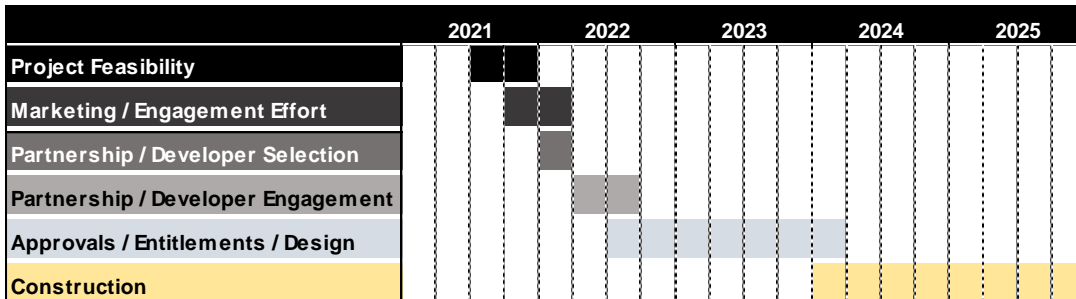


Figure 23 – Anticipated Project Schedule for Phase I of Clean Tech Park

3. *Investigate EDA federal funding opportunities and other regional funding commitments:* The University is actively pursuing EDA grant funding with the Inland Empire Growth Initiative (IEGO) for the opportunity to leverage an initial round of funding of \$500,000 (Phase I grant) followed by a Phase II grant of up to \$75 - 100 M. The EDA funding source can ultimately be used for a variety of initiatives. B&D recommends EDA funding be utilized to assist with subsidizing UCR tenant lease rates and initial infrastructure costs for the first phase of the Clean Tech Park. Finally, B&D recommends that UCR leverage these resources to acquire additional land along University Avenue for long range development opportunities.
4. *Continue to expand upon engagement with OASIS partners in the region:* Significant efforts have been undertaken to engage regional partners prior to this Analysis. As part of the next phase of engagement, it is recommended UCR re-engage industry partners, community and civic leaders, and the campus community with the findings of this Analysis. Marketing and socialization of the OASIS Hub concept and the Clean Tech Park is likely to create considerable momentum and support from partners. Consideration should also be given to presenting the OASIS Hub concept to new partners who may provide funding or would like to commit to being a tenant of the facility.



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APPENDIX

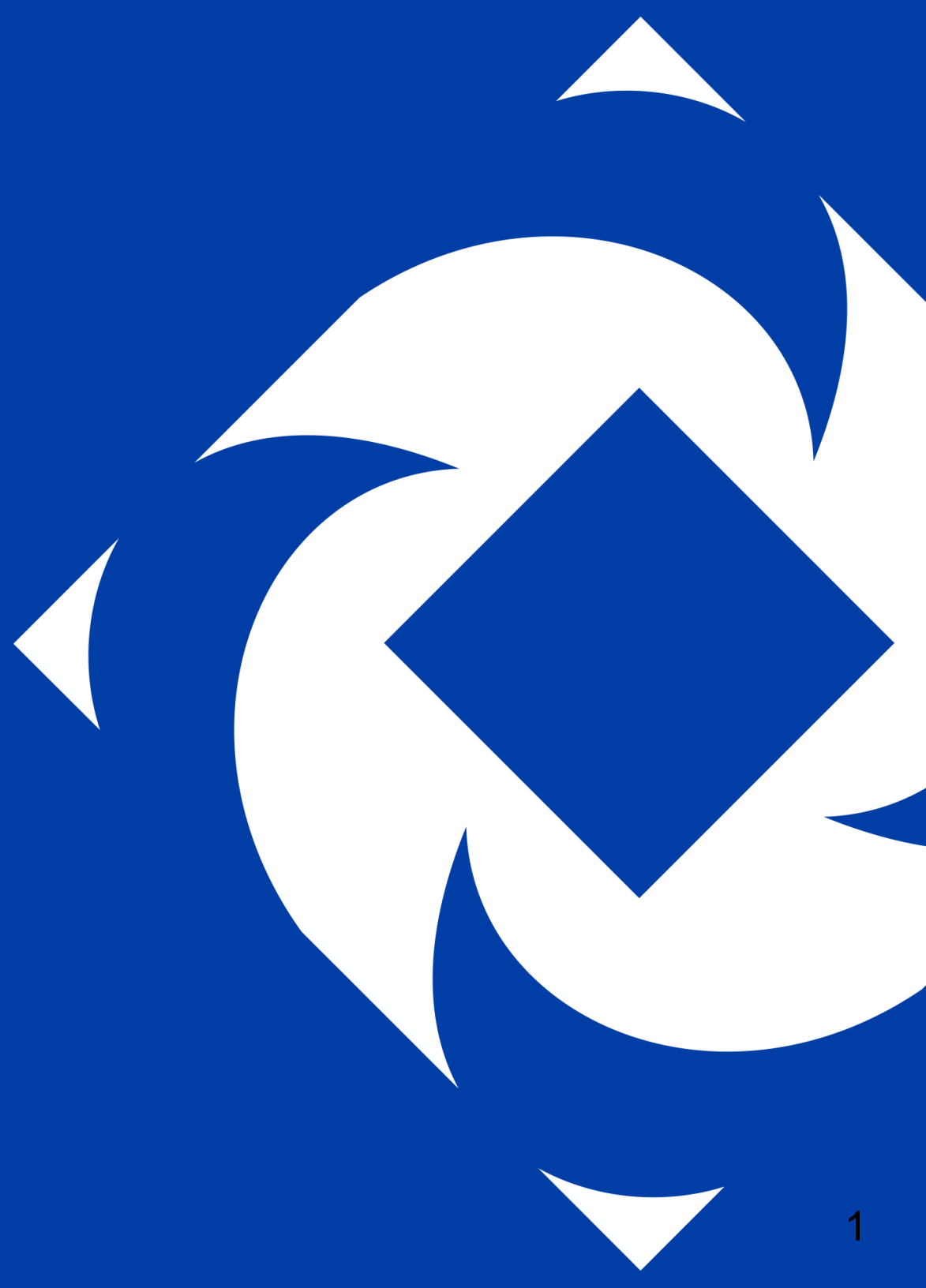


EXHIBIT A - SITE ANALYSIS

Figure A.1 – Aerial View of All Thirty-Four (34) Sites Analyzed



Figure A.2 – Aerial View of Seven (7) Primary Sites Analyzed



EXHIBIT A - SITE ANALYSIS

Figure A.3 – Evaluation Criteria Results of Sites Nearest to CARB and UC Riverside

| | Proximity to CARB | Proximity to UCR | Proximity to Univ. Ave | Access to Transit | More than 4 Acres | Expansion Opportunities |
|--|-------------------|------------------|------------------------|-------------------|-------------------|-------------------------|
| A. Cal Trans Site (4.8 AC) | ● | ● | ● | ● | ● | ● |
| B. University Extension Site (8.3 AC) | ● | ● | ● | ● | ● | ● |
| C. Schools First Credit Union (0.37 AC) | ● | ● | ● | ● | ● | ● |
| D. 1575 University Ave. (4.28 AC) | ● | ● | ● | ● | ● | ● |
| E. 3595 Presley Ave. (0.91 AC) | ● | ● | ● | ● | ● | ● |
| F. 3750 Chicago Ave. (0.57 AC) | ● | ● | ● | ● | ● | ● |
| G. 1775-1795 University Ave. (0.63 AC) | ● | ● | ● | ● | ● | ● |

Criteria Not Met
 Criteria Partially Met
 Criteria Met

Figure A.4 – Evaluation Criteria Results of Sites Over 4 Acres (Sites A, B, & D)

| | Proximity to CARB | Proximity to UCR | Proximity to Univ. Ave | Access to Transit | More than 4 Acres | Expansion Opportunities | Complexity of Community Integration |
|--|-------------------|------------------|------------------------|-------------------|-------------------|-------------------------|-------------------------------------|
| A. Cal Trans Site (4.8 AC) | ● | ● | ● | ● | ● | ● | ● |
| B. University Extension Site (8.3 AC) | ● | ● | ● | ● | ● | ● | ● |
| D. 1575 University Ave. (4.28 AC) | ● | ● | ● | ● | ● | ● | ● |

Criteria Not Met
 Criteria Partially Met
 Criteria Met

EXHIBIT A - SITE ANALYSIS

Figure A.5 – Site Capacity Study (Phase I)

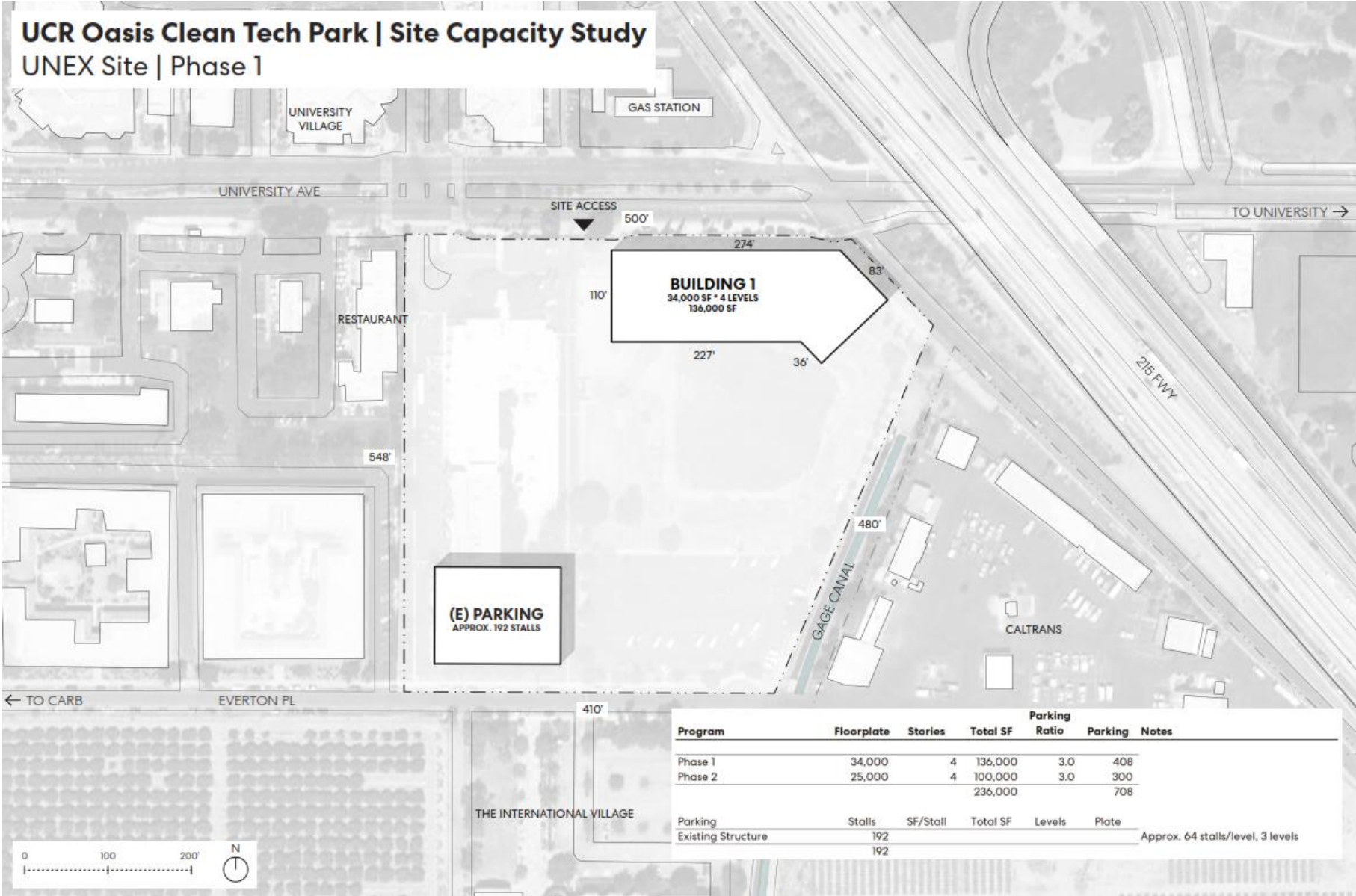


EXHIBIT A - SITE ANALYSIS

Figure A.6 – Site Capacity Study (Phases I & II)

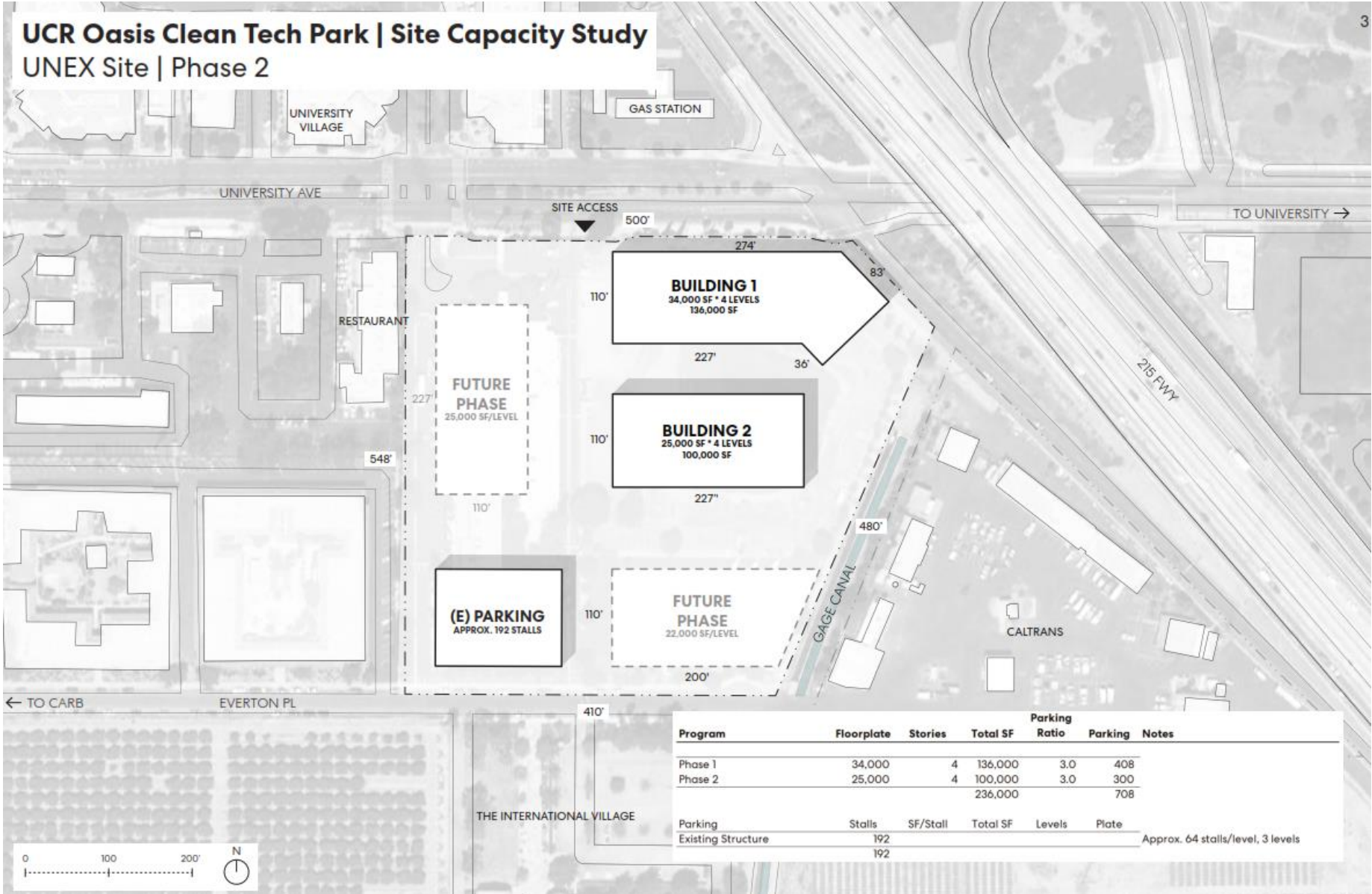


EXHIBIT B - MARKET ANALYSIS

MULTI-ASSET MARKET ANALYSIS

Office

Office inventory within a 3-mile radius was comprised of approximately 47 properties and over 1.7 million sq. ft. of rentable building area. The bulk of existing offices in the trade area are clustered in Downtown Riverside and are comprised of mostly Class B buildings at 52% of the total rentable sq. ft. Class B offices are an average of \$27.60 / SF / year and sit at two stories. The next largest representation of market share by sq. ft. is Class A office spaces (37%). The nearest Class A buildings to the proposed site of the Clean Tech Park are located 1 to 2 miles away in the Hunter Industrial Park or Downtown neighborhoods. Class A office spaces are also charging tenants an average of \$37.50 / SF / year and has increased 2.1% per year since 2011. No laboratory space was found in the local market and therefore could not be compared with the conceptual program developed in this Analysis. The Clean Tech Park would be the first lab-related leased space available to the local market.

Class A vacancy is an average of 22% due to the pandemic but continues to improve toward pre-pandemic levels. An example of Class A offices spaces for two local properties located in Downtown and the Hunter Industrial Park neighborhoods can be seen in the figures below. At an average height of six stories, the median age of Class A office buildings is 26 years old with only one undergoing a renovation in the past 5 years. No new Class A office inventory has been added to the local 3-mile trade area since 2012. Class A office is most comparable to the proposed new office development planned for the Clean Tech Park.

Class B and C office spaces were approximately 39 and 45 years old, respectively, and generally comprised of light industrial space in the local market. However, what it is currently in the market in terms of light industrial does not reflect the types of new spaces that can be developed and used by CE-CERT for research purposes. No comparable properties were available in the market for comparison with light industrial being proposed in this Analysis.

Riverside, CA - Office Market - 3-mile Trade Area

| | Class A | Class B | Class C |
|-------------------------------|----------|-----------|-----------|
| No. of Properties | 6 | 31 | 10 |
| Avg. Age | 26 | 39 | 45 |
| Avg. Rent / SF / Year | \$37.5 | \$27.6 | \$14.3 |
| % of Market (SF) | 37% | 52% | 11% |
| Avg. Vacancy (%) | 22% | 30% | 48% |
| Avg. Number of Stories | 6 | 2 | 2 |
| Avg. Parking Ratio / 1,000 SF | 3.8 | 3.6 | 3.2 |

Figure 17 – Riverside, CA Office Market Data (3-mile trade area)



Figure 18 & 19 – Riverside, CA – Example Class A Office (3-mile trade area)

MARKET ANALYSIS

Retail

Within the trade area there is approximately 705,000 sq. ft. of rentable building area with an average size of 32,000 sq. ft. per property. The overall area has not seen an inventory increase since 2017 with one additional property coming online adding an additional 10,400 sq. ft. to the retail market. The local market is comprised of multi-tenant shopping centers and plazas common in suburban areas withing Class B and C properties. Most notably, University Village (Class B) sits across the street from the site and contains a variety of uses from a movie theater, shops, casual food options, and office spaces some of which are leased by UCR, such as University Extension. Data from ESRI identifies the following as retail market opportunities based on high demand and low supply: specialty food services and establishments that serve alcohol. Based on the local market, supply is generally serving faculty, staff, students, and local residents.



Figure 20 & 21 – Example Retail Property – University Village

Given the current nature of the market, B&D anticipates an unmet demand exists for retail options that are upscale, such as full-service restaurants, bars, and quick-service restaurants. The unmet demand is primarily generated by the primary market of UCR-affiliated customers including visitors commuting into the area from a 20-mile radius. Additionally, it is anticipated that additional demand will comprise of middle-to-high income earners who are working at or visiting CARB and the OASIS Clean Tech Park.

Local vacancies in the trade area from 2011 to 2021 has fluctuated due to the pandemic. However, the vacancy has maintained a 10-year average of 9.5%. Year-to-date vacancy for retail among the 22 properties close to the UNEX site is 15.4% or a total available space of 136,900 sq. ft. Similarly, triple net (NNN) direct rents have fluctuated and were impacted by the pandemic. For the past 10 years, rents have ranged between \$19.00 - \$28.00 / SF / Year. Current NNN rent is an average of \$24.39 in the trade area but estimated to be as high as \$30.00 - \$40.00 / SF / Year among leases closest to the UNEX site.

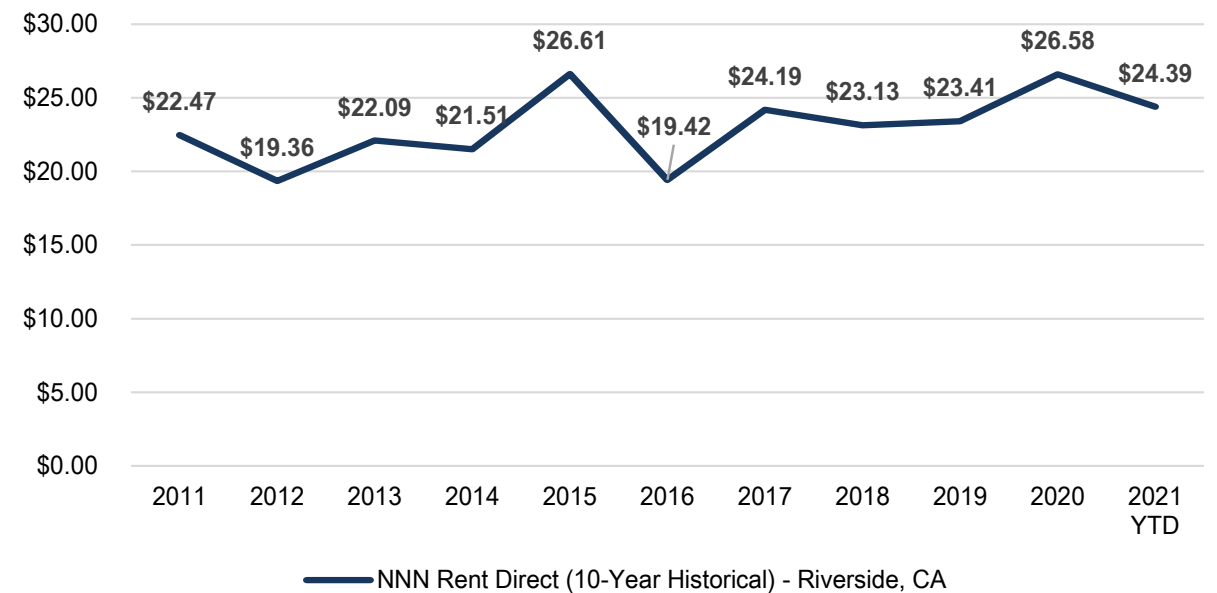


Figure 22 – NNN Rent Direct (10-year Historical) – Riverside, CA

MARKET ANALYSIS

Residential

Inventory for multi-family residential properties within the trade area (3-mile radius) was comprised of approximately 55 buildings and 5,326 units. The overall area has seen its multi-family inventory increase by 11.5% (4 additional properties and 553 units) from 2018 to 2021. Vacancy rates saw a significant spike during the 4th quarter (Q4) of 2019 at 10.1% due to the pandemic but has gradually come down each quarter. During 2020, vacancy rates dipped down to 4.2% in Q4 with Q2 2021 vacancy rate at 2.6%. The low vacancy rate demonstrates the market has become tighter, making it difficult for renters to find housing options. The most recent vacancy rate (2.6%) equates to 141 units available in the market, which is down from 171 in Q1 of 2021.

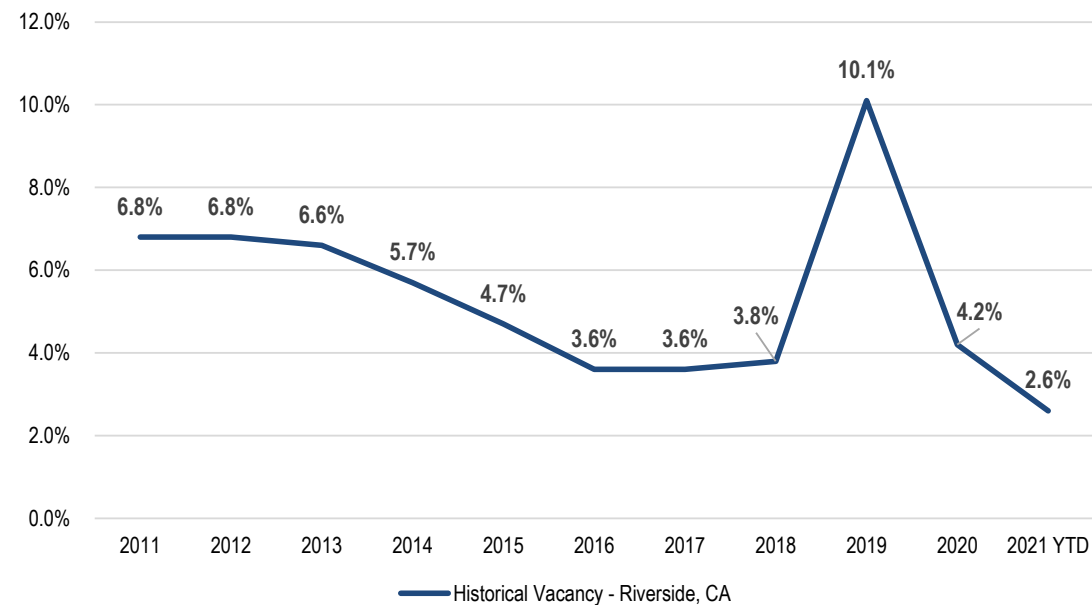


Figure 23 – Multi-family Historical 10-year Vacancy – Riverside, CA

The majority of existing units within the trade area are comprised of 1 bedroom and 2 bedrooms at 42% and 49% of the overall market, respectively. Studio (5%) and 3-bedroom (5%) options are also available but no 4-bedroom options are offered within the trade area. The average size of a 1-bedroom unit in the market is 699 sq. ft. while 2-bedroom spaces average 970 sq. ft. Unit sizes among recent properties (2019) built in the Downtown, Eastside, and Canyon Crest neighborhoods were slightly larger at an average of 714 sq. ft. and 1,095 sq. ft. for 1-bedroom and 2-bedroom units, respectively.

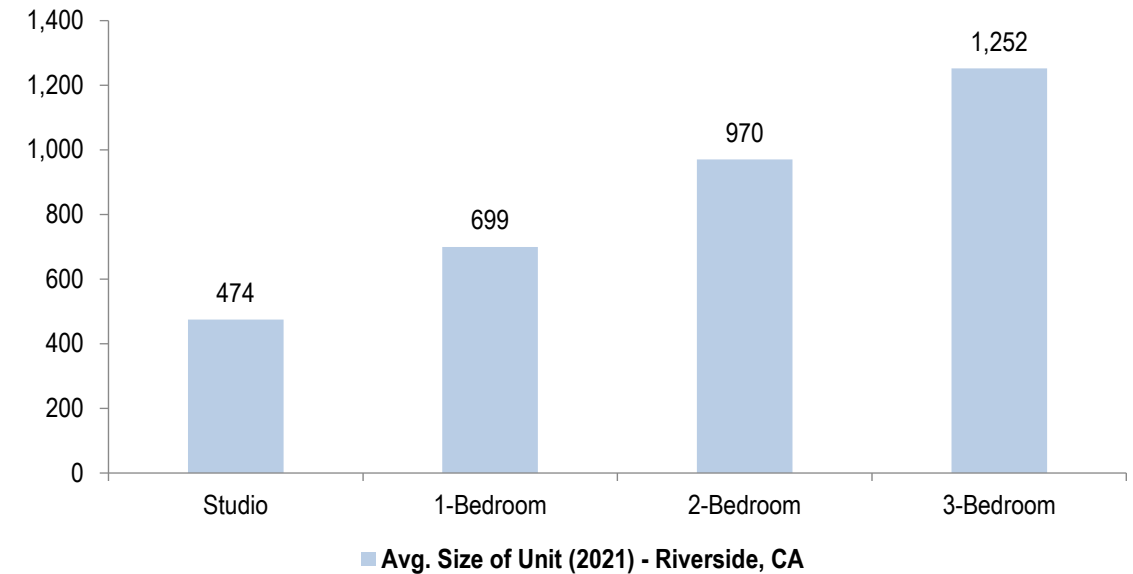


Figure 24 – Multi-family Avg. Unit Size – Riverside, CA

MARKET ANALYSIS

As the region rebounds from the pandemic and sees an influx of residents from L.A. and Orange Counties, tight vacancy rates have pushed asking rents up by 6.6% in Q1 of 2021 and an additional 16.3% in Q2 of 2021. Rental rates among the newest properties built in 2019 were an average 35% more expensive than the average rental rates for all properties. For example, a 2-bedroom unit within a newer property (2019) was 37% more expensive than the average (\$1,786) at \$2,847 per month. Overall average rates for studio and 1-bedroom units are \$1,195 and \$1,474 per month, respectively. The greatest value on a rental rate per sq. foot basis is the studio unit (\$2.5 / SF) and the 1-bedroom (\$2.1 / SF). In contrast, the 2-bedroom unit is an average of \$1.8 / SF.

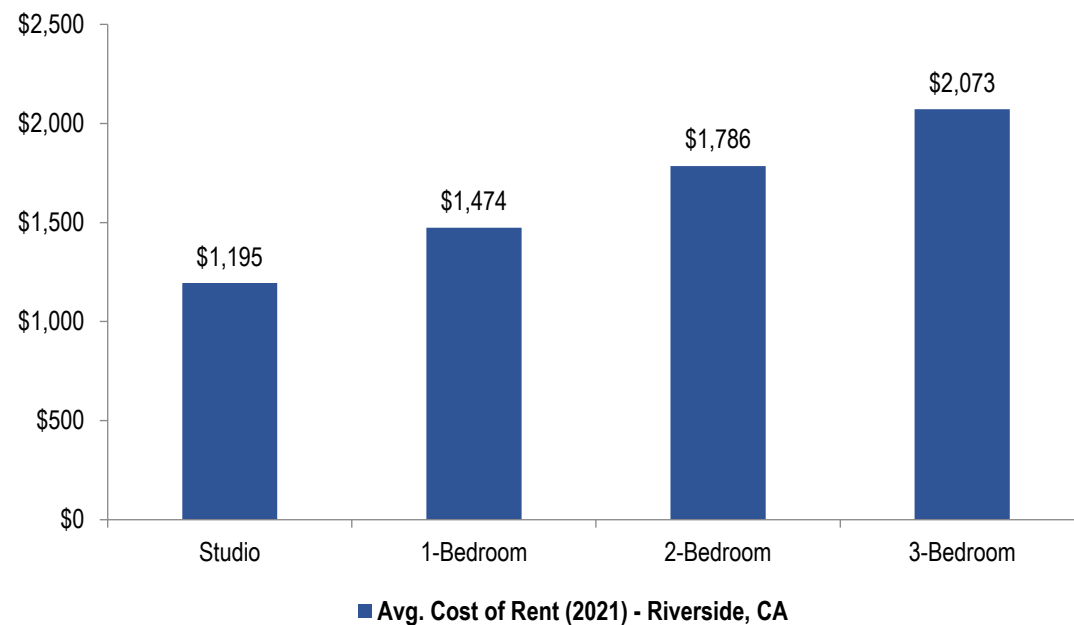


Figure 25 – Multi-family Avg. Rental Rate by Unit Type – Riverside, CA

Hotel

The hotel market within the trade area (3 miles) varies in terms of classification from luxury and upscale in Downtown Riverside to economy and upper midscale near UC Riverside. In total, there are 1,366 rooms and 14 hotel properties in the 3-mile radius of the UNEX site that were analyzed in this report. The average property in this market has 98 rooms and are 40 years old. The most well known and oldest (built in 1900) is the Mission Inn Hotel & Spa located along Mission Inn Avenue in Downtown Riverside.

- > No. of Properties by Hotel Classification:
 - Luxury – 1
 - Upscale / Upper Upscale – 3
 - Midscale / Upper Midscale – 3
 - Economy – 7

As with other market segments in Riverside, the pandemic took a toll on the hospitality industry during 2020 with an average monthly revenue among the 14 properties at \$2.8 M compared to \$3.9 M in 2019. However, the market has continued to see an increase in activity this year with average monthly revenues now at 2019 levels (\$3.9 M). Revenues have increased 20.6% year over year from July 2020 to July 2021.

- > Avg. Daily Rate Year-to-Date (2021): \$127.61
- > Avg. Daily Rate 12-month (2020): \$138.01
- > Avg. Daily Rate 12-month (2019): \$151.23
- > Avg. Monthly Revenue Year-to-Date (2021): \$3.9 M
- > Avg. Monthly Revenue 12-month (2020): \$2.8 M
- > Avg. Monthly Revenue 12-month (2019): \$3.9 M



Figure 26 & 27 – Example Hotel Properties – Dynasty Suites and Courtyard Riverside

EXHIBIT C - FINANCIAL ANALYSIS

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